

IN THE MATTER OF RECOVERY
CENTERS OF AMERICA –
UPPER MARLBORO & WALDORF

Docket Nos. 15-16-2364 & 15-08-2362

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* BEFORE THE MARYLAND
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* HEALTH CARE COMMISSION
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**RESPONSE OF 4620 MELWOOD ROAD OPCO, LLC
AND 11100 BILLINGSLEY ROAD OPCO, LLC
TO COMMENTS SUBMITTED BY INTERESTED PARTY**

December 1, 2015

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4620 Melwood Road OPCO, LLC (“Melwood”) and 11100 Billingsley Road OPCO, LLC (“Billingsley,” collectively, “Applicants”), subsidiaries of Recovery Centers of America (“RCA”), by their undersigned counsel and pursuant to COMAR § 10.24.01.08F(3), submits this response to the comments filed by interest party Anne Arundel General Treatment Services, Inc. d/b/a Pathways (“Pathways”) addressing Applicants’ Certificate of Need applications.

Maryland is in the midst of a substance use disorder crisis. In 2014 there were 1,039 drug and alcohol related deaths in the State, a 21% increase from the number of such deaths in 2013, and a 60% increase since 2010. *See Exhibit 1*, MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE (“DHMH”), Annual Death Report 2014: Drug and Alcohol Related Intoxication Deaths in Maryland, 2014 (May, 2015). The increase in deaths spans across almost all reported demographics – that is, intoxications deaths are rising in every gender, age and race, and in most counties. *Id.* The majority of these deaths (887 or 85.7%) were opioid related. *Id.* Although counts for 2015 are still preliminary, initial data indicates that 599 unintentional intoxication deaths occurred in Maryland from January through June – 71 deaths more than that same period in 2014. *See Exhibit 2*, DHMH, Quarterly Death Report Q2-2015 (Sept. 25, 2015). If this trend continues, the total number of unintentional intoxication deaths in 2015 will be 1198, a 15.3% increase from 2014.

Maryland’s leadership has recognized the substance use disorder crisis in the State. On February 24, 2015, Governor Larry Hogan created a Heroin and Opioid Emergency Task Force charged with advising and assisting Governor Hogan in establishing coordinated efforts to prevent, treat, and significantly reduce heroin and opioid addiction. Md. Executive Order 01.01.2015.12 (Feb. 24, 2015). Given the high importance of the issue, the Task Force is chaired

by Lt. Governor Boyd Rutherford. The Task Force’s Interim Report notes access and availability of treatment as significant barriers to care:

A strong recurring theme in the testimony delivered at the summits was the lack of sufficient resources to address the heroin and opioid epidemic and the serious issues Marylanders face as they try to access care. Stakeholders across the State reported a critical shortage of qualified treatment professionals and insufficient capacity at both inpatient and outpatient treatment facilities.

...

At each summit, there was compelling testimony that addressed the overwhelming inability to access treatment immediately. Families consistently reported experiencing multiple and repeated barriers, such as excessively long waiting periods, high deductibles and co-pays, delayed insurance authorization challenges, lack of appropriate levels of care in their respective county or region, among others. Such delays can result in serious consequences including death.

Interim Report of Heroin & Opioid Emergency Task Force (“Interim Task Force Report”), **Exhibit 3** at pp. 3-4.

In an effort to address Maryland’s current shortage of treatment facilities, Applicants’ proposals commit a combined \$42,212,712 to establish two alcohol and drug abuse programs in Maryland’s southern region.¹ The proposed Billingsley facility will include 64 detox / assessment beds subject to a Certificate of Need review pursuant to COMAR § 10.24.14, and 102 residential beds.² The proposed Melwood facility will include 55 detox/assessment beds and 70 residential beds.

¹ \$21,193,888 for Billingsley, and \$21,019,435 for Melwood. *See* Modified Application, Exh. 1, Table E for each Applicant

² “Detox/assessment beds” as used in this Response has the meaning described in the Modified Application, and corresponds to level III.7 and III.7-D care and service as defined by the American Society of Addiction Medicine’s (“ASAM”) Patient Placement Criteria (medically monitored intensive inpatient treatment and medically-monitored inpatient detoxification services, respectively). “Residential beds” as used in this Response has the meaning described in the Modified Application, and corresponds to level III.5 care and service as defined by the ASAM Patient Placement Criteria (clinically managed high-intensity residential treatment). *See* Section II.A, *infra*, and the Modified Application at pp. 5-6 for a discussion of the corresponding levels of service and care as set forth in COMAR §§ 10.47.02.08-10, and as defined by the American Society of Addiction Medicine.

RCA has already raised \$48 million to fund its Maryland treatment projects and has made significant progress in receiving required zoning and construction permits. Melwood Mod. Appl., Exhibit 31; Billingsley Mod. Appl., Exhibit 32. Thus, once the Certificate of Need (“CON”) review process is complete, Applicants will be poised to begin construction of its detox/assessment beds, and soon thereafter to begin providing much needed addiction treatment services in Maryland.

Pathways alleges that Applicants failed to meet applicable standards and review criteria. At a time when people are dying in Maryland every day from substance intoxication, and Maryland leadership is acknowledging the lack of available beds and resources to address the problem, Pathways opposes Applicants’ proposed project primarily on the grounds that there is not enough need for the services that Applicants propose to establish, and that Applicants are not increasing their current commitment to provide 6.15% of their net patient services revenue indigent and gray area patients, a percentage that more than doubles the charity care commitment of most Maryland hospitals.

ARGUMENT

I. APPLICANTS HAVE DEMONSTRATED WHY THE FACILITY SIZE LIMITATION SHOULD NOT APPLY – STANDARD .05A.

As described above, Marylanders are suffering through a substance use disorder crisis, and Maryland’s existing providers do not have enough beds to address the problem. The Interim Task Force Report cites “excessively long wait periods” “insufficient capacity at both inpatient and outpatient treatment facilities” as among the current barriers to care. **Exhibit 3**, pp. 3-4. As described below, there is an existing maximum private bed need of 642 beds in the State.

Nevertheless, Pathways contends that the size limitation standards of Standard .05A should limit the number of Intermediate Care Facility (“ICF”) beds Applicants may establish,

based on a purported lack of need. Standard .05A expressly states that an applicant may demonstrate why the facility size standard should not apply to a proposed project. The extreme need in Maryland and the recognized lack of resources to address this problem alone support setting aside the size limitation so that Applicants and RCA may proceed with the proposal to invest a total of \$73,045,047 to bring much needed treatment services to Maryland.

In addition, Applicants will realize operating efficiencies by opening a larger facility than the default bed count set forth in Standard .05A, which has not been updated to respond to growing substance use disorder epidemic. Larger scale facilities will allow Applicantst and RCA to spread fixed costs over a greater amount of revenue, making the operation more cost efficient and the organization, which is a for-profit entity dependent on investor financing, more financially secure. For example, Applicants will need to staff certain positions on a full time basis irrespective of facility size, such as Chief Executive Officer, Medical Director, Director of Nursing, and many others. Certain physical spaces such as admissions and the wellness center would also be about the same size, and cost to construct, regardless of the overall bed count. Building the facilities at the proposed levels now, rather than building them only in part and then building additions in the future, is also more cost effective from a design and construction perspective.

II. APPLICANTS HAVE SUFFICIENTLY IDENTIFIED BED NEED FOR THEIR PROPOSED PROJECTS – STANDARD .05B; REVIEW CRITERIA 10.24.01.08G(3)(B)

A. The Bed Need Methodology Set Forth in COMAR § 10.24.14.07 Demonstrates That There is Sufficient Need for Applicants' Proposed Projects.

Pathways makes several challenges to Applicants' need methodology and need projections. Applicants made adjustments to the need analysis set forth in COMAR § 10.24.14.07 in order to present the most accurate picture of the need in the population the

majority of Applicants' beds will serve. Those adjustments are described fully in the Modified Applications, Melwood at pp. 27-40; Billingsley at pp. 27-41.-39, and in the August 31, 2015 Responses to Completeness Questions.

While Pathways raises several objections to these adjustments, the objections are without merit because there is sufficient need for Applicants' projects under the ICF State Health Plan ("SHP") methodology for private bed need. A strict application of the SHP private bed need methodology in fact results in greater private bed need than that identified in Applicants' Modified Applications. Because Applicants' requested beds are within the maximum need for the target year, Applicants satisfy ICF SHP standard .05B.

In response to Pathways' comments, Applicants completed an alternative need analysis that made no adjustments to the methodology set forth in COMAR § 10.24.14.07 other than updating existing bed capacity.³ In addition, Applicants updated the population size, as described in its Modified Applications and responses to completeness questions. Notably, this calculation does not include any out of state discharges other than those experienced by Father Martin's Ashely ("FMA") in 2013. Given FMA's substantial out-of-state discharge numbers, Applicants would expect a need analysis updated with other providers' out of state discharge experience to demonstrate even more need.

The resulting projection, attached as **Exhibit 5** demonstrates that the maximum need in the Southern Maryland Region in the target year (2019) exceeds Applicant's requested beds. *See* COMAR § 10.24.14.07(B)(1).⁴ There will be a maximum ICF bed need of 120 beds in the region

³ This update is discussed in Section II.B., *infra*.

⁴ That section provides: "(1) Period of Time Covered. (a) The base year is the most recent year for which the number of Medicaid recipients is available. (b) The target year to which need is initially projected is five years from the base year." Thus, 2014 is the "base year," and 2019 is the target year to which need is projected.

in 2019. Thus, Applicant's proposal to build 119 detox/assessment beds complies with the SHP review standard for Need.

Applicants have also projected need for the State of Maryland according to the SHP need methodology, which demonstrates an existing need of 642 ICF beds in the target year. As discussed below, because Applicants will have 90-mile catchment areas, it is reasonable for the Commission to consider the existing need in the entire State, rather than the Southern Region alone.

While the SHP need standard refers only to regional bed need, Applicants reasonably expect to draw a significant number of patients from outside of the region. The 2013 Recommended Decision for FMA's recent CON to expand its facility projected need pursuant to the SHP methodology, but also recognized, in its discussion of the Need Review Criterion, that, "[i]n considering need for the additional beds, it is important to note that FMA services a multi-state area that extends well beyond the State of Maryland. . . . Assuming the patient origin pattern, it can be anticipated that, on average, seven of the 15 additional beds will service Maryland residents, of which approximately four will serve Maryland residents." **Exhibit 6** at p. 22.

FMA draws only 26% of its discharges from its region (Central Maryland), and only 48% from the State. *Id.* Applicants' facilities have catchment areas of approximately 90 miles, and the population within the area is comprised of approximately 45% Marylanders and 55% non-Marylanders. Applicants and RCA have budgeted more than \$8 million over three years for its Maryland facilities⁵ to fund a groundbreaking outreach program that will increase awareness of substance use disorder treatment options, seek to reduce the social stigma, and increase

⁵ See Tables G and F for each RCA facility. In contrast, FMA spent \$260,365 in 2013 on "Advertising and Promotion." See **Exhibit 6**, p. 10, Line 12, Column A.

awareness of warning signs and symptoms of substance use disorder.⁶ In addition, RCA will operate a 24/7 call center/hot line, that will serve as a community wide resource and will offer transportation to RCA facilities for assessment and intervention as clinically appropriate. Given FMA's ability to fill 52% of its beds with out-of-state residents with a \$260,365 yearly promotion commitment, Applicants reasonably expect that they will at least be able to replicate FMA's experience, and in fact expect that their discharges will replicate the in-state to out-of-state residency-mix of their catchment areas (approximately 45% / 55%) , as described in the Modified Applications.

B. Applicants' Need Methodology and Assumptions are Reasonable.

While Applicants' response demonstrates that there is sufficient need for its proposed beds pursuant to the methodology set forth in COMAR § 10.24.14.07, they also stand behind the projections provided in its Modified Application and Completeness Questions. Each of the assumptions that Pathways challenges are reasonable and appropriate.

i. Existing Private ICF Bed Capacity

As demonstrated by the Commission's August 31, 2015 determination of coverage related to the Billingsley and Earleville facilities, Applicants are not required to demonstrate need for proposed residential beds licensed at ASAM level III.5, because this level of care is not considered within the scope of ICF services.⁷ See **Exhibit 4**. Applicants' review of the Maryland market, discussions with the Commission, and review of DHMH's treatment locator demonstrates that current providers of ICF and residential services are licensed as an entire facility at all levels of care provided. Thus, a facility licensed for ASAM level III.7-D care, III.7

⁶ This proposal is described in more detail in the August 31, 2015 Response to Completeness Questions, Response to Question 9 (Billingsley), 13 (Melwood).

⁷ For a more extensive discussion of these treatment levels, see the Modified Application, p. 5.

D, and III.5 services, dedicates only a portion of its beds to each particular level of care at any given time. Because patients are typically not immediately discharged following ICF treatment (ASAM level III.7 and level III.7-D services) but instead transferred to residential treatment (ASAM level III.5 services), it is not reasonable or appropriate to calculate the existing ICF bed capacity as the total number of beds available at such facilities when those beds are used flexibly for different levels of care, some of which do not constitute ICF services.

Such treatment of existing flexible beds would assume that facilities licensed for ICF care are capable of, and willing to, fill each of their existing beds with only patients requiring detox and medically managed care, and discharge patients immediately upon completion of such services – an obviously improper treatment path. In addition, calculating existing capacity at 100% of all existing ICF provider beds would assume that all existing providers had sufficient staff employed to provide ICF services for all beds at any given time. Because the staffing requirements for ASAM level III.7 and III.7-D services are greater than those for ASAM level III.5 services), it is highly doubtful that this is the case. *See* COMAR §§ 10.47.02.08-10.

For these reasons, calculating existing ICF capacity as a total of all beds licensed at ASAM level III.7 and III.7-D would incorrectly greatly overestimate the actual number of existing beds that could be filled with ICF patients on any given day.

Data is not readily available concerning the percentage of beds that existing facilities are able to devote to ICF care on average. Applicants assumed that 41% of beds at facilities that provide both ICF and other services were devoted to ICF care based on its own projected detox / assessment bed to total bed ratio, except for I'm Still Standing By Grace, which identified its number of detox beds. *See* August 31, 2015 Response to Completeness Questions, Exhibit 29

(both).⁸ Based on the comments of FMA Comments in the related RCA Earleville review, its experience is actually much less than 41%. FMA stated that it “does not operate, has never operated, nor does it intend to operate 20 of its 100 beds to provide subacute detox services. FMA Comments, p. 13. It reported an average length of stay (“ALOS”) for detox of 4.24 days. *Id.* at p. 13. In its 2012 CON application, FMA projected a total ALOS of 25.2 days for 2012 and beyond. *See* March 19, 2013 FMA Responses to MHCC Staff Completeness Questions, Matter No. 13-12-2340, Excerpt attached as **Exhibit 7**. Based on these submissions, FMA utilizes only 16.83% of its beds for detox services at any given time, and the remainder are utilized for residential services.

For the reasons set forth above, Applicants use the following to project existing providers in its alternative need analysis based on the unadjusted SHP methodology.

Table 1
Inventory of Existing Providers

| Not Funded⁽¹⁾ | Region | All Beds⁽²⁾ | Detox Beds⁽³⁾ |
|--|---------------|-------------------------------|---------------------------------|
| Anchor @ Walden-Sierra | Southern | 20 | 8 |
| Father Martin's Ashley ⁽⁴⁾ | Central | 100 | 17 |
| Hudson Center | Eastern Shore | 33 | 7 |
| I'm Still Standing By Grace ⁽⁵⁾ | Central | 42 | 12 |
| Pathways | Central | 32 | 8 |
| Warrick Manor | Eastern Shore | 42 | 17 |
| <i>Total</i> | | <i>269</i> | <i>69</i> |

(1) As identified by DHMH, Behavioral Health Administration Maryland Certified Treatment Locator. Pathways, identified as Funded, is listed as Not Funded based on its Comments in this review.

(2) Based on phone calls to the facilities, <http://addictionresourceguide.com/>, or the SAMHSA treatment locator

(3) Unless otherwise noted, RCA assumed 41% of beds are utilized for detox care based on RCA's ratio of detox / assessment beds to total beds, except for certain Earleville residential beds, see FN 8.

(4) Based on 25.2 day ALOS and 4.24 detox ALOS (16.83% detox)

(5) Facility self-identified number of residential and detox beds by phone

⁸ The applicant in the related RCA project for Earleville modified its application on November 30, 2015 to add more residential beds. These beds should not be included in this ration, as that applicant anticipates filling them with patients who complete detox treatment out of state or at detox only facilities, or who are in need of residential-only care.

ii. Average Length of Stay

COMAR § 10.24.14.07 requires that the need for private beds be calculated using a 14-day average length of stay for adults. *Id.* at .07(g). Accordingly, Applicants' need analysis complies with the regulation and appropriately relies on a 14-day length of stay.

Applicants will utilize several patient centered assessment tools such as the Clinical Institute Withdrawal Assessment for Alcohol and the Clinical Opiate Withdrawal Scale to create a patient focused detoxification plan which may result in an average length of stay longer than those that Pathways experiences. These scales will be serially administered to patients in order to track changes in the severity of withdrawal symptoms over time in response to the course of treatment. This will allow the clinical team the ability to titrate the medication being utilized during the detoxification process to alleviate specific withdrawal symptoms the client may be experiencing.

Applicants also notes that the 14-day length of state includes both detox and medically managed care patients. Medically managed care requires twenty-four hour nursing care, daily onsite counseling services, and physician services available twenty-four hours per day, seven days per week. Patients requiring this level of care exhibit other co-occurring psychiatric disorders such as anxiety, depression, and PTSD as well as other medical conditions such as diabetes, hypertension, COPD, chronic pain, cellulitis and other wound issues attributed to IV drug use. The average length of stay for these patients would be more than for a typical patient because of the intensity of the medical monitoring and interventions required as well as extensive education related to not only their substance use disorder but also their specific medical and or psychiatric condition and how to effectively manage it throughout their recovery journey.

iii. Prevalence Rate among Private Payers

Pathways inaccurately argues that that Applicants should not use the overall prevalence rate of 8.64% in its need analysis, stating that the population Applicants will serve would be expected to have a lower prevalence rate. The SHP need methodology defines a prevalence rate for the adult population of 8.64%. COMAR § 10.24.14.07(B)(4)(c)(i). COMAR § 10.24.14.07(B)(7), *Method of Calculation for Private Beds* (emphasis added), assumes a prevalence rate of .0864 for the private adult population.⁹ While it is true that this is the same prevalence rate as the overall population, Applicants complied with the need methodology set forth in the SHP.

Furthermore, contrary to Pathways' unsupported blanket assertion, the Commission should not expect that the prevalence rate for the private pay population would be lower. There is little correlation associated with educational attainment and the prevalence of drug and alcohol dependency or abuse.¹⁰ SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION, *Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings*, NSDUH, Series H-48, HHS Publication No. (SMA) 14-4863, Rockville, MD: Substance Abuse and Mental Health Services Administration, 2014 ("SAMHSA 2013 Report"), attached as

Exhibit 8. For 2013, SAMHSA concluded, "rates of illicit drug and alcohol dependence or

⁹ In calculating private bed need, the Commission applies this prevalence rate directly to the non-indigent population. See COMAR 10.24.14, Table 4.

¹⁰ There are scant data reflecting the drug and alcohol dependency rates of the Medicaid or gray area population, however, educational attainment of a high school graduation or less is a reasonable proxy to identify this population. For example, the Stevens Point journal indicates that only 9% of households headed by college graduates are on Medicaid. See <http://www.stevenspointjournal.com/story/money/2014/07/26/college-degree-financial-benefit-column/13189491/>. See also American Institutes for Research, Trends in High School Dropout and Completion Rates in the United States: 1972-2012, available at <http://www.air.org/resource/trends-high-school-dropout-and-completion-rates-united-states-1972-2012> ("[D]ropouts age 25 and older reported being in worse health than adults who are not dropouts, and are more likely to rely on Medicaid and Medicare, and on welfare.")

abuse among adults aged 26 or older were not associated with levels of educational attainment.” *Id.* at. 49. Among adults aged 26 and older in 2013, rates of alcohol dependence or abuse also were not associated with levels of educational attainment, and, in fact, the rate of alcohol dependence among college graduates (6.6%) exceeded the rate of alcohol dependence among those who did not graduate from high school (5.7%) and those who had graduated from high school with no further education (5.4%). (*Id.*) With respect to illicit drug use, rates of dependency or abuse were only marginally higher for those who did not graduate from high school (2.5%), than those with some college education (2.1%), and those who graduated from high school but had no further education (1.9%). (*Id.*)

Moreover, “[y]oung adults aged 18 to 22 who were enrolled full time in college were more likely than their peers who were not enrolled full time (i.e., part-time college students and persons not currently enrolled in college) to report current, binge, or heavy drinking.” *Id.* at 24. This pattern has remained consistent since 2002. *Id.* And, with respect to the rates of illicit drug use, the rate among full-time college students (22.3%) was consistent with the rate among other persons aged 18 to 22 who were part-time college students or nonstudents (23%). (*Id.*)

iv. “Need” for Treatment vs. Seeking Treatment

Pathways’ additional argument that “those in need of inpatient detox care may not seek it” is also irrelevant to Applicants’ need analysis. Applicants complied with the SHP need standard, which does not independently require Applicants to distinguish between who needs treatment, and who will seek it. It projects minimum and maximum need for the population in the “target” year, which is defined as five years after the base year (the most recent year for which the number of Medicaid recipients is available), and an applicant satisfies the standard if its beds are within that maximum number. COMAR § 10.24.12.05; *Id.* at .07(B)(7).

Furthermore, Applicants expect to increase the number of people seeking treatment in Maryland. Among the reasons that people who perceive a need for treatment do not seek care are the following: not ready to stop using (24.5%); did not know where to go for treatment (9%); no transportation/ inconvenient (8.0%). **Exhibit 8** at Figure 7.11. RCA's substantial outreach efforts will address these barriers to care and recovery by creating awareness of treatment options, increasing education to reduce social stigma and raise awareness of symptoms of substance use disorder and dependence, encouraging those in need to seek treatment, and providing information about and transportation to its centers for assessment, as clinically appropriate.

C. Applicants Have Satisfied Review Criterion COMAR 10.24.01.08.G(3)(b) – Need.

i. Applicants' Need Analysis Pursuant to the Relevant State Health Plan Chapter Methodology is Sufficient to Comply with Review Criterion COMAR 10.24.01.08.G(3)(b).

Pathways incorrectly argues that Applicant, in addition to demonstrating need under the methodology set forth in the relevant SHP chapter (COMAR § 10.24.14.07), must supply an additional need analysis responsive to the instructions for responding to the Need review criterion set forth in COMAR § 10.24.01.08.G(3)(b). That subsection provides:

(b) Need. The Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs.

Id. Under the plain language of this criterion, where a State Health Plan sets forth a need analysis, no additional need analysis is required, or subject to consideration by the Commission. Because the relevant State Health Plan chapter supplies a need methodology, and because Applicants responded to that methodology, COMAR 10.24.01.08.G(3)(b) imposes no additional

burden on Applicants. Furthermore, Applicants provided significant data in its Modified Application and August 31, 2015 response to completeness questions regarding current statistics on illicit substance and alcohol use disorder both nationally and in Maryland.

ii. A Revised Methodology for a Quantitative Need Analysis Should Result in Substantially More Need than the Methodology in the Current SHP.

The SHP methodology for ICF treatment has not been updated since 2002. If it were revised to conform with current trends in substance use disorder and treatment, it would result in substantially more need. The current SHP estimates 8.64% of the population as “at risk.” Of these, it defines 25% as the target population needing some form of treatment, and 95% of these patients as the estimated number requiring treatment rather than information only. This results in a total 2.05% of the Maryland population as the estimated number needing care ($8.64\% \times 25\% \times 95\%$), or just 23.75% of all persons with substance use disorders. Just 12.5%-15% of this population (or 25%-35% for the Eastern Shore) is defined as requiring ICF care, or only .26% - .30% of the Maryland population excluding the Eastern Shore, and just .51%-.71% of the Eastern Shore population. COMAR § 10.24.14.07.

Maryland specific data from the 2013 National Survey on Drug Use and Health paint a much different picture of the need for substance use disorder treatment. *See Exhibit 9.* According to Maryland specific data, 8.31% of the Maryland population abused or was dependent on alcohol or illicit drugs. 2.26% of the population needed but did not receive treatment for illicit drug use, and 6.74% of the population needed but did not receive treatment for alcohol use. In addition, given high percentages of opioid, alcohol, and prescription drug abuse among those in need of treatment, *see generally Exhibit 8*, it is unrealistic to assume that only a fraction of those in need of treatment require ICF care.

III. APPLICANTS HAVE SUFFICIENTLY DEMONSTRATED THE REASONABLENESS OF THEIR CHARITY CARE COMMITMENT – STANDARD .05D.

As set forth in Applicants' Modified CON Application and in responses to the Commission's completeness questions, Applicants demonstrated why the standards applicable to the provision of services to indigent and gray area populations in COMAR § 10.24.14D(1) should not apply. Applicants committed to provide 6.15% of their net patient revenue to care for the indigent and gray area population, a ratio which will allow them to remain profitable and secure funding from its private investors, and which is reasonable in light of the effects of the Affordable Care Act and Medicaid expansion.

In addition, as discussed elsewhere, noted, RCA will fund a groundbreaking outreach program that will confer significant benefits to the indigent and gray area population and other Maryland ICFs.¹¹ This program will not only pledge access to care, but also will result in more care being delivered to those who need it and in coordination with all Maryland ICFs. This commitment amounts to more than \$8 million over three years among RCA's Maryland facilities, and is a part of RCA's combined commitment in excess of \$80 million nationally over the next five years to increase awareness and promote its unique and more effective approach to providing addiction treatment.

Pathways contends that Applicants' proposal to devote 6.15% of its bed days to the indigent and gray area population is unreasonable and that Applicants should provide more services to the indigent and gray area population because it projects to exceed "break-even" performance on an annual basis if it were to dedicate 15% of its bed days to the indigent and gray area population.

¹¹ These awareness efforts are described more fully in the Modified Application and August 31, 2015 Responses to Completeness Questions.

A. Enforcement of a Commitment of 15% of Private ICF Beds to Gray Area and Indigent Care Would Result in Disproportionate Access for Private Patients

Available data does not indicate a significant difference in the percentage of the indigent and gray area population suffering from substance use disorder than the population at large. *See* section II.D.iii, *supra*. In 2014, 15.6% of the Maryland adult population was eligible for Medicaid.¹² *See Exhibit 10*. Yet despite there being limited data to indicate any correlation between higher rates of drug and alcohol abuse among the indigent and gray area population, an estimated 30% of all presently licensed detox beds are currently devoted exclusively to servicing the indigent and gray area population.

Table 2
Allocation of Existing Beds to Indigent / Gray Area Care

| All Beds Not Funded (Excluding FMA) | Estimated Detox Beds (See Table _) | 15% Allocated to Indigent and Gray Area |
|--|---|--|
| 169 | 57 | 8.55 |
| FMA Beds | FMA Estimated Detox Beds (16.83%) | 6.3% Allocated to Indigent and Gray Area |
| 100 | 17 | 1.07 |
| All Beds Funded (Presumed Track II Facility) | Estimated Detox Beds (41%) | 50% Allocated to Indigent and Gray Area |
| 166 | 68.6 | 34.03 |
| Totals | 85.4 | 43.65 (30.6% of all detox beds) |

Source Table 9, page 39, Waldorf and Upper Marlboro CON Applications; Table 9, page 38 Earleville CON Application; updated as shown in Table 1, *supra*.

Accordingly, Applicants' pledge of 6.15% of net patient services revenue to the indigent and gray area population is reasonable. Moreover, in the Eastern Shore Region, where Applicants' affiliate proposes a facility in Earleville, Maryland, any additional bed need for the

¹² In the Commission's 2013 updated need projection for Central Maryland, the Commission calculated the indigent population as the number of adult Medicaid enrollees for the period July 2012 – June 2013. **Exhibit 11** at p. 9.

indigent and gray area population will be served by the State's plan to devote \$800,000 in fiscal year 2016 to reopen 14 beds at the A.F. Whitsitt Center to restore that facility's capacity to 40 beds, capable of serving 240 patients annually. *See* Interim Task Force Report, **Exhibit 3**, pp. 24-25. The A.F. Whitsitt Center catchment area encompasses the entire Eastern Shore and receives referrals primarily from county detention centers but also from physicians and Kent County courts. (*Id.*) According to the Commission's February 24, 2010 staff report and recommendations concerning A.F. Whitsitt Center's CON application to add 16 beds, it is a publicly-funded Track Two ICF which reported that approximately 77% of its patients were in the indigent or gray area and that it would continue to give priority in bed allocation to this population. Commission Staff Report and Recommendation (Feb. 18, 2010), **Exhibit 12**, p. 17. The reopening of 14 beds at the A.F. Whitsitt Center, with at least 7 beds on average – and more likely 11 beds based on historic admission trends – devoted exclusively to the indigent and gray area population is certain to reduce any bed need for the indigent and gray area population in the Eastern Shore Region.

B. A 15% Indigent and Gray Area Commitment Requirement Would Chill Investment by For-Profit Entities in Maryland

Pathways asserts that Applicants should not be exempted from allocating 15% of their patient bed days to the indigent and gray population because Applicants projects to more than “break-even” on an annual basis if they dedicated a full 15% of their bed days to the indigent and gray area population. What Pathways fails to recognize, however, is that Applicants are for-profit entities that, together with RCA, have secured substantial private equity financing to fund the project and two additional Maryland facilities.

In total, Deerfield Capital Management has committed \$48 million for the three projects sponsored by RCA. Mod. Appl., Exhibit 31 (Melwood), Exhibit 32 (Billingsley). Allotment of

15% of Applicants' bed days to charity care would reduce Applicants' projected operating margin from for 2018 from 16.1% to 12.2% for Billingsley and 15.9% to 12.2% for Melwood. At these reduced margins, Applicants would be unlikely to secure equity financing for the proposed projects that would take 10 years or longer to show any return on investment to Applicants' equity investors. In this regard, Applicants' "break-even" point is not its annual projected operating margin – as may be the case with non-profits funded by government agencies, foundations, and charitable organizations – but is instead the point at which entities committing tens of millions of financial capital will realize an acceptable return on their investment.

As applicable to for-profit entities, requiring that 15% of patient bed days be allocated to the indigent and gray area or that the proposed project only "break-even" is untenable and erects a roadblock to for-profit entities willing and able to fulfill an urgent and unmet need for additional Maryland ICFs that would otherwise require a non-profit years of fundraising through tax revenues, grants, and charitable fundraising.

Indeed, the Commission's staff have already suggested that the 15% charity care amount set forth in COMAR § 10.24.14D(1) is a "target amount" and that is "somewhat high." Joel Riklin, then the acting chief of the CON program, testified at the September 19, 2013 hearing on FMA's 2012 expansion as follows:

While staff found the applicant to be consistent with all State Health Plan standards, Father Martin's Ashley's commitment to provide charity care to the indigent and near indigent is significantly less than the target amount. They are proposing an increase currently from 3.4 percent of patient stays to 6.3 percent. And this is just for the indigent and near indigent population.

And we also feel that it's possible that the State Health Plan requirement is somewhat high. One comparison – not strictly in apples-to-apples but somewhat - is if you look at what Maryland hospitals do. For Fiscal Year 2012, the range of charity care for Maryland Hospitals was .44 percent, a low, to a high of 11.8 percent, with a median of about 3.5 percent.

Mod. Appls., Exhs. 14 at pp. 6:19-7:8. RCA commits to providing a ratio of care to operating expenses for 2017 and 2018 of 8.9% (Melwood) and 9% (Billingsley), ratios that almost triple the median ratios of uncompensated care provided by Maryland hospitals. *See* Modified Applications, Exhibit 1, Table G.

Pathways' analysis of Applicants' break-even point is also flawed because Pathways failed to consider Applicant's tax expenses. As discussed in the August 31, 2015 Response to Completeness Questions for the Melwood and Billingsley Applications, the RCA subsidiaries, unlike the not-for-profit Pathways, will face substantial property and income tax expenses (which will directly benefit State and local government). If these expenses are accounted for within the financial projections, RCA's combined Maryland facilities would incur an estimated combined total of \$10,275,835 additional expenses in total estimated taxes in 2018, which would reduce the combined profit margin of the three Maryland facilities from 25.6% to 14.5% . (Based on uninflated projections. *See* Table G for each facility.) In addition, Pathways' comments criticize the charge and rate assumptions included in Applicants' analysis. While Applicants dispute these arguments for all the reasons set forth in these responses, to the extent that the Commission credits any of Pathways' comments, Applicants' profit margin would be further reduced.

In sum, Applicants proposal to allocate 6.15% of their patient bed days to the indigent and gray area population is well-founded and will result in a projected sustainable operating margin that will allow Applicants to secure equity financing to establish treatment centers, helping Maryland take a big step forward in addressing the substance use disorder crisis in the State.

IV. PATHWAYS HAS NOT RAISED ANY CREDIBLE CONCERNS WITH COST-EFFECTIVENESS – REVIEW CRITERION 10.24.01.08G(3)(c).

The only concern raised regarding the cost effectiveness of Applicants’ proposals is that Applicants failed to show why existing providers cannot meet the existing need for services. Pathways Comments, pp. 19-20 (Melwood and Billingsley). This criticism is misguided. This State has already recognized the significant wait times and lack of services across Maryland. (“Families consistently reported experiencing multiple and repeated barriers, such as excessively long waiting periods. . . .”) Interim Task Force Report, **Exhibit 3**, pp. 3-4. This is especially true in rural areas of the state, where two of RCA’s facilities will be located. *Id.*

As Pathways is aware, data regarding wait times are not publically reported, and though it did not provide its wait time data, it does not suggest that it is always able to immediately provide a bed to those in need. Anecdotal statements from both area providers and Maryland residents in fact point to significant wait times across the State. The Interim Task Force Report states there is “an average wait time of four weeks” for admission to the Eastern Shore’s Whitsitt Center. *Id.* at pp. 3, 24. The director of the Whitsitt Center acknowledged that “Detox is where the logjam is.” Jean Marbella, “Rutherford: ‘Probably never going to be enough’ money to fix Maryland’s heroin problem,” THE BALTIMORE SUN (August 25, 2015), attached as **Exhibit 13**. The 80-bed Tuerk House in Howard County reports turning “about four people a week away.” *Id.* In connection with its 2012 Application, FMA indicated it had an average wait time of 3.26 days for residential (ASAM level III.5) care, and 4.96 days for monitored intensive inpatient (ASAM level III.7) care, and 3.55 days for detox (ASAM level III.7-D) care. **Exhibit 11** at p. 13.

In addition, the need analysis – which does not account for any additional need caused by the present substance use disorder crisis – shows that existing providers cannot meet the current need – Maryland has an existing maximum bed capacity of 642 beds for ICF services.

If new ICF beds are not established to address the current need, Marylanders in need will be forced to either seek treatment in acute care hospitals, or go without care. As described in the Interim Task Force Report, untreated opioid addiction too often results in death. Acute care hospitals provide detox services at a much higher cost than RCA will charge its patients.

Of course, if patients cannot be admitted to an acute care bed, or cannot find admission anywhere, they could contribute to the current increase year over year in substance intoxication deaths. The cost of even one preventable death in Maryland is too high when a provider such as Applicants are willing to commit substantial resources to establishing these much needed services.

**V. APPLICANTS' PROPOSALS ARE VIABLE – REVIEW CRITERION
10.24.01.08G(3)(d)**

A. Applicants Assume a Reasonable Rate

Applicants' Detoxification and Inpatient Rehabilitation reimbursement projections are not significantly greater than those experienced by other facilities. As described in its August 31, 2015 Response to Completeness Questions, RCA completed extensive research based on various external resources in determining its rack billing rate, analyzing rates in neighboring states, the State of Maryland, and Medicare. Applicants compare reasonably with the Neighboring State Average and is projecting rates that are 81% of those rates. Within Maryland, the projected daily rate for the proposed project market is 99% of the reimbursement rates of similar providers in Maryland. As with many health care providers, RCA projects higher than the Medicare daily rates by 118%.

Table 3
Comparison of Daily Payment¹³

| 2013 Rates | |
|---|---------|
| Maryland (2013) | \$872 |
| | |
| Maryland and Neighboring State Avg (2013) (RI, MA, NJ, PA, MD) | \$1,057 |
| | |
| RCA 2016 Rates | |
| RCA – Blended | \$788 |
| RCA - I/P Residential | \$724 |
| RCA - Detox | \$860 |

Source: TruVen Health Analytics.

As this table displays, these rates are not uncommon in the health care market. While Pathways may experience lower rates, a single, 32 combined ICF and residential bed facility is not comparable to the facilities RCA proposes. Applicants' rates are achievable based on the Maryland market. Furthermore, these rates are similar to those experienced by FMA.

Table 4
FMA Daily Rates

| FMA Reported Daily Rates | |
|---|----------|
| 2013 Published Rate | \$892.86 |
| | |
| FMA 2012 Average Rate (Projected) (Blended Service and Payer Type) | \$689.61 |
| FMA Avg. Commercial Rate (2012) | \$550 |
| FMA Avg. Self-Pay Rate (2012) | \$857 |
| | |

Source: FMA 2012 Application, Tables 1 and 3. See **Exhibit 7**.

Applicants also consulted Medivance Billing Service, which specializes in offering comprehensive substance use disorder billing, collections and revenue cycle management

¹³ Contrary to Pathways' assertions, these are blended out-of-network and in-network paid claims. Applicants expect that it will begin operation as an out-of-network only provider. They will seek to build and establish relationships with insurance providers, and, once those are in place, seek all allowable co-pays and deductibles from in-network patients.

services to substance use disorder rehab facilities. Medivance calculated a residential average daily payment – that includes more than 50 insurance providers – of \$1,135. Comparatively, Applicants will charge \$724 which is 36.2% lower than the Medivance average.

B. Applicants Will be Able to Attract Sufficient Staff.

Applicants and RCA understand that hiring the staff required to provide the proposed care is a significant undertaking. Applicants and RCA are confident that RCA will be fully staffed at each location upon opening because treatment professionals will be excited to become a part of RCA's mission, and will devote significant effort to the hiring process in order to create a positive and collaborative work environment.

RCA has a very clear mission: to get "1,000,000 Americans into recovery." The professionals who work for RCA thus far joined the company because they are committed to this mission. They believe there are better ways to provide treatment to patients and families than are commonplace today. They are smart, innovative, creative, knowledgeable, skilled, and dedicated to RCA's mission. They are excited to be an instrument of modernization and success in the substance use disorder treatment industry, and are confident that they, together with RCA's outside recruitment support, will build an exceptional and committed staff who are excited to become a part of Applicants' projects.

RCA is conducting searches for employees on a national basis, and has an internal recruiter for each facility based senior manager. RCA will only hire CEOs who are experienced and skilled in leading highly successful substance use disorders and behavioral healthcare treatment centers. RCA will make it a priority to hire leadership who have the interpersonal skills to make every patient, family, and staff member feel welcome. RCA has hired a physician recruiting firm experienced in the Mid-Atlantic area to recruit top quality psychiatrists and primary care physicians. RCA is using a national recruiting company to find and screen all other

candidates, such as primary therapists and nurses, so that CEOs, clinical directors, and directors of nursing will be interviewing candidates who have already succeeded at two previous levels of interviews.

RCA has had substantial success thus far. Current RCA team members include senior leaders in addiction, behavioral healthcare, and a variety of other industries from across the nation to build the foundation of the company. These talented leaders have far-ranging networks they will utilize to recruit skilled professionals committed to RCA's vision. For example, Deni Carise, Ph.D., RCA's Chief Clinical Officer, is one of the foremost researchers and teachers in the substance use disorders field today. Dr. Carise is one of the early developers of the Addiction Severity Index ("ASI"). ASI remains one of the foremost assessment tools for addictions and is used worldwide. Dr. Carise and her staff are building the company's clinical programs and state of the art initiatives to make RCA one of the premier treatment providers in the country.

VI. THE PROPOSED PROJECTS WILL NOT ADVERSELY IMPACT EXISTING PROVIDERS – REVIEW CRITERION 10.24.01.08G(3)(f).

Pathways has not put forth a quantitative impact analysis demonstrating it will lose patients as a result of the proposed project, or providing sufficient detail regarding its financials to demonstrate that the loss of patients would adversely impact it, after applying appropriate reductions in staffing and other operation costs. Instead, each it simply states that it may lose several private patients as a result of Applicants' projects, and that such a loss will harm it financially. Given the overwhelming need for ICF beds in Maryland, these unsupported assumptions are insufficient and without merit.

Pathways is in Maryland's Central Region as defined by the SHP chapter for ICF treatment services. That region has an existing maximum private bed need of 253. *See*

Exhibit 5. Even assuming all of the RCA projects in Maryland are approved and completed, there will still be an existing private bed need in Maryland of 642.

In addition, Pathways likely will benefit from the substantial investment in awareness that Applicants will make in its catchment area, which overlaps with Pathways' service area. As discussed more above, these efforts are likely to increase the number of people seeking treatment.

CONCLUSION

For the reasons set forth above, Applicants respectfully requests that the Maryland Health Care Commission approve Applicants' CON applications.

Respectfully submitted,



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*Attorneys for
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December 1, 2015

Table of Exhibits

| Exhibit | Description |
|---------|--|
| 1 | Maryland Department of Health and Mental Hygiene, Annual Death Report 2014: Drug and Alcohol Related Intoxication Deaths in Maryland, 2014 (May, 2015) |
| 2 | Maryland Department of Health and Mental Hygiene, Quarterly Death Report Q2-2015: 2015 Quarterly Report – 2nd Quarter (Sept. 25, 2015) |
| 3 | Interim report of Heroin & Opioid Emergency Task Force |
| 4 | August 3, 2015 Determination of Coverage |
| 5 | Alternative SHP Need Analysis |
| 6 | FMA 2013 IRS Form 990 |
| 7 | Except from FMA Application |
| 8 | SAMHSA 2013 Report |
| 9 | SAMHSA 2013 Survey MD Specific Data |
| 10 | Maryland Medicaid Eligibility 2014 |
| 11 | MHCC Staff Recommended Decision in 2013 FMA Review (Sept. 19, 2013) |
| 12 | MHCC Staff Report and Recommendation at AF Whitsitt Center (Feb. 18, 2010) |
| 13 | “Rutherford: ‘Probably never going to be enough’ money to fix Maryland’s heroin problem,” <i>Baltimore Sun</i> (August 25, 2015) |

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| 2 | Allocation of Existing Beds to Indigent / Gray Area Care |
| 3 | Comparison of Daily Rates |
| 4 | FMA of Daily Rates |

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 1st day of December, 2015, a copy of the Response of 4620 Melwood Road OPCO, LLC and 11100 Billingsley Road OPCO, LLC to Comments Submitted by Interested Party was served by email and first-class mail on:

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Thomas C. Dame

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date



J.P. Christen
Chief Operating Officer
Recovery Centers of America

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date

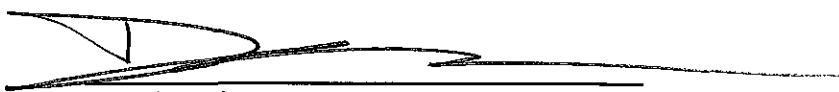


Susan Cambria
Executive Director
Recovery Centers of America

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date

A handwritten signature in black ink, appearing to read 'Deni Carise', written over a horizontal line.

Deni Carise
Chief Clinical Officer
Recovery Centers of America

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date

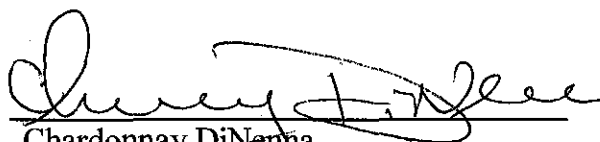
A handwritten signature in black ink, appearing to read 'Kevin McClure', written over a horizontal line.

Kevin McClure
Chief Financial Officer
Recovery Centers of America

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date

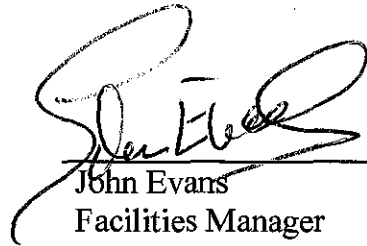
A handwritten signature in black ink, appearing to read "Chardonnay DiNenna", written over a horizontal line.

Chardonnay DiNenna
Director of Quality & Compliance
Recovery Centers of America

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date

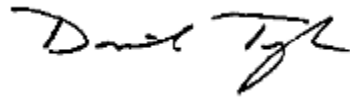
A handwritten signature in black ink, appearing to read "John Evans", is written over a horizontal line.

John Evans
Facilities Manager
Recovery Centers of America

I hereby declare and affirm under the penalties of perjury that the facts stated in this Response to Interested Party Comments and its attachments are true and correct to the best of my knowledge, information, and belief.

December 1, 2015

Date



David Tyler
Principal
Healthcare Advisory Services
Grant Thornton LLP

EXHIBIT 1

Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2014

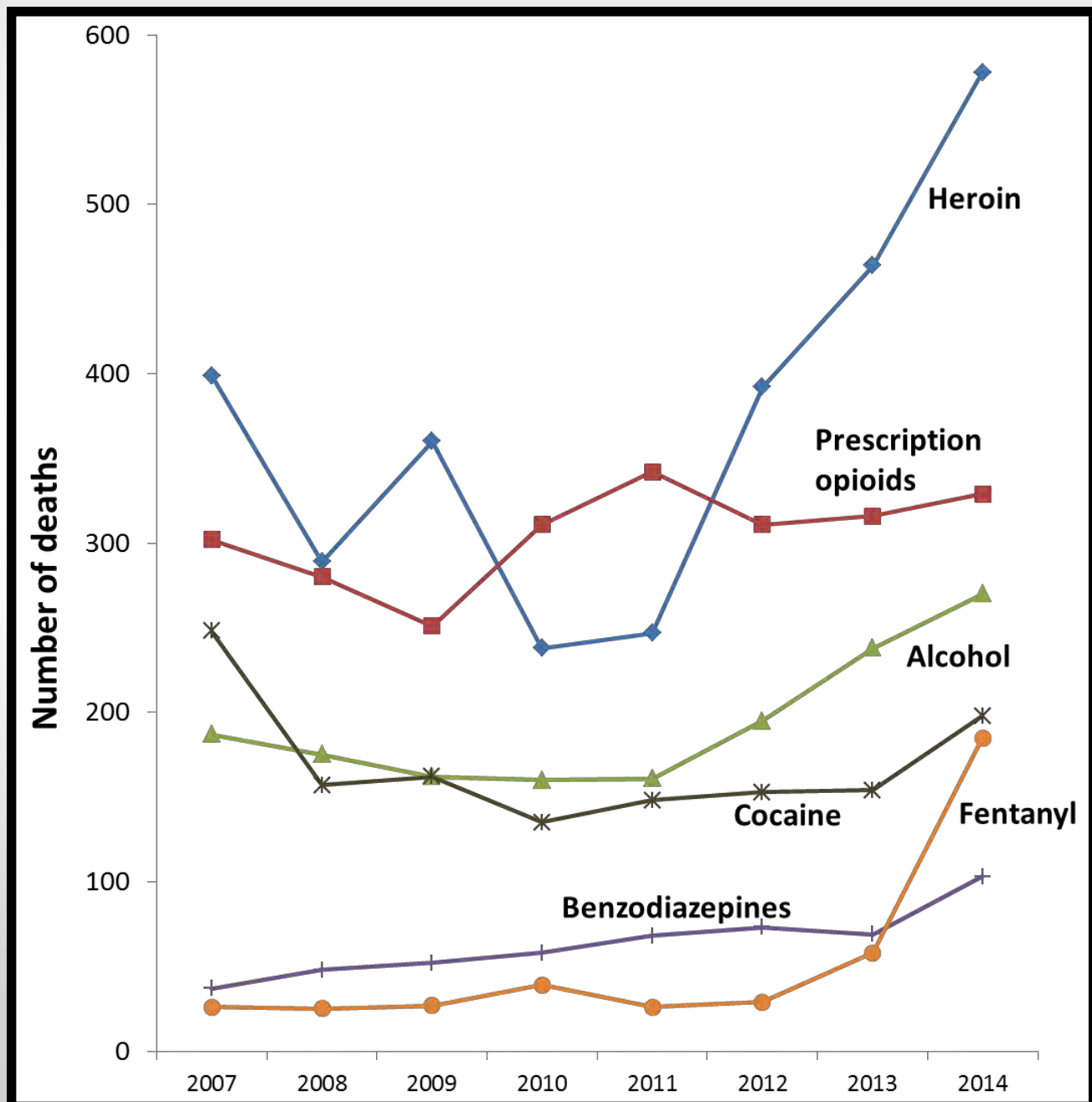


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METHODS

Introduction

The purpose of this report is to describe trends in the number of unintentional drug- and alcohol-related intoxication deaths occurring in Maryland during the period 2007-2014. Trends are examined by age at time of death, race/ethnicity, gender, place of death and substances related to death.

This report was prepared using drug and alcohol intoxication data housed in a registry developed and maintained by the Vital Statistics Administration (VSA) of the Maryland Department of Health and Mental Hygiene (DHMH). The methodology for reporting on drug-related intoxication deaths in Maryland was developed by VSA with assistance from the DHMH Behavioral Health Administration, the Office of the Chief Medical Examiner (OCME) and the Maryland Poison Control Center. Assistance was also provided by authors of a Baltimore City Health Department report on intoxication deaths.¹

Sources of data

The data included in this report were obtained mainly from OCME. Maryland law requires OCME to investigate all deaths occurring in the State that result from violence, suicide, casualty, or take place in a suspicious, unexpected or unusual manner. In these instances, information compiled during an investigation is used to determine the cause or causes of death. Depending on the circumstances, an investigation may involve a combination of scene examination, review of witness reports, review of medical and police reports, autopsy, and toxicological analysis of autopsy specimens. Toxicological analysis is routinely performed when there is suspicion that a death was the result of drug or alcohol intoxication.

A small number of additional intoxication deaths that occurred among U.S. military personnel were investigated by federal investigators rather than by OCME. These cases were identified through death records maintained by VSA and information available on these cases was included in the registry.

Information on place of death and race/ethnicity was missing for a small number of records provided by OCME and was obtained through death certificate data. Death certificate data were also used to update demographic information on records that were amended after the records were filed with the Division of Vital Records.

¹ Office of Epidemiology and Planning, Baltimore City Health Department. Intoxication Deaths Associated with Drugs of Abuse or Alcohol. Baltimore City, Maryland: Baltimore City Health Department. January 2007.

Identification of drug-related intoxication deaths

For the purpose of this report, an intoxication death was defined as a death that was the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, cocaine, phencyclidine (PCP), prescription opioids, benzodiazepines, methamphetamines and other prescribed and unprescribed drugs. OCME provided all records to VSA for which the text of the cause of death included one or more of the following terms: poisoning, intoxication, toxicity, inhalation, ingestion, overdose, exposure, chemical, effects or use. Any records provided by OCME that were not drug-related intoxication deaths, such as deaths due to smoke inhalation, carbon monoxide intoxication, cold exposure, and chronic use of alcohol or other drugs, were excluded in the registry. Also excluded from the registry were any deaths that were not accidental or of undetermined intent. A death is considered to be of undetermined intent if the medical examiner does not have sufficient evidence to definitively determine whether a death was natural, accidental, or the result of suicide or homicide. In the case of intoxication deaths, a substantial proportion of records with an “undetermined” manner of death are likely to have been unintentional.

Analyses

Trends in the number of drug- and alcohol-related intoxication deaths occurring in Maryland during the years 2007-2014 were analyzed by age group, race/ethnicity, gender, place of occurrence of death, and substances related to the death. Changes were examined for deaths related to the following substances:

1. Opioids
 - a. Heroin
 - b. Prescription opioids
 - c. Fentanyl
2. Cocaine
3. Benzodiazepines and related drugs
4. Alcohol

The number of deaths by place of occurrence was computed by jurisdiction and by region, categorized as follows:

| Western Area | Central Area | Southern Area | Eastern Shore Area |
|---|--|---|---|
| Garrett County Allegany County Washington County Frederick County Montgomery County | Baltimore City Baltimore County Anne Arundel County Carroll County Howard County Harford County | Calvert County Charles County St. Mary's County Prince George's County | Cecil County Kent County Queen Anne's County Caroline County Talbot County Dorchester County Wicomico County Somerset County Worcester County |

Trends in deaths for the period 2007-2014 are shown in Figures 1 through 30. Data on intoxication deaths related to a combination of substances are shown in Figures 31 through 33. Counts of the number of total deaths and deaths related to classes of substances or specific substances by place of occurrence are shown in Tables 1 through 9.

****Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths in this report.****

Opioid-related deaths

Opioids include heroin and prescription opioid drugs such as oxycodone, hydrocodone, hydromorphone, methadone, fentanyl, tramadol and codeine. In this report, an opioid was considered to be associated with a death if a specific opioid drug was indicated in the cause of death. If the cause of death did not identify a specific drug (e.g., the cause of death indicated “Narcotic Intoxication”), OCME toxicology results were reviewed to determine whether the presence of any opioid drug was detected. If so, the cause of death was considered to be opioid-related, regardless of the level of the drug.

Since heroin is rapidly metabolized into morphine, the records of many deaths that are likely to be heroin-related do not list “heroin” as a cause of death, and therefore cannot be identified using only information listed in the cause of death. Therefore, a combination of information contained in the cause of death field, toxicology results, and scene investigation notes is used to identify heroin-related deaths. In this report, a death was considered to be heroin-related if:

1. “Heroin” was mentioned in the cause of death; or
2. The toxicology screen showed a positive result for 6-monacetylmorphine; or
3. The toxicology screen showed positive results for both morphine and quinine; or
4. The cause of death was nonspecific and the scene investigation notes indicated that heroin was likely to have been involved in the death; or
5. The death was associated with morphine through either cause of death information or toxicology results, unless information contained in the investigative report did not support this assumption.

Prescription opioid-related deaths were defined as deaths that involve one or more prescription opioids, as identified through cause of death information when a specific drug was indicated and through toxicology results when the cause of death was nonspecific. Prescription opioids include buprenorphine, codeine, hydrocodone, hydromorphone, meperidine, methadone, morphine, oxycodone, pentazocine, propoxyphene, tramadol and prescribed fentanyl. Prescribed fentanyl is an opioid analgesic approved for patient use to manage severe or chronic pain. There is also a form of fentanyl that is produced illicitly in clandestine laboratories and mixed with (or substituted for) heroin or other illicit drugs. Although in some cases it was difficult to determine whether a prescribed or illicit form of

fentanyl was related to a death, the count of prescription opioid-related drugs in this report includes only fentanyl deaths involving a prescription form of the drug.

Benzodiazepine-related deaths

Benzodiazepines are a class of depressants that include drugs such as alprazolam, clonazepam, diazepam and multiple related drugs. The category of benzodiazepine-related drugs in this report includes both benzodiazepines and related drugs, such as zolpidem, which have similar sedative effects.

SUMMARY OF TRENDS IN DEATHS—2007 TO 2014

Total alcohol and drug intoxication deaths

- A total of 1039 drug- and alcohol-related intoxication deaths occurred in Maryland in 2014, a 21% increase over the number of deaths in 2013 and a 60% increase since 2010, after which time the number of deaths began to rise.
- Intoxication deaths have been increasing among all age groups, but are increasing most rapidly among individuals 55 years of age and above.
- The number of deaths increased by 38% among African Americans, 15% among Whites, and 43% among Hispanics between 2013 and 2014. Although the number of deaths has increased among all three groups since 2010, the increase has been greatest among African Americans; the number of deaths doubled within this time period.
- Deaths increased by 27% among men and 8% among women between 2013 and 2014.
- Although the number of deaths has generally been increasing in all regions of the State since 2010, there are several small jurisdictions where the number of deaths has either remained stable, or declined.

Opioid-related deaths

- Eight hundred eighty-seven (887), or 85.7% of all intoxication deaths that occurred in Maryland in 2014 were **opioid**-related. **Opioid**-related deaths included deaths related to **heroin**, **prescription opioids**, and nonpharmaceutical **fentanyl**.
- The number of **opioid**-related deaths increased by 22% between 2013 and 2014, and by 76% between 2010 and 2014.
- Large increases in the number of **heroin** and **fentanyl**-related deaths were responsible for the overall increase in **opioid**-related deaths. The number of **heroin**-related deaths increased by 25% between 2013 and 2014 (from 464 to 578), and there was over a three-fold increase in the number of **fentanyl**-related deaths (from 58 to 185).
- The number of **heroin**-related deaths in Maryland more than doubled between 2010 and 2014. Deaths have increased among all age groups, whites and African Americans, men and women, and in all regions of the State.
- Twenty-five percent of **heroin**-related deaths in 2014 occurred in combination with **alcohol**, 22% with **cocaine**, and 18% with **fentanyl**.
- The overall number of **prescription opioid**-related deaths has remained relatively stable in recent years. However, deaths have been increasing among African Americans and among individuals ages 55 years and above.

- The number of **fentanyl**-related deaths began increasing in late 2013 as a result of overdoses involving nonpharmaceutical **fentanyl**, that is, nonprescription **fentanyl** produced in clandestine laboratories and mixed with, or substituted for, heroin or other illicit substances. **Fentanyl** is many times more potent than heroin, and greatly increases the risk of an overdose death.
- **Fentanyl**-related deaths have increased among all age groups, among whites and African Americans, and among both men and women. The increase has been particularly pronounced among African Americans; there were 74 deaths in 2014 compared with only two in 2012.
- While **fentanyl**-related deaths have been increasing in all regions of the State, the increase has been most rapid in Central Maryland.

Cocaine-related deaths

- The number of **cocaine**-related deaths, which had remained relatively stable since 2008, increased by 29% between 2013 and 2014. There were 198 deaths in 2014 compared to 154 in the year before.
- The number of deaths increased most rapidly between 2013 and 2014 among African Americans and among men.
- Nearly 66% of **cocaine**-related deaths occurred in combination with **heroin**, and 20% in combination with **prescription opioids**.

Benzodiazepine-related deaths

- The number of **benzodiazepine**-related deaths increased from 69 in 2013 to 103 in 2014, an increase of nearly 50%.
- Nearly 60% of all **benzodiazepine**-related deaths occurred in combination with **prescription opioids**.

Alcohol-related deaths

- The number of **alcohol**-related deaths increased by 13% between 2013 and 2014, and by 69% since 2010. There were 270 **alcohol**-related deaths in 2014, compared with 238 in 2013 and 160 in 2010.
- Most alcohol-related deaths occur among individuals between the ages of 45 and 54 years of age, and among men. The number of deaths has been increasing in recent years among both whites and African Americans.
- More than half of all **alcohol**-related deaths occurred in combination with **heroin**.

TOTAL INTOXICATION DEATHS

Figure 1. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland, 2007-2014.

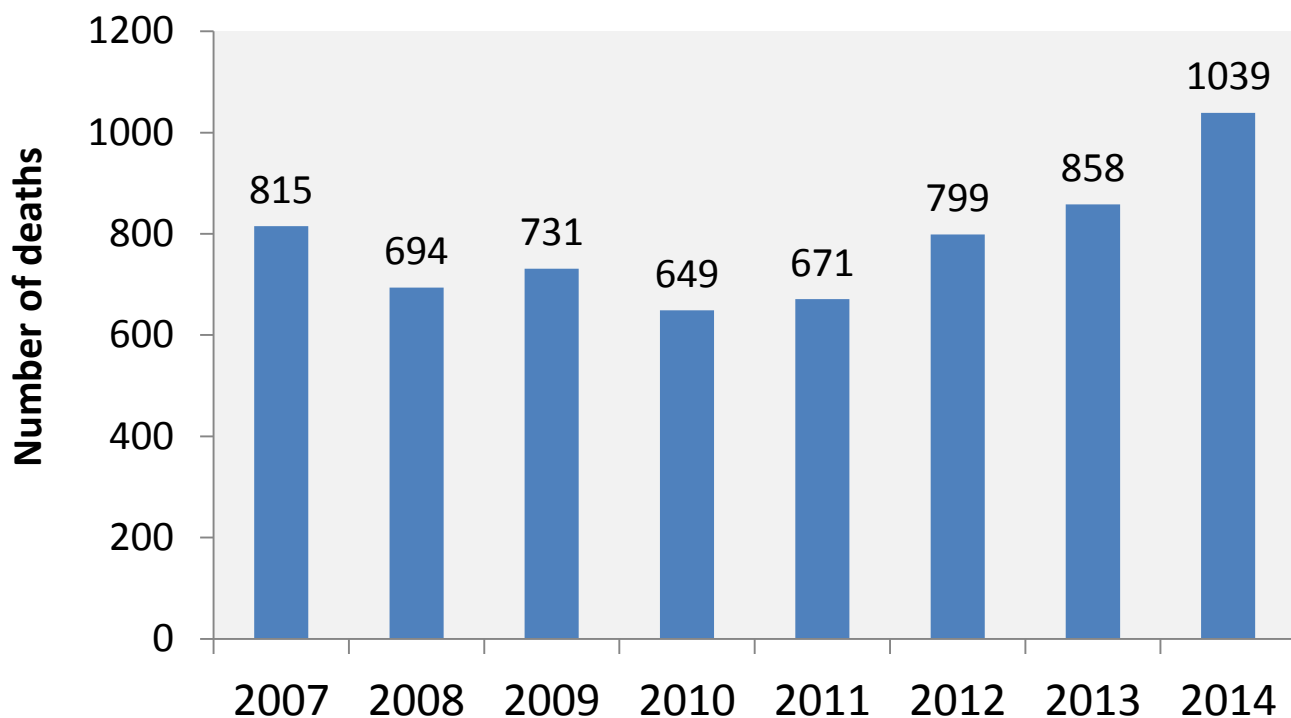


Figure 2. Total Number of Intoxication Deaths Occurring in Maryland by Place of Occurrence, 2014.

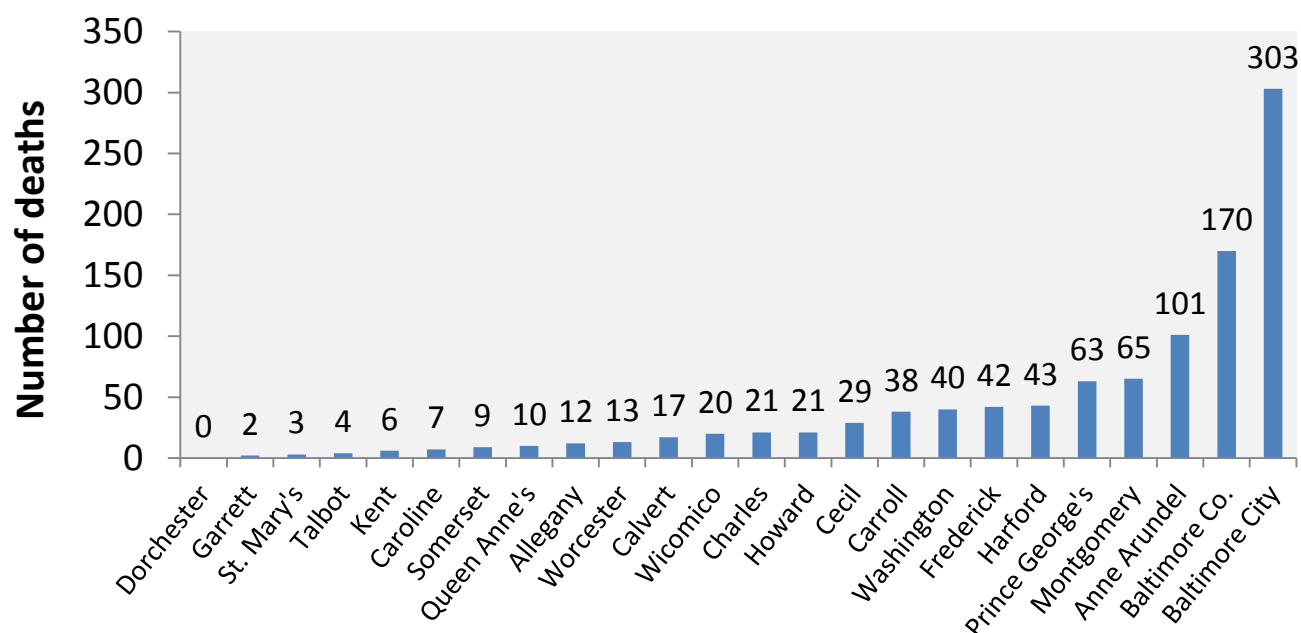


Figure 3. Total Number of Drug- and Alcohol-Related Intoxication Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

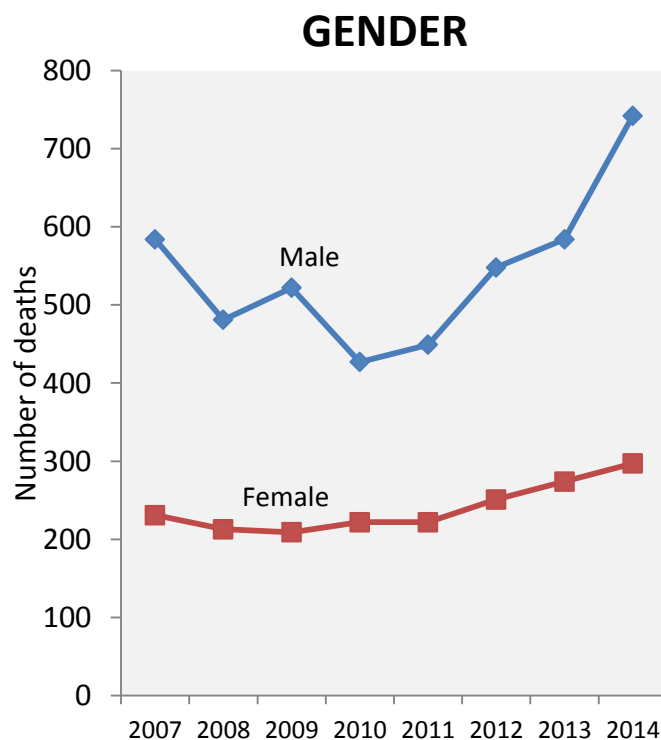
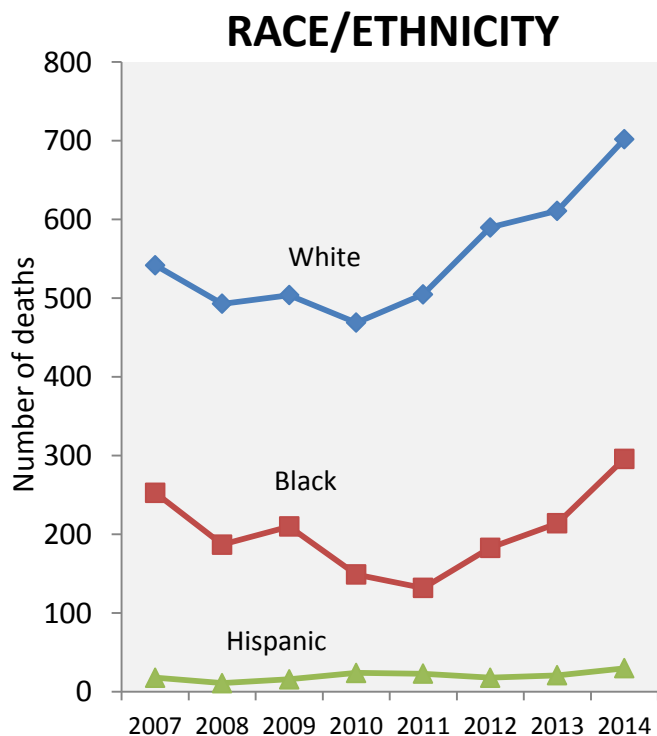
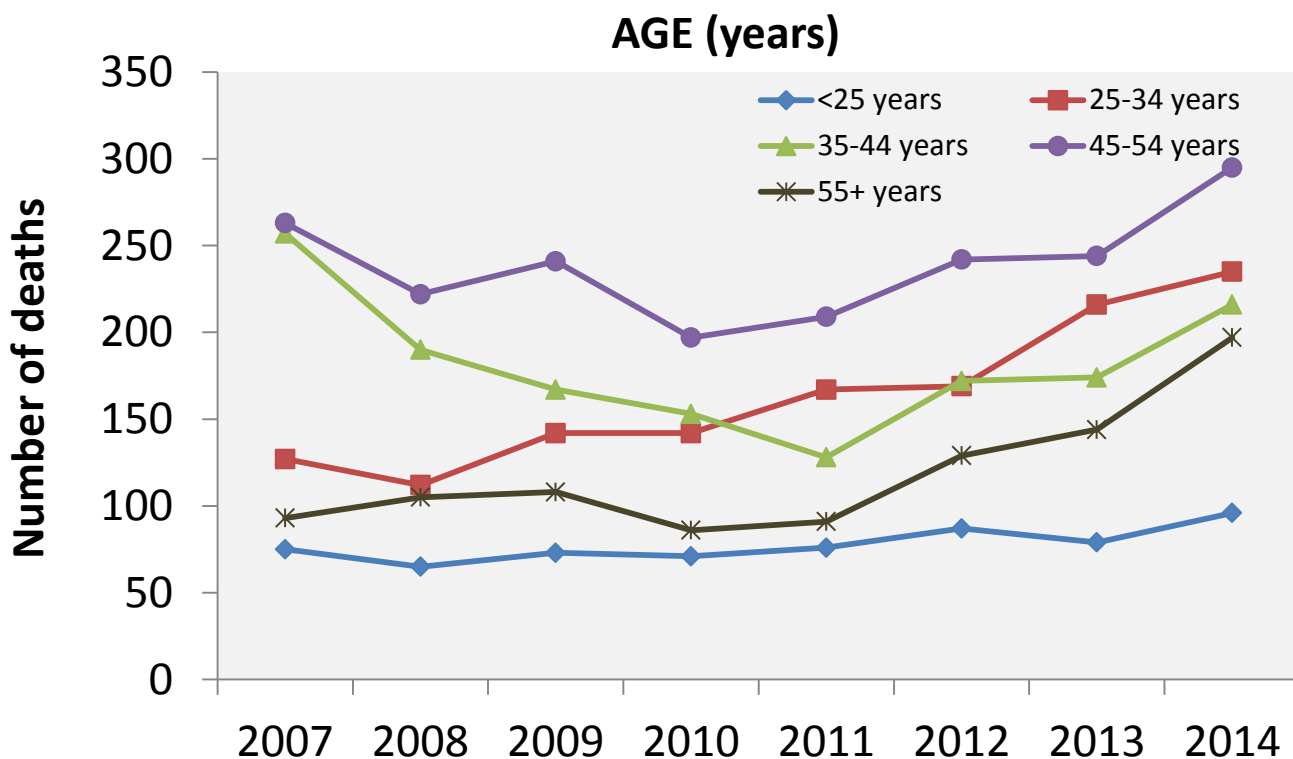
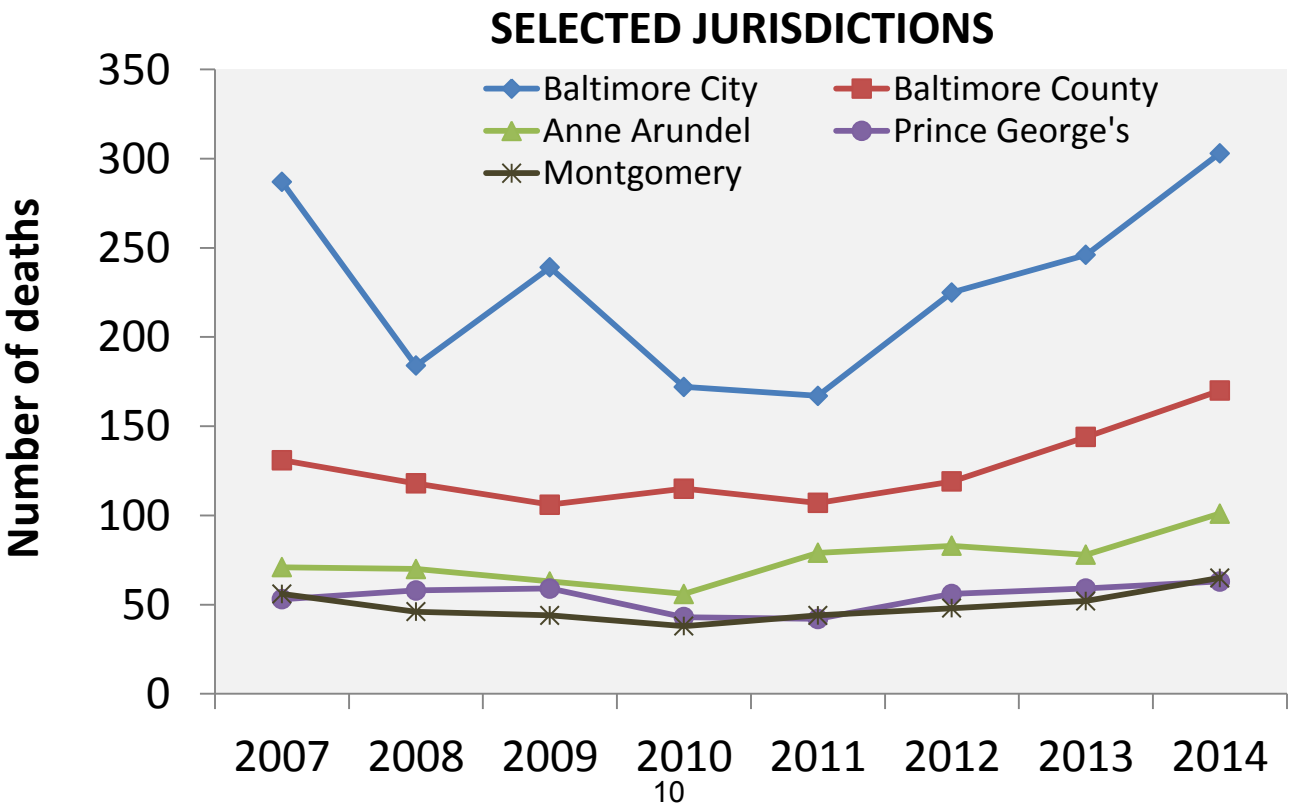
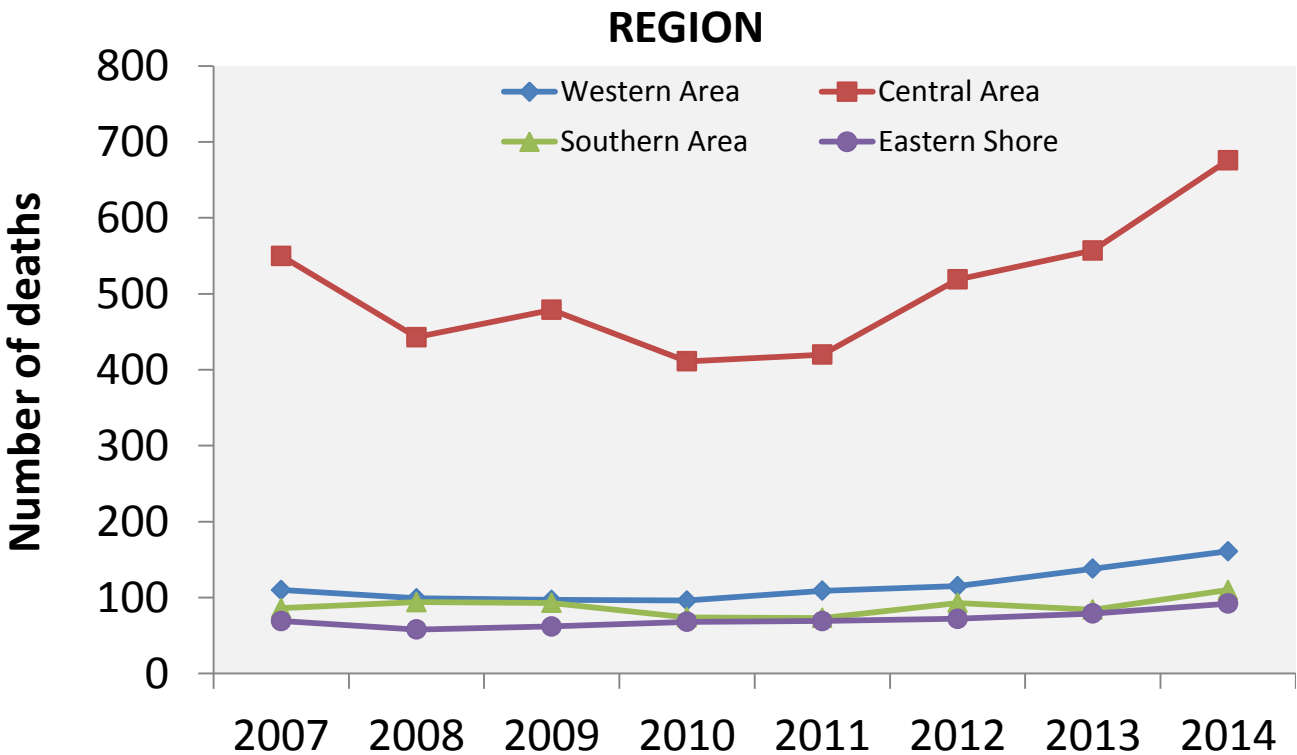
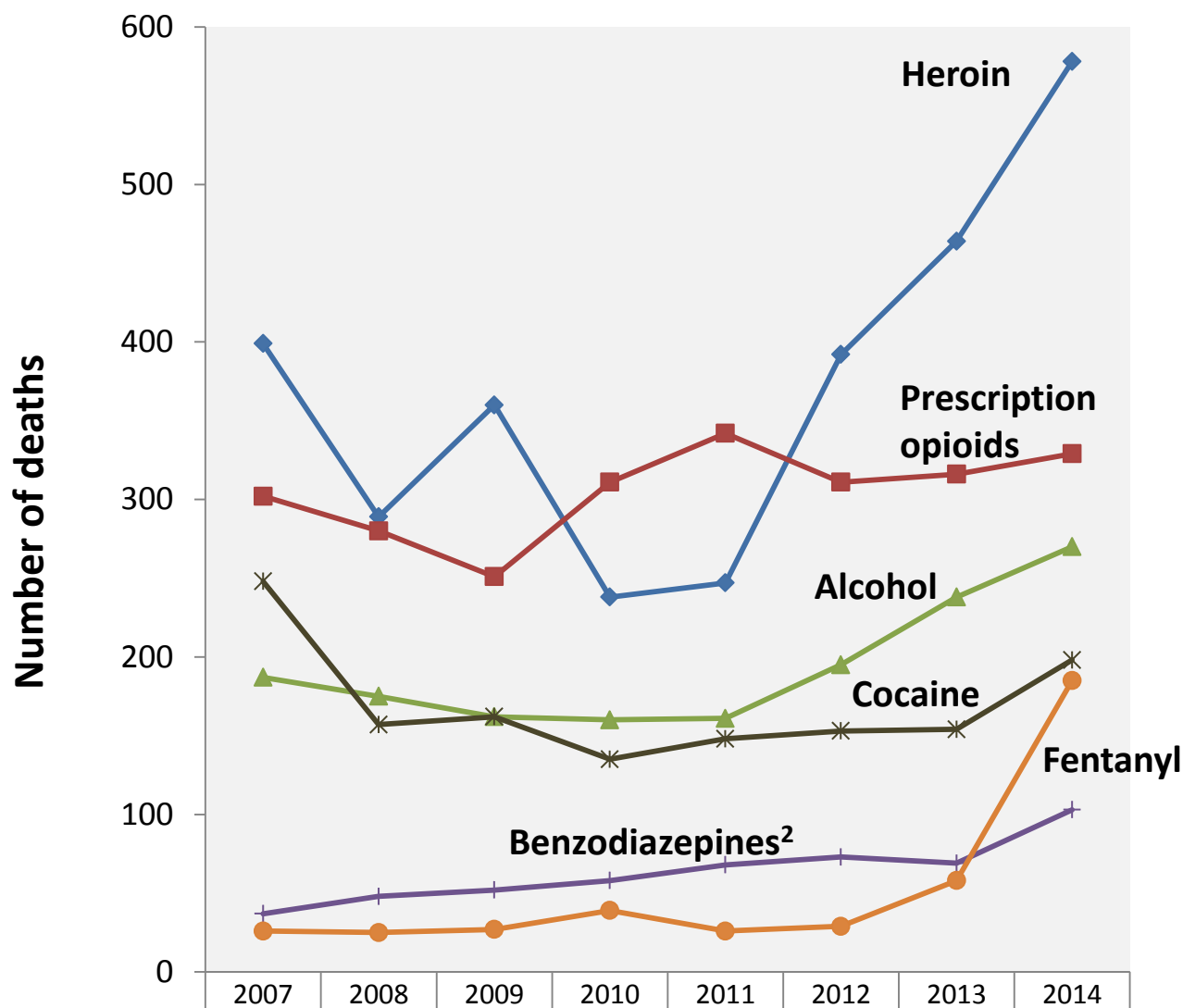


Figure 4. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Place of Occurrence, Maryland, 2007-2014.



**DRUG- AND ALCOHOL-
RELATED INTOXICATION
DEATHS BY SUBSTANCE**

Figure 5. Total Number of Drug- and Alcohol-Related Intoxication Deaths by Selected Substances¹, Maryland, 2007-2014.



¹Since an intoxication death may involve more than one substance, counts of deaths related to specific substances do not sum to the total number of deaths.

²Includes deaths caused by benzodiazepines and related drugs with similar sedative effects.

OPIOID-RELATED DEATHS

Figure 6. Total Number of Opioid* and Non-Opioid-Related Deaths Occurring in Maryland, 2007-2014.

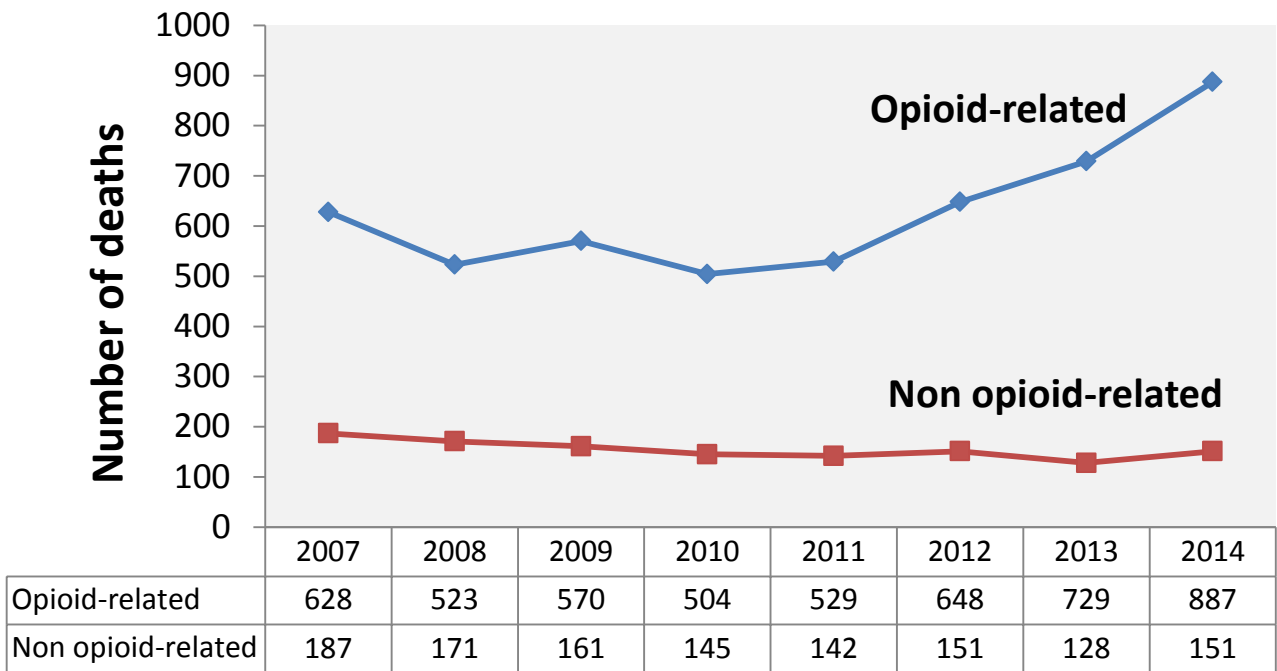
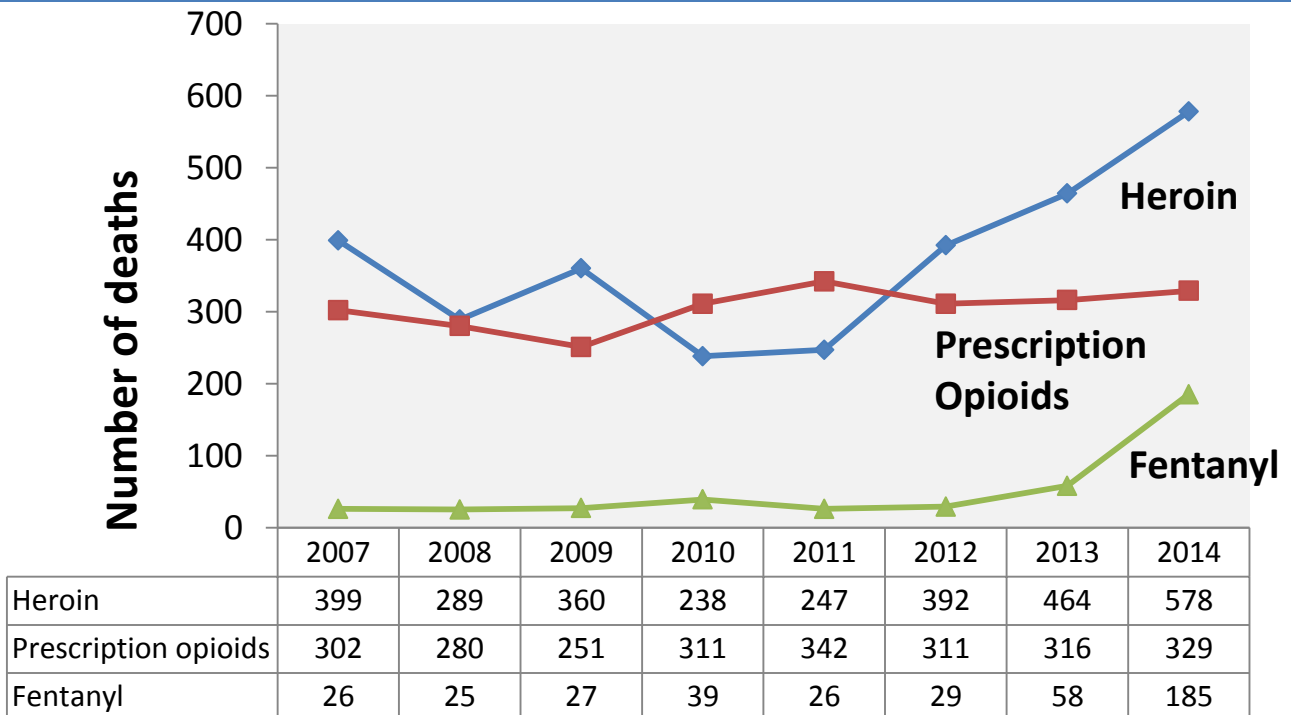


Figure 6. Number of Opioid-Related Deaths Occurring in Maryland by Substance, 2007-2014.



*Total opioids include heroin, prescription opioids, and illicit forms of fentanyl.

Figure 7. Number of Heroin-Related Deaths Occurring in Maryland, 2007-2014.

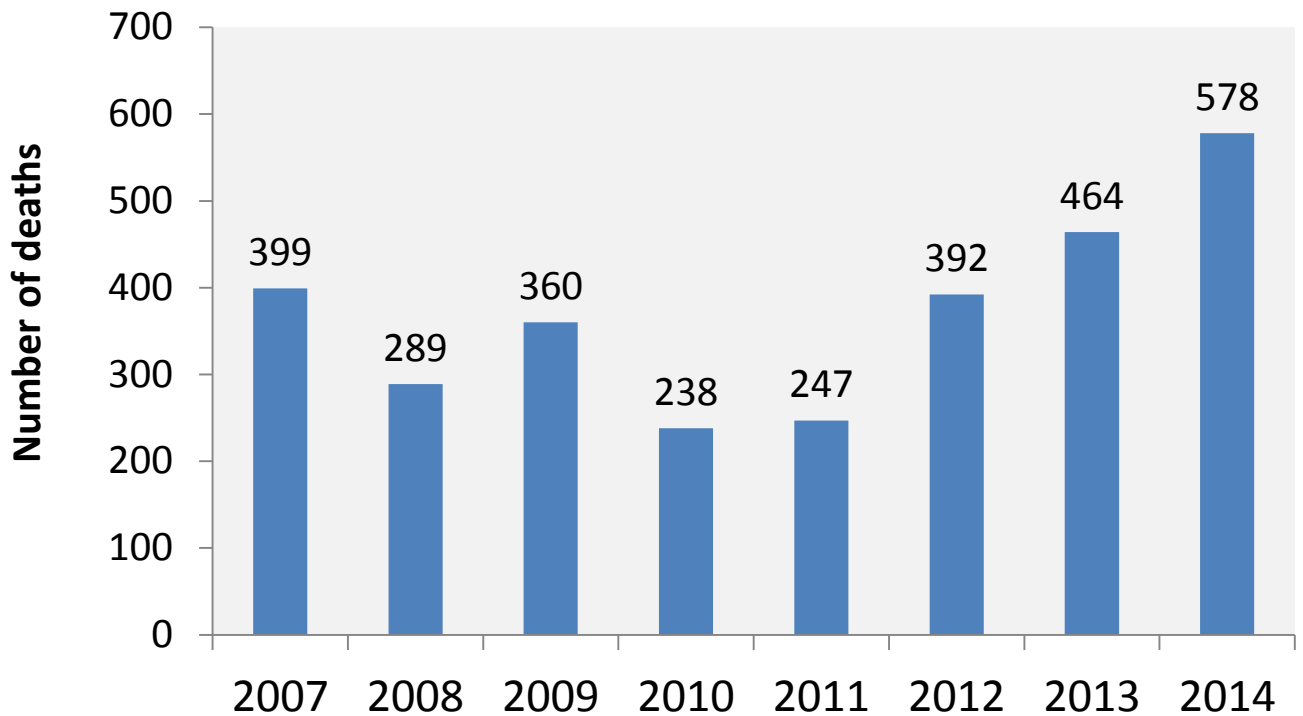


Figure 8. Number of Heroin-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

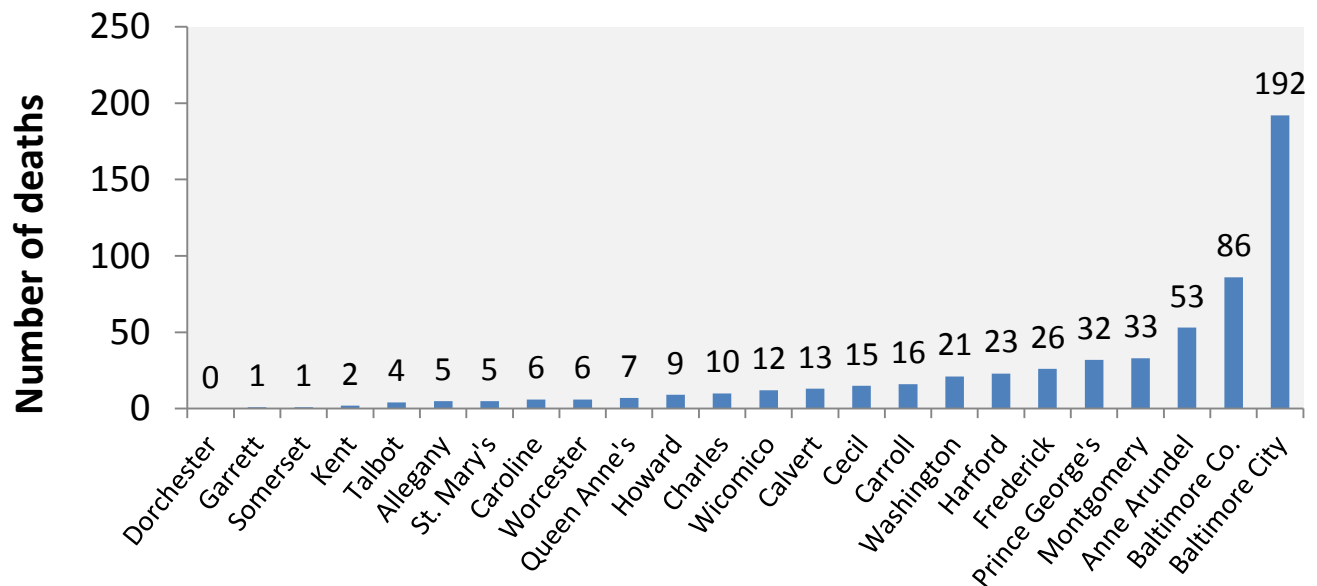


Figure 9. Number of Heroin-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

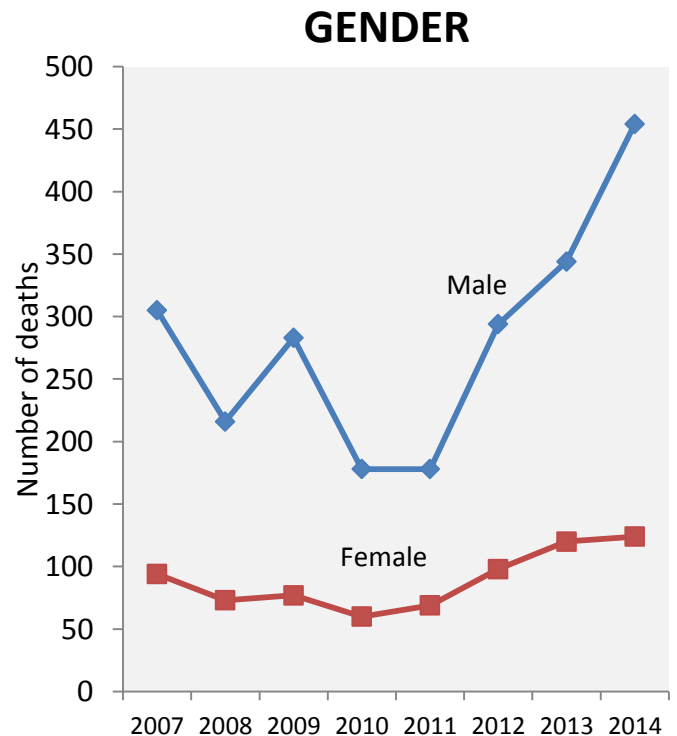
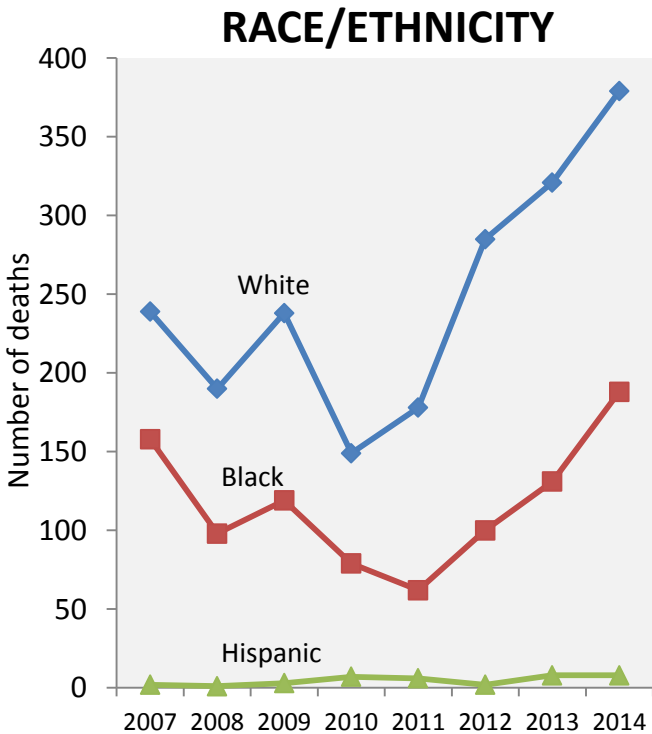
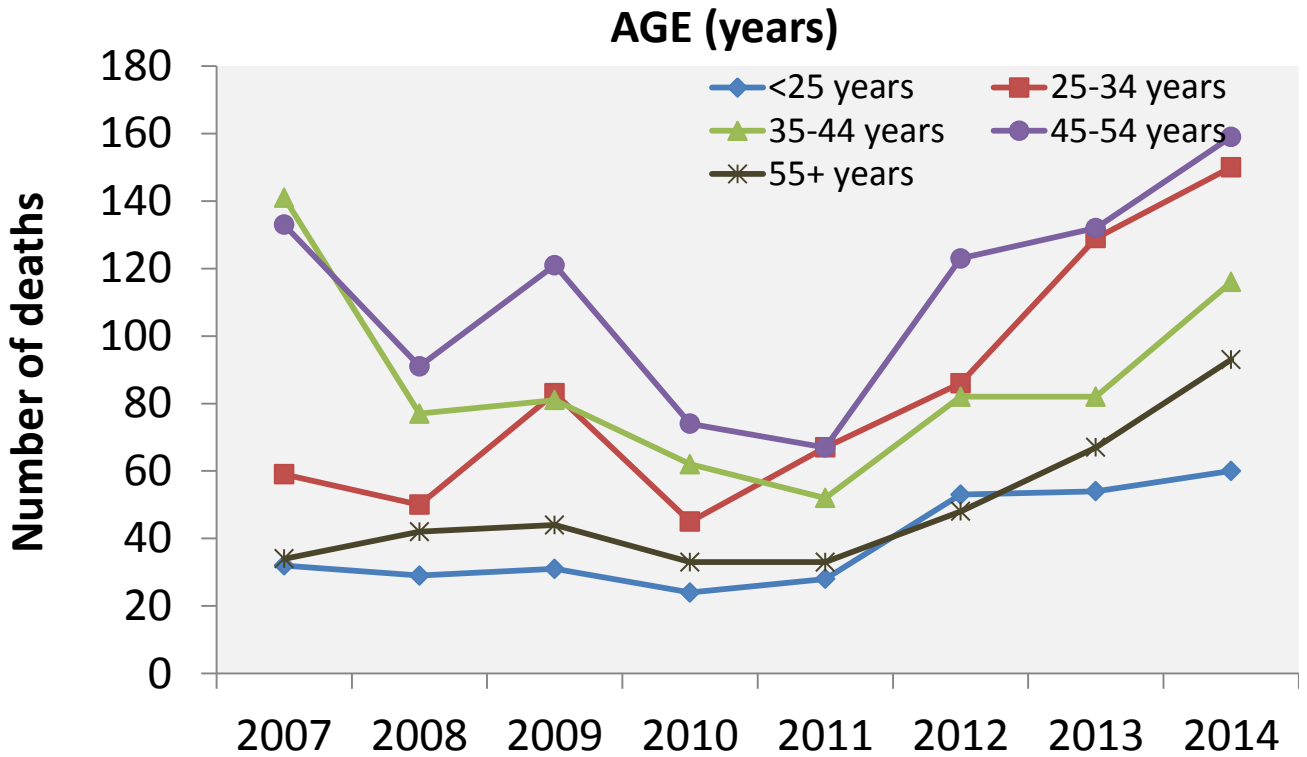


Figure 10. Number of Heroin-Related Deaths by Place of Occurrence, Maryland, 2007-2014.

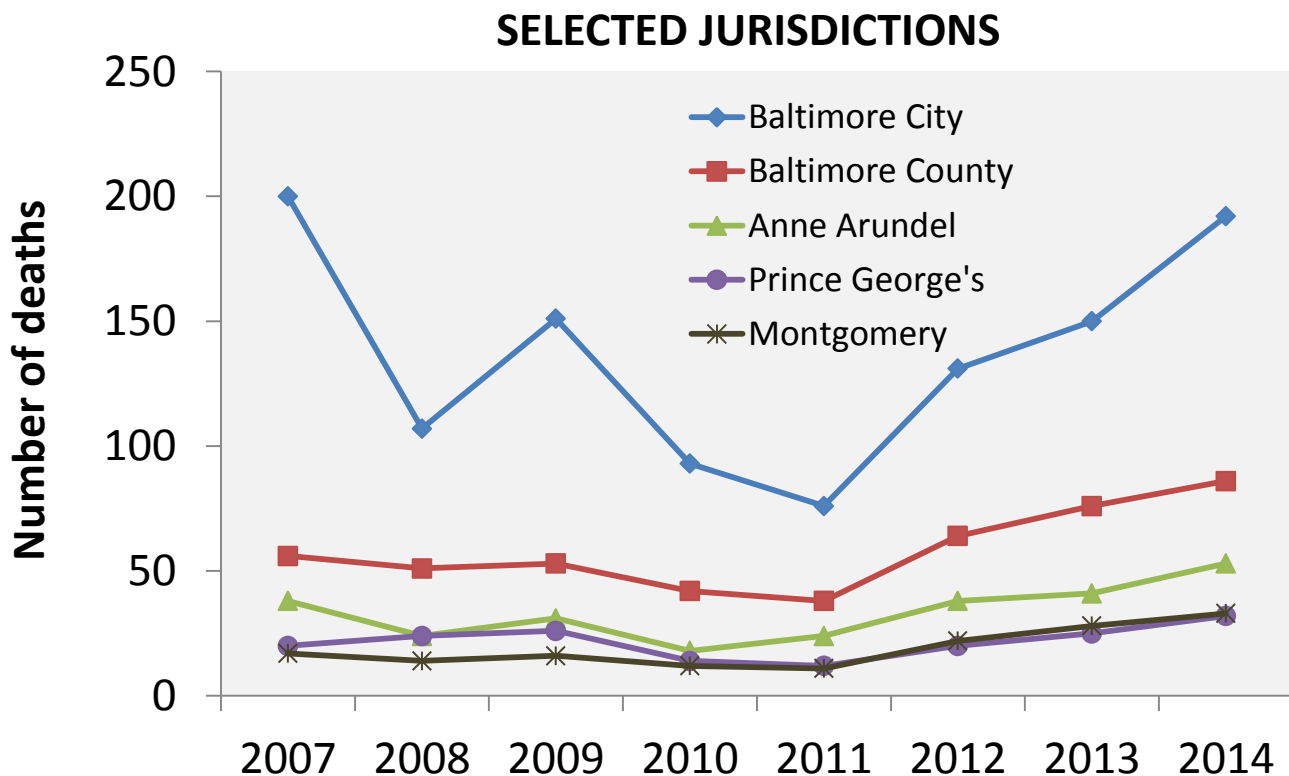
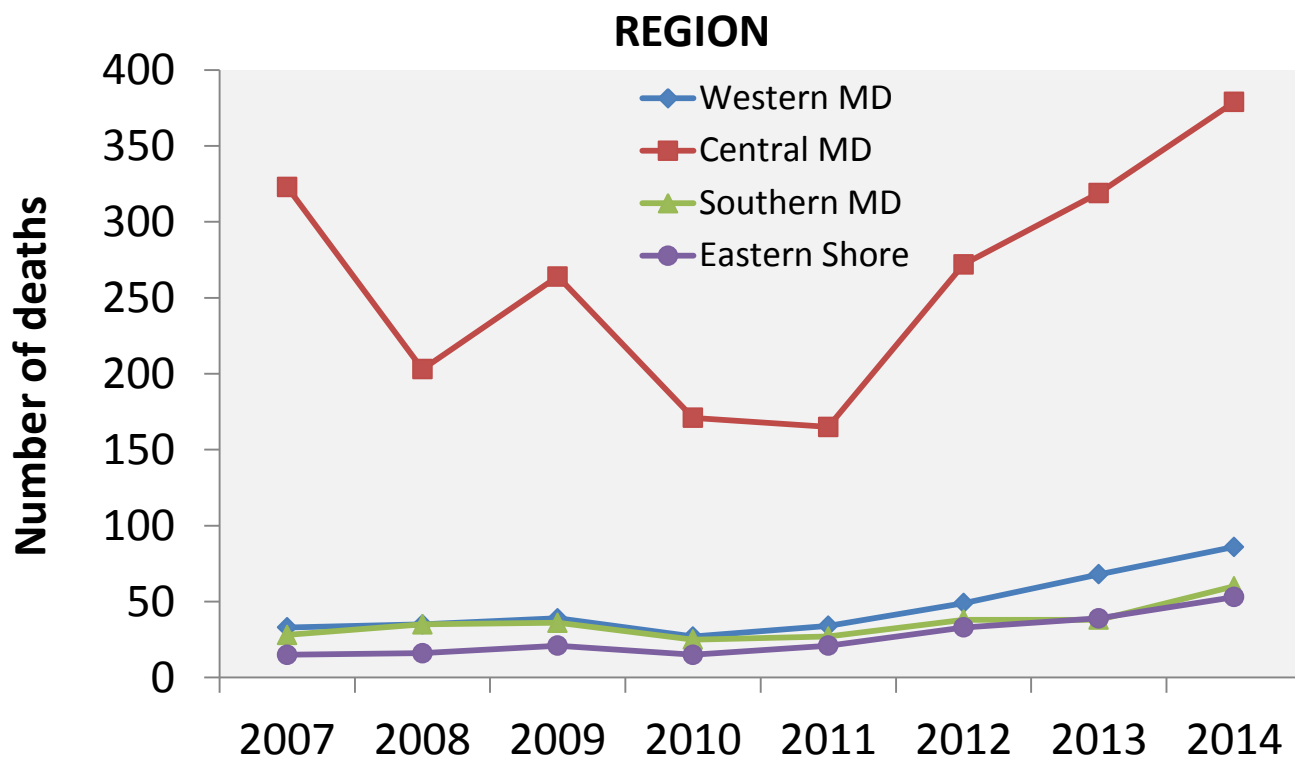


Figure 11. Number of Deaths Occurring in Maryland by Selected Prescription Opioids, 2007-2014.

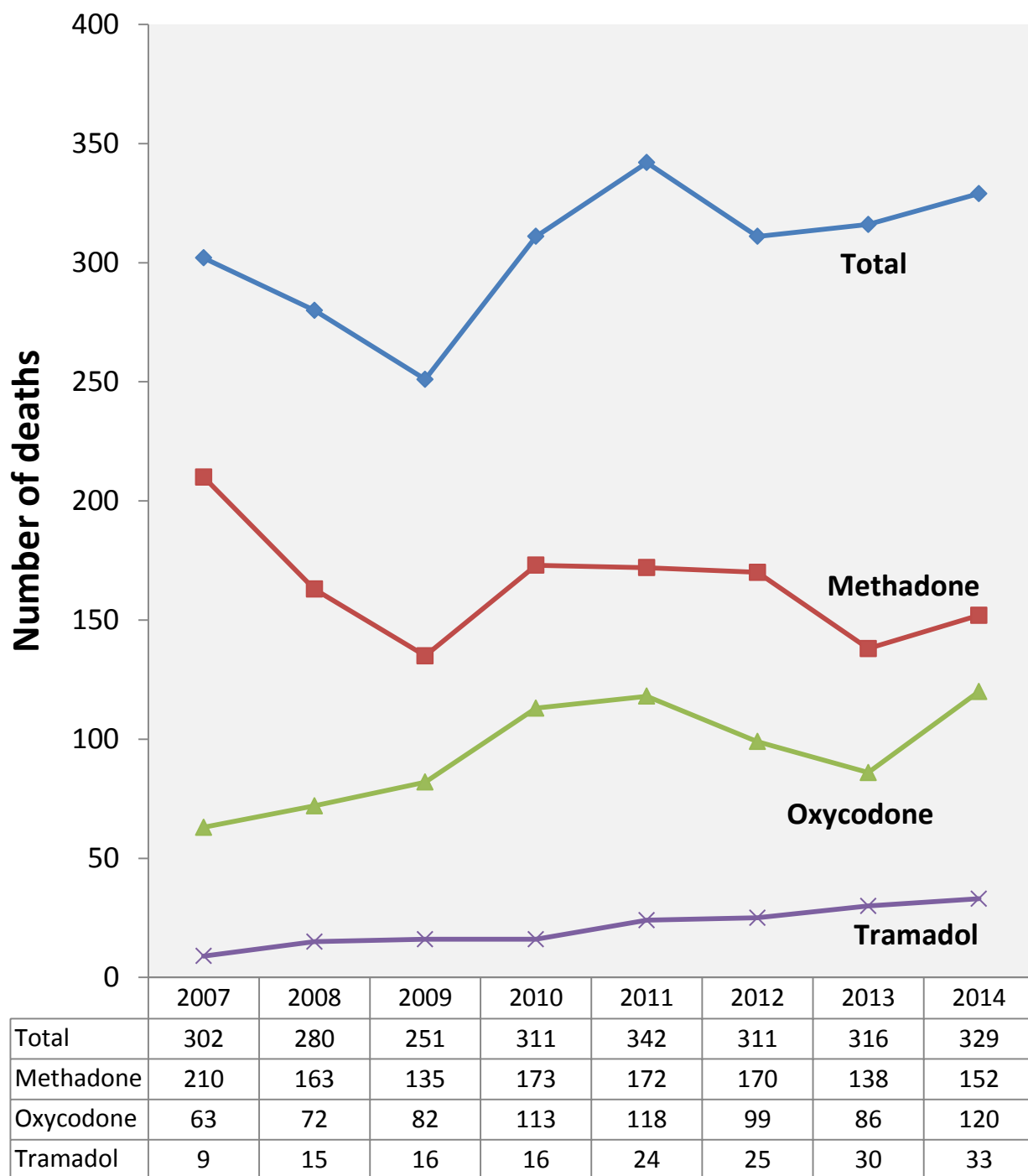


Figure 12. Number of Prescription Opioid-Related Deaths Occurring in Maryland, 2007-2014.

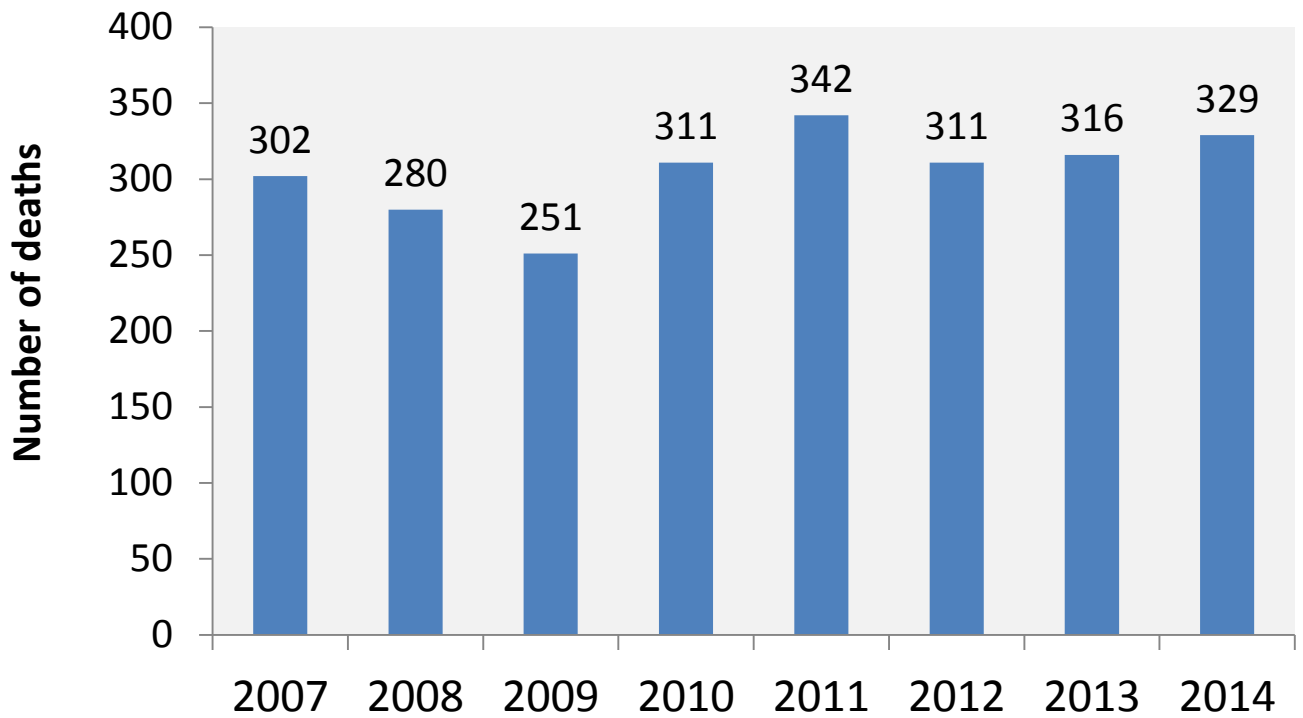


Figure 13. Number of Prescription Opioid-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

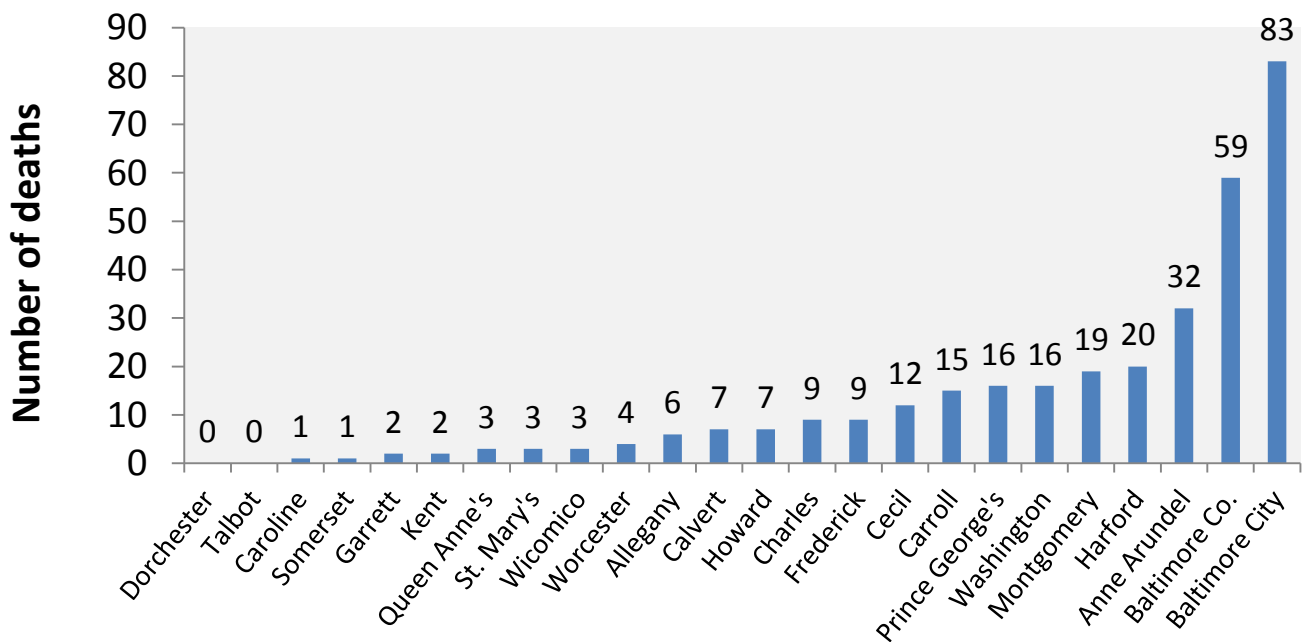


Figure 13. Number of Prescription Opioid-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

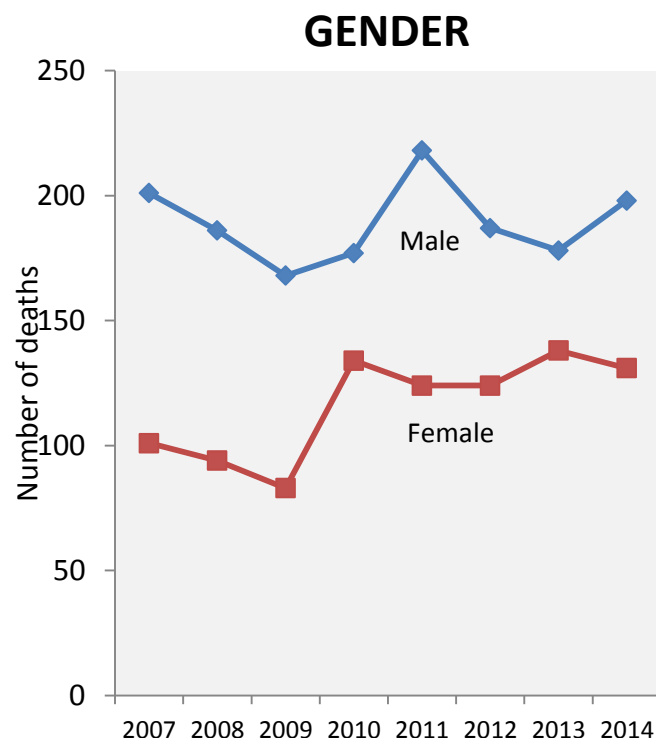
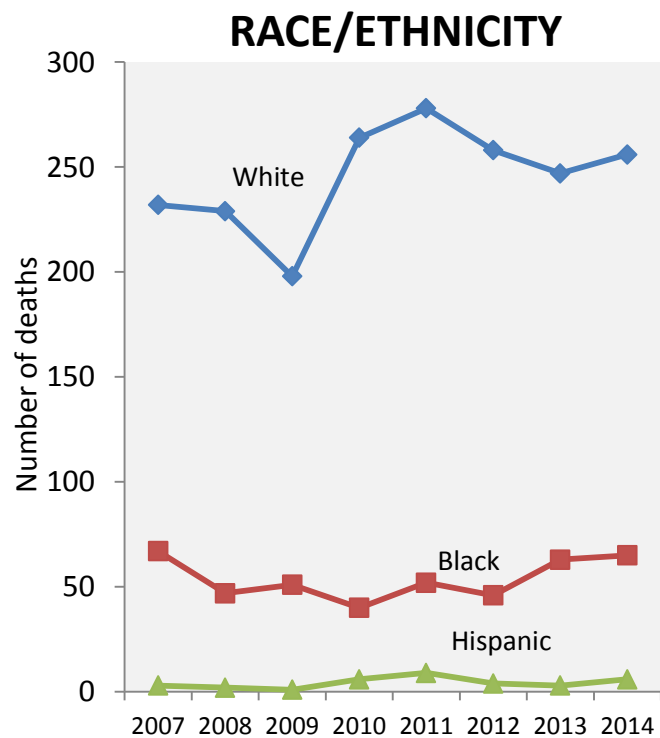
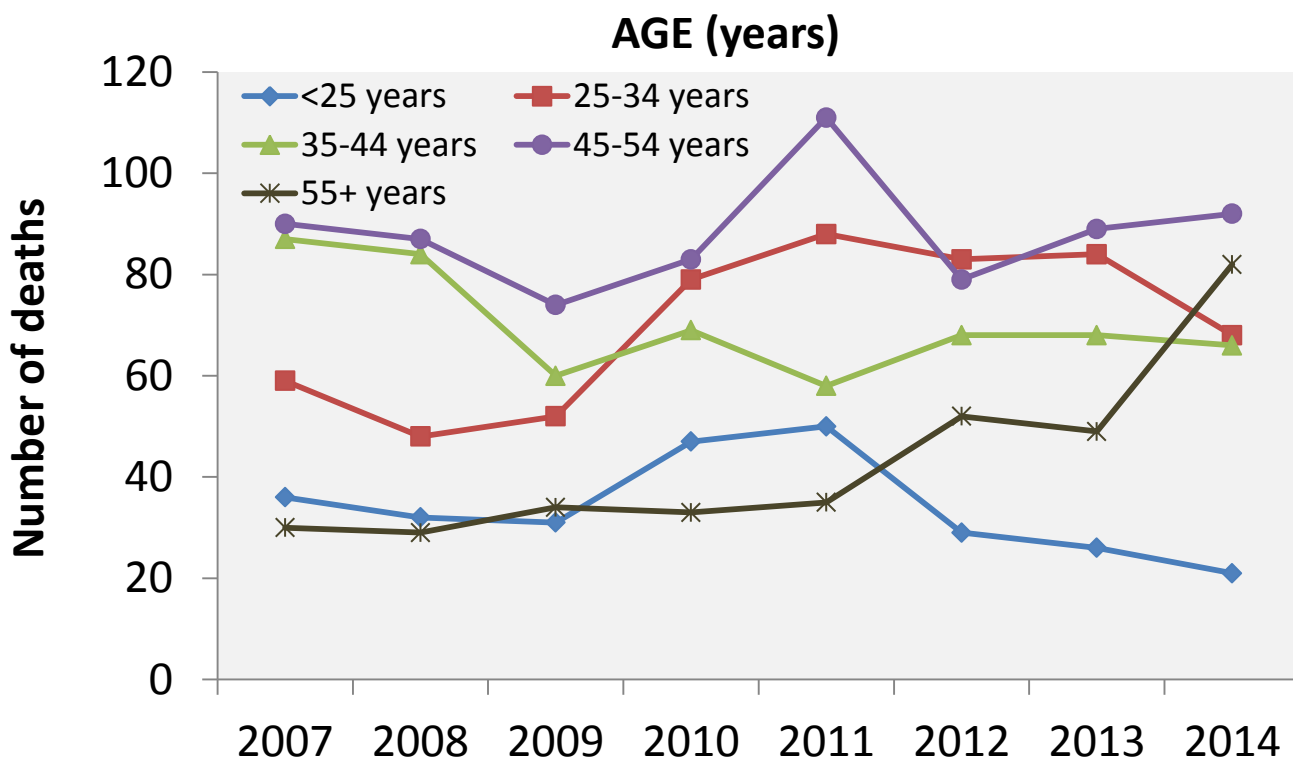


Figure 14. Number of Prescription Opioid-Related Deaths by Place of Occurrence, Maryland, 2007-2014.

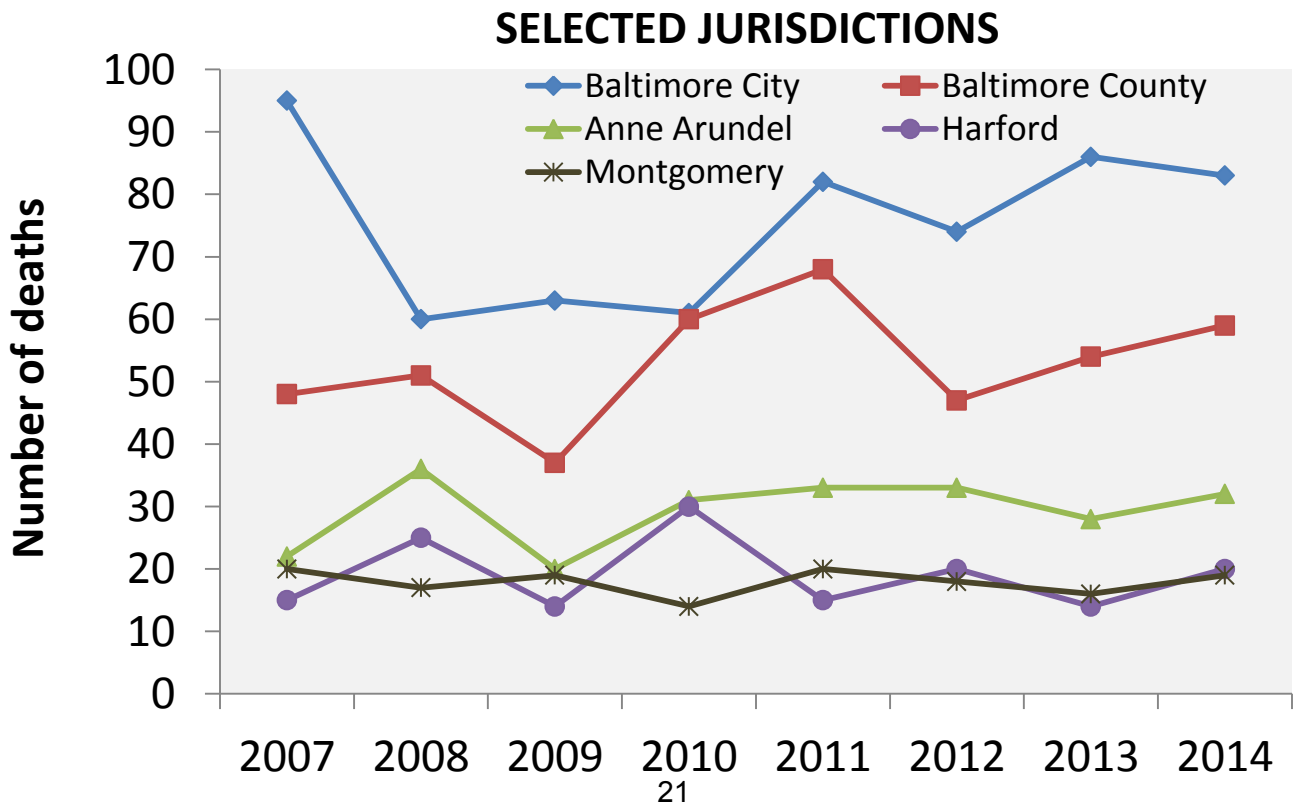
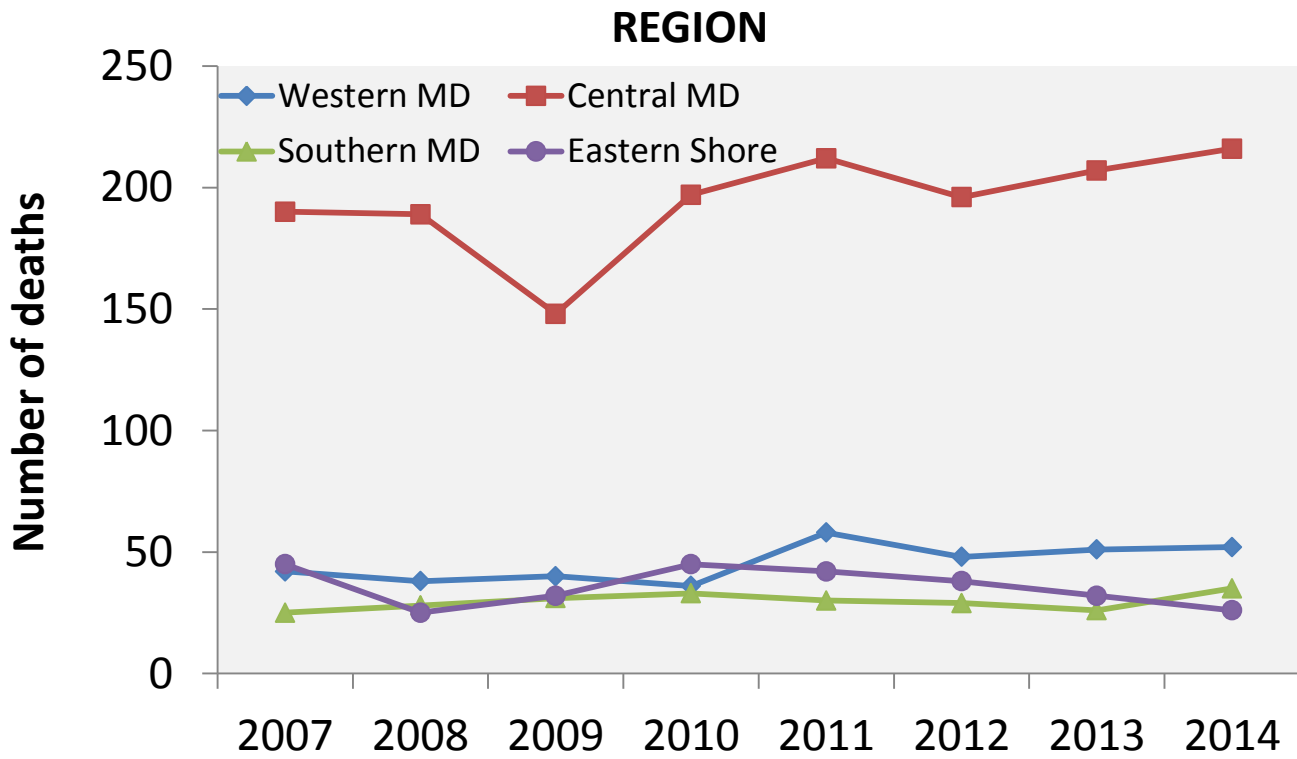


Figure 15. Number of Fentanyl-Related Deaths Occurring in Maryland, 2007-2014.

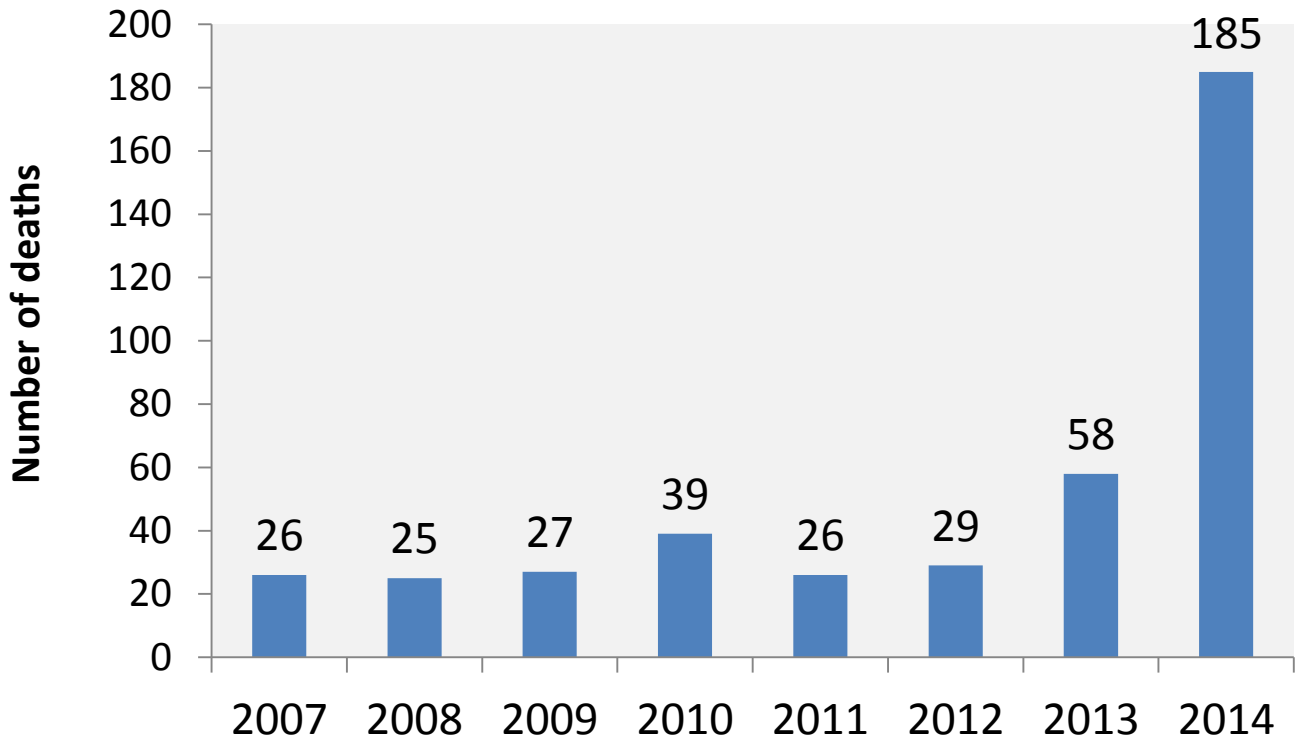


Figure 16. Number of Fentanyl-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

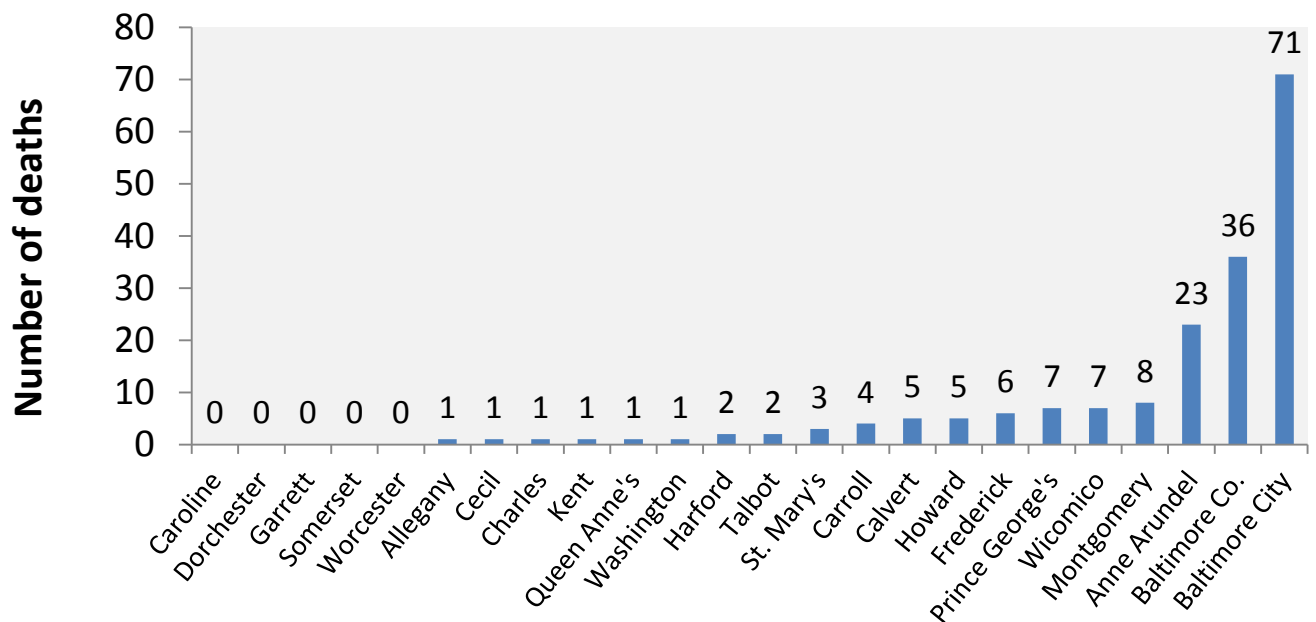


Figure 17. Number of Fentanyl-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

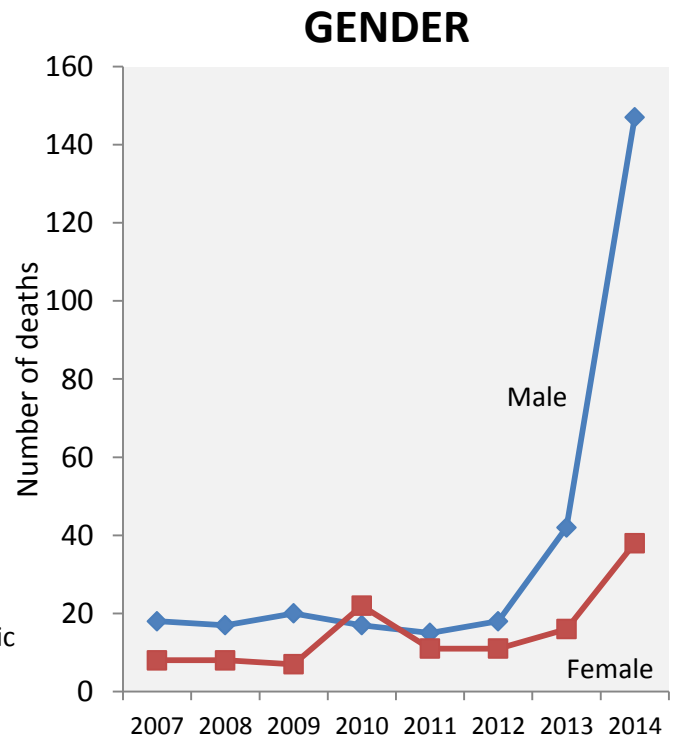
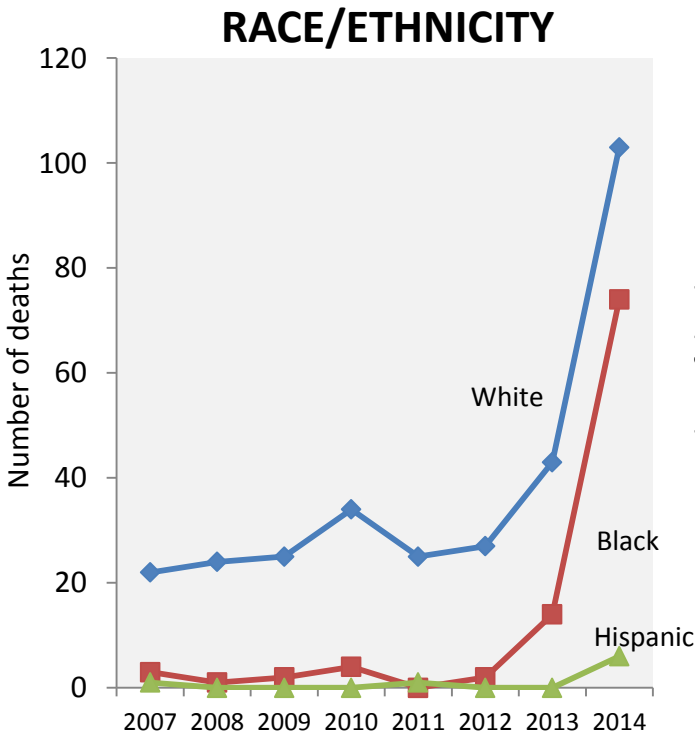
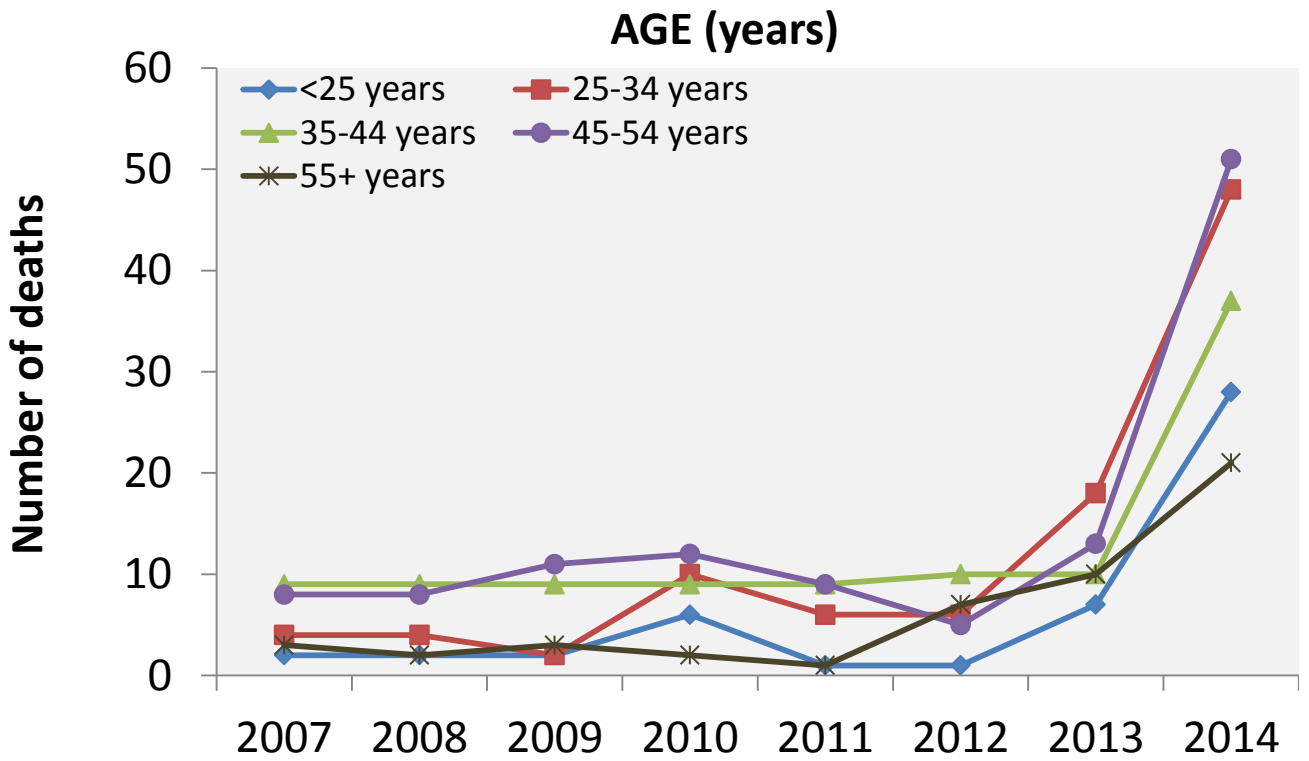
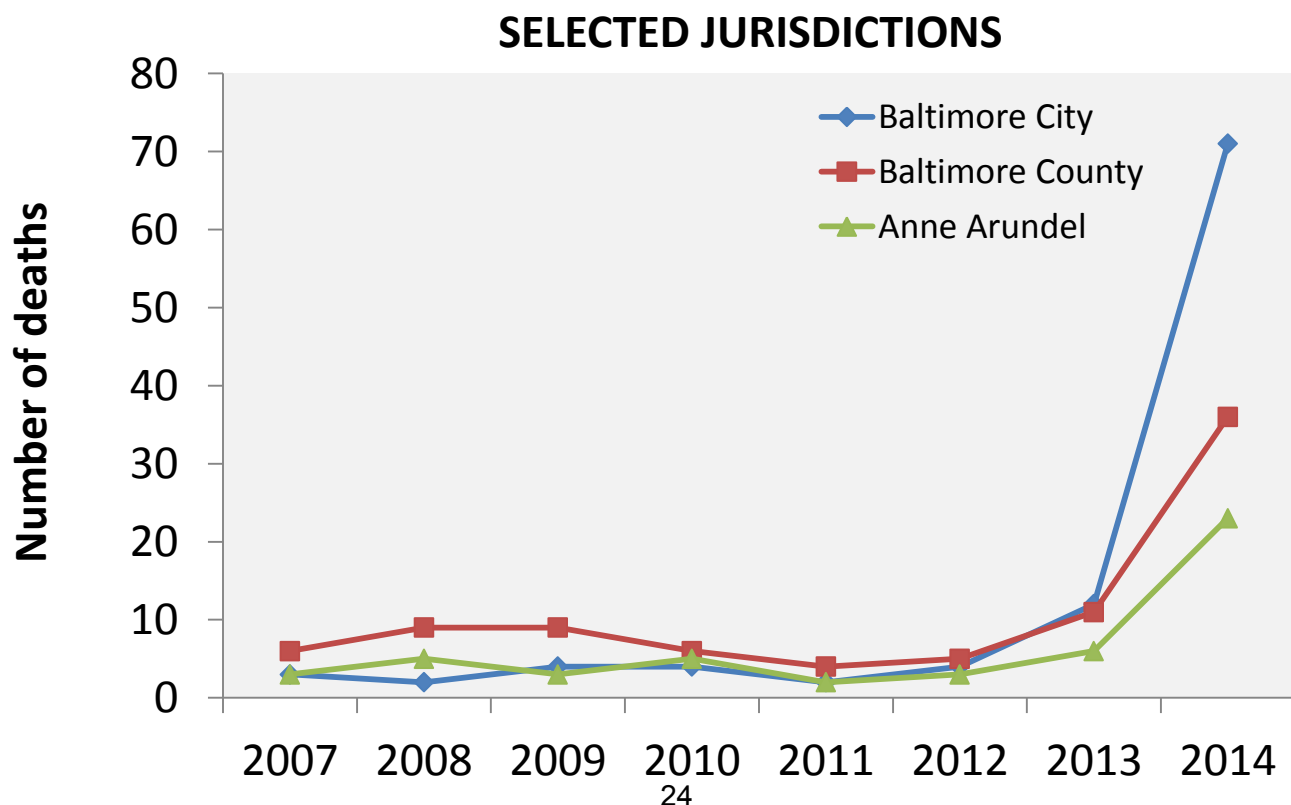
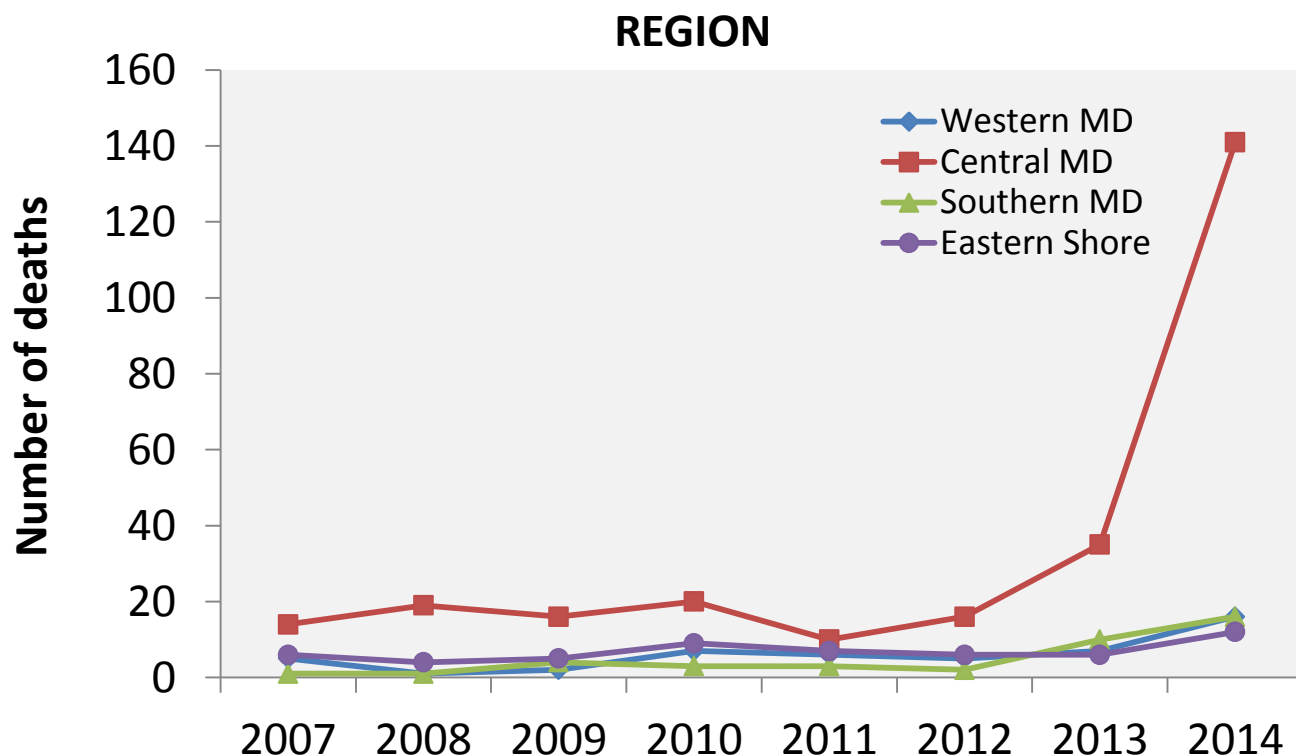


Figure 18. Number of Fentanyl-Related Deaths by Place of Occurrence, Maryland, 2007-2014.



COCAINE-RELATED DEATHS

Figure 19. Number of Cocaine-Related Deaths Occurring in Maryland, 2007-2014.

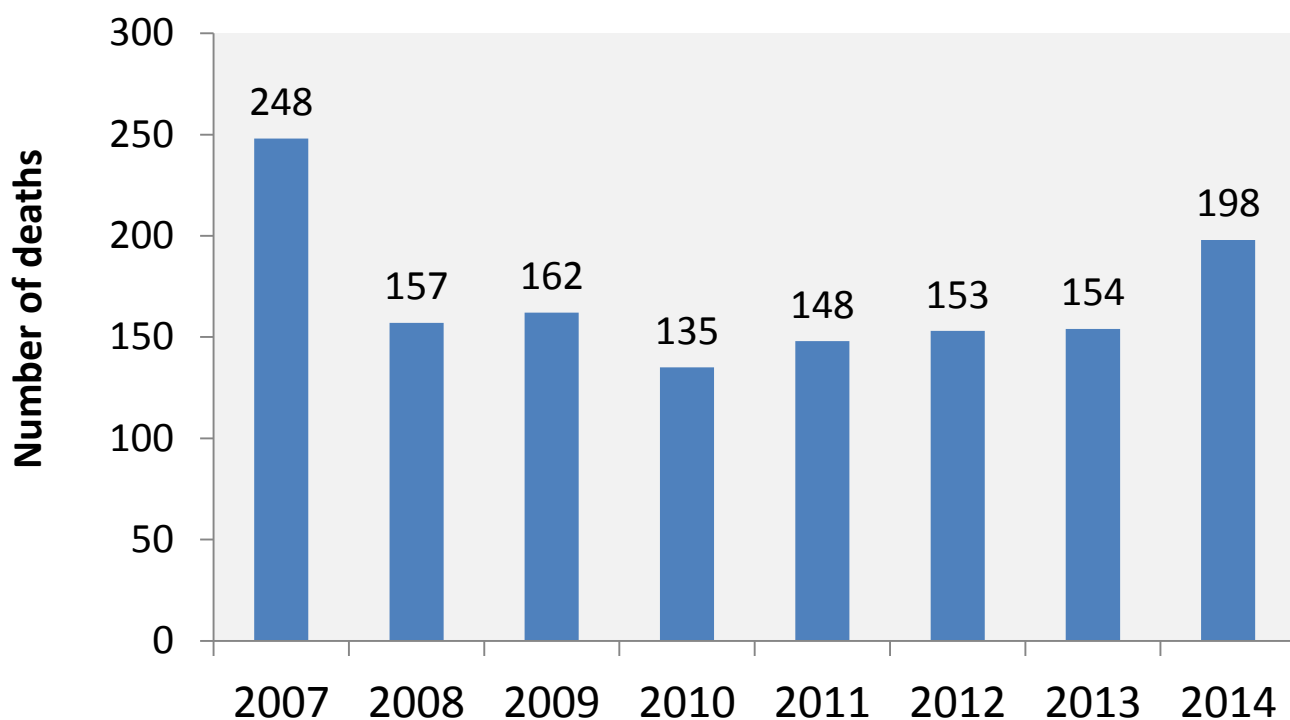


Figure 20. Number of Cocaine-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

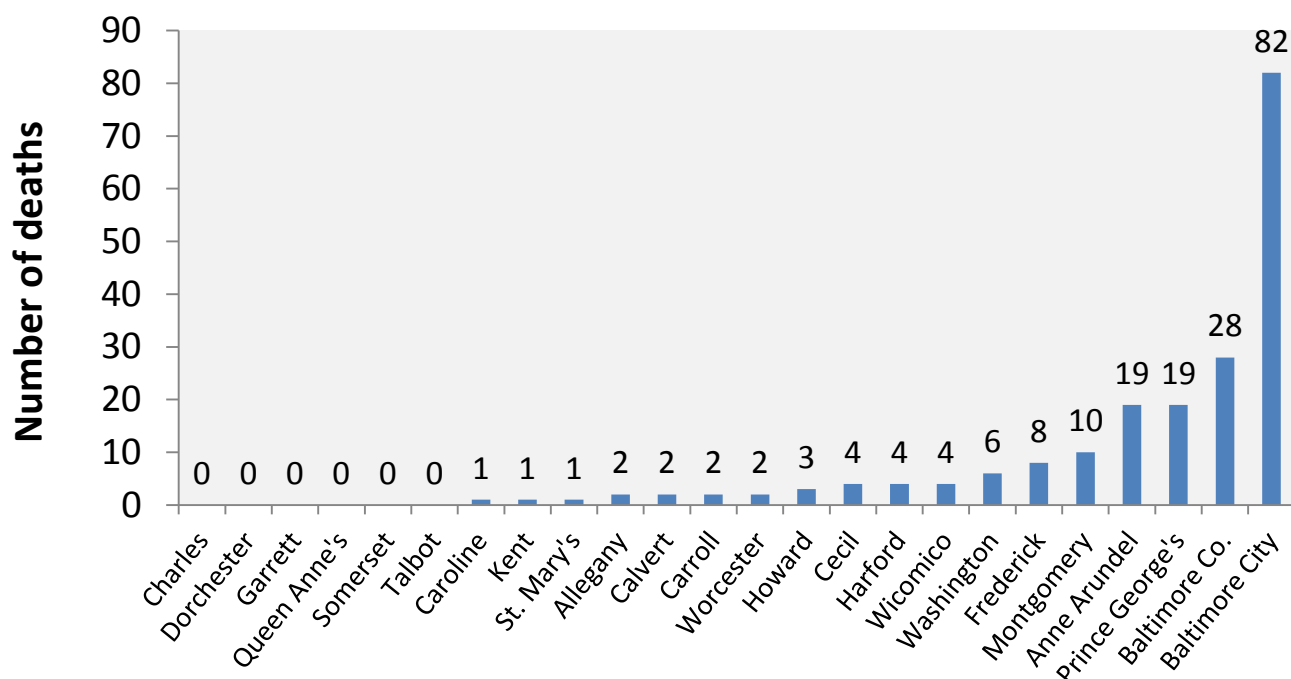


Figure 21. Number of Cocaine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

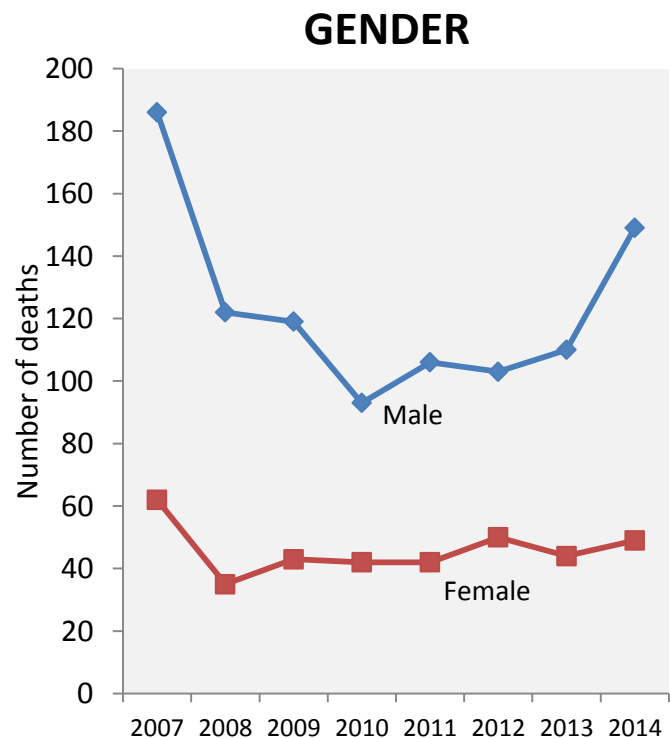
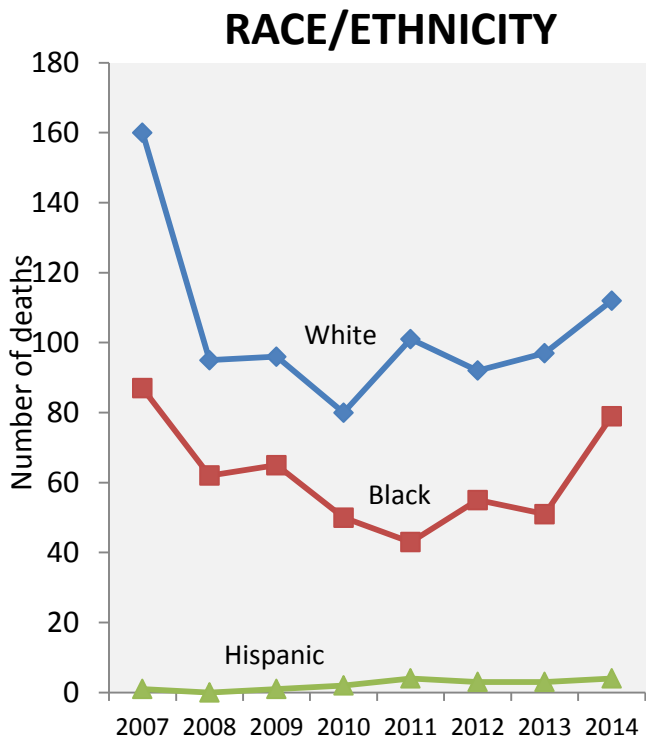
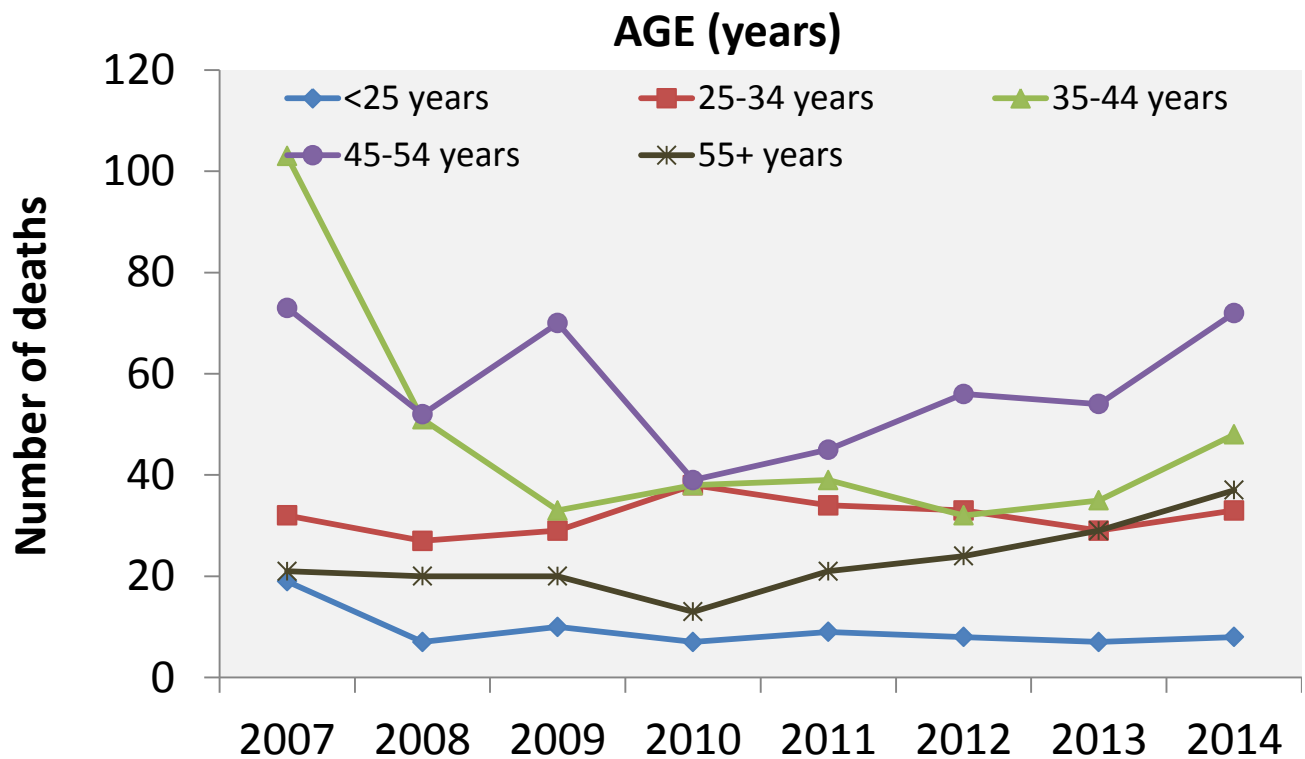
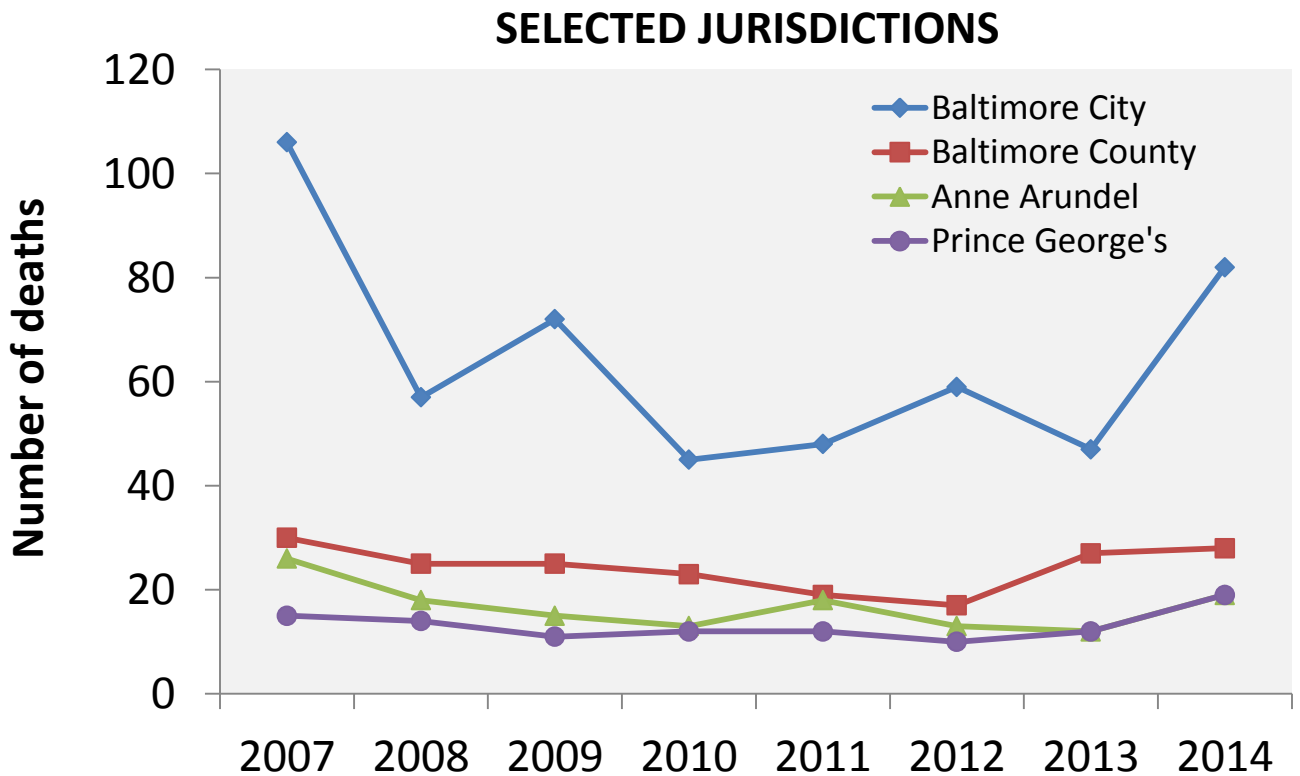
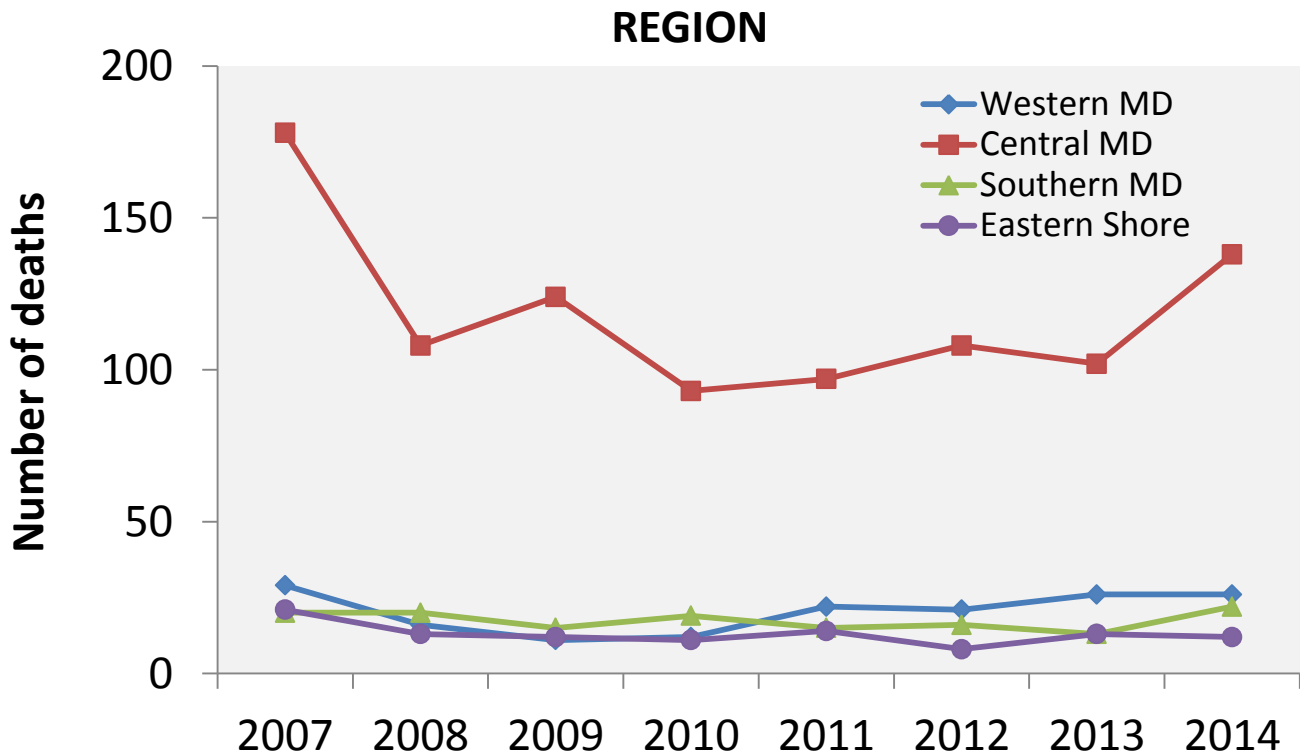


Figure 22. Number of Cocaine-Related Deaths by Place of Occurrence, Maryland, 2007-2014.



BENZODIAZEPINE- RELATED DEATHS

Figure 23. Number of Benzodiazepine-Related Deaths Occurring in Maryland, 2007-2014.

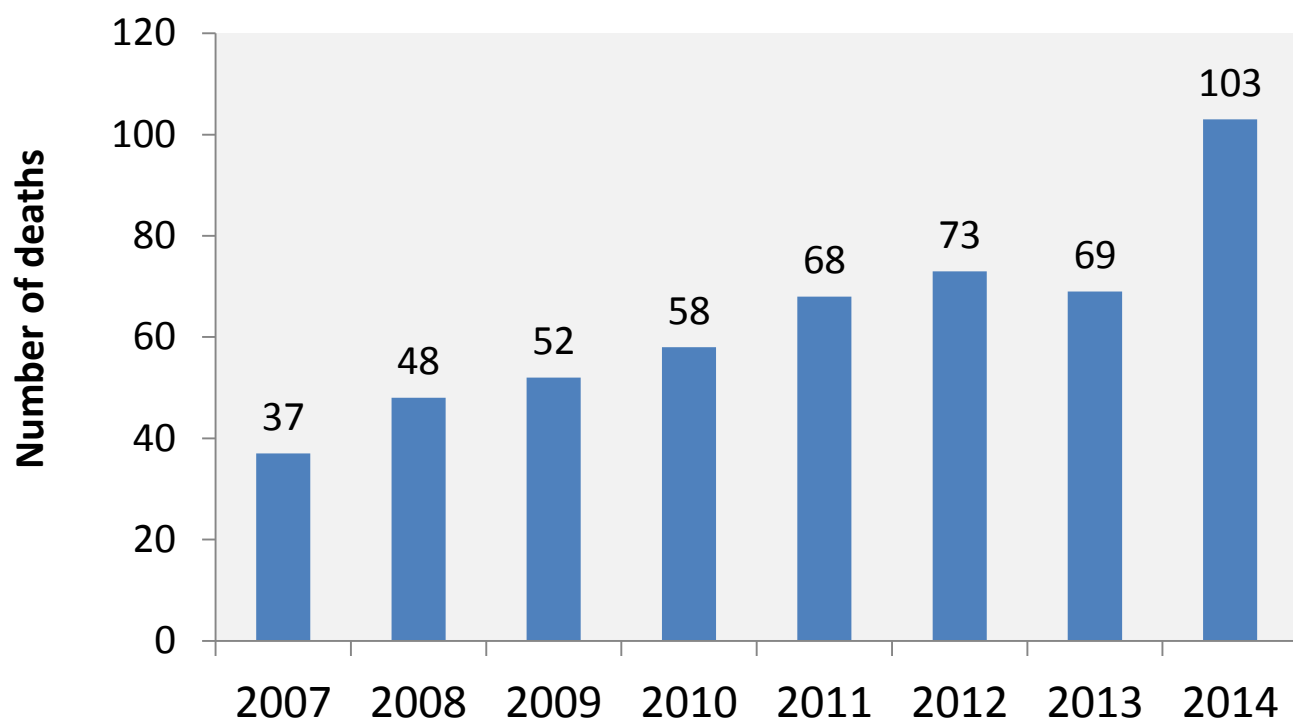


Figure 24. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

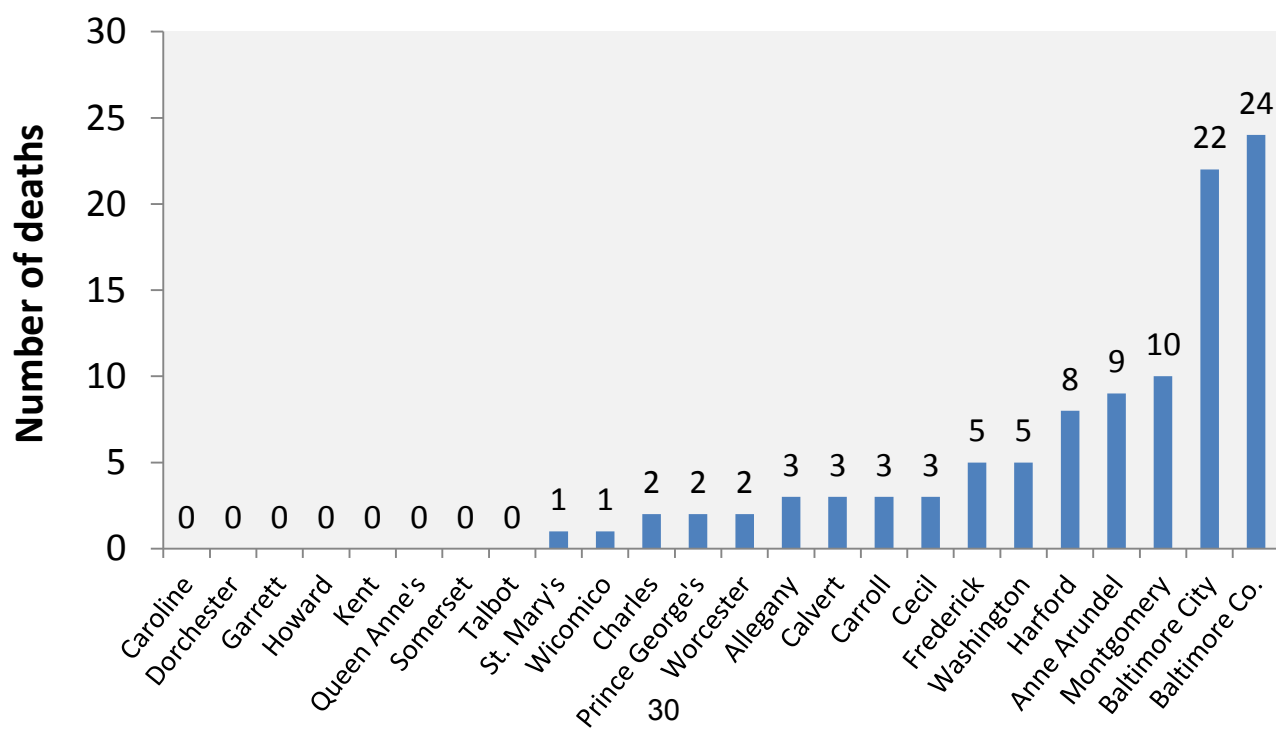


Figure 25. Number of Benzodiazepine-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

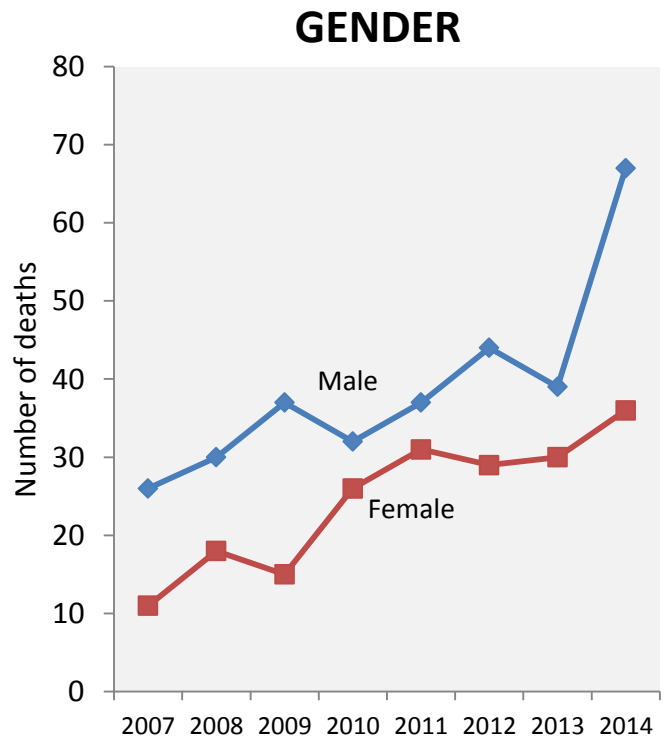
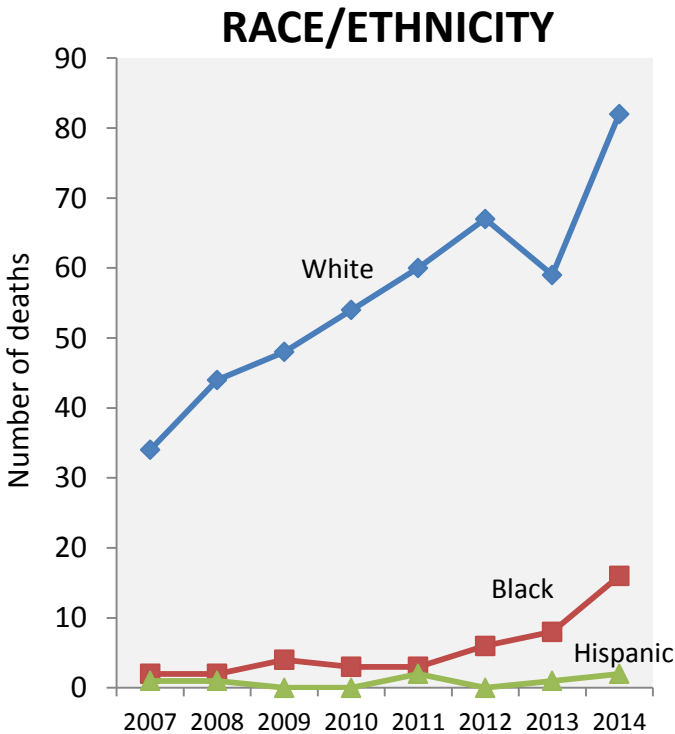
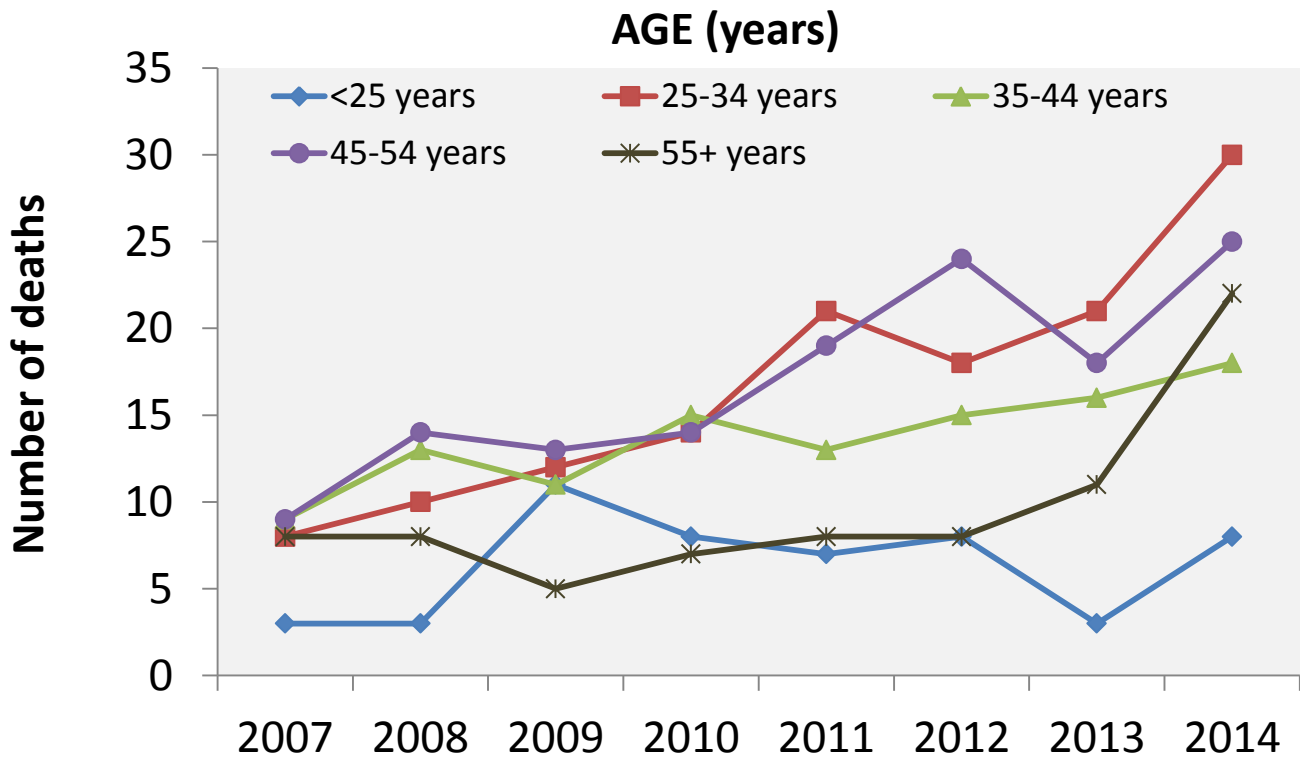
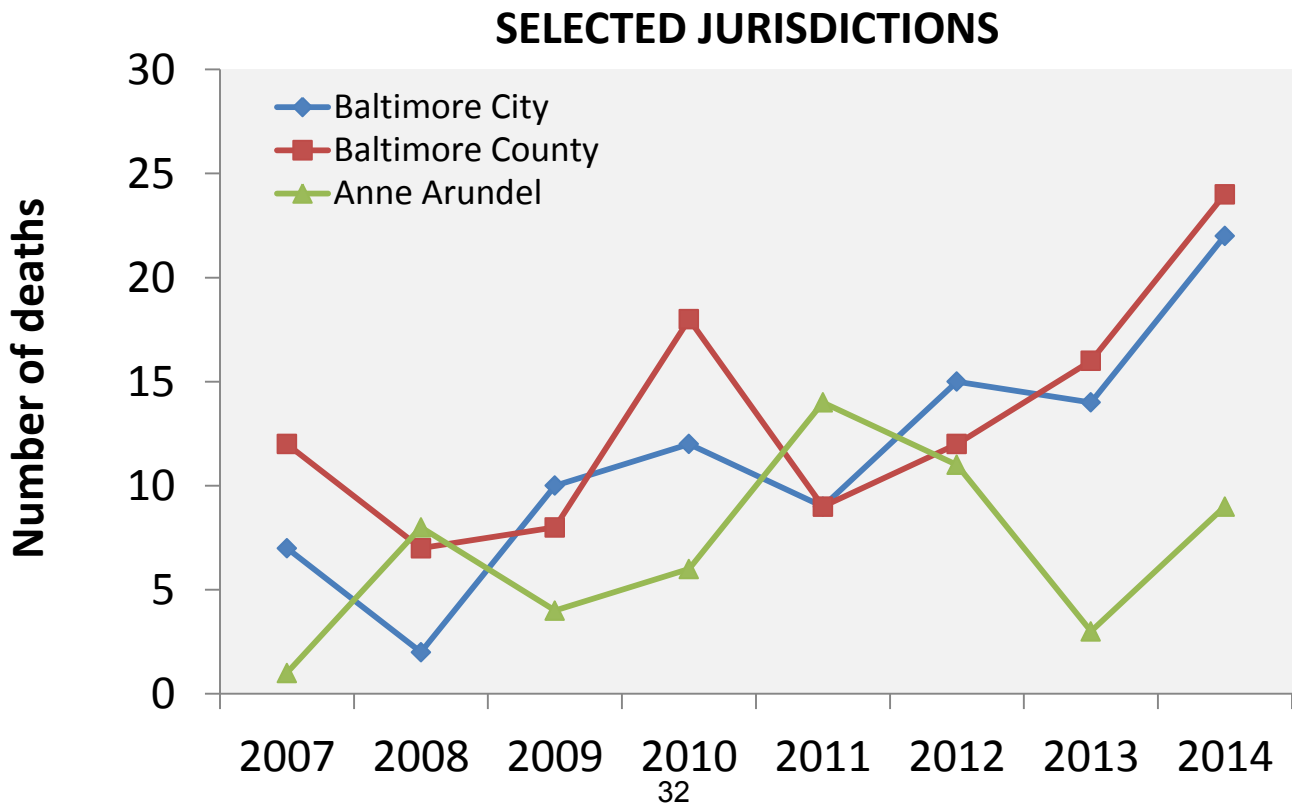
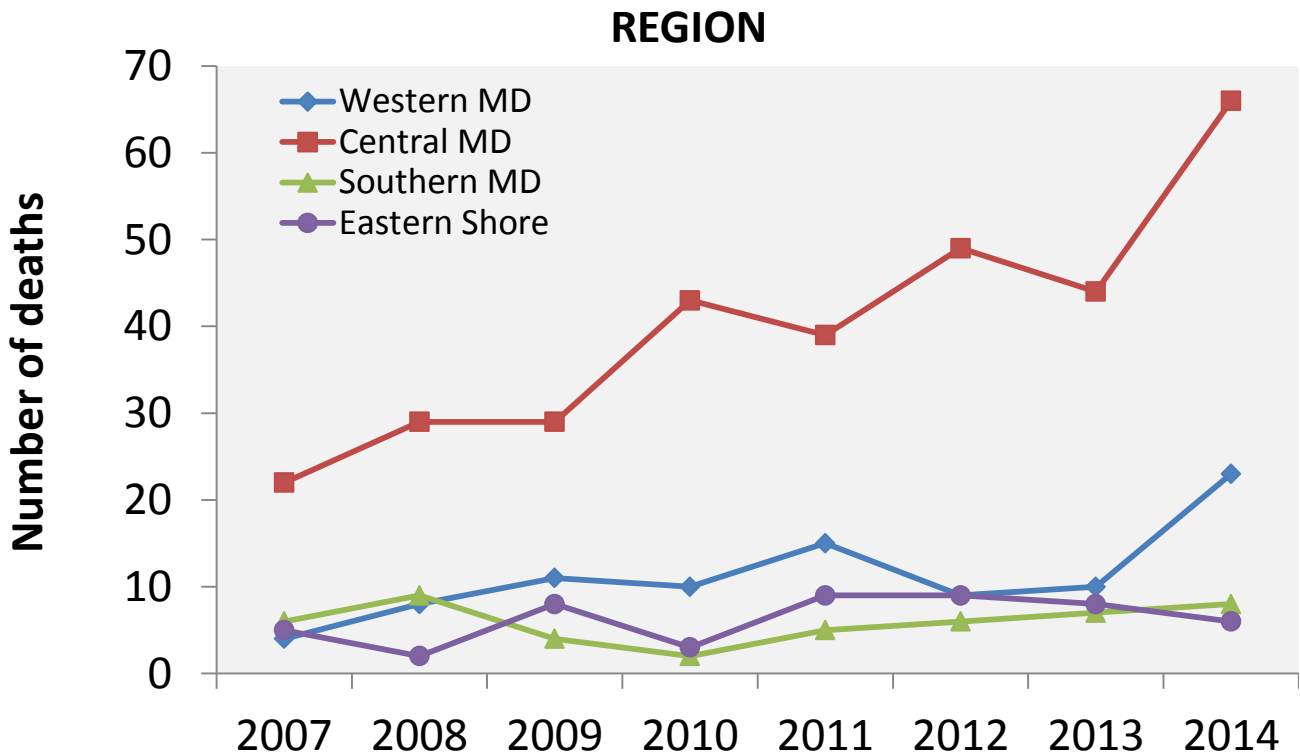


Figure 26. Number of Benzodiazepine-Related Deaths by Place of Occurrence, Maryland, 2007-2014.



ALCOHOL-RELATED DEATHS

Figure 27. Number of Alcohol-Related Deaths Occurring in Maryland, 2007-2014.

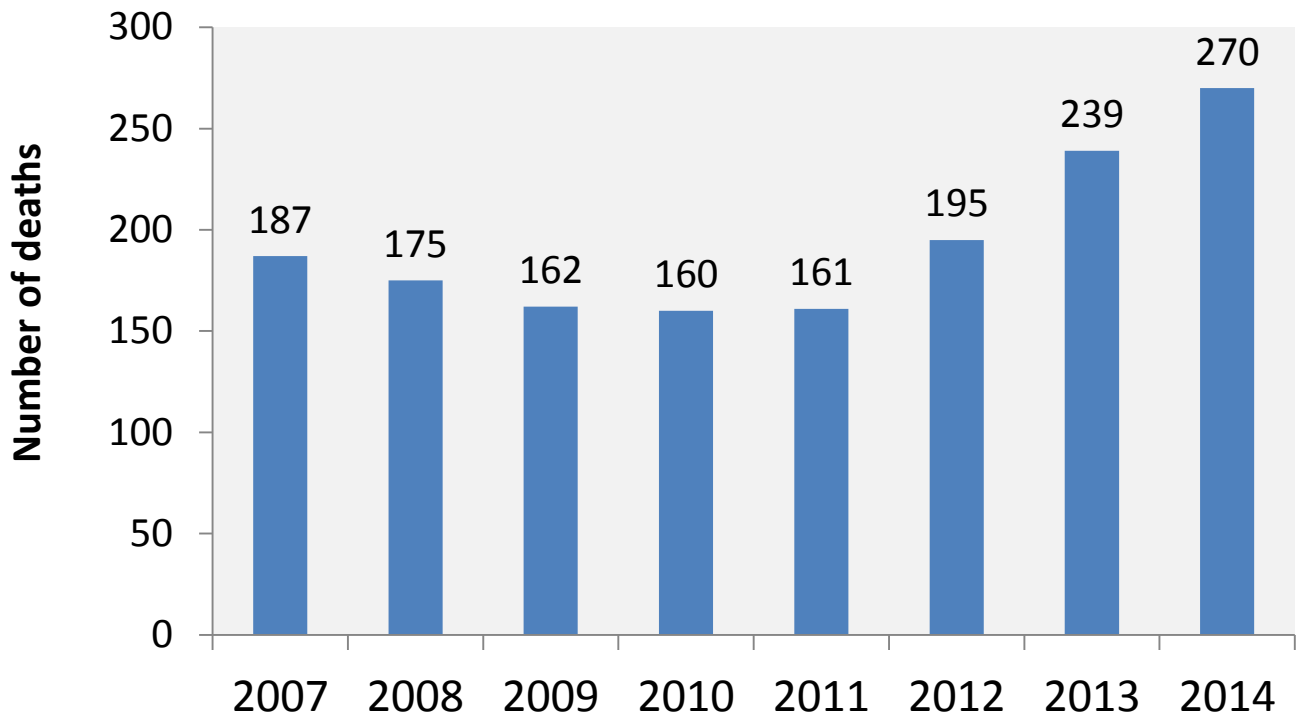


Figure 28. Number of Alcohol-Related Deaths Occurring in Maryland by Place of Occurrence, 2014.

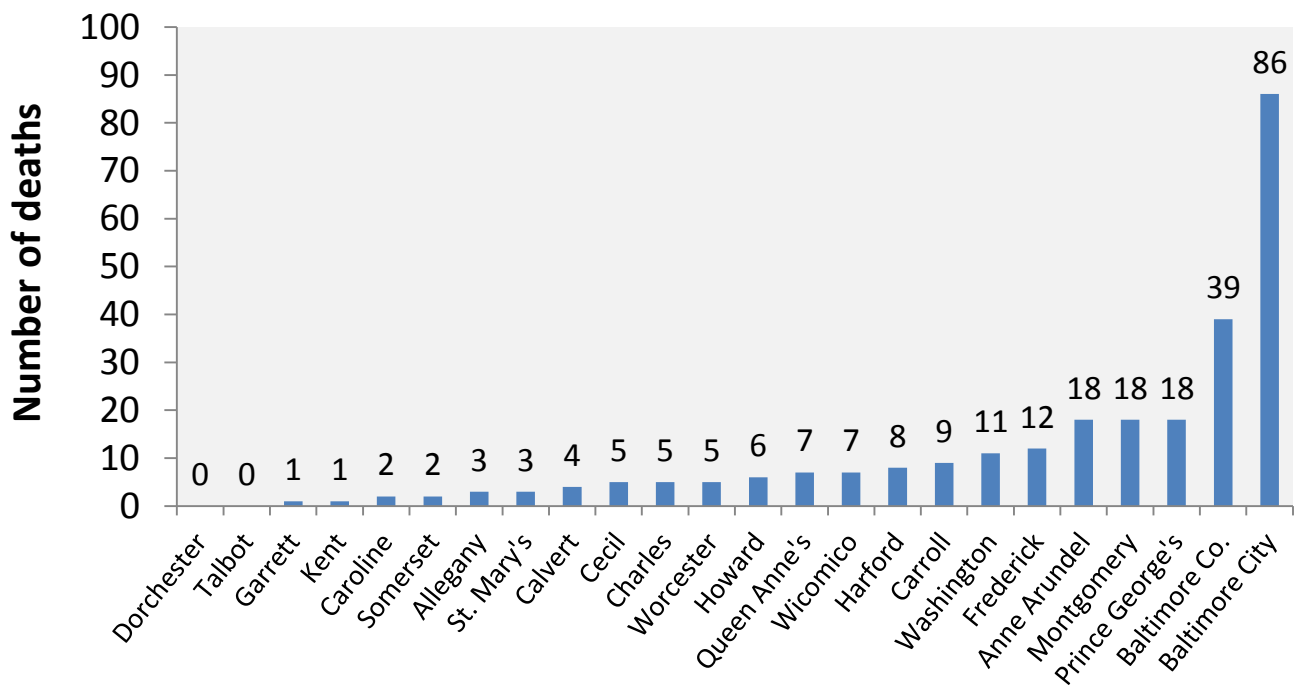


Figure 29. Number of Alcohol-Related Deaths Occurring in Maryland by Age Group, Race/Ethnicity and Gender, 2007-2014.

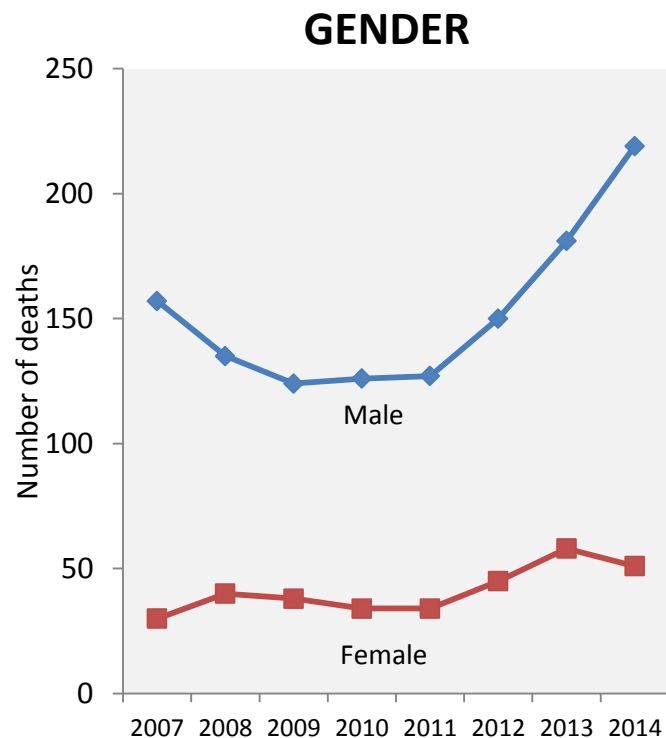
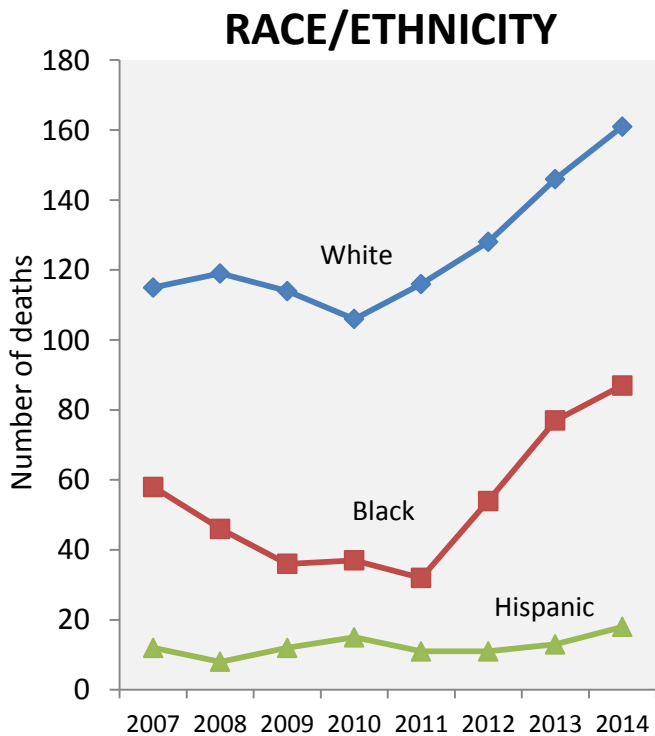
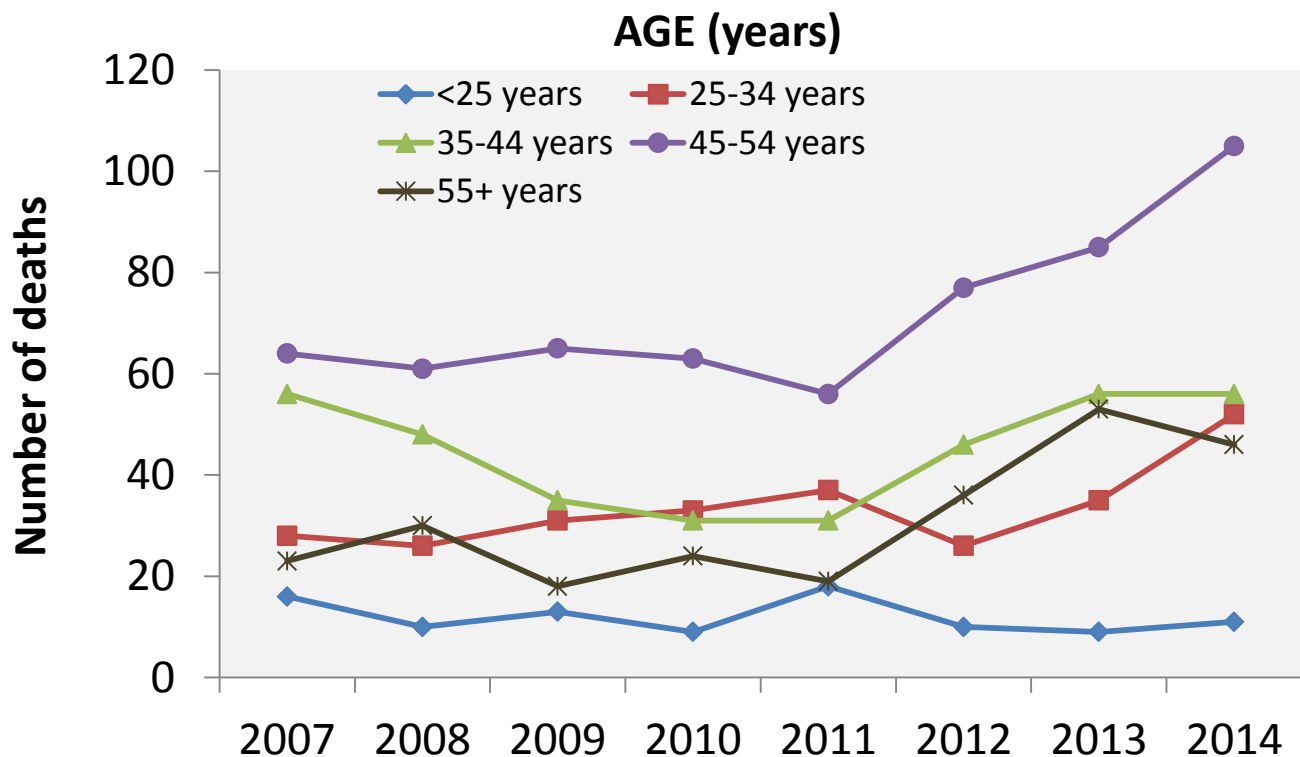
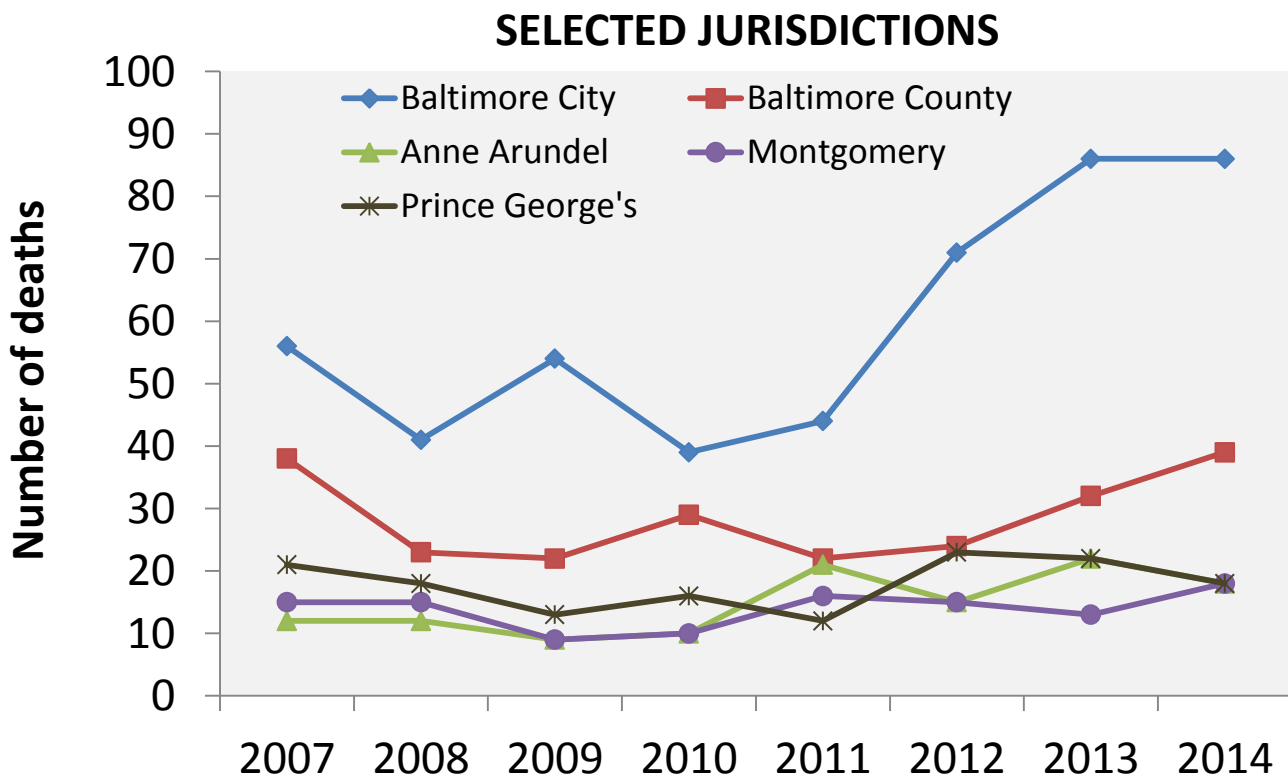
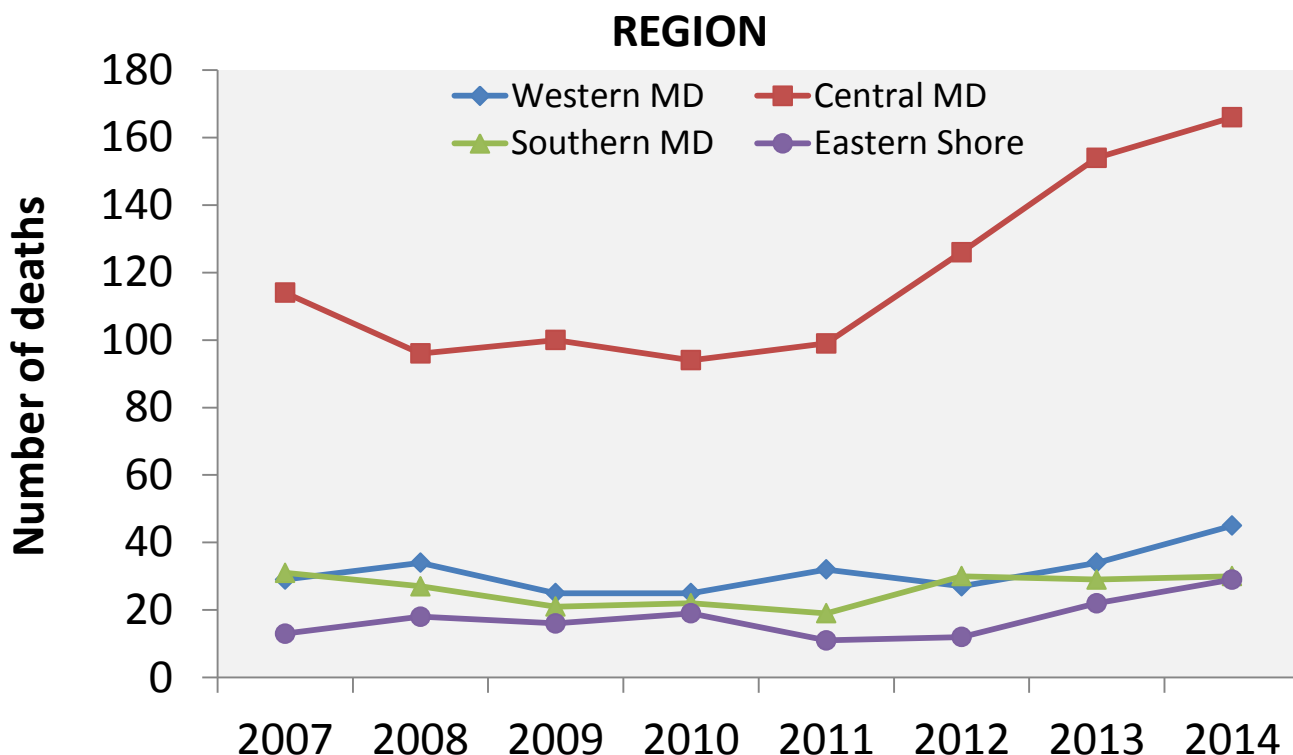


Figure 30. Number of Alcohol-Related Deaths by Place of Occurrence, Maryland, 2007-2014.



DRUG COMBINATIONS

Figure 31. Combinations of Substances Related to Unintentional Drug- and Alcohol-Related Intoxication Deaths, Maryland, 2014.

| | Number | Percent |
|-----------------------------|--------|---------|
| Heroin | | |
| Total | 578 | |
| In combination | | |
| With alcohol | 143 | 24.7 |
| With cocaine | 130 | 22.5 |
| With fentanyl | 101 | 17.5 |
| With prescription opioids | 83 | 14.4 |
| With benzodiazepines | 32 | 5.5 |
| Prescription opioids | | |
| Total | 329 | |
| In combination | | |
| With heroin | 83 | 25.2 |
| With benzodiazepines | 61 | 18.5 |
| With alcohol | 50 | 15.2 |
| With cocaine | 39 | 11.9 |
| With fentanyl | 34 | 10.3 |
| Cocaine | | |
| Total | 198 | |
| In combination | | |
| With heroin | 130 | 65.7 |
| With prescription opioids | 39 | 19.7 |
| With fentanyl | 32 | 16.2 |
| With alcohol | 32 | 16.2 |
| With benzodiazepines | 10 | 5.1 |
| Benzodiazepines | | |
| Total | 103 | |
| In combination | | |
| With prescription opioids | 61 | 59.2 |
| With heroin | 32 | 31.1 |
| With alcohol | 22 | 21.4 |
| With cocaine | 10 | 9.7 |
| With fentanyl | 8 | 7.8 |
| Fentanyl | | |
| Total | 185 | |
| In combination | | |
| With heroin | 101 | 54.6 |
| With alcohol | 37 | 20.0 |
| With prescription opioids | 34 | 18.4 |
| With cocaine | 32 | 17.3 |
| With benzodiazepines | 8 | 4.3 |
| Alcohol | | |
| Total | 270 | |
| In combination | | |
| With heroin | 143 | 53.0 |
| With prescription opioids | 50 | 18.5 |
| With fentanyl | 37 | 13.7 |
| With cocaine | 32 | 11.9 |
| With benzodiazepines | 22 | 8.1 |

Figure 32. Number of Drug- and Alcohol-Related Intoxication Deaths Involving Heroin, 2014.

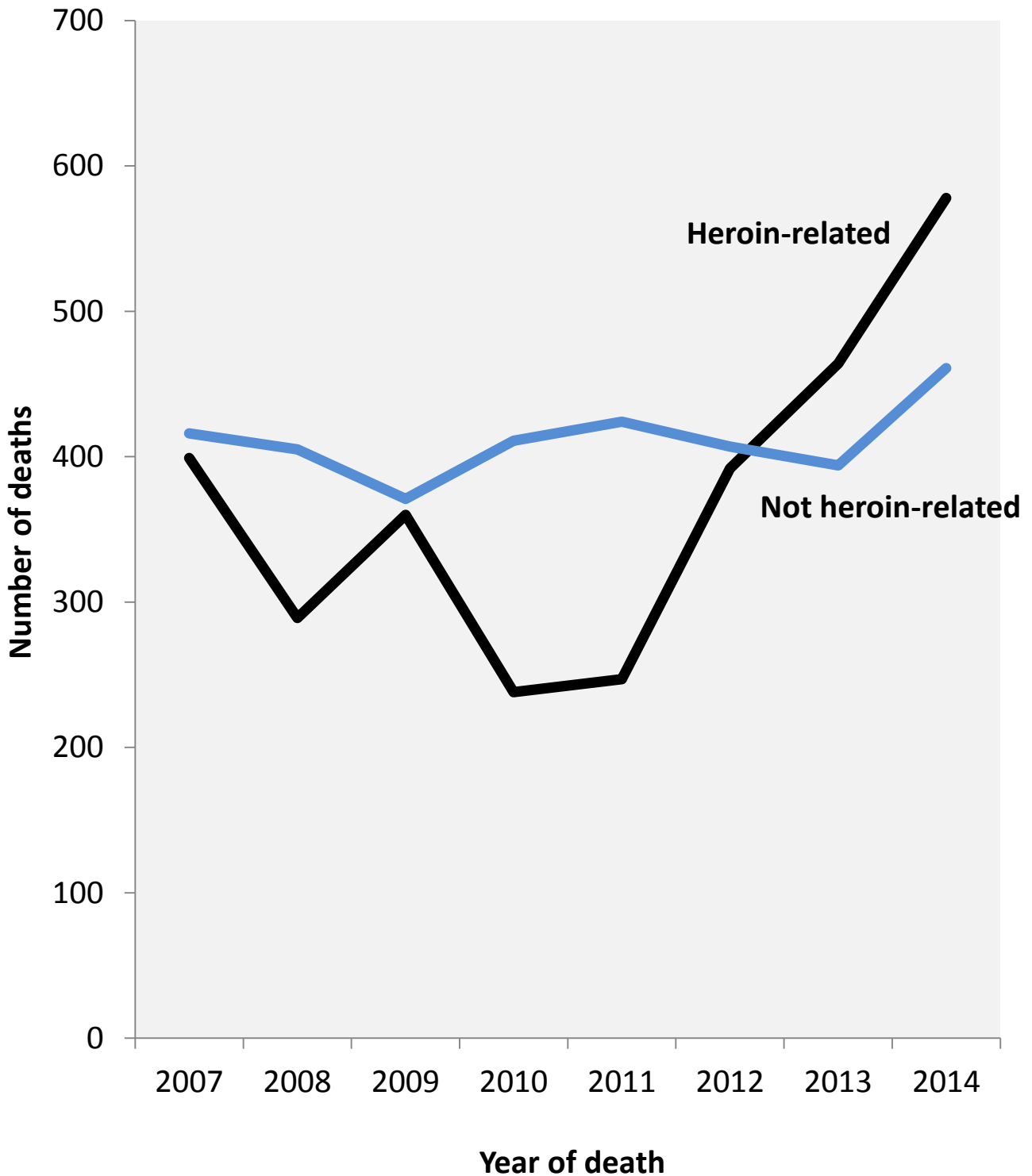
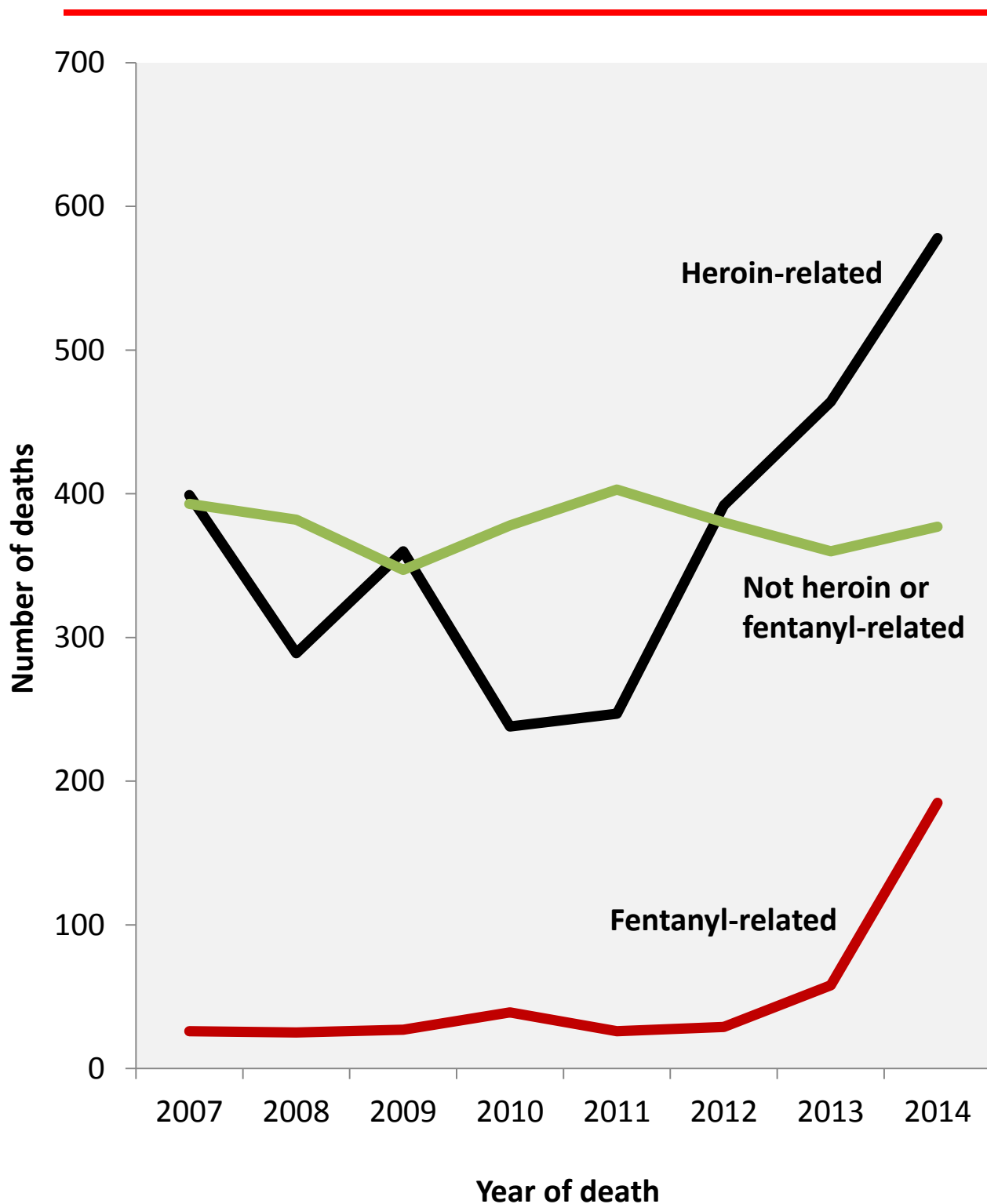


Figure 33. Number of Drug- and Alcohol-Related Intoxication Deaths Involving Heroin or Fentanyl, 2014.



TABLES

TABLE 1. TOTAL NUMBER OF DRUG AND ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.^{1,2}

| REGION AND POLITICAL SUBDIVISION | TOTAL INTOXICATION DEATHS | | | | | | | | |
|----------------------------------|---------------------------|------|------|------|------|------|------|-------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 815 | 694 | 731 | 649 | 671 | 799 | 858 | 1,039 | 6,256 |
| WESTERN AREA | 110 | 99 | 97 | 96 | 109 | 115 | 138 | 161 | 925 |
| GARRETT | 1 | 3 | 3 | 3 | 2 | 0 | 6 | 2 | 20 |
| ALLEGANY | 14 | 9 | 9 | 15 | 12 | 14 | 15 | 12 | 100 |
| WASHINGTON | 16 | 26 | 18 | 20 | 21 | 27 | 28 | 40 | 196 |
| FREDERICK | 23 | 15 | 23 | 20 | 30 | 26 | 37 | 42 | 216 |
| MONTGOMERY | 56 | 46 | 44 | 38 | 44 | 48 | 52 | 65 | 393 |
| CENTRAL AREA | 550 | 443 | 479 | 411 | 420 | 519 | 557 | 676 | 4,055 |
| BALTIMORE CITY | 287 | 184 | 239 | 172 | 167 | 225 | 246 | 303 | 1,823 |
| BALTIMORE COUNTY | 131 | 118 | 106 | 115 | 107 | 119 | 144 | 170 | 1,010 |
| ANNE ARUNDEL | 71 | 70 | 63 | 56 | 79 | 83 | 78 | 101 | 601 |
| CARROLL | 14 | 17 | 22 | 15 | 8 | 29 | 24 | 38 | 167 |
| HOWARD | 16 | 19 | 16 | 10 | 21 | 24 | 29 | 21 | 156 |
| HARFORD | 31 | 35 | 33 | 43 | 38 | 39 | 36 | 43 | 298 |
| SOUTHERN AREA | 86 | 94 | 93 | 74 | 73 | 93 | 84 | 110 | 707 |
| CALVERT | 14 | 9 | 14 | 6 | 12 | 12 | 6 | 17 | 90 |
| CHARLES | 13 | 16 | 11 | 13 | 11 | 13 | 9 | 21 | 107 |
| ST. MARY'S | 6 | 11 | 9 | 12 | 8 | 12 | 10 | 9 | 77 |
| PRINCE GEORGE'S | 53 | 58 | 59 | 43 | 42 | 56 | 59 | 63 | 433 |
| EASTERN SHORE AREA | 69 | 58 | 62 | 68 | 69 | 72 | 79 | 92 | 569 |
| CECIL | 25 | 10 | 24 | 24 | 28 | 25 | 26 | 29 | 191 |
| KENT | 3 | 4 | 2 | 5 | 2 | 0 | 4 | 6 | 26 |
| QUEEN ANNE'S | 4 | 5 | 4 | 4 | 5 | 2 | 8 | 10 | 42 |
| CAROLINE | 1 | 4 | 2 | 2 | 11 | 4 | 2 | 7 | 33 |
| TALBOT | 5 | 4 | 3 | 3 | 1 | 5 | 7 | 4 | 32 |
| DORCHESTER | 4 | 5 | 2 | 6 | 2 | 5 | 5 | 0 | 29 |
| WICOMICO | 9 | 13 | 12 | 13 | 11 | 21 | 17 | 20 | 116 |
| SOMERSET | 6 | 3 | 4 | 1 | 3 | 3 | 4 | 3 | 27 |
| WORCESTER | 12 | 10 | 9 | 10 | 6 | 7 | 6 | 13 | 73 |

¹ Includes deaths that were the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, cocaine, prescription opioids, benzodiazepines, and other prescribed and unprescribed drugs.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 2. NUMBER OF HEROIN-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.^{1,2}

| REGION AND POLITICAL SUBDIVISION | HEROIN-RELATED DEATHS | | | | | | | | |
|----------------------------------|-----------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 399 | 289 | 360 | 238 | 247 | 392 | 464 | 578 | 2,967 |
| WESTERN AREA | 33 | 35 | 39 | 27 | 34 | 49 | 68 | 86 | 371 |
| GARRETT | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 5 |
| ALLEGANY | 3 | 4 | 2 | 3 | 3 | 6 | 3 | 5 | 29 |
| WASHINGTON | 5 | 13 | 11 | 6 | 8 | 11 | 14 | 21 | 89 |
| FREDERICK | 8 | 4 | 9 | 6 | 11 | 10 | 21 | 26 | 95 |
| MONTGOMERY | 17 | 14 | 16 | 12 | 11 | 22 | 28 | 33 | 153 |
| CENTRAL AREA | 323 | 203 | 264 | 171 | 165 | 272 | 319 | 379 | 2,096 |
| BALTIMORE CITY | 200 | 107 | 151 | 93 | 76 | 131 | 150 | 192 | 1,100 |
| BALTIMORE COUNTY | 56 | 51 | 53 | 42 | 38 | 64 | 76 | 86 | 466 |
| ANNE ARUNDEL | 38 | 24 | 31 | 18 | 24 | 38 | 41 | 53 | 267 |
| CARROLL | 9 | 5 | 7 | 3 | 2 | 13 | 14 | 16 | 69 |
| HOWARD | 8 | 8 | 7 | 3 | 10 | 12 | 16 | 9 | 73 |
| HARFORD | 12 | 8 | 15 | 12 | 15 | 14 | 22 | 23 | 121 |
| SOUTHERN AREA | 28 | 35 | 36 | 25 | 27 | 38 | 38 | 60 | 287 |
| CALVERT | 5 | 3 | 7 | 1 | 5 | 6 | 2 | 13 | 42 |
| CHARLES | 2 | 5 | 3 | 6 | 6 | 5 | 5 | 10 | 42 |
| ST. MARY'S | 1 | 3 | 0 | 4 | 4 | 7 | 6 | 5 | 30 |
| PRINCE GEORGE'S | 20 | 24 | 26 | 14 | 12 | 20 | 25 | 32 | 173 |
| EASTERN SHORE AREA | 15 | 16 | 21 | 15 | 21 | 33 | 39 | 53 | 213 |
| CECIL | 8 | 4 | 12 | 4 | 8 | 11 | 11 | 15 | 73 |
| KENT | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 5 |
| QUEEN ANNE'S | 0 | 1 | 3 | 2 | 2 | 2 | 5 | 7 | 22 |
| CAROLINE | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 6 | 14 |
| TALBOT | 1 | 2 | 0 | 0 | 1 | 2 | 2 | 4 | 12 |
| DORCHESTER | 1 | 2 | 0 | 2 | 1 | 3 | 3 | 0 | 12 |
| WICOMICO | 1 | 3 | 3 | 5 | 3 | 9 | 11 | 12 | 47 |
| SOMERSET | 2 | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 9 |
| WORCESTER | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 6 | 19 |

¹ Includes deaths confirmed or suspected to be related to recent heroin use.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 3. NUMBER OF PRESCRIPTION OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014.^{1,2}

| REGION AND POLITICAL SUBDIVISION | PRESCRIPTION OPIOID-RELATED DEATHS | | | | | | | | |
|----------------------------------|------------------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 302 | 280 | 251 | 311 | 342 | 311 | 316 | 329 | 2,442 |
| WESTERN AREA | 42 | 38 | 40 | 36 | 58 | 48 | 51 | 52 | 365 |
| GARRETT | 0 | 2 | 2 | 1 | 1 | 0 | 2 | 2 | 10 |
| ALLEGANY | 9 | 5 | 6 | 8 | 5 | 5 | 8 | 6 | 52 |
| WASHINGTON | 7 | 10 | 4 | 7 | 11 | 9 | 11 | 16 | 75 |
| FREDERICK | 6 | 4 | 9 | 6 | 21 | 16 | 14 | 9 | 85 |
| MONTGOMERY | 20 | 17 | 19 | 14 | 20 | 18 | 16 | 19 | 143 |
| CENTRAL AREA | 190 | 189 | 148 | 197 | 212 | 196 | 207 | 216 | 1,555 |
| BALTIMORE CITY | 95 | 60 | 63 | 61 | 82 | 74 | 86 | 83 | 604 |
| BALTIMORE COUNTY | 48 | 51 | 37 | 60 | 68 | 47 | 54 | 59 | 424 |
| ANNE ARUNDEL | 22 | 36 | 20 | 31 | 33 | 33 | 28 | 32 | 235 |
| CARROLL | 4 | 11 | 10 | 9 | 5 | 17 | 12 | 15 | 83 |
| HOWARD | 6 | 6 | 4 | 6 | 9 | 5 | 13 | 7 | 56 |
| HARFORD | 15 | 25 | 14 | 30 | 15 | 20 | 14 | 20 | 153 |
| SOUTHERN AREA | 25 | 28 | 31 | 33 | 30 | 29 | 26 | 35 | 237 |
| CALVERT | 8 | 3 | 4 | 3 | 7 | 6 | 3 | 7 | 41 |
| CHARLES | 6 | 6 | 7 | 4 | 5 | 7 | 5 | 9 | 49 |
| ST. MARY'S | 3 | 7 | 7 | 9 | 3 | 5 | 4 | 3 | 41 |
| PRINCE GEORGE'S | 8 | 12 | 13 | 17 | 15 | 11 | 14 | 16 | 106 |
| EASTERN SHORE AREA | 45 | 25 | 32 | 45 | 42 | 38 | 32 | 26 | 285 |
| CECIL | 19 | 6 | 10 | 20 | 20 | 18 | 12 | 12 | 117 |
| KENT | 2 | 3 | 2 | 3 | 1 | 0 | 4 | 2 | 17 |
| QUEEN ANNE'S | 4 | 1 | 1 | 2 | 2 | 0 | 3 | 3 | 16 |
| CAROLINE | 0 | 2 | 1 | 2 | 5 | 1 | 0 | 1 | 12 |
| TALBOT | 2 | 1 | 2 | 2 | 0 | 1 | 4 | 0 | 12 |
| DORCHESTER | 2 | 1 | 1 | 4 | 1 | 3 | 3 | 0 | 15 |
| WICOMICO | 5 | 4 | 8 | 7 | 7 | 9 | 4 | 3 | 47 |
| SOMERSET | 4 | 3 | 1 | 1 | 3 | 2 | 2 | 1 | 17 |
| WORCESTER | 7 | 4 | 6 | 4 | 3 | 4 | 0 | 4 | 32 |

¹ Includes deaths that were related to recent ingestion of one or more prescription opioids.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

**TABLE 4. NUMBER OF OXYCODONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE,
2007-2014.^{1,2}**

| REGION AND POLITICAL SUBDIVISION | OXYCODONE- RELATED DEATHS | | | | | | | | |
|-------------------------------------|------------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 63 | 72 | 82 | 113 | 118 | 99 | 86 | 120 | 753 |
| WESTERN AREA | 11 | 15 | 19 | 14 | 20 | 21 | 19 | 21 | 140 |
| GARRETT | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 2 |
| ALLEGANY | 3 | 0 | 1 | 2 | 0 | 2 | 3 | 3 | 14 |
| WASHINGTON | 0 | 4 | 3 | 2 | 5 | 2 | 5 | 5 | 26 |
| FREDERICK | 1 | 2 | 5 | 3 | 6 | 9 | 3 | 2 | 31 |
| MONTGOMERY | 7 | 8 | 10 | 7 | 9 | 8 | 7 | 11 | 67 |
| CENTRAL AREA | 31 | 44 | 34 | 59 | 63 | 51 | 44 | 69 | 395 |
| BALTIMORE CITY | 7 | 6 | 10 | 5 | 15 | 15 | 11 | 20 | 89 |
| BALTIMORE COUNTY | 8 | 14 | 14 | 21 | 22 | 12 | 14 | 22 | 127 |
| ANNE ARUNDEL | 5 | 9 | 4 | 9 | 14 | 11 | 9 | 10 | 71 |
| CARROLL | 2 | 3 | 3 | 6 | 3 | 6 | 3 | 4 | 30 |
| HOWARD | 3 | 2 | 0 | 4 | 2 | 2 | 4 | 4 | 21 |
| HARFORD | 6 | 10 | 3 | 14 | 7 | 5 | 3 | 9 | 57 |
| SOUTHERN AREA | 12 | 9 | 15 | 15 | 15 | 13 | 12 | 17 | 108 |
| CALVERT | 3 | 1 | 2 | 2 | 4 | 5 | 3 | 3 | 23 |
| CHARLES | 5 | 3 | 4 | 2 | 4 | 3 | 1 | 5 | 27 |
| ST. MARY'S | 1 | 3 | 5 | 3 | 2 | 2 | 2 | 3 | 21 |
| PRINCE GEORGE'S | 3 | 2 | 4 | 8 | 5 | 3 | 6 | 6 | 37 |
| EASTERN SHORE AREA | 9 | 4 | 14 | 25 | 20 | 14 | 11 | 13 | 110 |
| CECIL | 3 | 0 | 3 | 13 | 9 | 4 | 6 | 6 | 44 |
| KENT | 0 | 0 | 1 | 2 | 0 | 0 | 1 | 0 | 4 |
| QUEEN ANNE'S | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 6 |
| CAROLINE | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| TALBOT | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 3 |
| DORCHESTER | 1 | 0 | 0 | 2 | 1 | 1 | 0 | 0 | 5 |
| WICOMICO | 1 | 2 | 4 | 2 | 5 | 5 | 1 | 2 | 22 |
| SOMERSET | 0 | 0 | 1 | 1 | 2 | 1 | 1 | 1 | 7 |
| WORCESTER | 3 | 2 | 3 | 2 | 2 | 2 | 0 | 3 | 17 |

¹ Includes deaths that were related to recent ingestion of oxycodone.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

**TABLE 5. NUMBER OF METHADONE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE,
2007-2014.^{1,2}**

| REGION AND POLITICAL SUBDIVISION | METHADONE- RELATED DEATHS | | | | | | | | |
|-------------------------------------|------------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 210 | 163 | 135 | 173 | 172 | 170 | 138 | 152 | 1,313 |
| WESTERN AREA | 23 | 17 | 14 | 13 | 20 | 21 | 11 | 25 | 144 |
| GARRETT | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 4 |
| ALLEGANY | 3 | 4 | 2 | 3 | 4 | 1 | 1 | 3 | 21 |
| WASHINGTON | 6 | 4 | 0 | 3 | 5 | 4 | 3 | 10 | 35 |
| FREDERICK | 6 | 1 | 4 | 1 | 5 | 9 | 3 | 6 | 35 |
| MONTGOMERY | 8 | 8 | 7 | 5 | 6 | 7 | 3 | 5 | 49 |
| CENTRAL AREA | 141 | 118 | 97 | 128 | 128 | 122 | 110 | 112 | 956 |
| BALTIMORE CITY | 80 | 47 | 50 | 53 | 65 | 54 | 57 | 54 | 460 |
| BALTIMORE COUNTY | 34 | 29 | 18 | 37 | 32 | 28 | 29 | 31 | 238 |
| ANNE ARUNDEL | 15 | 19 | 13 | 17 | 17 | 15 | 6 | 14 | 116 |
| CARROLL | 1 | 7 | 4 | 2 | 2 | 12 | 7 | 5 | 40 |
| HOWARD | 2 | 1 | 4 | 2 | 5 | 1 | 5 | 2 | 22 |
| HARFORD | 9 | 15 | 8 | 17 | 7 | 12 | 6 | 6 | 80 |
| SOUTHERN AREA | 12 | 15 | 12 | 14 | 10 | 11 | 6 | 8 | 88 |
| CALVERT | 5 | 0 | 2 | 1 | 2 | 2 | 0 | 2 | 14 |
| CHARLES | 2 | 4 | 2 | 1 | 0 | 1 | 1 | 4 | 15 |
| ST. MARY'S | 2 | 3 | 3 | 5 | 1 | 2 | 1 | 1 | 18 |
| PRINCE GEORGE'S | 3 | 8 | 5 | 7 | 7 | 6 | 4 | 1 | 41 |
| EASTERN SHORE AREA | 34 | 13 | 12 | 18 | 14 | 16 | 11 | 7 | 125 |
| CECIL | 16 | 3 | 6 | 9 | 9 | 10 | 4 | 4 | 61 |
| KENT | 2 | 2 | 1 | 2 | 1 | 0 | 2 | 1 | 11 |
| QUEEN ANNE'S | 2 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 7 |
| CAROLINE | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 4 |
| TALBOT | 2 | 0 | 2 | 1 | 0 | 1 | 2 | 0 | 8 |
| DORCHESTER | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 3 |
| WICOMICO | 3 | 2 | 1 | 3 | 1 | 1 | 2 | 0 | 13 |
| SOMERSET | 3 | 2 | 0 | 0 | 1 | 0 | 0 | 0 | 6 |
| WORCESTER | 5 | 2 | 1 | 1 | 0 | 2 | 0 | 1 | 12 |

¹ Includes deaths that were related to recent ingestion of methadone.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

**TABLE 6. NUMBER OF FENTANYL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE,
2007-2014.^{1,2}**

| REGION AND POLITICAL SUBDIVISION | FENTANYL- RELATED DEATHS | | | | | | | | |
|-------------------------------------|-----------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 26 | 25 | 27 | 39 | 26 | 29 | 58 | 185 | 415 |
| WESTERN AREA | 5 | 1 | 2 | 7 | 6 | 5 | 7 | 16 | 49 |
| GARRETT | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 2 |
| ALLEGANY | 3 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 10 |
| WASHINGTON | 0 | 0 | 0 | 2 | 1 | 1 | 4 | 1 | 9 |
| FREDERICK | 0 | 0 | 0 | 2 | 3 | 1 | 2 | 6 | 14 |
| MONTGOMERY | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 8 | 14 |
| CENTRAL AREA | 14 | 19 | 16 | 20 | 10 | 16 | 35 | 141 | 271 |
| BALTIMORE CITY | 3 | 2 | 4 | 4 | 2 | 4 | 12 | 71 | 102 |
| BALTIMORE COUNTY | 6 | 9 | 9 | 6 | 4 | 5 | 11 | 36 | 86 |
| ANNE ARUNDEL | 3 | 5 | 3 | 5 | 2 | 3 | 6 | 23 | 50 |
| CARROLL | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 4 | 11 |
| HOWARD | 1 | 0 | 0 | 0 | 0 | 2 | 3 | 5 | 11 |
| HARFORD | 1 | 1 | 0 | 3 | 2 | 1 | 1 | 2 | 11 |
| SOUTHERN AREA | 1 | 1 | 4 | 3 | 3 | 2 | 10 | 16 | 40 |
| CALVERT | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 5 | 8 |
| CHARLES | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 6 |
| ST. MARY'S | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 3 | 7 |
| PRINCE GEORGE'S | 1 | 0 | 2 | 2 | 0 | 1 | 6 | 7 | 19 |
| EASTERN SHORE AREA | 6 | 4 | 5 | 9 | 7 | 6 | 6 | 12 | 55 |
| CECIL | 2 | 1 | 0 | 2 | 2 | 0 | 0 | 1 | 8 |
| KENT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| QUEEN ANNE'S | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 3 |
| CAROLINE | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 5 |
| TALBOT | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 6 |
| DORCHESTER | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 4 |
| WICOMICO | 1 | 1 | 3 | 1 | 1 | 4 | 1 | 7 | 19 |
| SOMERSET | 1 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 5 |
| WORCESTER | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 4 |

¹ Includes deaths that were related to recent ingestion or exposure to pharmaceutical or nonpharmaceutical fentanyl.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

**TABLE 7. NUMBER OF COCAINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE,
2007-2014.^{1,2}**

| REGION AND POLITICAL SUBDIVISION | COCAINE- RELATED DEATHS | | | | | | | | |
|-------------------------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 248 | 157 | 162 | 135 | 148 | 153 | 154 | 198 | 1,355 |
| WESTERN AREA | 29 | 16 | 11 | 12 | 22 | 21 | 26 | 26 | 163 |
| GARRETT | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| ALLEGANY | 2 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 11 |
| WASHINGTON | 3 | 1 | 0 | 3 | 3 | 5 | 6 | 6 | 27 |
| FREDERICK | 4 | 2 | 3 | 3 | 7 | 2 | 5 | 8 | 34 |
| MONTGOMERY | 20 | 12 | 7 | 4 | 12 | 12 | 13 | 10 | 90 |
| CENTRAL AREA | 178 | 108 | 124 | 93 | 97 | 108 | 102 | 138 | 948 |
| BALTIMORE CITY | 106 | 57 | 72 | 45 | 48 | 59 | 47 | 82 | 516 |
| BALTIMORE COUNTY | 30 | 25 | 25 | 23 | 19 | 17 | 27 | 28 | 194 |
| ANNE ARUNDEL | 26 | 18 | 15 | 13 | 18 | 13 | 12 | 19 | 134 |
| CARROLL | 2 | 2 | 3 | 6 | 3 | 7 | 7 | 2 | 32 |
| HOWARD | 6 | 1 | 4 | 1 | 5 | 7 | 5 | 3 | 32 |
| HARFORD | 8 | 5 | 5 | 5 | 4 | 5 | 4 | 4 | 40 |
| SOUTHERN AREA | 20 | 20 | 15 | 19 | 15 | 16 | 13 | 22 | 140 |
| CALVERT | 1 | 2 | 1 | 3 | 2 | 3 | 0 | 2 | 14 |
| CHARLES | 3 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 12 |
| ST. MARY'S | 1 | 1 | 1 | 2 | 0 | 2 | 1 | 1 | 9 |
| PRINCE GEORGE'S | 15 | 14 | 11 | 12 | 12 | 10 | 12 | 19 | 105 |
| EASTERN SHORE AREA | 21 | 13 | 12 | 11 | 14 | 8 | 13 | 12 | 104 |
| CECIL | 5 | 3 | 4 | 3 | 7 | 2 | 5 | 4 | 33 |
| KENT | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 5 |
| QUEEN ANNE'S | 3 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 6 |
| CAROLINE | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 4 |
| TALBOT | 4 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 8 |
| DORCHESTER | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 6 |
| WICOMICO | 2 | 5 | 2 | 3 | 3 | 4 | 3 | 4 | 26 |
| SOMERSET | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 3 |
| WORCESTER | 4 | 2 | 1 | 2 | 1 | 0 | 1 | 2 | 13 |

¹ Includes deaths that were related to recent use of cocaine.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

TABLE 8. NUMBER OF BENZODIAZEPINE-RELATED INTOXICATION DEATHS BY COUNTY OF OCCURRENCE, 2007-2014.^{1,2}

| REGION AND POLITICAL SUBDIVISION | BENZODIAZEPINE-RELATED DEATHS | | | | | | | | |
|----------------------------------|-------------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 37 | 48 | 52 | 58 | 68 | 73 | 69 | 103 | 508 |
| WESTERN AREA | 4 | 8 | 11 | 10 | 15 | 9 | 10 | 23 | 90 |
| GARRETT | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 2 |
| ALLEGANY | 1 | 0 | 1 | 3 | 1 | 0 | 1 | 3 | 10 |
| WASHINGTON | 1 | 2 | 2 | 2 | 4 | 3 | 2 | 5 | 21 |
| FREDERICK | 1 | 1 | 3 | 1 | 4 | 2 | 2 | 5 | 19 |
| MONTGOMERY | 1 | 5 | 4 | 4 | 6 | 4 | 4 | 10 | 38 |
| CENTRAL AREA | 22 | 29 | 29 | 43 | 39 | 49 | 44 | 66 | 321 |
| BALTIMORE CITY | 7 | 2 | 10 | 12 | 9 | 15 | 14 | 22 | 91 |
| BALTIMORE COUNTY | 12 | 7 | 8 | 18 | 9 | 12 | 16 | 24 | 106 |
| ANNE ARUNDEL | 1 | 8 | 4 | 6 | 14 | 11 | 3 | 9 | 56 |
| CARROLL | 0 | 4 | 3 | 3 | 0 | 1 | 3 | 3 | 17 |
| HOWARD | 1 | 2 | 2 | 2 | 4 | 2 | 5 | 0 | 18 |
| HARFORD | 1 | 6 | 2 | 2 | 3 | 8 | 3 | 8 | 33 |
| SOUTHERN AREA | 6 | 9 | 4 | 2 | 5 | 6 | 7 | 8 | 47 |
| CALVERT | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 10 |
| CHARLES | 1 | 3 | 1 | 0 | 0 | 2 | 1 | 2 | 10 |
| ST. MARY'S | 1 | 1 | 0 | 1 | 1 | 1 | 2 | 1 | 8 |
| PRINCE GEORGE'S | 3 | 4 | 2 | 0 | 3 | 2 | 3 | 2 | 19 |
| EASTERN SHORE AREA | 5 | 2 | 8 | 3 | 9 | 9 | 8 | 6 | 50 |
| CECIL | 4 | 0 | 3 | 2 | 6 | 7 | 3 | 3 | 28 |
| KENT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| QUEEN ANNE'S | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 2 |
| CAROLINE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TALBOT | 0 | 1 | 0 | 0 | 0 | 0 | 3 | 0 | 4 |
| DORCHESTER | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 3 |
| WICOMICO | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 2 |
| SOMERSET | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 4 |
| WORCESTER | 0 | 1 | 3 | 0 | 1 | 0 | 0 | 2 | 7 |

¹ Includes deaths that were related to recent ingestion of a benzodiazepine or related drug with sedative effects.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

**TABLE 9. NUMBER OF ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE,
2007-2014.^{1,2}**

| REGION AND POLITICAL SUBDIVISION | ALCOHOL- RELATED DEATHS | | | | | | | | |
|-------------------------------------|----------------------------|------|------|------|------|------|------|------|-------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | TOTAL |
| MARYLAND | 187 | 175 | 162 | 160 | 161 | 195 | 239 | 270 | 1,549 |
| WESTERN AREA | 29 | 34 | 25 | 25 | 32 | 27 | 34 | 45 | 251 |
| GARRETT | 1 | 2 | 1 | 1 | 1 | 0 | 2 | 1 | 9 |
| ALLEGANY | 5 | 0 | 3 | 4 | 2 | 4 | 2 | 3 | 23 |
| WASHINGTON | 3 | 10 | 4 | 5 | 4 | 3 | 6 | 11 | 46 |
| FREDERICK | 5 | 7 | 8 | 5 | 9 | 5 | 11 | 12 | 62 |
| MONTGOMERY | 15 | 15 | 9 | 10 | 16 | 15 | 13 | 18 | 111 |
| CENTRAL AREA | 114 | 96 | 100 | 94 | 99 | 126 | 154 | 166 | 949 |
| BALTIMORE CITY | 56 | 41 | 54 | 39 | 44 | 71 | 86 | 86 | 477 |
| BALTIMORE COUNTY | 38 | 23 | 22 | 29 | 22 | 24 | 32 | 39 | 229 |
| ANNE ARUNDEL | 12 | 12 | 9 | 10 | 21 | 15 | 22 | 18 | 119 |
| CARROLL | 3 | 4 | 5 | 4 | 4 | 4 | 4 | 9 | 37 |
| HOWARD | 2 | 7 | 5 | 3 | 4 | 6 | 6 | 6 | 39 |
| HARFORD | 3 | 9 | 5 | 9 | 4 | 6 | 4 | 8 | 48 |
| SOUTHERN AREA | 31 | 27 | 21 | 22 | 19 | 30 | 29 | 30 | 209 |
| CALVERT | 3 | 3 | 4 | 0 | 2 | 2 | 1 | 4 | 19 |
| CHARLES | 5 | 5 | 1 | 4 | 3 | 2 | 4 | 5 | 29 |
| ST. MARY'S | 2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 18 |
| PRINCE GEORGE'S | 21 | 18 | 13 | 16 | 12 | 23 | 22 | 18 | 143 |
| EASTERN SHORE AREA | 13 | 18 | 16 | 19 | 11 | 12 | 22 | 29 | 140 |
| CECIL | 5 | 4 | 7 | 6 | 3 | 6 | 9 | 5 | 45 |
| KENT | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 3 |
| QUEEN ANNE'S | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 7 | 15 |
| CAROLINE | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 2 | 6 |
| TALBOT | 0 | 3 | 0 | 0 | 0 | 2 | 2 | 0 | 7 |
| DORCHESTER | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 4 |
| WICOMICO | 1 | 6 | 3 | 4 | 2 | 2 | 6 | 7 | 31 |
| SOMERSET | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 6 |
| WORCESTER | 3 | 3 | 4 | 6 | 1 | 0 | 1 | 5 | 23 |

¹ Includes deaths that were related to recent ingestion of alcohol.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

EXHIBIT 2

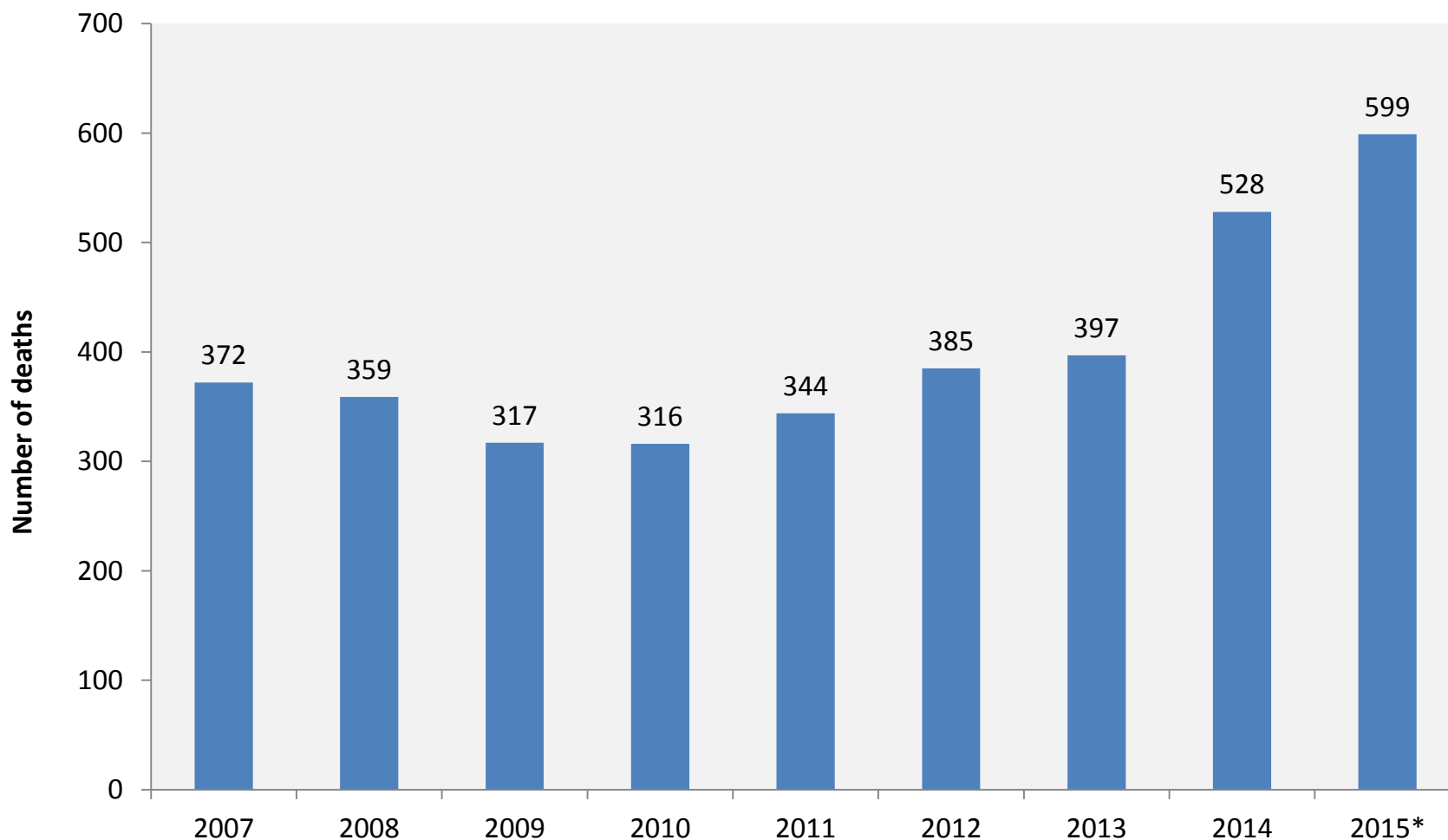
Drug- and Alcohol-Related Intoxication Deaths in Maryland

Data update through 2nd quarter 2015

This report contains counts of drug and alcohol-related intoxication deaths* occurring in Maryland through the second quarter of 2015, the most recent period for which reasonably complete data are available. Counts are also shown for the same period of 2007-2014 to allow for comparison of trends over time. Counts for 2015 are preliminary and subject to change.

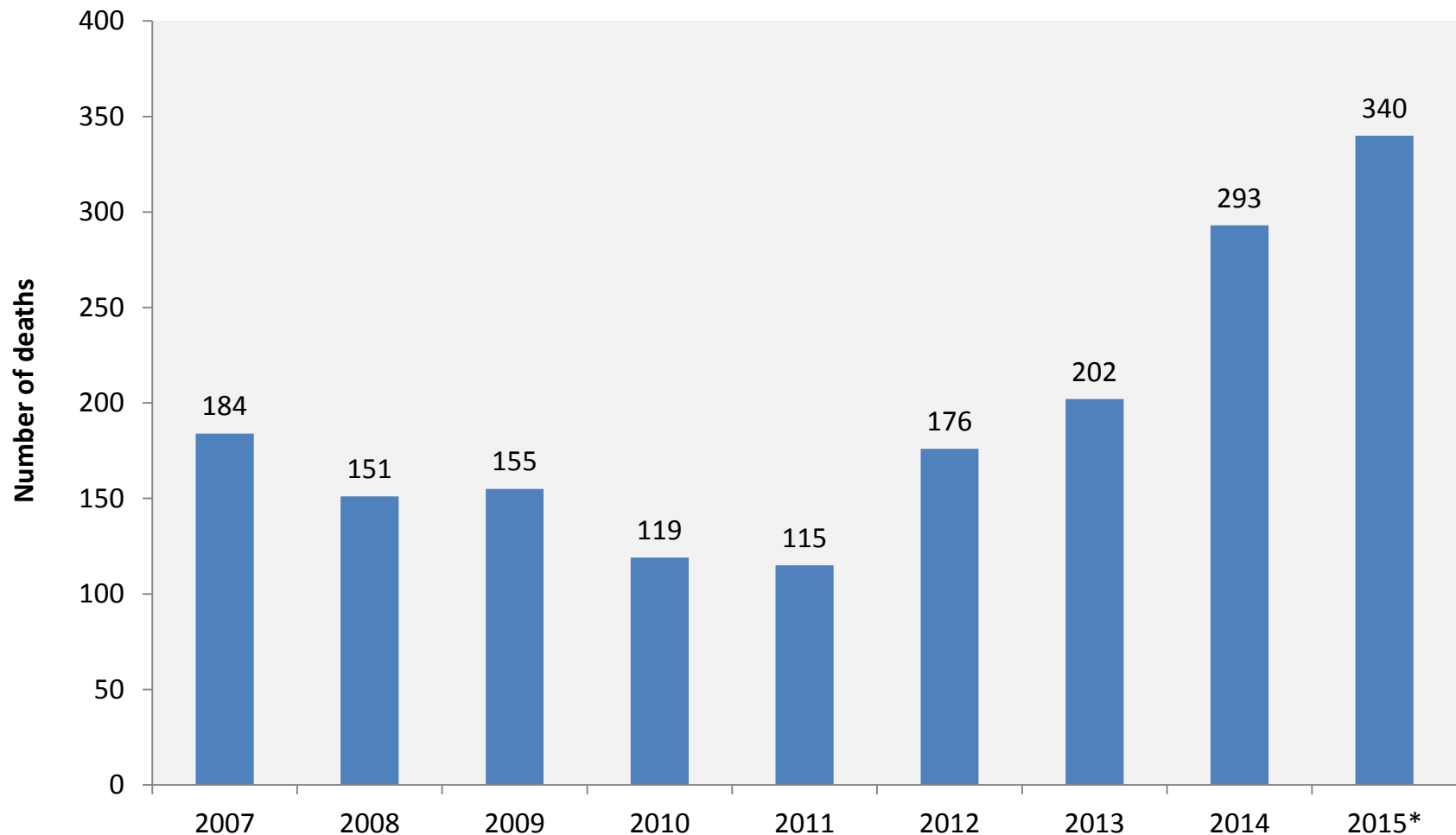
*Deaths resulting from recent ingestion or exposure to alcohol or other types of drugs, including heroin, cocaine, phencyclidine (PCP), prescription opioids, benzodiazepines, methamphetamines and other prescribed and unprescribed drugs.

Figure 1. Total Number of Unintentional Intoxication Deaths Occurring in Maryland from January-June of Each Year.*



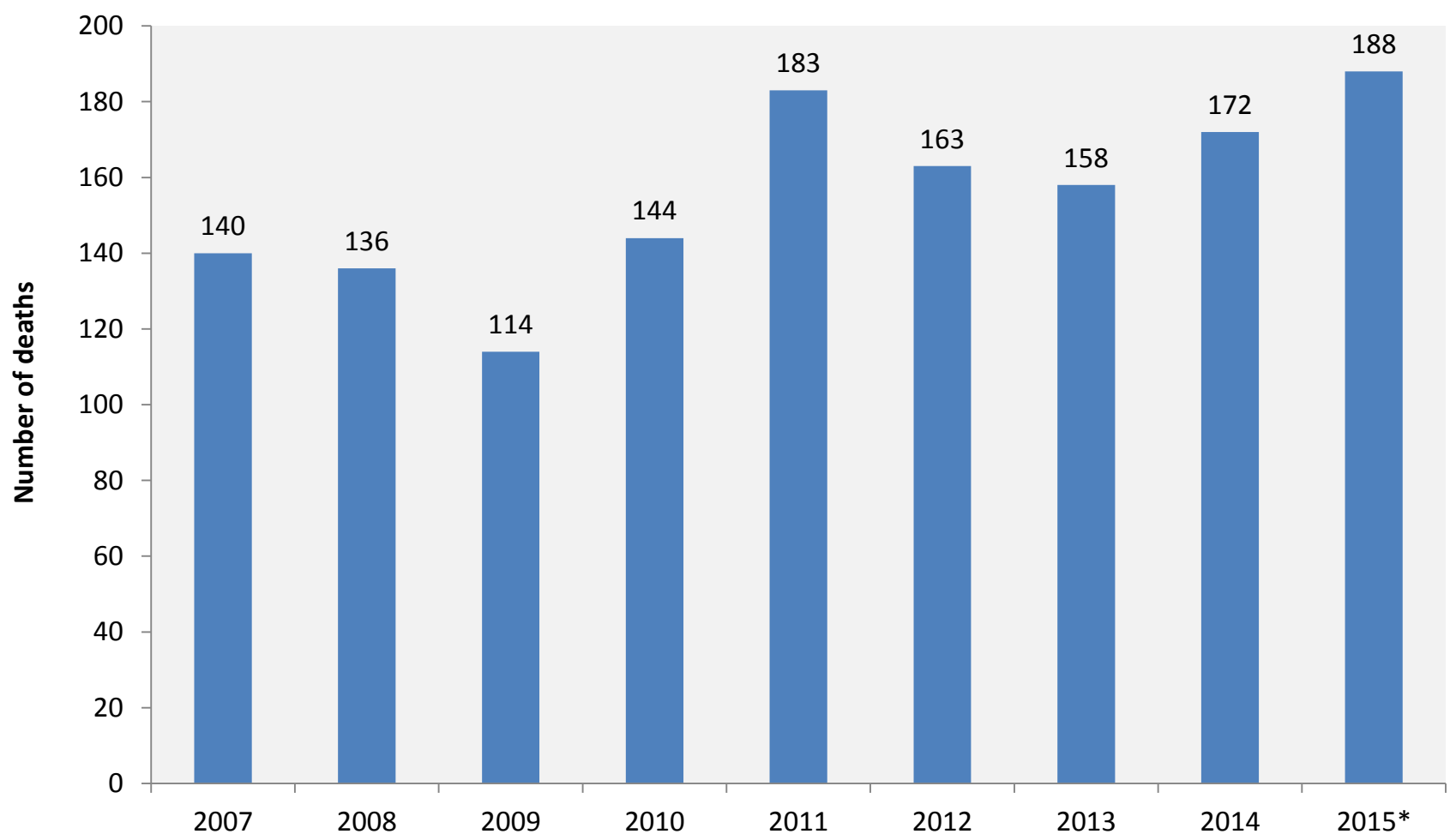
*2015 counts are preliminary.

Figure 2. Number of Heroin-Related Deaths Occurring in Maryland from January through June of Each Year.*



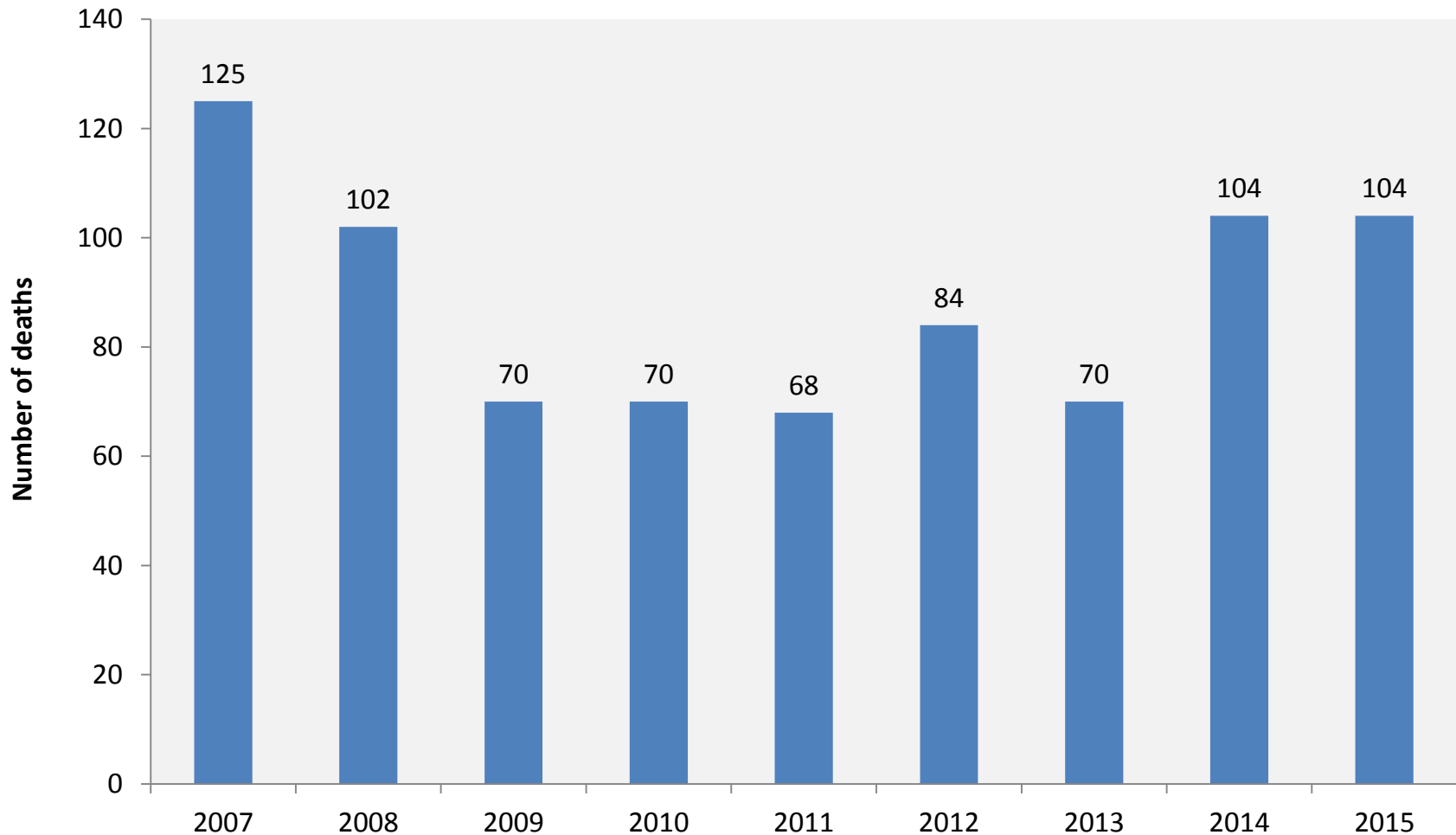
*2015 counts are preliminary.

Figure 3. Number of Prescription Opioid-Related Deaths Occurring in Maryland from January through June of Each Year.*



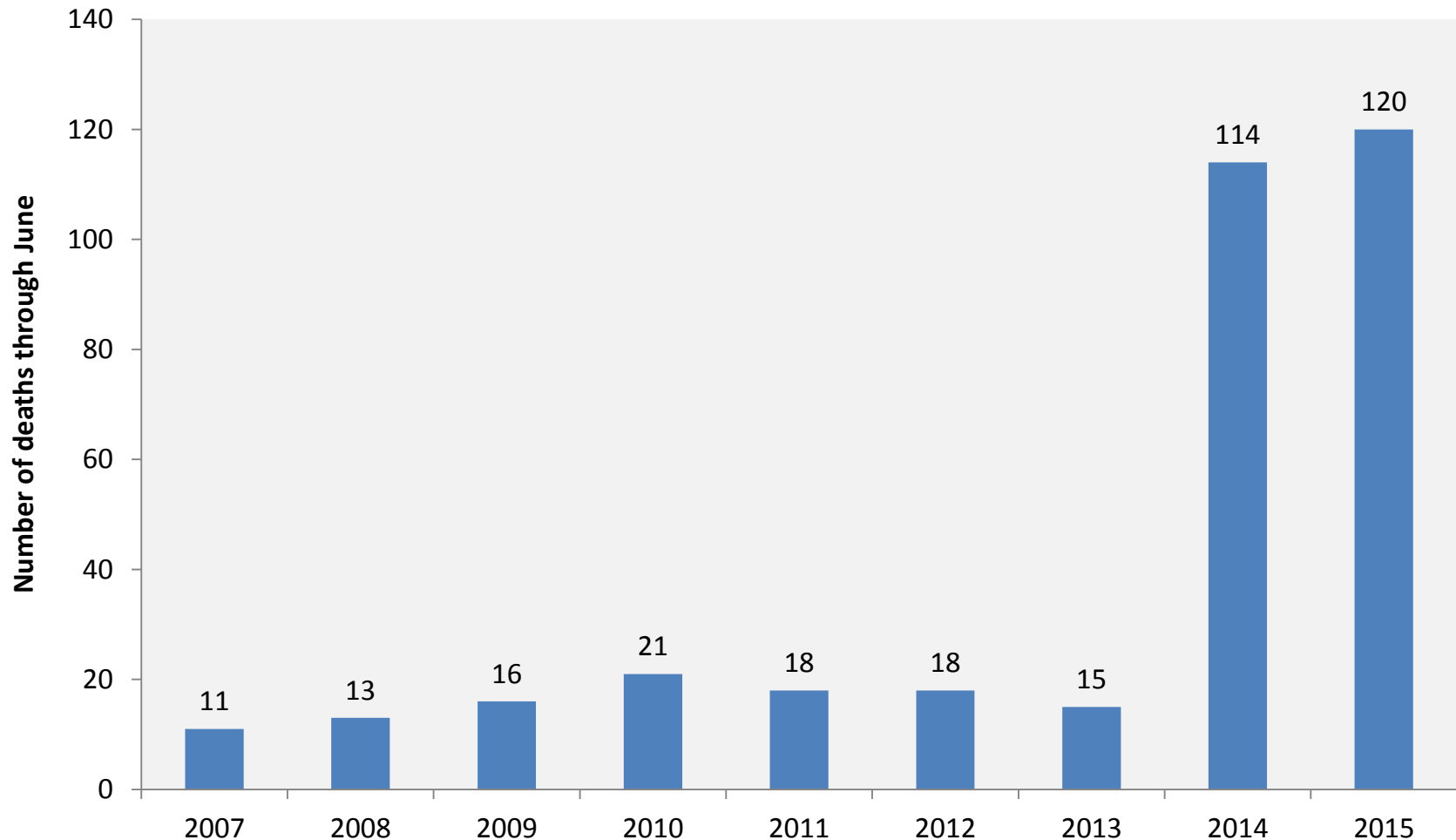
*2015 counts are preliminary.

Figure 4. Number of Cocaine-Related Deaths Occurring in Maryland from January through June of Each Year.*



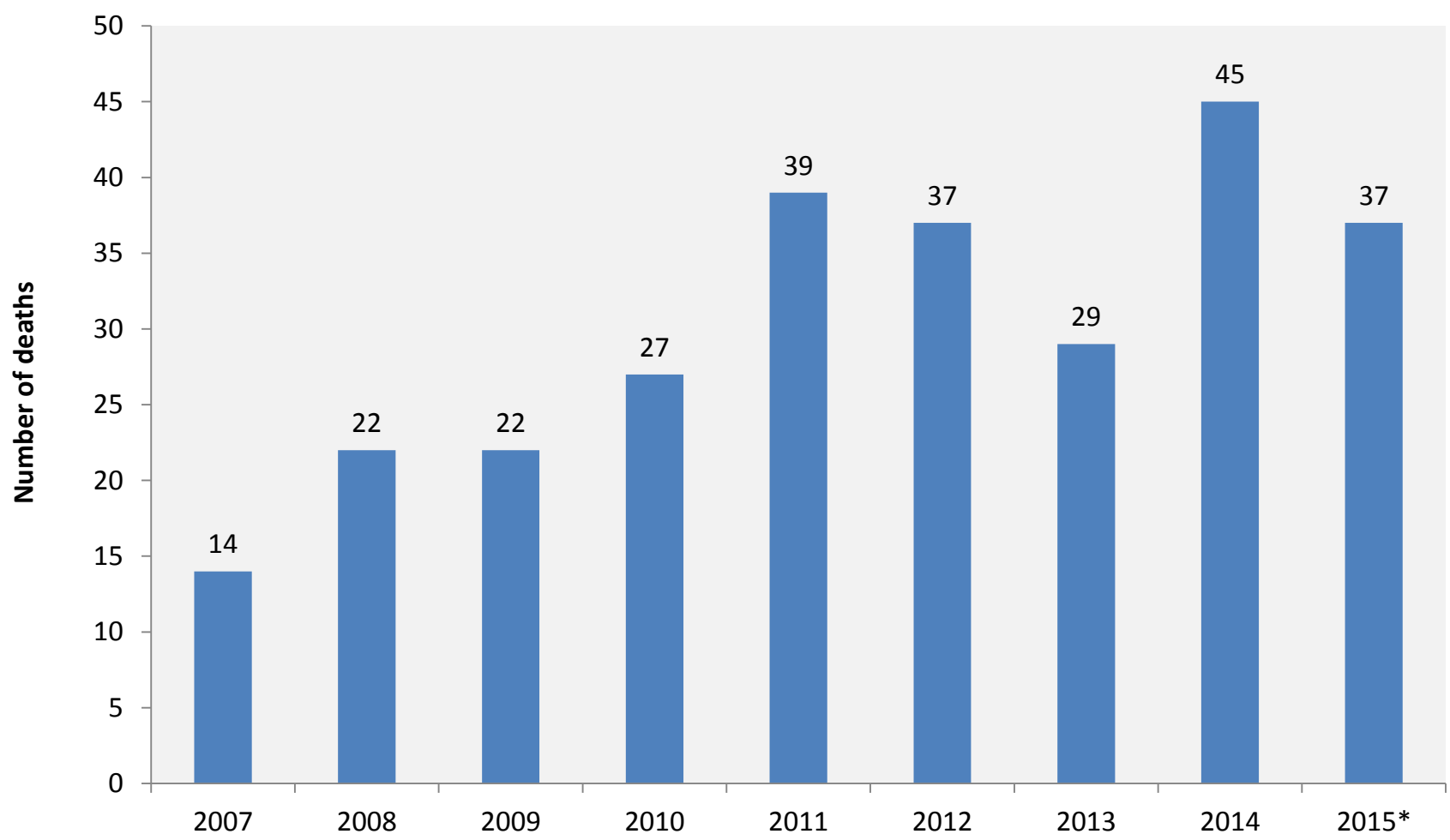
*2015 counts are preliminary.

Figure 5. Number of Fentanyl-Related Intoxication Deaths Occurring in Maryland Through June of Each Year.*



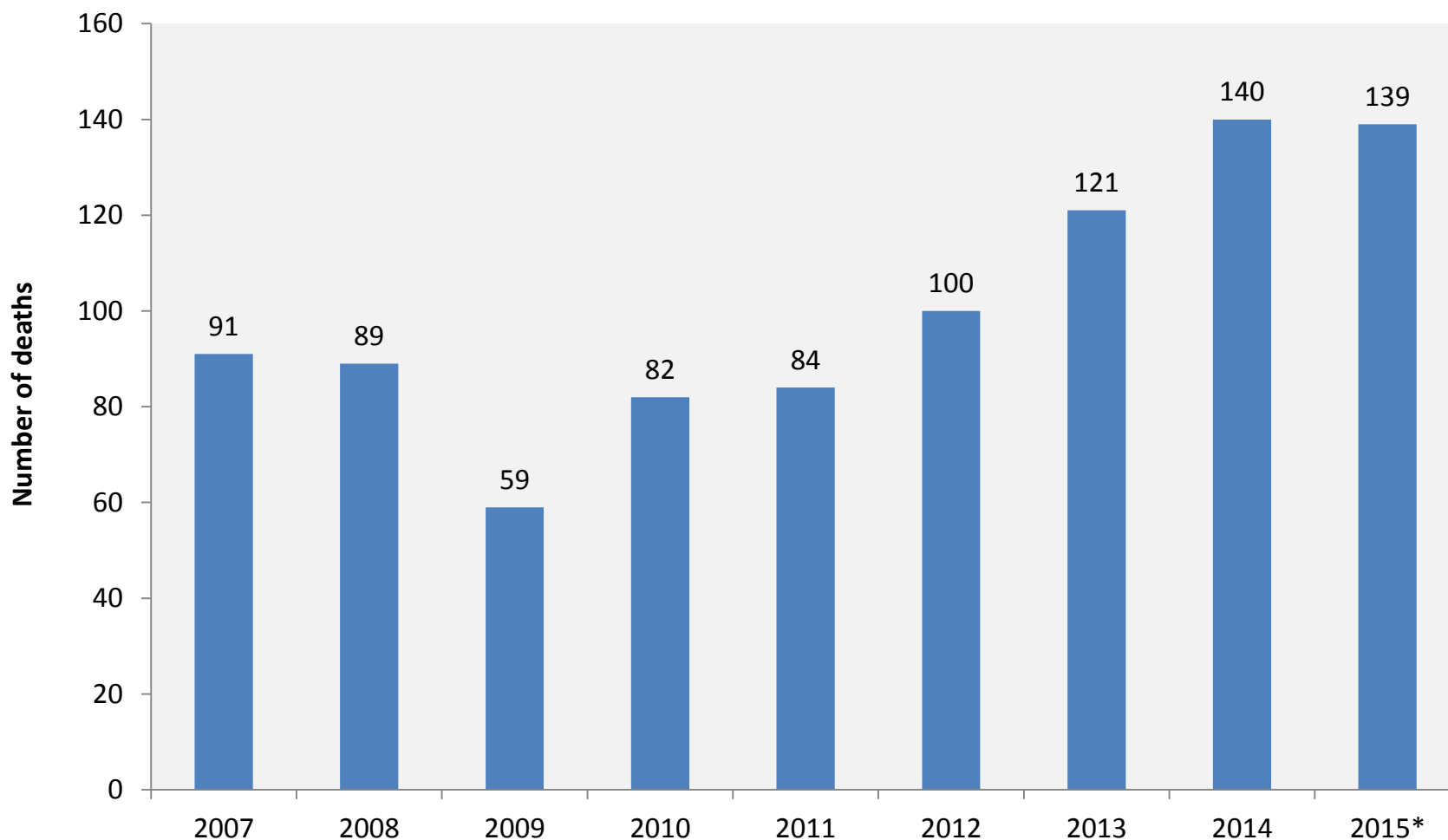
*2015 counts are preliminary.

Figure 6. Number of Benzodiazepine-Related Deaths Occurring in Maryland from January through June of Each Year.*



*2015 counts are preliminary.

Figure 7. Number of Alcohol-Related Deaths Occurring in Maryland from January through June of Each Year.*



*2015 counts are preliminary.

Figure 8


| | | | |
|--|---|-------------------------|---------------------|
|  | Total Number of Drug and Alcohol-Related Intoxication Deaths by Place of Occurrence, Maryland. January -- June, 2015 and 2014. | | |
| | | | |
| State of Maryland | Drug & Alcohol Intoxication Deaths | | 2015 vs 2014 |
| COUNTY | Jan. - Jun. 2015 | Jan. - Jun. 2014 | # DIFFERENCE |
| Allegany County | 12 | 4 | 8 |
| A. A. County | 50 | 51 | -1 |
| Baltimore City | 188 | 162 | 26 |
| Baltimore County | 102 | 83 | 19 |
| Calvert County | 11 | 13 | -2 |
| Caroline County | 0 | 4 | -4 |
| Carroll County | 19 | 22 | -3 |
| Cecil County | 13 | 20 | -7 |
| Charles County | 10 | 8 | 2 |
| Dorchester County | 0 | 0 | 0 |
| Frederick County | 18 | 19 | -1 |
| Garrett County | 3 | 1 | 2 |
| Harford County | 22 | 16 | 6 |
| Howard County | 11 | 10 | 1 |
| Kent County | 2 | 2 | 0 |
| Montgomery County | 38 | 28 | 10 |
| P.G. County | 33 | 35 | -2 |
| Queen Anne's County | 2 | 6 | -4 |
| Somerset County | 6 | 1 | 5 |
| St. Mary's County | 10 | 6 | 4 |
| Talbot County | 2 | 2 | 0 |
| Washington County | 36 | 19 | 17 |
| Wicomico County | 7 | 12 | -5 |
| Worcester County | 4 | 4 | 0 |
| | | | |
| Total | 599 | 528 | 71 |
| ¹ Includes deaths that were the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, cocaine, prescription opioids, benzodiazepines, and other prescribed and unprescribed drugs. | | | |
| ² Includes only deaths for which the manner of death was classified as accidental or undetermined. | | | |
| ³ Counts for 2015 are preliminary. | | | |

TABLE 1. TOTAL NUMBER OF DRUG AND ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014 AND YTD 2015 THROUGH JUNE.^{1,2,3}

| | TOTAL INTOXICATION DEATHS | | | | | | | | |
|------------------------|---------------------------|------|------|------|------|------|------|-------|----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | YTD 2015 |
| MARYLAND | 815 | 694 | 731 | 649 | 671 | 799 | 858 | 1,041 | 599 |
| WESTERN AREA | 110 | 99 | 97 | 96 | 109 | 115 | 138 | 161 | 107 |
| GARRETT | 1 | 3 | 3 | 3 | 2 | 0 | 6 | 2 | 3 |
| ALLEGANY | 14 | 9 | 9 | 15 | 12 | 14 | 15 | 12 | 12 |
| WASHINGTON | 16 | 26 | 18 | 20 | 21 | 27 | 28 | 40 | 36 |
| FREDERICK | 23 | 15 | 23 | 20 | 30 | 26 | 37 | 42 | 18 |
| MONTGOMERY | 56 | 46 | 44 | 38 | 44 | 48 | 52 | 65 | 38 |
| CENTRAL AREA | 550 | 443 | 479 | 411 | 420 | 519 | 557 | 678 | 392 |
| BALTIMORE CITY | 287 | 184 | 239 | 172 | 167 | 225 | 246 | 305 | 188 |
| BALTIMORE COUNTY | 131 | 118 | 106 | 115 | 107 | 119 | 144 | 170 | 102 |
| ANNE ARUNDEL | 71 | 70 | 63 | 56 | 79 | 83 | 78 | 101 | 50 |
| CARROLL | 14 | 17 | 22 | 15 | 8 | 29 | 24 | 38 | 19 |
| HOWARD | 16 | 19 | 16 | 10 | 21 | 24 | 29 | 21 | 11 |
| HARFORD | 31 | 35 | 33 | 43 | 38 | 39 | 36 | 43 | 22 |
| SOUTHERN AREA | 86 | 94 | 93 | 74 | 73 | 93 | 84 | 110 | 64 |
| CALVERT | 14 | 9 | 14 | 6 | 12 | 12 | 6 | 17 | 11 |
| CHARLES | 13 | 16 | 11 | 13 | 11 | 13 | 9 | 21 | 10 |
| ST. MARY'S | 6 | 11 | 9 | 12 | 8 | 12 | 10 | 9 | 10 |
| PRINCE GEORGE'S | 53 | 58 | 59 | 43 | 42 | 56 | 59 | 63 | 33 |
| EASTERN SHORE | | | | | | | | | |
| AREA | 69 | 58 | 62 | 68 | 69 | 72 | 79 | 92 | 36 |
| CECIL | 25 | 10 | 24 | 24 | 28 | 25 | 26 | 29 | 13 |
| KENT | 3 | 4 | 2 | 5 | 2 | 0 | 4 | 6 | 2 |
| QUEEN ANNE'S | 4 | 5 | 4 | 4 | 5 | 2 | 8 | 10 | 2 |
| CAROLINE | 1 | 4 | 2 | 2 | 11 | 4 | 2 | 7 | 0 |
| TALBOT | 5 | 4 | 3 | 3 | 1 | 5 | 7 | 4 | 2 |
| DORCHESTER | 4 | 5 | 2 | 6 | 2 | 5 | 5 | 0 | 0 |
| WICOMICO | 9 | 13 | 12 | 13 | 11 | 21 | 17 | 20 | 7 |
| SOMERSET | 6 | 3 | 4 | 1 | 3 | 3 | 4 | 3 | 6 |
| WORCESTER | 12 | 10 | 9 | 10 | 6 | 7 | 6 | 13 | 4 |

¹ Includes deaths that were the result of recent ingestion or exposure to alcohol or another type of drug, including heroin, cocaine, prescription opioids, benzodiazepines, and other prescribed and unprescribed drugs.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

³ Counts for 2015 are preliminary.

TABLE 2. HEROIN-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014 AND YTD 2015 THROUGH JUNE.^{1,2,3}

| | HEROIN-RELATED DEATHS | | | | | | | | |
|------------------------|-----------------------|------|------|------|------|------|------|------|----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | YTD 2015 |
| MARYLAND | 399 | 289 | 360 | 238 | 247 | 392 | 464 | 578 | 340 |
| WESTERN AREA | 33 | 35 | 39 | 27 | 34 | 49 | 68 | 86 | 60 |
| GARRETT | 0 | 0 | 1 | 0 | 1 | 0 | 2 | 1 | 1 |
| ALLEGANY | 3 | 4 | 2 | 3 | 3 | 6 | 3 | 5 | 8 |
| WASHINGTON | 5 | 13 | 11 | 6 | 8 | 11 | 14 | 21 | 20 |
| FREDERICK | 8 | 4 | 9 | 6 | 11 | 10 | 21 | 26 | 11 |
| MONTGOMERY | 17 | 14 | 16 | 12 | 11 | 22 | 28 | 33 | 20 |
| CENTRAL AREA | 323 | 203 | 264 | 171 | 165 | 272 | 319 | 379 | 233 |
| BALTIMORE CITY | 200 | 107 | 151 | 93 | 76 | 131 | 150 | 192 | 125 |
| BALTIMORE COUNTY | 56 | 51 | 53 | 42 | 38 | 64 | 76 | 86 | 58 |
| ANNE ARUNDEL | 38 | 24 | 31 | 18 | 24 | 38 | 41 | 53 | 22 |
| CARROLL | 9 | 5 | 7 | 3 | 2 | 13 | 14 | 16 | 8 |
| HOWARD | 8 | 8 | 7 | 3 | 10 | 12 | 16 | 9 | 8 |
| HARFORD | 12 | 8 | 15 | 12 | 15 | 14 | 22 | 23 | 12 |
| SOUTHERN AREA | 28 | 35 | 36 | 25 | 27 | 38 | 38 | 60 | 25 |
| CALVERT | 5 | 3 | 7 | 1 | 5 | 6 | 2 | 13 | 7 |
| CHARLES | 2 | 5 | 3 | 6 | 6 | 5 | 5 | 10 | 3 |
| ST. MARY'S | 1 | 3 | 0 | 4 | 4 | 7 | 6 | 5 | 2 |
| PRINCE GEORGE'S .. | 20 | 24 | 26 | 14 | 12 | 20 | 25 | 32 | 13 |
| EASTERN SHORE | | | | | | | | | |
| AREA | 15 | 16 | 21 | 15 | 21 | 33 | 39 | 53 | 22 |
| CECIL | 8 | 4 | 12 | 4 | 8 | 11 | 11 | 15 | 7 |
| KENT | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 2 | 1 |
| QUEEN ANNE'S | 0 | 1 | 3 | 2 | 2 | 2 | 5 | 7 | 0 |
| CAROLINE | 0 | 0 | 0 | 0 | 3 | 3 | 2 | 6 | 0 |
| TALBOT | 1 | 2 | 0 | 0 | 1 | 2 | 2 | 4 | 2 |
| DORCHESTER | 1 | 2 | 0 | 2 | 1 | 3 | 3 | 0 | 0 |
| WICOMICO | 1 | 3 | 3 | 5 | 3 | 9 | 11 | 12 | 5 |
| SOMERSET | 2 | 1 | 1 | 0 | 1 | 2 | 1 | 1 | 4 |
| WORCESTER | 1 | 2 | 2 | 2 | 1 | 1 | 4 | 6 | 3 |

¹ Includes deaths confirmed or suspected to be related to recent heroin use.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

³ Counts for 2015 are preliminary.

**TABLE 3. PRESCRIPTION OPIOID-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE,
2007-2014 AND YTD 2015 THROUGH JUNE.**^{1,2,3}

| | PRESCRIPTION OPIOID-RELATED DEATHS | | | | | | | | |
|------------------------|------------------------------------|------|------|------|------|------|------|------|----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | YTD 2015 |
| MARYLAND | 302 | 280 | 251 | 311 | 342 | 311 | 316 | 330 | 188 |
| WESTERN AREA | 42 | 38 | 40 | 36 | 58 | 48 | 51 | 52 | 31 |
| GARRETT | 0 | 2 | 2 | 1 | 1 | 0 | 2 | 2 | 1 |
| ALLEGANY | 9 | 5 | 6 | 8 | 5 | 5 | 8 | 6 | 3 |
| WASHINGTON | 7 | 10 | 4 | 7 | 11 | 9 | 11 | 16 | 12 |
| FREDERICK | 6 | 4 | 9 | 6 | 21 | 16 | 14 | 9 | 5 |
| MONTGOMERY | 20 | 17 | 19 | 14 | 20 | 18 | 16 | 19 | 10 |
| CENTRAL AREA | 190 | 189 | 148 | 197 | 212 | 196 | 207 | 217 | 128 |
| BALTIMORE CITY | 95 | 60 | 63 | 61 | 82 | 74 | 86 | 84 | 48 |
| BALTIMORE COUNTY | 48 | 51 | 37 | 60 | 68 | 47 | 54 | 59 | 39 |
| ANNE ARUNDEL | 22 | 36 | 20 | 31 | 33 | 33 | 28 | 32 | 17 |
| CARROLL | 4 | 11 | 10 | 9 | 5 | 17 | 12 | 15 | 11 |
| HOWARD | 6 | 6 | 4 | 6 | 9 | 5 | 13 | 7 | 4 |
| HARFORD | 15 | 25 | 14 | 30 | 15 | 20 | 14 | 20 | 9 |
| SOUTHERN AREA | 25 | 28 | 31 | 33 | 30 | 29 | 26 | 35 | 19 |
| CALVERT | 8 | 3 | 4 | 3 | 7 | 6 | 3 | 7 | 5 |
| CHARLES | 6 | 6 | 7 | 4 | 5 | 7 | 5 | 9 | 6 |
| ST. MARY'S | 3 | 7 | 7 | 9 | 3 | 5 | 4 | 3 | 3 |
| PRINCE GEORGE'S .. | 8 | 12 | 13 | 17 | 15 | 11 | 14 | 16 | 5 |
| EASTERN SHORE | | | | | | | | | |
| AREA | 45 | 25 | 32 | 45 | 42 | 38 | 32 | 26 | 10 |
| CECIL | 19 | 6 | 10 | 20 | 20 | 18 | 12 | 12 | 3 |
| KENT | 2 | 3 | 2 | 3 | 1 | 0 | 4 | 2 | 1 |
| QUEEN ANNE'S | 4 | 1 | 1 | 2 | 2 | 0 | 3 | 3 | 2 |
| CAROLINE | 0 | 2 | 1 | 2 | 5 | 1 | 0 | 1 | 0 |
| TALBOT | 2 | 1 | 2 | 2 | 0 | 1 | 4 | 0 | 0 |
| DORCHESTER | 2 | 1 | 1 | 4 | 1 | 3 | 3 | 0 | 0 |
| WICOMICO | 5 | 4 | 8 | 7 | 7 | 9 | 4 | 3 | 2 |
| SOMERSET | 4 | 3 | 1 | 1 | 3 | 2 | 2 | 1 | 1 |
| WORCESTER | 7 | 4 | 6 | 4 | 3 | 4 | 0 | 4 | 1 |

¹ Includes deaths that were related to recent ingestion of one or more prescription opioids.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

³ Counts for 2015 are preliminary.

TABLE 4. COCAINE-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014 AND YTD 2015 THROUGH JUNE.^{1,2,3}

| | COCAINE-RELATED DEATHS | | | | | | | | |
|------------------------|------------------------|------|------|------|------|------|------|------|----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | YTD 2015 |
| MARYLAND | 248 | 157 | 162 | 135 | 148 | 153 | 154 | 198 | 104 |
| WESTERN AREA | 29 | 16 | 11 | 12 | 22 | 21 | 26 | 26 | 16 |
| GARRETT | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| ALLEGANY | 2 | 1 | 1 | 1 | 0 | 2 | 2 | 2 | 4 |
| WASHINGTON | 3 | 1 | 0 | 3 | 3 | 5 | 6 | 6 | 8 |
| FREDERICK | 4 | 2 | 3 | 3 | 7 | 2 | 5 | 8 | 2 |
| MONTGOMERY | 20 | 12 | 7 | 4 | 12 | 12 | 13 | 10 | 2 |
| CENTRAL AREA | 178 | 108 | 124 | 93 | 97 | 108 | 102 | 138 | 73 |
| BALTIMORE CITY | 106 | 57 | 72 | 45 | 48 | 59 | 47 | 82 | 44 |
| BALTIMORE COUNTY | 30 | 25 | 25 | 23 | 19 | 17 | 27 | 28 | 18 |
| ANNE ARUNDEL | 26 | 18 | 15 | 13 | 18 | 13 | 12 | 19 | 7 |
| CARROLL | 2 | 2 | 3 | 6 | 3 | 7 | 7 | 2 | 1 |
| HOWARD | 6 | 1 | 4 | 1 | 5 | 7 | 5 | 3 | 2 |
| HARFORD | 8 | 5 | 5 | 5 | 4 | 5 | 4 | 4 | 1 |
| SOUTHERN AREA | 20 | 20 | 15 | 19 | 15 | 16 | 13 | 22 | 10 |
| CALVERT | 1 | 2 | 1 | 3 | 2 | 3 | 0 | 2 | 0 |
| CHARLES | 3 | 3 | 2 | 2 | 1 | 1 | 0 | 0 | 1 |
| ST. MARY'S | 1 | 1 | 1 | 2 | 0 | 2 | 1 | 1 | 4 |
| PRINCE GEORGE'S .. | 15 | 14 | 11 | 12 | 12 | 10 | 12 | 19 | 5 |
| EASTERN SHORE | | | | | | | | | |
| AREA | 21 | 13 | 12 | 11 | 14 | 8 | 13 | 12 | 5 |
| CECIL | 5 | 3 | 4 | 3 | 7 | 2 | 5 | 4 | 1 |
| KENT | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| QUEEN ANNE'S | 3 | 0 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| CAROLINE | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| TALBOT | 4 | 0 | 1 | 0 | 0 | 0 | 3 | 0 | 1 |
| DORCHESTER | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| WICOMICO | 2 | 5 | 2 | 3 | 3 | 4 | 3 | 4 | 2 |
| SOMERSET | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| WORCESTER | 4 | 2 | 1 | 2 | 1 | 0 | 1 | 2 | 0 |

¹ Includes deaths that were related to recent use of cocaine.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

³ Counts for 2015 are preliminary.

TABLE 5. ALCOHOL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014 AND YTD 2015 THROUGH JUNE,^{1,2,3}

| | ALCOHOL-RELATED DEATHS | | | | | | | | |
|------------------------|------------------------|------|------|------|------|------|------|------|----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | YTD 2015 |
| MARYLAND | 187 | 175 | 162 | 160 | 161 | 195 | 239 | 270 | 139 |
| WESTERN AREA | 29 | 34 | 25 | 25 | 32 | 27 | 34 | 45 | 26 |
| GARRETT | 1 | 2 | 1 | 1 | 1 | 0 | 2 | 1 | 1 |
| ALLEGANY | 5 | 0 | 3 | 4 | 2 | 4 | 2 | 3 | 3 |
| WASHINGTON | 3 | 10 | 4 | 5 | 4 | 3 | 6 | 11 | 5 |
| FREDERICK | 5 | 7 | 8 | 5 | 9 | 5 | 11 | 12 | 9 |
| MONTGOMERY | 15 | 15 | 9 | 10 | 16 | 15 | 13 | 18 | 8 |
| CENTRAL AREA | 114 | 96 | 100 | 94 | 99 | 126 | 154 | 166 | 98 |
| BALTIMORE CITY | 56 | 41 | 54 | 39 | 44 | 71 | 86 | 86 | 54 |
| BALTIMORE COUNTY | 38 | 23 | 22 | 29 | 22 | 24 | 32 | 39 | 21 |
| ANNE ARUNDEL | 12 | 12 | 9 | 10 | 21 | 15 | 22 | 18 | 12 |
| CARROLL | 3 | 4 | 5 | 4 | 4 | 4 | 4 | 9 | 4 |
| HOWARD | 2 | 7 | 5 | 3 | 4 | 6 | 6 | 6 | 2 |
| HARFORD | 3 | 9 | 5 | 9 | 4 | 6 | 4 | 8 | 5 |
| SOUTHERN AREA | 31 | 27 | 21 | 22 | 19 | 30 | 29 | 30 | 12 |
| CALVERT | 3 | 3 | 4 | 0 | 2 | 2 | 1 | 4 | 2 |
| CHARLES | 5 | 5 | 1 | 4 | 3 | 2 | 4 | 5 | 1 |
| ST. MARY'S | 2 | 1 | 3 | 2 | 2 | 3 | 2 | 3 | 3 |
| PRINCE GEORGE'S | 21 | 18 | 13 | 16 | 12 | 23 | 22 | 18 | 6 |
| EASTERN SHORE | | | | | | | | | |
| AREA | 13 | 18 | 16 | 19 | 11 | 12 | 22 | 29 | 3 |
| CECIL | 5 | 4 | 7 | 6 | 3 | 6 | 9 | 5 | 0 |
| KENT | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| QUEEN ANNE'S | 1 | 2 | 0 | 1 | 3 | 0 | 1 | 7 | 0 |
| CAROLINE | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 2 | 0 |
| TALBOT | 0 | 3 | 0 | 0 | 0 | 2 | 2 | 0 | 0 |
| DORCHESTER | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| WICOMICO | 1 | 6 | 3 | 4 | 2 | 2 | 6 | 7 | 0 |
| SOMERSET | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 2 | 2 |
| WORCESTER | 3 | 3 | 4 | 6 | 1 | 0 | 1 | 5 | 1 |

¹ Includes deaths that were related to recent ingestion of alcohol.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

³ Counts for 2015 are preliminary.

**TABLE 6. FENTANYL-RELATED INTOXICATION DEATHS BY PLACE OF OCCURRENCE, 2007-2014
AND YTD 2015 THROUGH JUNE^{1,2,3}**

| | FENTANYL-RELATED DEATHS | | | | | | | | |
|------------------------|-------------------------|------|------|------|------|------|------|------|----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | YTD 2015 |
| MARYLAND | 26 | 25 | 27 | 39 | 26 | 29 | 58 | 186 | 120 |
| WESTERN AREA | 5 | 1 | 2 | 7 | 6 | 5 | 7 | 16 | 13 |
| GARRETT | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| ALLEGANY | 3 | 0 | 1 | 2 | 1 | 1 | 1 | 1 | 1 |
| WASHINGTON | 0 | 0 | 0 | 2 | 1 | 1 | 4 | 1 | 3 |
| FREDERICK | 0 | 0 | 0 | 2 | 3 | 1 | 2 | 6 | 1 |
| MONTGOMERY | 2 | 0 | 1 | 1 | 0 | 2 | 0 | 8 | 8 |
| CENTRAL AREA | 14 | 19 | 16 | 20 | 10 | 16 | 35 | 142 | 86 |
| BALTIMORE CITY | 3 | 2 | 4 | 4 | 2 | 4 | 12 | 72 | 52 |
| BALTIMORE COUNTY | 6 | 9 | 9 | 6 | 4 | 5 | 11 | 36 | 20 |
| ANNE ARUNDEL | 3 | 5 | 3 | 5 | 2 | 3 | 6 | 23 | 5 |
| CARROLL | 0 | 2 | 0 | 2 | 0 | 1 | 2 | 4 | 3 |
| HOWARD | 1 | 0 | 0 | 0 | 0 | 2 | 3 | 5 | 2 |
| HARFORD | 1 | 1 | 0 | 3 | 2 | 1 | 1 | 2 | 4 |
| SOUTHERN AREA | 1 | 1 | 4 | 3 | 3 | 2 | 10 | 16 | 14 |
| CALVERT | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 5 | 2 |
| CHARLES | 0 | 0 | 0 | 0 | 1 | 1 | 3 | 1 | 3 |
| ST. MARY'S | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 3 | 0 |
| PRINCE GEORGE'S .. | 1 | 0 | 2 | 2 | 0 | 1 | 6 | 7 | 9 |
| EASTERN SHORE | | | | | | | | | |
| AREA | 6 | 4 | 5 | 9 | 7 | 6 | 6 | 12 | 7 |
| CECIL | 2 | 1 | 0 | 2 | 2 | 0 | 0 | 1 | 2 |
| KENT | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| QUEEN ANNE'S | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| CAROLINE | 0 | 0 | 0 | 1 | 4 | 0 | 0 | 0 | 0 |
| TALBOT | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 1 |
| DORCHESTER | 0 | 0 | 0 | 2 | 0 | 0 | 2 | 0 | 0 |
| WICOMICO | 1 | 1 | 3 | 1 | 1 | 4 | 1 | 7 | 0 |
| SOMERSET | 1 | 1 | 0 | 1 | 0 | 0 | 2 | 0 | 1 |
| WORCESTER | 0 | 0 | 2 | 1 | 0 | 1 | 0 | 0 | 3 |

¹ Includes deaths that were related to recent use of pharmaceutical or illicitly-produced fentanyl.

² Includes only deaths for which the manner of death was classified as accidental or undetermined.

³ Counts for 2015 are preliminary.

EXHIBIT 3



INTERIM REPORT

HEROIN & OPIOID EMERGENCY TASK FORCE

Lieutenant Governor Boyd K. Rutherford, Chair



AUGUST 24, 2015

Office of the Lt. Governor

Boyd K. Rutherford

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August 24, 2015

Larry Hogan
Governor, State of Maryland
100 State Circle
Annapolis, MD 21401

Dear Governor Hogan:


Through our travels during the 2014 gubernatorial campaign, we heard stories from families, law enforcement, and healthcare professionals of the devastation heroin and opioid abuse has wreaked on communities. As a candidate, you stood alone in publicly recognizing the crisis that has engulfed our State.

I applaud your leadership in creating the Heroin and Opioid Emergency Task Force and thank you for appointing me as Chair. Over the past six months, the Task Force has brought together hundreds of stakeholders in order to develop a plan to tackle this emergency and provide you with holistic and comprehensive recommendations.

Enclosed is our Interim Report, which includes our findings and Task Force workgroup updates. Though final recommendations are not due until later this year, the Interim Report includes 10 recommendations, which can be implemented by the relevant state agency within a few weeks. It also includes 10 funding announcements: seven Department of Health and Mental Hygiene allocations to improve access to treatment and quality of care and three Governor's Office of Crime, Control, and Prevention grants to support law enforcement efforts.

Thank you for your continued leadership and support. We look forward to submitting our Final Report on December 1, 2015.

Sincerely,

A handwritten signature in black ink, appearing to read "Boyd K. Rutherford". The signature is fluid and cursive, with the first name "Boyd" being the most prominent.

Boyd K. Rutherford
Lieutenant Governor, State of Maryland
Chair, Heroin and Opioid Emergency Task Force

I. EXECUTIVE SUMMARY

On February 24, 2015, Governor Hogan issued Executive Order 01.01.2015.12, which created the Heroin and Opioid Emergency Task Force. The Task Force is composed of 11 members with expertise in addiction treatment, law enforcement, education, and prevention. Lieutenant Governor Boyd K. Rutherford serves as the Chair. The Task Force was charged with advising and assisting Governor Hogan in establishing a coordinated statewide and multi-jurisdictional effort to prevent, treat, and significantly reduce heroin and opioid abuse.

In addition, the Task Force must provide recommendations for policy, regulations, or legislation to address the following:

- a) Improvement in access to heroin and opioid drug addiction treatment and recovery services across the State, including in our detention and correctional facilities, as well as development of specific metrics to track progress;
- b) Improvement and standardization of the quality of care for heroin and opioid drug addiction treatment and recovery services across the State, as well as development of specific metrics to track progress;
- c) Improvement in federal, state, and local law enforcement coordination to address the trafficking and distribution of heroin and opioids throughout the State;
- d) Improvement of coordination between federal, state, county, and municipal agencies to more effectively share public health information and reduce duplicative research and reporting;
- e) Help for parents, educators, community groups, and others to prevent youth and adolescent use of heroin and opioids;
- f) Development of alternatives to incarceration for nonviolent offenders whose crimes are driven primarily by their drug addiction; and
- g) Increased public awareness of the heroin and opioid abuse crisis, including ways to remove prejudices associated with persons suffering from substance use disorders.

This Interim Report details the Task Force's findings from the regional field summits relating to the impact of heroin and opioid drug use on public health, law enforcement, addiction treatment professionals, families, and communities at large. It is divided into four major sections: Summit Findings, Workgroup Areas of Further Study, Preliminary Recommendations, and Approved Resource Allocations.

The Summit Findings section reflects information provided by the hundreds of stakeholders who testified at the regional summits and in subsequent stakeholder conversations with members of the

Task Force. There are five subsections: a) Access to Treatment; b) Quality of Care; c) Law Enforcement; d) Drug Courts and Reentry; and e) Education and Prevention. Major themes reflected in this section include: insufficient federal, state, and local funding; a critical shortage of residential and outpatient treatment options; inconsistent quality of care standards; an increase in heroin- and opioid-related criminal activity; the promising preliminary outcomes of day reporting centers and jail-based Vivitrol (*i.e.* naltrexone) programs; and the need to raise public awareness and reach young people earlier in more innovative ways.

The Task Force subdivided into five workgroups, which mirrored the five major categories of information provided to the Task Force at the regional summits and through electronic submissions: a) Access to Treatment and Overdose Prevention; b) Quality of Care and Workforce Development; c) Intergovernmental Law Enforcement Coordination; d) Drug Courts and Reentry; and e) Education, Public Awareness, and Prevention. The Workgroup Areas of Further Study section details the objectives, guiding principles, and specific issues under consideration by each workgroup.

The Preliminary Recommendations section details 10 recommendations that can be implemented within a few weeks at little or nominal cost to the relevant state agency. Five recommendations relate to improving prevention and education efforts for youth and adolescents, two relate to law enforcement and the jail-based population, one relates to quality of care in hospital emergency rooms, another relates to highlighting and leveraging faith-based resources, and the last relates to an immediate weeklong public awareness push.

The Approved Resource Allocations section details how \$2,000,000 in additional treatment and prevention funding, released by Governor Hogan for fiscal 2016, will be spent. Generally, funds will be spent on naloxone training and distribution to local health departments and local detention centers, overdose survivor outreach programs in hospital emergency departments, prescriber education to improve quality of care, recovery housing for women with children, detoxification services for women with children, and to increase bed capacity at the A.F. Whitsitt Center, a state-operated residential treatment facility on the Eastern Shore. It also details how \$189,000 in Governor's Office of Crime Control and Prevention grant funding to local law enforcement will be spent for overtime pay, gang and heroin disruption efforts, and license plate reader technology.

The final report is due on December 1, 2015, and will contain further recommendations.

II. SYNOPSIS OF PRELIMINARY RECOMMENDATIONS

Below are synopses of the Heroin and Opioid Task Force's preliminary recommendations to Governor Hogan that can be implemented within weeks upon authorization.

1. Earlier and Broader Incorporation of Heroin and Opioid Prevention into the Health Curriculum

The Task Force recommends that the Maryland State Department of Education's Division of Curriculum, Assessment, and Accountability develop age-appropriate lessons and resources on heroin and opioid use in support of the Maryland Comprehensive Health Curriculum.

2. Infusion of Heroin and Opioid Prevention into Additional Disciplines

The Task Force recommends that MSDE's Division of Curriculum, Assessment, and Accountability develop Disciplinary Literacy lessons integrating education on heroin and opioid use with College and Career-Ready Standards.

3. Heroin and Opioid Addiction Integrated into Service Learning Projects

The Task Force recommends that MSDE's Service-Learning Office create service learning curriculum-based projects that engage students in addressing the heroin and opioid public health crisis.

4. Student-based Heroin and Opioid Prevention Campaign

The Task Force recommends that MSDE partner with the Office of the Governor and state agencies on a coordinated, multi-tiered public education campaign that discourages students from using heroin or abusing opioids.

5. Video PSA Campaign

The Task Force recommends the recruitment of university film students to develop and produce Public Service Announcements (PSA) to be distributed for broadcast and State social media platforms.

6. Maryland Emergency Department Opioid Prescribing Guidelines

The Task Force recommends that each acute care hospital work with its Emergency Department personnel to implement, as medically appropriate, the opioid prescribing guidelines developed by the Maryland Hospital Association.

7. Maryland State Police Training on the Good Samaritan Law

The Task Force recommends that the Maryland State Police provide training to field and investigative personnel on the legal requirements of the Good Samaritan Law.

8. Maryland State Police Help Cards and Health Care Follow-Up Unit

The Task Force recommends that the Maryland State Police provide heroin and opioid “Help Cards” to all MSP troopers and develop, in conjunction with the Department of Health and Mental Hygiene, a healthcare follow-up unit.

9. Faith-based Addiction Treatment Database

The Task Force recommends that the Governor’s Office of Community Initiatives’ Interfaith Coordinator develop a comprehensive database of faith-based organizations that provide addiction treatment services.

10. Overdose Awareness Week

The Task Force recommends that the first week of September be declared Maryland Overdose Awareness Week, which will include a conference for Overdose Response Program (ORP) entities and other local events to raise awareness of the addiction and overdose problem.

III. SYNOPSIS OF APPROVED RESOURCE ALLOCATIONS

Below are synopses of approved resource allocations that Governor Hogan, in consultation with the Heroin and Opioid Emergency Task Force, has prioritized in the effort to combat the heroin and opioid public health crisis.

1. Restoring the A.F. Whitsitt Center to a 40-bed Capacity

Governor Hogan will allocate an additional \$800,000 in fiscal 2016 to the A.F. Whitsitt Center to restore capacity to 40 beds, allowing an additional 240 patients to receive treatment each year.

2. Providing Community-Based Naloxone Training and Distribution

Governor Hogan has directed \$500,000 in supplemental grant awards to Local Health Departments (LHD) to support ORP trainings.

3. Piloting Overdose Survivor Outreach Program in Hospital Emergency Departments

Governor Hogan has directed the Behavioral Health Administration (BHA) to allocate \$300,000 towards establishing a pilot Overdose Survivor Outreach Program (OSOP) in Baltimore City.

4. Piloting Naloxone Distribution to Individuals Screened Positive for Opioid Use Disorder at Release from Local Detention Centers

Governor Hogan has directed BHA to provide \$150,000 through supplemental awards to three Southern Maryland LHDs - Calvert, Charles, and St. Mary's Counties - to implement overdose education and naloxone distribution programs for individuals released from local detention centers.

5. Expanding Supportive Recovery Housing for Women with Children

Governor Hogan has directed BHA to allocate \$100,000 for recovery housing, prioritizing those jurisdictions that currently do not have recovery housing for women with children and those with a significant waiting list.

6. Supporting Detoxification Services for Women with Children

Governor Hogan has directed BHA to make an additional \$50,000 available to residential detoxification services with childcare services on site in Baltimore City.

7. Targeted Outreach and Education to Aberrant/High-Risk Opioid and Other Controlled Substance Prescribers

Governor Hogan has directed BHA to allocate \$100,000 to conduct targeted outreach and education for practitioners identified as engaging in high-risk prescribing practices.

8. Overtime for Dorchester County Law Enforcement

Governor Hogan, through the Office of Crime Control and Prevention (GOCCP), will provide Dorchester County with \$24,700 to provide overtime for law enforcement to address the opioid and heroin epidemic.

9. Maryland State Police Gang/Heroin Disruption Project

Governor Hogan, through GOCCP, will provide Maryland State Police (MSP) with \$40,000 to support MSP's Gang/Heroin Disruption Project.

10. License Plate Reader Technology

Governor Hogan, through GOCCP, will provide the Ocean City Police Department with \$124,635 to fund license plate reader (LPR) technology at the northern end of Ocean City to target heroin entering Maryland across state lines.

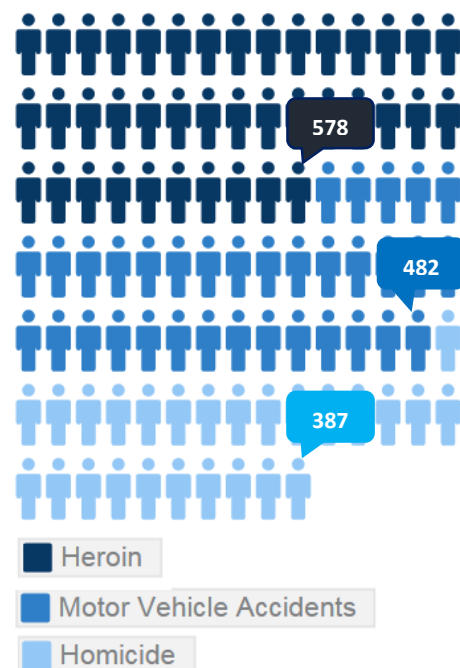
HEROIN & OPIOID EMERGENCY TASK FORCE

INTERIM REPORT

IV. INTRODUCTION

Throughout the 2014 gubernatorial campaign, then-candidates Larry Hogan and Boyd K. Rutherford visited every corner of the State and everywhere they traveled, heard the same tragic stories of how the heroin and opioid epidemic was destroying families and communities. It was clear that it was a public health crisis affecting Marylanders of all walks of life, regardless of socioeconomic status, race, religion, education, or any other demographic. The State's prior response focused almost entirely on overdose prevention. Such efforts are important given that fatal overdoses from heroin outpaced the State's homicide rate and deaths from automobile accidents.¹ However, this administration is taking a comprehensive approach through education, treatment, quality of care, law enforcement, alternatives to incarceration, and overdose prevention.

On February 24, 2015, after only a month in office, Governor Hogan issued Executive Order 01.01.2015.12, formally creating the Heroin and Opioid Emergency Task Force. The Task Force was authorized to employ every resource available to take a holistic approach to address this public health emergency.



DATA SOURCE: MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE 2014 ANNUAL REPORT

¹ In 2014, there were 578 heroin overdose deaths versus 421 homicides and 511 motor vehicle fatalities. See DHMH: Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2014, and DHMH Vital Statistics Administration, Unpublished data, 2015. In 2013, there were 464 heroin overdose deaths versus 387 homicides and 482 motor vehicle fatalities. See DHMH: Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2013, and DHMH: Maryland Vital Statistics Annual Report, 2013.

Task Force members include:

- Lieutenant Governor Boyd K. Rutherford, Chair
- Circuit Court Judge Julie S. Solt, Frederick County
- Sheriff Timothy Cameron, St. Mary's County
- Senator Katherine Klausmeier, District 8, Baltimore County
- Delegate Brett Wilson, District 2B, Washington County
- Nancy Wittier Dudley, President, Resilient Soul Services, Inc.
- Elizabeth Embry, Chief of the Criminal Division, Office of the Attorney General
- Dr. Michael B. Finegan, Peninsula Mental Health Services
- Dr. Bankole Johnson, Psychiatry Department Chair, UMD School of Medicine
- Tracey Myers-Preston, Executive Director, MD Addiction Directors Council
- Linda Williams, Executive Director, Addiction Connections Resource, Inc.

Pursuant to the Executive Order, the Task Force is required to submit recommendations on ways to improve public awareness, access to treatment, quality of care, alternatives to incarceration for

"As I travel throughout our State, I hear the devastating stories from our families and friends who hurt from the devastation heroin has wreaked on our communities."

—Governor Larry Hogan

non-violent drug abusers, and law enforcement coordination. The Task Force held six regional summits throughout the State to hear testimony from persons with substance use disorders, family members, educators, faith leaders, elected officials, law enforcement, addiction treatment professionals, and other

stakeholders. The summits were held in Elkton, Baltimore City, Prince Frederick, Hagerstown, Salisbury, and Silver Spring. Participants offered unique perspectives into this public health crisis. An approximate total of 223 people testified before the Task Force—21 elected officials, 31 law enforcement officials, 78 addiction treatment professionals, and 93 members of the general public. In addition, dozens of people submitted written testimony, suggestions, and comments to the Task Force through its Web portal and email address.

This interim report reflects the Task Force's findings, the ongoing efforts of its workgroups, preliminary recommendations, and approved resource allocations with the understanding that a final report with further recommendations will be submitted to Governor Hogan on December 1, 2015.

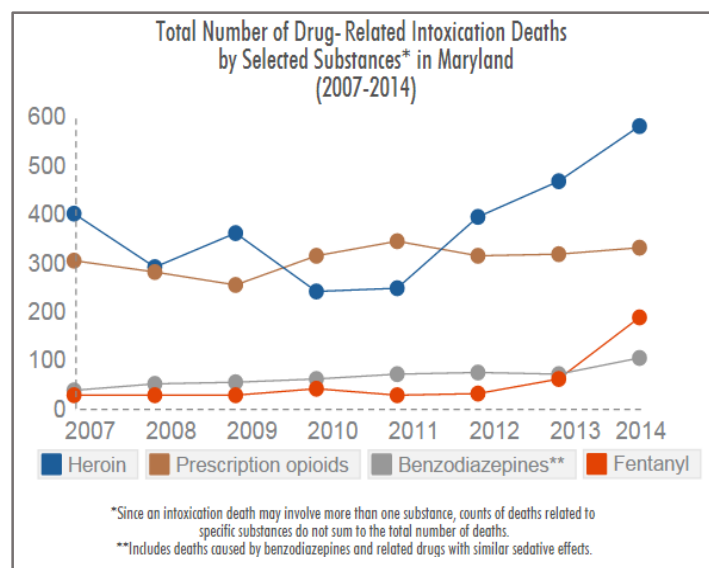
V. SUMMIT FINDINGS

The Heroin and Opioid Emergency Task Force held six regional summits to solicit input and guidance from a wide variety of sources. Testimony delivered at the summits can broadly be categorized into five areas: a) Access to Treatment; b) Quality of Care; c) Law Enforcement; d) Drug Courts and Reentry; and e) Education and Prevention. Below is a summary of the findings from the regional summits.

a. Access to Treatment

A strong recurring theme in the testimony delivered at the summits was the lack of sufficient resources to address the heroin and opioid epidemic and the serious issues Marylanders face as they try to access care. Stakeholders across the State reported a critical shortage of qualified treatment professionals and insufficient capacity at both inpatient and outpatient treatment facilities. The problem is acute in rural counties, where it is difficult to attract and retain treatment professionals. These challenges, among others, highlighted the need to realign and secure additional funding and launch efforts to expand the capacity and collaboration of the treatment system.

At each summit, there was compelling testimony that addressed the overwhelming inability to access treatment immediately. Families consistently reported experiencing multiple and repeated barriers, such as excessively long waiting periods, high deductibles and co-pays, delayed insurance authorization challenges, lack of appropriate levels of care in their respective county or region, among others. Such delays can result in serious consequences including death.



DATA SOURCE: MARYLAND DEPARTMENT OF HEALTH AND MENTAL HYGIENE 2014 ANNUAL REPORT

Health department and other county officials reported a shortage of long-term residential treatment options, though long-term rehabilitation is not always essential or necessary for every patient. Relatedly, testimony delivered to the Task Force highlighted the need to improve the transition of care for patients when they move from high-intensity residential

treatment to lower-intensity outpatient treatment to ensure high-quality and seamless continuity of patient care.

Stakeholders offered a variety of opinions about the most appropriate treatment needed in the community. Many cited limited or no availability of treatment that includes medication and advocated for the need for additional resources to utilize medication as an important component of treatment. On the other hand, some local parent coalitions were disturbed that medication usage during treatment has seemingly emerged as the sole option to address heroin and opioid dependency and that long-term abstinence-based residential treatment appears to have largely vanished as a valuable treatment option. The testimony also highlighted competing views in the community between those that would like to increase capacity and local treatment options and those that have voiced resistance to new or expanding programs in their communities.

b. Quality of Care

Individuals, families, community groups, and others from the private sector expressed deep concern regarding the increased challenges of providing effective substance use disorder treatment for heroin and opioid dependency. Established standards of care for addiction medicine and practice are not applied at all treatment facilities, resulting in inconsistent quality of care across providers in the State. Currently, notions of quality of care are often based on diagnoses, availability of services, and provider comfort rather than an evidence-based, outcome-driven approach. Additionally, person-centered care is often missing in Maryland's approach to behavioral health, which highlights the active involvement of patients and their families in the design of new care models and in decision-making about individual options for treatment.

Testimony from the public, including parents of children who overdosed and/or died, raised concerns with questionable prescribing practices of some physicians and dentists as well as the quality of some substance use disorder treatment programs, which were not diligent in monitoring the prescribing of opioid replacement medications and providing inadequate medication-only care. At the same time, there appeared to be some confusion by the public as to realistic expectations of the substance use disorder treatment system and what kinds of treatments are best for whom. Finally, there was great dissatisfaction regarding standards of care generally, gaps in communication and collaboration between health care services and law enforcement, and lack of accountability for outcomes.

A broad range of opinions were expressed regarding the use of medications to treat opioid dependency. There was general consensus on the value of Vivitrol (*i.e.* naltrexone), an opioid

antagonist, when dispensed in the context of a comprehensive treatment program. Yet there is concern that the public might be led to believe that naltrexone is a cure-all, which is not yet borne out by sufficient data. Opinions were decidedly mixed regarding opioid replacement interventions, such as methadone and buprenorphine. For example, these medications were described as “an essential component in the long-term treatment of opioid dependency”; “helpful for short-term use only”; “destructive to the patient seeking long-term recovery”; “useful as a ‘stabilizing agent’ only to prepare the patient to receive treatment”; and “extremely problematic to the operation of treatment programs and other community-based programs since the replacement medications are so often sold by patients for cash to then purchase heroin.” A number of people stressed that a key component for addiction treatment and successful recovery is the assumption of personal responsibility. They go on to argue that many patients enter treatment as passive recipients and many treatment regimens involving medication-assisted drug treatment programs fail to promote the theme of personal responsibility.

Nevertheless, there is data on the effectiveness of opioid replacement in the treatment of opioid addiction from decades of research and endorsed by government agencies, including the federal Substance Abuse and Mental Health Services Administration (SAMHSA). According to SAMHSA, opioid replacement therapies have been shown to increase treatment retention while decreasing mortality, criminality, and risk of infectious disease.

Incidents of abuse by both prescribers and patients were reported in most counties. Some recurring concerns that point to the potential for medication diversion or abuse include: the worker’s compensation system where medications are reimbursed at 100 percent with no co-pay; in physicians’ offices, where medications are marked up at a rate of 500-600 percent; and in some medication-assisted drug treatment programs that maintain patients at higher doses and for a longer period of time than may be medically necessary.

c. Law Enforcement

Though it is evident that we cannot arrest our way out of the State’s heroin and opioid problem, law enforcement still plays a very important role in combating this public health crisis. The scale of the heroin and opioid crisis is swamping law enforcement and depleting

“We can’t arrest our way out of this problem.”

—St. Mary’s County Sheriff Tim Cameron

their resources, leaving local law enforcement ill-equipped to respond to the magnitude of the heroin and opioid problem in Maryland. Sheriffs and police chiefs across the State

explained that they are devoting more and more of their resources to fighting heroin trafficking and related crime. In Kent County, 75-80 percent of drug enforcement activity

focuses on stemming the flow of heroin into the county. In St. Mary's County, 34 percent of all arrests are opioid-related. In Queen Anne's County, heroin is the driving force behind car thefts, thefts from autos, and burglaries. In Calvert County, more than half of all burglaries, sexual assaults, and homicides are related to heroin and opiates. In Allegany County, open-air drug markets are now common. To combat this problem, local jurisdictions have increased the numbers of sheriffs and prosecutors and created new intervention teams.

One of the key strategies presented at the summits is inter-agency collaboration. In Carroll County, prosecutors, sheriffs, members of the health department, and others have formed an overdose response team that focuses on prevention and education, prosecution of repeat drug trafficking offenders, and early intervention for those with minor offenses (treatment and education). They are also adding five detectives to the sheriff's office. Anne Arundel County has a similar collaboration and works closely with Anne Arundel County police and the United States Drug Enforcement Administration to bring cases against distributors and interrupt supply networks. In Caroline County, the Maryland State Police, collaborating with five local police departments, built a 25 co-defendant case. Cecil County has increased funding for their forensic lab. These collaborations were widely praised, but a common theme emerged that additional help is needed with heroin trafficking across State borders.

Some law enforcement officials suggested initiating a criminal investigation in response to every heroin or opioid overdose to identify whether the person who supplied the drugs should be criminally charged and to learn more about the supply network. In the meantime, some counties are referring every fatal overdose to federal authorities for prosecution of the supplier for homicide, since Maryland does not have an equivalent statute that would allow for a homicide charge. On the legislative front, many sheriffs and prosecutors were in favor of a change to Maryland statute to allow for prosecution of suppliers in the case of a fatal overdose and expressed concern about the decriminalization of small amounts of marijuana. The mandatory minimum sentencing laws for repeat offenders were met with mixed reactions. Some wanted stricter mandatory minimums while others praised the General Assembly for relaxing the mandatory minimum sentencing laws. Advocates also praised legislation signed by Governor Hogan that shields certain criminal records to help people obtain housing and employment, and legislation that created the Justice Reinvestment Council.

d. Drug Courts and Reentry

While many of the stakeholders who testified at the summits agreed that incarcerating an offender is not the appropriate way to solve the heroin and opioid epidemic, the criminal justice system does offer an interface to intervene and connect the individual with the resources needed for recovery. Drug courts represent one such opportunity for an offender to

connect with substance use disorder services. Drug court eligibility requirements vary in each jurisdiction, as do the available resources. These programs include needs assessments on arrest, diversion, jail-based substance use disorder treatment, and reentry programs.

Circuit Court Judge Nelson Rupp testified about the extensive conditions for completing the Montgomery County Drug Court program. This program highlighted the value of rapid communication and decisive action by the court and treatment program to deal with non-compliance. The program requires a minimum 30 days in a pre-release center, attending night court weekly, counseling two to three times a week, obtaining a job before moving into a sober home, living in a sober home, and getting slips signed by a sponsor and human services partner. A probation agent also makes periodic home checks. The program takes about two years to complete. Since its inception in 2004, approximately 163 participants have graduated from the Montgomery County Drug Court.

According to Retired Circuit Court Judge Ellen Heller, the Baltimore City Drug Court program includes addiction and mental health treatment, job training, housing, and education. She emphasized the cost savings for treating offenders instead of incarcerating them, but noted that the availability of quality programs, delays in accessing treatment, and the prevalence of co-occurring disorders remain prominent challenges for drug courts. She also identified other alternatives to incarceration for addicted offenders, including pre-charge and pre-booking programs in other jurisdictions.

Howard County State's Attorney Dario Broccolino testified that his county has both a drug court and a reentry program through the Howard County Detention Center. While the reentry program is new, it features drug treatment referral and occupational therapy. Baltimore County State's Attorney Scott Shellenberger identified diversion programs that are being expanded to include offenses other than marijuana. Calvert County State's Attorney Laura Martin noted the sizeable increase in addicted offenders in her county. Calvert County has a drug court; however, it has less than 30 participants. Calvert County is interested in increasing the number of participants because the success of the program makes the community safer. Sheriff Evans from Calvert County noted that forcing addicts into treatment through the criminal justice system is effective.

Testimony delivered at the Western Maryland summit discussed the use of Vivitrol (*i.e.* naltrexone) as part of law enforcement treatment options, particularly in Washington County where the Vivitrol pilot program has resulted in zero recidivism or failed tests thus far. Washington County has also been exploring a day reporting center to assist with wraparound services, such as drug and mental health treatment, job training, drug testing, life

skills, and other services, outside of the jail. Frederick County recently received a grant from the Governor's Office of Crime Control and Prevention to include Vivitrol as part of the detention center treatment options. It is important to note, however, that use of extended-release naltrexone in opioid addiction treatment is relatively novel when compared to opioid replacement therapy, and therefore less research exists to describe its effectiveness.

Other stakeholders recommended increased decriminalization efforts, reducing mandatory sentencing, expanding expungement availability, and enhancing reentry services for incarcerated inmates with sentences longer than 18 months. These services include mental health and substance use disorder treatment, housing, and other community benefits. It was also noted that individuals in recovery often have an added hurdle of criminal records to further frustrate employment and housing challenges.

e. Education and Prevention

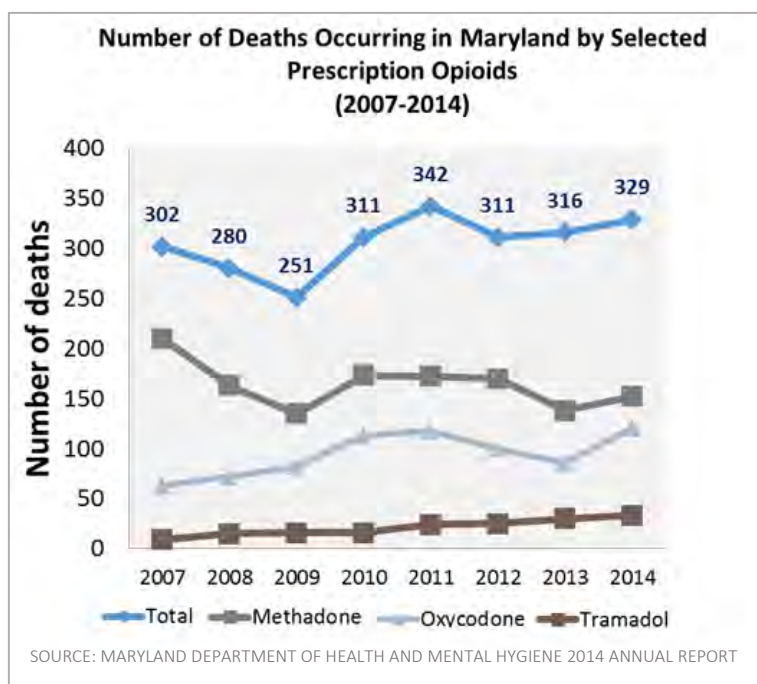
At each regional summit, people expressed the need to start educating children at a younger age about the dangers of prescription medications, heroin, and other opioids. It was pointed out that there has been a

growing problem of young people stealing prescription medications from family members and distributing them at parties (i.e. pill parties), with no idea of the medication's prescribed use or effect. Relatedly, it was suggested that parents need to become educated on heroin and opioid abuse, specifically how to talk with their children about drugs and what signs to look for that may indicate drug abuse.

Similarly, teachers, law

enforcement, judges, and even health care professionals need additional training to more effectively identify substance use disorders.

Stakeholders recommended that the State undertake a large-scale, coordinated media campaign employing all forms of media in order to educate the public and reduce the stigma associated with substance use disorders and addiction treatment. A number of creative ideas



were discussed to involve young people in the development of media campaigns in order to reach target populations. Others suggested that the State should publicize how to safely store and dispose of unused prescription medications.

Earlier this year, Governor Hogan signed legislation to extend civil immunity under the Good Samaritan Act to rescue and emergency care personnel administering medications or treatment in response to an apparent drug overdose. Despite the expanded protections, stakeholders suggested that additional education is needed to clarify the law for the public so that there is no resistance to offer help to a person overdosing on illicit drugs.

Summit participants urged the expansion of peer recovery coaches, resource centers, and naloxone training. It was also recommended that the State do a better job of reaching out to faith-based community organizations because they reach diverse communities and provide counseling services. Such services can be critically important for individuals that are trying to maintain recovery.

VI. WORKGROUP AREAS OF FURTHER STUDY

Following the regional summits, the Task Force subdivided into five workgroups to further study the main areas of concern raised during the summits: a) Access to Treatment and Overdose Prevention; b) Quality of Care and Workforce Development; c) Intergovernmental Law Enforcement Coordination; d) Drug Courts and Reentry; and e) Education, Public Awareness, and Prevention. The policy areas to be studied by each workgroup reflect the duties assigned to the Task Force in the underlying Executive Order. Each workgroup is co-chaired by two Task Force members who solicited the participation of stakeholders interested in the particular subject area. Below are specific issues under consideration by each respective workgroup.

Task Force Workgroups

- a) Access to Treatment and Overdose Prevention Workgroup
- b) Quality of Care and Workforce Development Workgroup
- c) Intergovernmental Law Enforcement Coordination Workgroup
- d) Drug Courts and Reentry Workgroup
- e) Education, Public Awareness, and Prevention Workgroup

a. Access to Treatment and Overdose Prevention Workgroup

Task Force members Dr. Michael Finegan and Tracey Myers-Preston serve as co-chairs of the Access to Treatment and Overdose Prevention Workgroup. The workgroup is supported by staff from the Department of Health and Mental Hygiene, Department of Human Resources, Maryland Insurance Administration, Department of Juvenile Services, Governor's Office of Crime Control and Prevention, and the Governor's Office of Children. The workgroup is focusing on the challenges individuals and families face with regard to accessing treatment, financial barriers to accessing treatment, and identifying and prioritizing target populations, such as adolescents, pregnant women, and the justice-involved population. Currently, individuals and families lack sufficient information regarding how to access treatment and how best to navigate the treatment system. Further compounding this problem is insufficient access to outpatient and residential treatment, especially for youth and adolescents.

Data provided by the Department of Health and Mental Hygiene indicates that serious deficiencies exist in the treatment system that prevent an individual from accessing the full range of care settings and levels of care. The admission data for fiscal year 2014 by level of care indicates inconsistent use and lack of availability of the full continuum of care in each

part of the State. With the exception of Baltimore City, every county has significant gaps in services. Counties located in Western Maryland and on the Eastern Shore provide the majority of their services in outpatient settings, possess very limited access to residential services, and lack other services across the continuum of care. Furthermore, across the State, there is concern related to transportation, childcare, care for aging parents, and maintaining employment while in treatment.

Another important area of study that the workgroup will examine is the extent to which jurisdictions are funding intervention, assessment, referral, and treatment services beyond traditional business hours, as best practices consistently support the theory that treatment must be readily available. Given the fact that individuals may be uncertain about entering treatment, the system must be positioned to take advantage of any opportunity when an individual expresses a readiness to enter treatment. Treatment must be immediately available and readily accessible. Some facilities have implemented a “no wrong door” approach that includes a 24-hour phone-based hotline, emergency room diversion, screening and referral for treatment, and same-day access to services via walk-in appointments.

The workgroup will identify which programs in the State are offering treatment on demand and providing after-hours services, and will explore methods to incentivize treatment providers to similarly establish urgent care. The workgroup will also determine what technical assistance the State can provide that would allow treatment providers to offer assessments and referrals to treatment beyond traditional business hours.

Care should be individualized, clinically driven, patient-directed, and outcome-informed. Matching the treatment setting, intervention, and services to each individual is critical to achieving positive outcomes. Patients should be afforded the opportunity to receive care at the appropriate level and step up or down in services based on the individual’s response to treatment. With this in mind, the workgroup will explore whether the use of outpatient services rather than residential service is truly the result of clinical need or is instead based on availability. Funding clinically inappropriate services is a waste of precious resources, as recovery will not likely be achieved and the patient will continue to cycle in and out of the healthcare system, or worse. The workgroup will also examine whether public dollars are being spent on higher levels of service than what is assessed. For example, a judge could order residential treatment for individuals based upon criminal justice or housing concerns rather than clinical need.

b. Quality of Care and Workforce Development Workgroup

Task Force members Dr. Bankole Johnson and Nancy Dudley serve as co-chairs of the Quality of Care and Workforce Development Workgroup. The workgroup is supported by staff from the Department of Health and Mental Hygiene and Department of Human Resources and will examine a number of factors affecting quality, outcomes, and workforce development.

Standardized quality of care at treatment centers across the State is critically important to ensure that patients have access to evidence-based care. Testimony delivered at the regional summits highlighted inconsistencies across the State. As a result, the workgroup will address inconsistencies in the quality of care across treatment centers and recommend strategies to standardize and enhance quality of care in order to produce the best outcomes for patients. Patient satisfaction surveys and outcome measures will also be explored to ensure patients are treated with the highest quality of care and that patients and their families are actively involved in their treatment plan. The workgroup will also consider ways to bridge the gap in care for individuals with comorbidities, such as chronic pain, psychiatric disorders, and pregnancy. Finally, an adequate supply of treatment professionals is critical to handle the demand demonstrated across the State. As part of its work, the workgroup will identify strategies to cultivate sufficient numbers of qualified, trained, diverse, and competent treatment professionals.

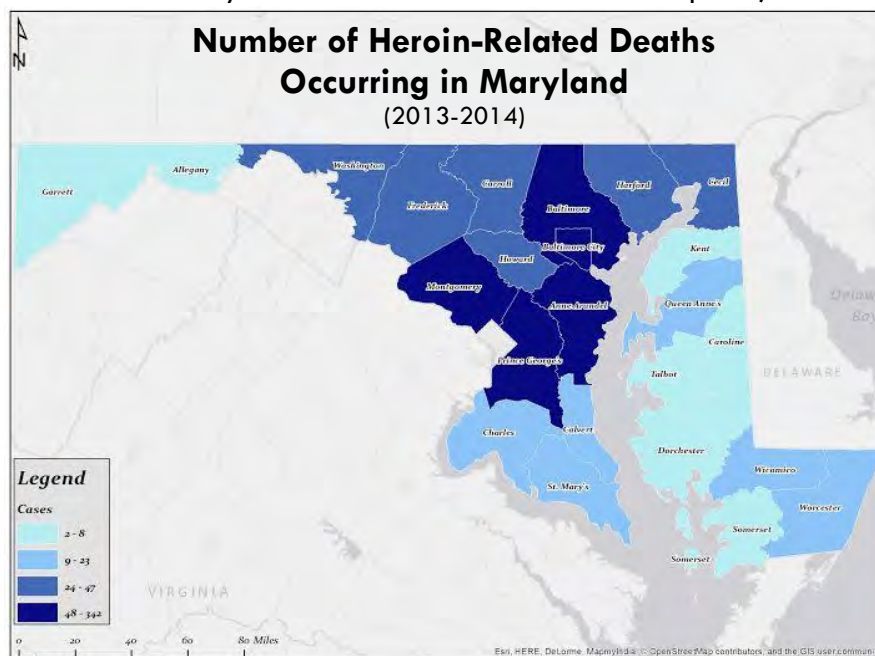
During the course of the regional summits, the workgroup noted deep confusion by the public as to what constitutes effective treatment for heroin and opioid dependency. Effective treatment of individuals with opioid use disorder should be evidence-based, outcome-driven, continuous, comprehensive, compassionate, and based upon integrating both the medical and psychosocial needs of the individual. There is also significant evidence for the efficacy, safety, and life-saving role of medications in the treatment of opioid use disorder. Decisions regarding medication-assisted treatment should be made in collaboration between a patient and a knowledgeable and trained healthcare practitioner. As a corollary, healthcare professionals should provide information to patients about all the different medication options, their pros and cons, and discuss with patients the role of medications as part of individualized treatment planning. Patients should be encouraged to play an active role in their treatment for it to have optimal efficacy and achieve optimal outcomes, including long-term recovery. In short, patients who participate actively in their own treatment have the best outcomes.

c. Intergovernmental Law Enforcement Workgroup

Task Force members Sheriff Tim Cameron and Elizabeth Embry serve as co-chairs of the Intergovernmental Law Enforcement Workgroup. The workgroup is supported by staff from the Governor's Office of Crime Control and Prevention, Maryland State Police, Department of

Human Resources, and Maryland State Department of Education. The workgroup is developing recommendations to improve federal, state, and local law enforcement coordination to address heroin and opioid trafficking across the State. To reach this broad objective, the workgroup developed a work plan covering five core areas: data sharing, intelligence gathering and methods of real-time dissemination, heroin interdiction strategies, prescription drug enforcement and monitoring, and possible legislation that will enable law enforcement to combat the heroin epidemic more effectively.

Improved data sharing among local, state, and federal law enforcement concerning heroin-related enforcement activity is vital for coordinated law enforcement efforts against heroin traffickers in Maryland. While there are structures in place, there are gaps and technological



hurdles that need to be addressed. The workgroup will produce specific recommendations to develop a fully functioning, centralized, statewide system used by all local, state, and federal law enforcement to capture data on heroin-related crime.

Similar to the sharing of data, the collection and dissemination of intelligence on heroin trafficking from debriefings, confidential informants, social media, cell phones, and investigations into overdoses occurs inconsistently and may be delayed by protocols designed to protect sensitive information. The workgroup will create recommendations to eliminate unnecessary barriers to the sharing of intelligence among law enforcement agencies and disseminate the best available guidance on how to allocate the responsibility of sharing that information within an agency.

In addition to existing strategies for interdiction, the workgroup will look at allocating additional resources to methods that are underutilized. Partnerships with law enforcement in neighboring states are piecemeal and should be expanded and standardized. The workgroup will develop these recommendations based on proven strategies. Criminal

enforcement of doctors and pharmacies responsible for illegally prescribing or dispensing opiates has been sparse. This is due, in part, to the fact that the transactions occur in private, and in part to the lack of prescription data accessible to law enforcement. The workgroup will explore expanding the usefulness of the Maryland Prescription Drug Monitoring Program (PDMP) to law enforcement through mandatory registration and querying and dedicating investigative and prosecutorial resources to enforcement. Many members of local law enforcement have developed partnerships with local pharmacies so that they are alerted if there is suspicious behavior. In some cases, these initiatives could be replicated and the workgroup will evaluate the feasibility of expanding those partnerships statewide.

Lastly, the workgroup will examine the challenges drug addiction creates in maintaining safety inside correctional facilities. Inmates come up with inventive ways to smuggle contraband drugs inside the facilities. Contraband can be treated as a form of currency, incite violence, and derail an inmate's substance use treatment program. During fiscal year 2015, the Department of Public Safety and Correctional Services (DPSCS) confiscated 187 opiates and approximately 3,350 forms of Suboxone. One of the primary means by which inmates attempt to smuggle contraband is by having their friends and acquaintances conceal it in letters and in the folds of greeting cards. In order to minimize opportunities for introduction of contraband into the facility by mail, especially contraband available in forms visually undetectable, the workgroup will evaluate measures to disrupt smuggling of drugs through inmate personal correspondence mail.

d. Drug Courts and Reentry Workgroup

Task Force members Judge Julie Solt and Delegate Brett Wilson serve as co-chairs of the Drug Courts and Reentry Workgroup. The workgroup is supported by staff from the Department of Public Safety and Correctional Services, Department of Juvenile Services, Governor's Office of Crime Control and Prevention, Department of Human Resources, Maryland State Department of Education, and the Governor's Office of Children. Due to the close correlation between addiction and criminal activity, the criminal justice system, via drug courts and reentry programs, is frequently a gateway to treating heroin- and opioid-addicted offenders.

The workgroup is exploring opportunities with diversion programs, drug courts, day reporting centers, Health General Placements (*i.e.* 8-505/8-507 programs²), and reentry programs.

The workgroup is currently working with the Maryland State's Attorneys' Association to collect

² 8-505/8-507 programs refer to programs created to give effect to powers granted to the judiciary under MD. CODE ANN., HEALTH-GEN. §8-505 and §8-507 to evaluate a defendant to determine whether, by reason of drug or alcohol abuse, the defendant is in need of and may benefit from treatment and is willing to participate in treatment.

data on which jurisdictions have diversion programs, whether treatment is required where the offender is identified as being heroin- or opioid-addicted, and the recidivism rate for diverted offenders. The workgroup will be exploring recommendations on best practices for successful diversion programs for heroin- and opioid-dependent offenders.

With respect to drug courts, the workgroup is researching how existing programs differ in each jurisdiction. The workgroup will determine whether there is a way to create some uniformity across the various drug court programs with respect to core functions and program requirements. The workgroup has also been in contact with the judiciary regarding the 8-505/8-507 process. It has received information and concerns relating to manipulation of the program to reduce incarceration length, funding issues, delays in treatment, and the appropriate length of treatment.

In addition, the workgroup is examining the merits of day reporting centers, which are designed to operate through the home detention programs available in all Maryland jurisdictions. These centers provide the types of services often needed by addicted offenders, such as drug and mental health treatment, job training, drug testing, life skills, and other services all located under one roof. The workgroup will develop recommendations on how to implement day reporting centers, particularly in areas of the state with fewer local resources. Lastly, the workgroup is gathering data on various reentry programs with the goal of identifying what works, why it works, and which can be duplicated across the state.

e. Education, Public Awareness, and Prevention Workgroup

Task Force members Senator Katherine Klausmeier and Linda Williams serve as co-chairs of the Education, Public Awareness, and Prevention Workgroup. The workgroup is supported by staff from the Maryland State Department of Education, Department of Health and Mental Hygiene, Department of Human Resources, Governor's Office of Community Initiatives, and the Governor's Office of Children. The workgroup is developing recommendations to address ways to engage youth and adolescents, prevention strategies, relapse prevention, overdose death prevention, and the reduction of stigma. Any recommendations will reflect the importance of messaging for specific audiences, including children, parents, families, educators, public health officials, law enforcement, addiction treatment professionals, community groups, and other stakeholders.

“From preventing our kids from using heroin in the first place to increasing and improving access to treatment services for those in recovery, this task force will employ every resource available to take a holistic approach to address this public health emergency.”

—Governor Larry Hogan

The workgroup will be studying environmental factors including the broader physical, social, cultural, and institutional forces that contribute to illicit drug use and addiction. It will begin with strategies to stop heroin and opioid abuse before it has a chance to occur. This level of prevention involves education in schools, including use of research-informed curriculum in elementary, middle, and high schools as well as community-based youth services and other nonprofit organizations with a history of providing effective drug education. It also includes the education or re-education of health care professionals about the disease of addiction, the use of screening tools, and problems that can arise from overprescribing opioids.

Next, the workgroup will explore strategies targeted toward those most at risk for problems with heroin or opioids. The workgroup will develop recommendations related to intensive substance abuse education for at-risk and high-risk individuals such as those charged with drug-related offenses or children of addicted parents.³ In addition, the workgroup will consider the use of social workers or licensed counselors in middle and high schools to provide support as well as screenings, brief intervention, and referrals to treatment (*i.e.* SBIRTs).

The workgroup will pursue strategies to reduce heroin and opioid abuse and support the recovery efforts of people with substance use disorders. The workgroup is exploring ways to provide more supportive environments for young people, such as recovery clubs, recovery high schools, and collegiate recovery centers. It is also developing recommendations for increased naloxone training. The workgroup is focusing on ways to reduce the stigma associated with addiction, including educating the public on the brain science of addiction to clarify that it is a disease rather than a moral weakness. It also agrees that the State should employ a large-scale, coordinated media campaign to educate the public on heroin and opioid abuse.

The Centers for Disease Control and Prevention states that 45 percent of heroin addicts were also addicted to prescription painkillers. The Drug Enforcement Agency has stated that at least 70 percent of new heroin users started with prescription painkillers. Accordingly, the Task Force will explore reintroducing legislation similar to House Bill 3 of 2015 introduced by then-Delegate Kelly Schulz, which will require a prescriber and a dispenser to query the Prescription Drug Monitoring Program (PDMP) to review a patient's prescription monitoring data before prescribing or dispensing a monitored prescription drug. The PDMP was established in 2011 and is housed within the Department of Health and Mental Hygiene (DHMH) to support healthcare providers and their patients in the safe and effective use of prescription drugs. The PDMP collects and stores information on drugs that contain controlled

³ The workgroup has identified the need for law enforcement, corrections, parole, and probation officers to learn about the disease of addiction and appropriate responses to relapse.

dangerous substances and are dispensed to patients in Maryland. The PDMP also assists in investigations of illegal or inappropriate prescribing, misuse, diversion, or other prescription drug abuse.

Currently, the law does not require prescribers or dispensers to query their patients' PDMP data when prescribing or dispensing controlled substances. As such, the Task Force will explore requiring a prescriber and a dispenser to query the PDMP to review a patient's prescription monitoring data before prescribing or dispensing a monitored prescription drug. Requiring prescribers and dispensers to access PDMP prior to prescribing or dispensing a controlled prescription drug will increase the number of registered PDMP users and the number of inquiries. If legislation is pursued, the Task Force envisions extensive outreach to stakeholders to reach consensus on which healthcare professionals should be required to register and query the PDMP, and under what circumstances. DHMH will also need to increase the technical capabilities of the PDMP to support additional users and increased queries.

In furtherance of its efforts to stem the pipeline of new users, the Task Force will explore possible strengthening of prescriber and pharmacist disclosures. Prescription opioid medications are among the most widely prescribed drugs for the management of moderate to severe chronic pain. The potential for misuse, abuse, or diversion should be concerning for both prescribers and dispensers of opioid prescription medication. There is a role that both prescribers and dispensers can play to ensure the safe use of opioid pain management therapy. Pharmacists are a central point of contact for patients when they fill prescriptions and present an opportunity to further inform patients of any potential adverse side-effects.

The Task Force will explore whether additional, verbal counseling should be required when prescribing or dispensing an opioid prescription drug to patients in Maryland. Prescribers have a responsibility to counsel patients about the specific details of the drugs they are prescribing. They also have a responsibility to monitor patient use, abuse, or diversion of drugs. The Task Force will explore whether prescribers should verbally counsel their patients on how to secure and properly dispose of opioid prescription drugs, as well as the risks of misuse or abuse of opioid prescription drugs. The Task Force will examine the role pharmacists play to ensure that patients understand the risks and benefits of the opioid prescription drugs and whether face-to-face verbal counseling is practical.

VII. PRELIMINARY RECOMMENDATIONS

Though the Task Force is working diligently to develop final recommendations for the December 1, 2015 final report, this interim report includes 10 recommendations with a heavy emphasis on education and prevention strategies targeted toward youth and adolescents.

1. Earlier and Broader Incorporation of Heroin and Opioid Prevention into the Health Curriculum

The Task Force heard extensive testimony relating to improving the education of children and adolescents on heroin and opioids at earlier ages. As such, the Task Force recommends that the Maryland State Department of Education's Division of Curriculum, Assessment, and Accountability develop age-appropriate lessons and resources on heroin and opioid use in support of the Maryland Comprehensive Health Curriculum by the MSDE Educational Specialist in Health and Physical Education (PE), Local Education Agency (LEA) Health/PE Coordinators, and Master Teachers. In addition, the Task Force recommends that corresponding professional development and training for school personnel will ensure effective implementation of the materials that are created.

Due to the variety of delivery formats for comprehensive health education amongst the LEAs, lessons and resources will be developed for the traditional focused health classroom as well as cross-curricular resources that can be used by teachers throughout a school. Lessons and resources will be written with consideration given to the age and prior learning of students. Lessons and resources will look at the physical and mental effect heroin and opioid abuse has on a person. In addition, focus will be given to the larger consequence of heroin and opioid

Recommendation Overview

- 1. Earlier and Broader Incorporation of Heroin and Opioid Prevention into the Health Curriculum**
- 2. Infusion of Heroin and Opioid Prevention into Additional Disciplines**
- 3. Heroin and Opioid Addiction Integrated into Service-Learning Projects**
- 4. Student-based Heroin and Opioid Prevention Campaign**
- 5. Video PSA Campaign**
- 6. Maryland Emergency Department Opioid Prescribing Guidelines**
- 7. Maryland State Police Training on the Good Samaritan Law**
- 8. Maryland State Police Help Cards and Healthcare Follow-Up Unit**
- 9. Faith-based Addiction Treatment Database**
- 10. Overdose Awareness Week**

abuse within families and communities. These lessons are ready for dissemination for the 2015-2016 school year.

2. Infusion of Heroin and Opioid Prevention into Additional Disciplines

For students to be fully prepared for the challenges and expectations of college and career, it is critical that they develop literacy skills in all content areas. As a part of Maryland's College and Career-Ready Standards, it is critical that educators in all science, technical subjects, and history/social studies

classrooms incorporate content-specific literacy into their instruction. As such, the Task Force recommends that MSDE's Division of Curriculum, Assessment, and Accountability develop Disciplinary Literacy

lessons integrating education on heroin and opioid use with College and Career-Ready Standards (English Language Arts and mathematics) through the collaborative efforts of MSDE staff, LEA Content Coordinators, and Master Teachers.

“Virtually every 3rd grader can tell you that cigarettes are bad for you, but most don't know that taking someone else's prescription drugs is harmful.”

—Lt. Governor Boyd K. Rutherford

The use of the heroin and opioid topic as a central theme in social studies, science, fine arts, and other subjects supports the importance of introducing related college and career-ready standards to other disciplines. Since the standards emphasize research skills and the development of point of view related to these skills, this topic will generate interesting and pertinent classroom discussion and assignments in all content areas. The desire to incorporate a disciplinary literacy theme as part of standards-based education requires all subjects and disciplines to align their work with the theme chosen: heroin and opioid addiction. These lessons will be planned for dissemination during the 2015-2016 school year.

3. Heroin and Opioid Addiction Integrated into Service-Learning Projects

Service-learning is a teaching method that combines meaningful service to the community with curriculum-based learning. Through service-learning, students improve their academic, social, and civic skills by applying what they learn in school to the real world. When meaningful reflection is added, students can use the experience to reinforce the link between their service and their learning. All 24 local school systems in Maryland implement service-learning graduation requirements. Each implements the requirements slightly differently because they tailor the specifics of their program to their local community.

The Task Force recommends that MSDE's Service-Learning Office create service-learning curriculum-based projects that engage students in addressing the heroin and opioid public health crisis. The goal is to provide educators with rigorous and meaningful service-learning

curriculum models and guidance on how to re-engage students in the fight against heroin and opioid abuse. This curriculum will be aligned to newly developed heroin and opioid prevention education infused into course curriculum. To accomplish this task, MSDE's service-learning specialist will conduct meetings with Service-Learning Coordinators in the 24 LEAs. Staff will then work with curriculum specialists to understand relevant areas where these service-learning projects could be best infused. Staff will create the projects and share them at coordinator meetings and via MSDE's website.

4. Student-based Heroin and Opioid Prevention Campaign

The Task Force recommends that MSDE partner with the Office of the Governor and State agencies on a coordinated, multi-tiered public education campaign that discourages students from using heroin or abusing opioids. The campaign will focus on educating students and parents on how to identify and respond to signs of addiction and informing students, parents, and communities on how to access support services. To foster participation at the local level, the campaign will partner with all 24 school systems and youth-serving organizations throughout Maryland to communicate with students and adults during in-school and after-school activities. Target audiences will include students, parents, school personnel, and community and faith-based leaders.

Activities will include the following:

- a) Pre- and post-campaign surveys/research to gauge public awareness and success;
- b) Fall events at schools with multiple state leaders highlighting a success story or successful local overdose prevention plan that includes the LEA;
- c) A student-led contest to design a campaign name, logo, and slogan to support Governor Hogan's overall statewide strategy;
- d) Web pages to share key messages and resources, including communication toolkits, downloadable posters, and links to federal, state, and local campaigns, information, and contacts;
- e) Focus groups with parents and students to discuss and gain knowledge of prevention and support needs and partner with DHMH and other agencies on health risk communication;
- f) Social media campaign by youth to engage youth, led by the student member of the State Board of Education, the Maryland Association of Student Councils, and others; and

- g) MSDE and State agencies will pursue earned media focused on prevention, what parents and students are saying, and school services that address the specific needs identified by parents and students.

5. Video PSA Campaign

Though the Education, Public Awareness, and Prevention Workgroup is developing the outlines of a large-scale, coordinated media campaign employing all forms of media, the Task Force recommends the immediate launch of video public service announcements via broadcast and social media throughout Maryland. The Department of Business and Economic Development's Division of Tourism, Film, and the Arts and the Maryland Higher Education Commission will seek students from local higher education institutions to develop and produce 30-second public service announcements. The best PSAs will be featured on State social media platforms and submitted to local broadcast stations for airing. The Governor's Communications Office will direct distribution of approved PSAs.

6. Maryland Emergency Department Opioid Prescribing Guidelines

According to the Centers for Disease Control and Prevention, the strongest risk factor for heroin addiction is addiction to prescription opioid painkillers. As such, hospitals can play an important preventive role in the fight to reduce opioid misuse and abuse. Earlier this summer,

"There are some steps that could be taken to better inform doctors, dentists, pharmacists ... about the effects of prescription medications."

—Lt. Governor Boyd K. Rutherford

the Maryland Hospital Association developed standardized opioid prescribing guidelines for hospital emergency departments.⁴ The guidelines are informed by a patient-focused brochure developed by the Maryland Chapter of the American College of Emergency

Physicians (MDACEP) that was released in 2014. They were crafted to allow emergency medicine physicians flexibility in prescribing opioids when medically necessary while encouraging best practices in an effort to reduce the risk of opioid addiction. These guidelines, which are endorsed by MDACEP, promote:

- a) Screening and patient education to help detect and treat existing substance misuse conditions and safeguard patients against unnecessary risks of developing such conditions;
- b) Enhanced information sharing among providers using existing tools like the State's health information exchange (CRISP) and the state's prescription drug monitoring program; and

⁴ See Appendix B.

- c) Standardized prescribing practices to reduce unnecessary prescriptions (and the amount of pills prescribed) to diminish inadvertent or purposeful misuse of opioids.

The Task Force recommends that each acute care hospital work with its Emergency Department personnel to implement, as medically appropriate, these guidelines and provide the Maryland Hospital Association with periodic updates on the progress of the implementation.

7. Maryland State Police Training on the Good Samaritan Law

The Task Force recommends that the Maryland State Police (MSP) provide training to field and investigative personnel on the legal requirements of the Good Samaritan Law. It is apparent that some confusion exists among law enforcement agencies on what actions they can and cannot take when confronted with a police response that falls under the protection of this law. Unless efforts are taken to remove confusion, valuable intelligence and opportunities to combat this issue could be lost. It is recommended that the State's Attorneys' Association be included in this training, as conformance to this law should be consistent statewide.

8. Maryland State Police Help Cards and Healthcare Follow-Up Unit

The Task Force recommends that the Maryland State Police provide heroin and opioid "Help Cards" to all MSP troopers, with the distribution of the cards beginning in the Western Maryland barracks. The cards should contain health department, treatment, and financial assistance resource information. The cards should be distributed by troopers when encountering heroin- or opioid-related arrests or other encounters. They also can be provided to family members who contact MSP facilities seeking assistance or guidance for addicted family members, friends, or colleagues.

The Task Force also recommends that the Department of Health and Mental Hygiene assist the MSP in developing a healthcare follow-up unit that would be responsive to law enforcement, school personnel, and citizen referrals of persons involved in or at risk of being involved in heroin and opioid use. Often when these contacts occur, persons with substance use disorders are at their most vulnerable state, and quick treatment interaction may be the difference between recovery and continued abuse.

9. Faith-based Addiction Treatment Database

There is a groundswell of passion and commitment among faith groups to help combat the heroin and opioid health crisis. A number of representatives from the faith community, including pastors and members of congregations, stepped forward in support of individuals, families, and programs that are battling heroin and opioid dependency. Such faith-based groups are offering numerous forms of support, including space for 12-step meetings; outreach to individuals and families in crisis due to drug abuse; and non-clinical case

management support for drug dependent individuals who are either waiting to enter treatment, need support during treatment, or who require post-treatment support in order to enter into long-term recovery. Unfortunately, many people with substance use disorders and their families are unaware of the addiction treatment services faith-based organizations in their communities provide. As such, the Task Force recommends that the Governor's Office of Community Initiatives' (GOCI) Interfaith Coordinator develop a comprehensive database of faith-based organizations that provide such services and include contact information, hours of operation, and types of services. The database should be made accessible via GOCI's website and easily navigable by the general public.

10. Overdose Awareness Week

August 31 is International Overdose Awareness Day and September is the SAMHSA-sponsored National Recovery Month. The Task Force recommends that the first week of September be declared Maryland Overdose Awareness Week, which will include a conference for Overdose Response Program (ORP) entities, vigils, and other local events to raise awareness of the addiction and overdose problem.

VIII. APPROVED RESOURCE ALLOCATIONS

In May 2015, Governor Hogan authorized \$2 million in additional funding for fiscal year 2016 to combat the heroin and opioid health crisis in Maryland. Over the last six months, the Task Force has had the opportunity to solicit input from well over 300 people on how to best utilize scarce resources to address this public health epidemic. Among the top suggestions received were requests for increased overdose prevention and addiction treatment funding, particularly for the Eastern Shore, ex-offenders, and women with children. Based on the work of the Task Force and the input provided by stakeholders, below are the initial funding announcements approved and authorized by Governor Hogan.

1. Restoring the A.F. Whitsitt Center to a 40-bed Capacity

Established in 1993, the A.F. Whitsitt Center is a 24-hour, seven-day-a-week residential treatment facility for adults suffering from chemical dependency and co-occurring disorders. It also offers a medically monitored detoxification for alcohol-, opiate-, and benzodiazepine-dependent individuals. As a Commission on Accreditation of Rehabilitation Facilities (CARF) accredited residential treatment facility, it offers a wide variety of treatment levels including Level 0.5 early intervention, Level 1 outpatient, Level 2.1 intensive outpatient, Level 3, and 3.7D residential treatment services.

Upon completion of the residential program, individuals are connected to a care coordinator through whom they have access to referral and linkage to community-based clinical and recovery support services.

The Center is located in Kent County on the grounds of the former Upper Shore Community Mental Health Center. The catchment area encompasses the entire Eastern Shore of

Resource Allocations Overview

1. **Restoring the A.F. Whitsitt Center to a 40-bed Capacity**
2. **Providing Community-Based Naloxone Training and Distribution**
3. **Piloting Overdose Survivor Outreach Program in Hospital Emergency Departments**
4. **Piloting Naloxone Distribution to Individuals Screened Positive for Opioid Use Disorder at Release from Local Detention Centers**
5. **Expanding Supportive Recovery Housing for Women with Children**
6. **Supporting Detoxification Services for Women with Children**
7. **Targeted Outreach and Education to Aberrant/High-Risk Opioid and Other Controlled Substance Prescribers**
8. **Overtime for Dorchester County Law Enforcement**
9. **Maryland State Police Gang/Heroin Disruption Project**
10. **License Plate Reader Technology**

Maryland. Demographically, Cecil County residents represents 53 percent of the patients, Talbot County represents 10 percent, Queen Anne's County represents 10 percent, Kent County represents 10 percent, Caroline and Dorchester Counties represent 9 percent, and the remaining Lower Shore counties represent 3 percent.

Although individuals can be referred by a physician, the primary source of referrals comes from county detention centers in the Center's catchment area. Judges from the Kent County Circuit and District Court send referrals as well. It treats just under 600 patients annually, prioritizing treatment toward low-income patients and patients requiring medical assistance. These patients tend to have failed outpatient treatment and are high-risk for fatal overdose.

Originally funded for 40 beds with average stay of 30 days, budget cuts in fiscal year 2012 resulted in reduced capacity, shorter lengths of stay, and a longer wait list. Today, the capacity is only 26 beds with an average length of stay of 21 days and an average wait time of four weeks for admission. Due to extraordinary demand and the fact that the Center is the only health department-operated 3.7D residential facility on the Eastern Shore, Governor Hogan has allocated \$800,000 in fiscal year 2016 to restore capacity to 40 beds allowing an additional 240 patients to receive treatment each year.

2. Providing Community-Based Naloxone Training and Distribution

The Overdose Response Program (ORP) is the State's primary vehicle for training community members on opioid overdose recognition and response and equipping them with naloxone. Although the ORP law only requires the Department of Health and Mental Hygiene to exercise regulatory oversight over local-level entities that conduct naloxone training and distribution, the Behavioral Health Administration (BHA) has historically provided funding to local health departments (LHDs) to promote and expand ORP trainings. Responses to a DHMH survey of ORP training entities conducted in early 2015 showed that many would cease or significantly curtail training and distribution if state funding was not available. As such, Governor Hogan directed \$500,000 in supplemental grant awards to LHDs to support ORP trainings. The funding may support the purchase of naloxone and related supplies, personnel time, and promoting and implementing training events.

Applicants will be asked to maximize naloxone funding opportunities from other sources and take advantage of new legal authorities to facilitate wider distribution. BHA will prioritize funding for applications that propose to use standing orders for naloxone prescribing and dispensing as authorized by Chapter 356 of 2015, legislation introduced by Senator Klausmeier to improve the State's ORP program. Standing orders remove the requirement that a healthcare practitioner, such as a doctor or nurse, be physically present for prescribing

and dispensing to occur, which will allow for broader and more efficient naloxone distribution to those most likely to experience, or be in a position to respond to, an opioid overdose. This was a major barrier identified by ORP training entities. In addition, BHA will prioritize funding to LHDs that partner with community-based organizations to expand the number of available trainings. Community-based ORP entities often include highly motivated volunteers with direct connections to high-risk individuals, their families, and friends.

3. Piloting Overdose Survivor Outreach Program in Hospital Emergency Departments

In 2014, DHMH issued a report showing that nearly 60 percent of all overdose decedents in 2013 had previously been treated for an overdose at a Maryland hospital in the year prior to death, with almost 10 percent having been treated for overdose five or more times. This indicates an urgent need to improve coordination between hospitals and public health authorities to target the provision of behavioral health treatment, recovery, and harm reduction services for opioid overdose survivors. In response, DHMH announced a new initiative in December 2014 to work with hospitals, local health departments, and behavioral health/addictions authorities to improve information sharing with hospitals and establish effective outreach and care coordination collaborations.

To further these efforts, Governor Hogan has directed BHA to allocate \$300,000 toward establishing a pilot Overdose Survivor Outreach Program (OSOP) in Baltimore City. The goal of OSOP will be to coordinate and supplement programs that identify and intervene with addicted individuals in hospital emergency departments to ensure ongoing, in-community follow-up and engagement with overdose survivors after discharge. OSOP will seek to implement peer support services for overdose survivors at multiple points in the continuum of care, including emergency medical services, treatment referral, care coordination, and while enrolled in a treatment program. Overdose education and naloxone distribution services will be incorporated and targeted for opioid overdose survivors. OSOP will also seek to identify and support additional hospitals in Baltimore City and neighboring jurisdictions interested in implementing screening, intervention, and referral protocols and partnering with the local addictions authority to improve care coordination services. Lessons learned from the pilot will inform the State's strategy to expand ED-based interventions to other hospitals throughout the State and be incorporated into technical assistance materials to support implementation.

Funding may be used to support hiring and training peer recovery support specialists, expanding the capacity of Behavioral Health Systems Baltimore (BHSB) to conduct outreach services, training hospital staff, and other necessary services. Importantly, funding will be coordinated to maximize the impact of other existing grant programs, including those focused on implementing Screening, Brief Intervention and Referral to Treatment (SBIRT) in hospitals

and community health centers and expanding access to recovery support services in medication-assisted treatment programs. Other existing funding streams will be leveraged, as available, to provide ongoing recovery support services, including Maryland Recovery Net, a fee-for-service recovery support system overseen by BHA and managed by Value Options that provides access to transportation, housing, peer support, and other services. BHA will work with BHSB and other State and local partners to improve data collection and analysis on survivors receiving services.

4. Piloting Naloxone Distribution to Individuals Screened Positive for Opioid Use Disorder at Release from Local Detention Centers

In 2014, the DHMH Vital Statistics Administration (VSA) worked with the Department of Public Safety and Correctional Services to match medical examiner records of overdose deaths with corrections data. Findings from the analysis supported existing research showing that opioid-addicted individuals are at increased risk of overdose immediately following release from incarceration. These findings indicate that targeting overdose education and naloxone distribution to high-risk individuals at the time of release may be an effective strategy for reducing overdose deaths. Models supporting these strategies currently exist across the country. For example, the New York State prison system has recently launched a program to dispense naloxone at the time of release. The Baltimore City Health Department has conducted overdose education trainings in the Baltimore City Detention Center.

Seeking solutions to these challenges, Governor Hogan directed BHA to provide \$150,000 through supplemental awards to three Southern Maryland LHDs - Calvert, Charles, and St. Mary's Counties - to implement overdose education and naloxone distribution programs for individuals released from those counties' local detention centers. Focusing the pilot in one region of the state will help maximize impact and evaluation in these three counties that collectively experienced an 88 percent increase in overdose deaths between 2013 and 2014. Historically, these counties have also had limited naloxone distribution through ORPs and there were no opioid treatment programs that received a supply of the Evzio naloxone auto-injector donation. There is an urgent need to target distribution to high-risk individuals in these counties. BHA will work with the LHDs to ensure that those being released are screened for opioid use disorder and that naloxone distribution is targeted accordingly. Detention centers and LHDs will be required to collect and report to BHA information on the individuals served by the program to evaluate impact and estimate the feasibility of expanding the program statewide.

5. Expanding Supportive Recovery Housing for Women with Children

Research shows that parental substance use is associated with numerous negative outcomes for children. Parental substance use has been shown to increase the likelihood that a family will experience financial problems, shifting of adult roles onto children, child abuse and neglect, violence, disrupted environments, and inconsistent parenting. Research also shows that a complex and harmful cycle exists in which a history of child abuse and neglect increases a person's risk of substance use later in life and that individuals with substance use disorders are more likely to abuse or neglect their children in turn. In addition, children of parents with substance use disorders are known to have a heightened risk for developing substance use problems themselves. Women, the traditional caregivers, face many obstacles and challenges in engaging in treatment and recovery services that could prevent these negative outcomes. Those obstacles include a lack of collaboration among social service systems, limited options for women who are pregnant, lack of culturally congruent programming, few resources for women with children, fear of loss of child custody, and the stigma of substance use.

In 2012, BHA initiated a series of focus groups to explore substance use among women with children at every women and children's residential treatment program and at several co-ed, intensive outpatient programs. The results were universal: the overarching need identified for

"We are going to attack this problem from every direction using everything we've got."

—Governor Larry Hogan

women with dependent children was recovery housing that would allow a mother to bring all of her children into recovery with her. Since 2013, BHA has funded recovery houses in Baltimore City and Anne Arundel County.

There are currently nine vendors: six in Baltimore City with 11 houses and three in Anne Arundel County with four houses. The houses are in constant demand with waiting lists, as treatment providers are often looking for options similar to these homes when women are ready to be discharged from more intensive treatment.

As such, Governor Hogan directed BHA to allocate an additional \$100,000 for recovery housing, prioritizing those jurisdictions that currently do not have recovery housing for women with children and those with a significant waiting list. The funding will support the lease/rent of a house, furnishing for the building, and a peer house manager to reside in the facility with the families.

6. Supporting Detoxification Services for Women with Children

Detoxification is an important, but resource-intensive process. Clients require 24-hour monitoring for assessment and ongoing monitoring of sub-acute biomedical and behavioral conditions related to opioid and alcohol withdrawal. A comprehensive nursing assessment

including client and family history; vital signs; and medication, psychiatric, medical, and substance use history are all provided upon admission to the treatment. Because women historically do better in treatment with their children than without their children, BHA utilizes a model of residential detoxification services with childcare services on site in Baltimore City. This allows mothers to detox in a safe environment and children can receive appropriate wraparound services. These services include, but are not limited to, pediatric and mental health referrals, after-school programming, and recreational activities that are age appropriate.

As such, Governor Hogan will direct BHA to make an additional \$50,000 available to continue operation of this program. Treatment programs will have an opportunity to submit a request for the funding and will identify the best practices that they will utilize to move the women into long-term residential treatment or intensive outpatient treatment. BHA will require a yearly report that documents how the program used the funding and the outcomes associated with the funding.

7. Targeted Outreach and Education to Aberrant/High-Risk Opioid and Other Controlled Substance Prescribers

The widespread overprescribing of opioid analgesics for the treatment of pain has been identified as a major driver of the opioid addiction and overdose epidemic. Increased opioid prescribing has refocused the medical community on the lack of strong evidence for the safety and efficacy of long-term opioid therapy for chronic non-cancer pain. However, many providers, including both primary care and pain specialists, may continue to prescribe inappropriately based on outdated or erroneous information about the risks and benefits of opioids for most patients. High-risk prescribing practices, including maintaining patients at high opioid doses, rapid dose escalation, and co-prescribing opioids, benzodiazepines, and other controlled substances, may be common among a relatively small subset of practitioners. This small group may be disproportionately contributing to new cases of addiction, overdose, and diversion.

Aberrant prescribers are at high risk for disciplinary actions by licensing boards and criminal enforcement actions by public safety authorities. These actions can create other unintended consequences when the prescriber's patients are abruptly cut off from their prescriptions. These patients often have multiple co-occurring somatic and behavioral health issues, and a large influx of patients with complex needs can quickly overwhelm a local healthcare system in medically underserved areas.

DHMH has promoted continuing medical education (CME) courses on opioid prescribing provided by MedChi and the Maryland Society of Addiction Medicine and is organizing a live CME training for physicians, nurses, and pharmacists to take place in Maryland in October 2015. The Maryland Board of Physicians has also required a one-hour CME credit on appropriate opioid prescribing as part of its licensing process for all physicians starting in 2015. However, to date there have been no clinical education initiatives narrowly targeted at high-risk prescribers.

As such, Governor Hogan has directed DHMH to allocate \$100,000 to conduct targeted outreach and education for practitioners identified as engaging in high-risk prescribing practices. DHMH will develop clinical tools and deploy appropriate personnel to provide direct consultation and support services to improve the quality of treatment provided to patients with chronic pain that are receiving opioid prescriptions. Educational content may also include information on use of the PDMP and CRISP, screening and referral for substance use disorders, buprenorphine, naloxone, and other overdose prevention priorities for the Department. In collaboration with academic partners, practitioner organizations and other stakeholders, DHMH will also investigate establishing an inter-disciplinary pain and addiction medicine collaborative that can provide ongoing clinical consultation to primary care providers across the state.

High-risk practices will be identified by DHMH through analyses of Medicaid claims data, pharmacy inspections/surveys, medical examiner records, and other intra-departmental data sources. DHMH will also conduct an analysis of the PDMP law and regulations to determine whether PDMP data and legal authorities could be used to identify providers or as a means of outreach and education.

8. Overtime for Dorchester County Law Enforcement

Governor Hogan, through the Office of Crime Control and Prevention (GOCCP), will provide Dorchester County with \$24,700 to provide overtime for law enforcement to address the opioid and heroin epidemic. Overtime will be used to gather intelligence in conjunction with numerous regional law enforcement agencies to examine the point of origin of the heroin and locations from which drugs are entering Dorchester County. This information will enable law enforcement to target efforts in regards to control and enforcement and will be valuable in prosecuting heroin trafficking cases.

9. Maryland State Police Gang/Heroin Disruption Project

Governor Hogan, through GOCCP, will provide Maryland State Police (MSP) with \$40,000 to support MSP's Gang/Heroin Disruption Project. The funds will provide overtime to members

of the MSP Gang Enforcement Unit to conduct home visits with parole and probation officers to Violence Prevention Initiative (VPI) offenders, work beyond scheduled shifts to further heroin investigations, conduct surveillance, and serve arrest warrants. These inter-jurisdictional efforts will help law enforcement arrest street-level drug dealers and those transporting heroin into Maryland.

10. License Plate Reader Technology

Governor Hogan, through GOCCP, will provide the Ocean City Police Department with \$124,635 to fund license plate reader (LPR) technology at the northern end of Ocean City. The LPR will allow law enforcement to target heroin coming into the State and will be linked into the Maryland Coordination and Analysis Center (MCAC) database.

IX. CONCLUSION

The Heroin and Opioid Emergency Task Force has worked diligently to determine the scale of Maryland's heroin and opioid problem, investigate areas of specific concern and opportunity, and gather a broad coalition of stakeholders to assist in finding solutions. The Interim Report's 10 recommendations and 10 funding disbursements represent the input of hundreds of contributors and will have an immediate positive effect in combating this public health crisis. Even so, the work of the Task Force and its workgroups is nowhere near complete. Over the next four months, the Task Force will continue to leverage all available resources to produce additional recommendations for the Final Report that will span areas ranging from education and prevention to insurance coverage to alternatives to incarceration.

X. ACKNOWLEDGEMENTS

The Task Force is tremendously grateful for the outpouring of support and expertise provided by hundreds of people to help the State combat the heroin and opioid epidemic.

Office of the Governor and Agency Staff

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APPENDICES

EXHIBIT 4

STATE OF MARYLAND

Craig P. Tanio, M.D.
CHAIR



Ben Steffen
EXECUTIVE DIRECTOR

AUG 13 2015

MARYLAND HEALTH CARE COMMISSION

4160 PATTERSON AVENUE – BALTIMORE, MARYLAND 21215
TELEPHONE: 410-764-3460 FAX: 410-358-1236

August 3, 2015

Ella R. Aiken, Esquire
Thomas C. Dame, Esquire
Gallagher, Evelius, and Jones, LLP
218 North Charles Street, Suite 400
Baltimore, MD 21201

Re: Requests for Determination of Coverage
Capital Expenditures for Establishment of Alcoholism and
Drug Abuse Intermediate Care Facilities
Recovery Centers of America
Matter No.: 15-08-2362 and Matter No.: 15-07-2363

Dear Ms. Aiken and Mr. Dame:

I write in response to your letters of June 17 and July 15, 2015 requesting, on behalf of Recovery Centers of America ("RCA"), a determination of coverage for two capital projects that are, in whole or in part, the subject of the above-referenced Certificate of Need ("CON") applications. Each of these applications proposes the establishment of alcoholism and drug abuse intermediate care facilities ("ICFs"). Matter No. 15-08-2362 involves the development of an ICF campus in Charles County and Matter No. 15-07-2363 involves the development of an ICF campus in Cecil County, both of which are proposed to provide facilities for inpatient detoxification and residential treatment.

Alcoholism and drug abuse ICFs are defined, in COMAR 10.24.14, as facilities "designed to facilitate the subacute detoxification and rehabilitation of alcohol and drug abusers by placing them in an organized therapeutic environment in which they receive medical services, diagnostic services, individual and group therapy and counseling, vocational rehabilitation, and work therapy while benefiting from the support that a residential setting can provide." The Maryland Health Care Commission has determined that this definition corresponds to the subacute "inpatient" level of care and service in the American Society of Addiction Medicine's Patient Placement Criteria. This would include Level III.7, medically-monitored intensive inpatient treatment and Level III.7-D, medically-monitored inpatient detoxification services.¹

¹ It would not correspond to Level IV, medically-managed intensive inpatient treatment or Level IV-D, medically-managed inpatient detoxification. These levels of care fall under COMAR 10.24.17's definition of "acute alcohol and drug abuse services" defined as "emergency and detoxification services provided to individuals requiring 24-hour medical or psychiatric care as a result of life-threatening or serious acute or chronic alcohol or drug abuse, or medical psychiatric illness associated with substance abuse, provided in licensed acute general hospitals defined in Health General Article §19-301(f)-(g), Annotated Code of Maryland."

TOLL FREE
1-877-245-1762

TDD FOR DISABLED
MARYLAND RELAY SERVICE
1-800-735-2258

#535566

The development plan proposed by RCA for these two projects involves establishment of facilities that will be used to provide Level III.7-D medically-monitored inpatient detoxification services and Level III.5 clinically managed high-intensity residential treatment. RCA requests a determination with respect to the regulatory requirements associated with two project initiation scenarios that would proceed without issuance of a Certificate of Need. Under the first scenario, RCA would proceed with full development of both the Charles and Cecil County facilities even if a CON is not issued, but would limit itself to operation of the Level III.5 facilities for clinically managed high-intensity residential treatment, withholding operation of the detoxification facilities until issuance of a CON. Mr. Dame's letter of July 15, 2015 states that, "RCA is willing to accept the business risk that, if the CON Applications are denied, the facilities could not be used for purposes that would require a CON."

Under the second scenario, RCA would limit initial development of the two campuses that would proceed without CON authorization, to the facilities intended to house the Level III.5 facilities for clinically managed high-intensity residential treatment, withholding expenditures for development of the facilities intended to house the Level III-D medically-monitored inpatient detoxification services until such time as establishment of those facilities may obtain CON authorization.

I have determined that RCA may proceed to execute binding obligations to develop and incur expenditures for construction/renovation expenditures to develop those parts of the proposed Charles and Cecil County projects related to the provision of Level III.5 facilities for clinically managed high-intensity residential treatment, the second scenario outlined in the July 15, 2015 request for a determination of coverage. Establishment of such facilities does not require CON review and approval

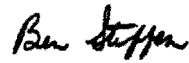
I have determined that RCA may not proceed with initial development of these campuses as described in the first scenario, given that this would involve obligating RCA to expenditures and the incurrence of expenditures for establishment of facilities that require CON authorization.

Finally, a word of caution. As RCA contemplates the potential for substantive expenditures for facilities development prior to a decision on its CON applications, I would urge RCA to strongly reconsider the position it has taken with respect to the patient population it will serve and the implications of this position on RCA's ability to operate ICF campuses in the configuration it desires. The number of Maryland citizens without health insurance coverage has shrunk since the implementation of the Affordable Care Act but, at an estimated 400,000, it is still significant. Since last year, the Maryland Medicaid population has grown to over 1.2 million and more than 780,000 Maryland residents are enrolled in the Medicare program. Together, these two public programs provide health benefits to approximately one-third of Maryland's population. It is difficult to imagine the Maryland Health Care Commission approving new health care facilities that completely ignore these populations.

Ella R. Aiken, Esquire
Thomas C. Dame, Esquire
August 3, 2015
Page 3

If you have any questions concerning this determination, please contact Kevin McDonald, Chief of the CON Division at 410-764-5982.

Sincerely,

A handwritten signature in black ink that reads "Ben Steffen". The signature is written in a cursive, slightly slanted style.

Ben Steffen
Executive Director

cc: Kevin McDonald, Chief, Certificate of Need
Suellen Wideman, Assistant Attorney General
Gayle M. Jordan-Randolph, M.D., Deputy Secretary for Behavioral Health
Stephanie Garrity, Health Office, Cecil County
Dianna E. Abney, M.D., Health Office, Charles County

EXHIBIT 5

Alternative Need Analysis Pursuant to ICF SHP

Alternative Eastern Shore Need Projection

| | | 2019 MD Population⁽¹⁾ |
|--|--------|---|
| Projected Population for 18 Years and older | | 418,847 |
| Indigent Population⁽²⁾ | | 65,340 |
| Non Indigent Population | | 353,507 |
| Estimated # of Substance Abuse Users | 8.64% | 30,543 |
| Estimated Annual Target Population | 25.00% | 7,636 |
| Estimated # Requiring Treatment | 95.00% | 7,254 |
| Estimated Private Population requiring ICF (25-35%) | | |
| Min % | 25.00% | 1,813 |
| Max % | 35.00% | 2,539 |
| Estimated Range requiring Readmission | | |
| Min % | 10.00% | 181 |
| Max % | 10.00% | 254 |
| Total Discharges from Out-of-State | | - |
| Range of Adults requiring ICF Care | | |
| Min | | 1,995 |
| Max | | 2,793 |
| Gross # of Adult ICF Bed Needed | | |
| Min = ((f*14 ALOS))/365)/0.85 | | 90 |
| Max = ((f*14 ALOS))/365)/0.85 | | 126 |
| Existing Private Inventory ICF beds⁽³⁾ | | 24 |
| Net Private ICF Private Bed Need Range | | |
| Min | | 66 |
| Max | | 102 |
| Requested ICF Beds | | 21 |
| Requested Beds for MD residents⁽⁵⁾ | | 6 |

(Notes for all Tables included at end of document)

Alternative Southern Maryland Need Projection

| | | 2019 MD Population⁽¹⁾ |
|--|--------|---|
| Projected Population for 18 Years and older | | 989,712 |
| Indigent Population ⁽²⁾ | | 154,395 |
| Non Indigent Population | | 835,317 |
| Estimated # of Substance Abuse Users | 8.64% | 72,171 |
| Estimated Annual Target Population | 25.00% | 18,043 |
| Estimated # Requiring Treatment | 95.00% | 17,141 |
| Estimated Private Population requiring ICF (12.5 - 15%) | | |
| Min % | 12.50% | 2,143 |
| Max % | 15.00% | 2,571 |
| Estimated Range requiring Readmission | | |
| Min % | 10.00% | 214 |
| Max % | 10.00% | 257 |
| Total Discharges from Out-of-State⁽³⁾ | | - |
| Range of Adults requiring ICF Care | | |
| Min | | 2,357 |
| Max | | 2,828 |
| Gross # of Adult ICF Bed Needed | | |
| Min = ((f*14 ALOS))/365)/0.85 | | 106 |
| Max = ((f*14 ALOS))/365)/0.85 | | 128 |
| Existing Private Inventory ICF beds ⁽⁴⁾ | | 8 |
| Net Private ICF Private Bed Need Range | | |
| Min | | 98 |
| Max | | 120 |
| Requested ICF Beds | | 119 |
| Requested Beds for MD residents⁽⁵⁾ | | 55 |

(Notes for all Tables included at end of document)

Alternative Central Maryland Need Projection

| | | 2019 MD Population⁽¹⁾ |
|--|--------|---|
| Projected Population for 18 Years and older | | 2,041,537 |
| Indigent Population ⁽²⁾ | | 318,480 |
| Non Indigent Population | | 1,723,057 |
| Estimated # of Substance Abuse Users | 8.64% | 148,872 |
| Estimated Annual Target Population | 25.00% | 37,218 |
| Estimated # Requiring Treatment | 95.00% | 35,357 |
| Estimated Private Population requiring ICF (25-35%) | | |
| Min % | 12.50% | 4,420 |
| Max % | 15.00% | 5,304 |
| Estimated Range requiring Readmission | | |
| Min % | 10.00% | 442 |
| Max % | 10.00% | 530 |
| Total Discharges from Out-of-State⁽³⁾ | | 593 |
| Range of Adults requiring ICF Care | | |
| Min | | 5,455 |
| Max | | 6,427 |
| Gross # of Adult ICF Bed Needed | | |
| Min = ((f*14 ALOS))/365)/0.85 | | 246 |
| Max = ((f*14 ALOS))/365)/0.85 | | 290 |
| Existing Private Inventory ICF beds ⁽⁴⁾ | | 37 |
| Net Private ICF Private Bed Need Range | | |
| Min | | 209 |
| Max | | 253 |

(Notes for all Tables included at end of document)

Alternative Maryland State Need Projection

| | | 2019 MD Population ⁽¹⁾ |
|--|--------|-----------------------------------|
| Projected Population for 18 Years and older | | 4,793,500 |
| E. Shore Region Population for 18 Years and older | | 418,847 |
| MD Population 18 and older excluding E. Shore Region | | 4,374,653 |
| Indigent Population All MD excluding E. Shore | | 682,446 |
| Non Indigent Population All MD excluding E. Shore | | 3,692,207 |
| Estimated # of Substance Abuse Users | 8.64% | 319,007 |
| Estimated Annual Target Population | 25.00% | 79,752 |
| Estimated # Requiring Treatment | 95.00% | 75,764 |
| Estimated Private Population requiring ICF Excl. E. Shore (12.5-15%) | | |
| Min % | 12.50% | 9,471 |
| Max % | 15.00% | 11,365 |
| Indigent Population E. Shore | | 65,340 |
| Non Indigent Population E. Shore | | 353,507 |
| Estimated # of Substance Abuse Users | 8.64% | 30,543 |
| Estimated Annual Target Population | 25.00% | 7,636 |
| Estimated # Requiring Treatment | 95.00% | 7,254 |
| Estimated Private E. Shore Population requiring ICF (25-35%) | | |
| Min % | 25.00% | 1,813 |
| Max % | 35.00% | 2,539 |
| Total MD Private Population requiring ICF | | |
| Min | | 11,284 |
| Max | | 13,903 |
| Estimated Range Requiring Readmission | | |
| Min | 10.00% | 1,128 |
| Max | 10.00% | 1,390 |
| Total Discharges from Out-of-State ⁽³⁾ | | 593 |
| Range of Adults requiring ICF Care | | |
| Min | | 13,005 |
| Max | | 15,887 |
| Gross # of Adult ICF Bed Needed | | |
| Min = ((f*14 ALOS))/365)/0.85 | | 587 |
| Max = ((f*14 ALOS))/365)/0.85 | | 717 |
| Existing Private Inventory ICF beds ⁽⁴⁾ | | 75 |
| Net Private ICF Private Bed Need Range | | |
| Min | | 512 |
| Max | | 642 |
| Requested ICF Beds | | 140 |
| Requested Beds for MD residents ⁽⁵⁾ | | 61 |

Notes (for all tables)

Other than as noted, sources are the same as those in the Modified Application need analysis.

(1) Pursuant to the State Health Plan (“SHP”), the base year is the most recent year for which the number of Medicaid recipients is available. COMAR 10.24.14.07(B)(1)(a). Thus, the base year is 2014. The target year to which need is projected is five years following the base year. *Id.* at (B)(1)(b).

(2) 15.6% of Maryland residents were eligible for Medicaid in 2014. (721,232 / 4,420,588). See Exhibit 10 for Medicaid Eligibility; Modified Application for 2014 population assumption. The indigent population is calculated as applying this percentage (15.6%) to the total population in the target year. COMAR §10.24.14.07(B)(5)(b). These numbers result in a more conservative need projection than the SHP would require, as the Indigent Population pursuant to the SHP is calculated by the number of enrollees, not the number of eligible persons. *Id.*

(3) The existing ICF bed inventory is calculated consistent with Table 1 in these Responses.

(3) Out-of-State discharges are not publically reported. Thus, Applicant assumed zero out of state discharges, except for Central Maryland and Maryland State, for which Applicant assumed 593 discharges – the number of out-of-state discharges experienced by FMA in 2013, before its expansion. Exhibit 11, p. 9. This assumption is conservative. Applicant reasonably expects that the actual number out of state discharge numbers for all regions and Maryland are much higher, and thus that there is greater ICF bed need than shown above.

Based on information provided in the recent CON review for the expansion of FMA, FMA’s 2013 experience is equivalent to 6.98 discharges per total facility bed. Applicant assumes that FMA does not accept patients into residential only treatment, and thus that its discharges for its entire facility match its discharges for detox / assessment. If FMA’s experience of 6.98 discharges per total facility bed were applied to all existing total private facility beds, the resulting out-of-state discharges, and need projections, would be as follows:

Eastern Shore: 524 Out-of-State Discharges, 126 Maximum Bed Need in Target Year

Southern MD: 140 Out-of-State Discharges, 126 Maximum Bed Need in Target Year


Central MD: 1,215 Out-of-State Discharges, 281 Maximum Bed Need in Target Year

Maryland State: 1,878 Out-of-State Discharges, 700 Maximum Bed Need in Target Year

(5) Assumes patient-mix matches catchment area mix.

EXHIBIT 6

Form 990



Department of the Treasury
Internal Revenue Service

Return of Organization Exempt From Income Tax

Under section 501(c), 527, or 4947(a)(1) of the Internal Revenue Code (except private foundations)

Do not enter Social Security numbers on this form as it may be made public By law, the IRS generally cannot redact the information on the form

Information about Form 990 and its instructions is at [www.IRS.gov/form990](http://www.irs.gov/form990)

OMB No 1545-0047

2013

Open to Public Inspection

A For the 2013 calendar year, or tax year beginning 07-01-2013, 2013, and ending 06-30-2014

B Check if applicable

☐ Address change

☐ Name change

☐ Initial return

☐ Terminated

☐ Amended return

☐ Application pending

C Name of organization

ASHLEY INC

Doing Business As

Number and street (or P O box if mail is not delivered to street address)Room/suite

800 TYDINGS LANERoom/suite

City or town, state or province, country, and ZIP or foreign postal code

HAVRE DE GRACE, MD 21078

F Name and address of principal officer

ALBERT GERMANN

800 TYDINGS LANE

HAVRE DE GRACE,MD 21078

H(a) Is this a group return for subordinates?

☐ Yes☒ No

H(b) Are all subordinates included?

☐ Yes☐ No

If "No," attach a list (see instructions)

H(c) Group exemption number

I Tax-exempt status

☒ 501(c)(3)☐ 501(c) ()

(Insert no)

☐ 4947(a)(1) or

☐ 527

J Website:

WWW.FATHERMARTINSASHLEY.ORG

K Form of organization

☒ Corporation☐ Trust☐ Association☐ Other

L Year of formation

1978

M State of legal domicile

MD

| Part I | Summary | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|--------------|---|--------------|----|---|------------|----|---|------------|-----|--|------------|----|--|---------|----|--|------------|----|--|------------|----|---|-----------|
| Activities & Governance | <div><div>1</div><div>Briefly describe the organization's mission or most significant activities</div><div>ALCOHOL AND SUBSTANCE ABUSE TREATMENT CENTER</div><div></div><div></div><div></div></div> | | | | | | | | | | | | | | | | | | | | | | | | |
| | <div><div>2</div><div>Check this box <input type="checkbox"/> if the organization discontinued its operations or disposed of more than 25% of its net assets</div></div> | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table><tr><td>3</td><td>Number of voting members of the governing body (Part VI, line 1a)</td><td>10</td></tr><tr><td>4</td><td>Number of independent voting members of the governing body (Part VI, line 1b)</td><td>10</td></tr><tr><td>5</td><td>Total number of individuals employed in calendar year 2013 (Part V, line 2a)</td><td>225</td></tr><tr><td>6</td><td>Total number of volunteers (estimate if necessary)</td><td>4</td></tr><tr><td>7a</td><td>Total unrelated business revenue from Part VIII, column (C), line 12</td><td>0</td></tr><tr><td>7b</td><td>Net unrelated business taxable income from Form 990-T, line 34</td><td>0</td></tr></table> | 3 | Number of voting members of the governing body (Part VI, line 1a) | 10 | 4 | Number of independent voting members of the governing body (Part VI, line 1b) | 10 | 5 | Total number of individuals employed in calendar year 2013 (Part V, line 2a) | 225 | 6 | Total number of volunteers (estimate if necessary) | 4 | 7a | Total unrelated business revenue from Part VIII, column (C), line 12 | 0 | 7b | Net unrelated business taxable income from Form 990-T, line 34 | 0 | | | | | | |
| 3 | Number of voting members of the governing body (Part VI, line 1a) | 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Number of independent voting members of the governing body (Part VI, line 1b) | 10 | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Total number of individuals employed in calendar year 2013 (Part V, line 2a) | 225 | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Total number of volunteers (estimate if necessary) | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| 7a | Total unrelated business revenue from Part VIII, column (C), line 12 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| 7b | Net unrelated business taxable income from Form 990-T, line 34 | 0 | | | | | | | | | | | | | | | | | | | | | | | |
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| Revenue | <table><tr><th></th><th>Prior Year</th><th>Current Year</th></tr><tr><td>8</td><td>Contributions and grants (Part VIII, line 1h)</td><td>947,686</td></tr><tr><td>9</td><td>Program service revenue (Part VIII, line 2g)</td><td>21,075,308</td></tr><tr><td>10</td><td>Investment income (Part VIII, column (A), lines 3, 4, and 7 d)</td><td>2,074,017</td></tr><tr><td>11</td><td>Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e)</td><td>109,017</td></tr><tr><td>12</td><td>Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12)</td><td>24,206,028</td></tr></table> | | Prior Year | Current Year | 8 | Contributions and grants (Part VIII, line 1h) | 947,686 | 9 | Program service revenue (Part VIII, line 2g) | 21,075,308 | 10 | Investment income (Part VIII, column (A), lines 3, 4, and 7 d) | 2,074,017 | 11 | Other revenue (Part VIII, column (A), lines 5, 6d, 8c, 9c, 10c, and 11e) | 109,017 | 12 | Total revenue—add lines 8 through 11 (must equal Part VIII, column (A), line 12) | 24,206,028 | | | | | | |
| | Prior Year | Current Year | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | Contributions and grants (Part VIII, line 1h) | 947,686 | | | | | | | | | | | | | | | | | | | | | | | |
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| Expenses | <table><tr><td>13</td><td>Grants and similar amounts paid (Part IX, column (A), lines 1–3)</td><td>3,039,199</td></tr><tr><td>14</td><td>Benefits paid to or for members (Part IX, column (A), line 4)</td><td>0</td></tr><tr><td>15</td><td>Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–10)</td><td>11,536,458</td></tr><tr><td>16a</td><td>Professional fundraising fees (Part IX, column (A), line 11e)</td><td>130,039</td></tr><tr><td>b</td><td>Total fundraising expenses (Part IX, column (D), line 25) <input type="checkbox"/> 868,610</td><td></td></tr><tr><td>17</td><td>Other expenses (Part IX, column (A), lines 11a–11d, 11f–24e)</td><td>7,431,800</td></tr><tr><td>18</td><td>Total expenses Add lines 13–17 (must equal Part IX, column (A), line 25)</td><td>22,137,496</td></tr><tr><td>19</td><td>Revenue less expenses Subtract line 18 from line 12</td><td>2,068,532</td></tr></table> | 13 | Grants and similar amounts paid (Part IX, column (A), lines 1–3) | 3,039,199 | 14 | Benefits paid to or for members (Part IX, column (A), line 4) | 0 | 15 | Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–10) | 11,536,458 | 16a | Professional fundraising fees (Part IX, column (A), line 11e) | 130,039 | b | Total fundraising expenses (Part IX, column (D), line 25) <input type="checkbox"/> 868,610 | | 17 | Other expenses (Part IX, column (A), lines 11a–11d, 11f–24e) | 7,431,800 | 18 | Total expenses Add lines 13–17 (must equal Part IX, column (A), line 25) | 22,137,496 | 19 | Revenue less expenses Subtract line 18 from line 12 | 2,068,532 |
| 13 | Grants and similar amounts paid (Part IX, column (A), lines 1–3) | 3,039,199 | | | | | | | | | | | | | | | | | | | | | | | |
| 14 | Benefits paid to or for members (Part IX, column (A), line 4) | 0 | | | | | | | | | | | | | | | | | | | | | | | |
| 15 | Salaries, other compensation, employee benefits (Part IX, column (A), lines 5–10) | 11,536,458 | | | | | | | | | | | | | | | | | | | | | | | |
| 16a | Professional fundraising fees (Part IX, column (A), line 11e) | 130,039 | | | | | | | | | | | | | | | | | | | | | | | |
| b | Total fundraising expenses (Part IX, column (D), line 25) <input type="checkbox"/> 868,610 | | | | | | | | | | | | | | | | | | | | | | | | |
| 17 | Other expenses (Part IX, column (A), lines 11a–11d, 11f–24e) | 7,431,800 | | | | | | | | | | | | | | | | | | | | | | | |
| 18 | Total expenses Add lines 13–17 (must equal Part IX, column (A), line 25) | 22,137,496 | | | | | | | | | | | | | | | | | | | | | | | |
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| Net Assets or Fund Balances | <table><tr><th></th><th>Beginning of Current Year</th><th>End of Year</th></tr><tr><td>20</td><td>Total assets (Part X, line 16)</td><td>86,924,280</td></tr><tr><td>21</td><td>Total liabilities (Part X, line 26)</td><td>2,759,859</td></tr><tr><td>22</td><td>Net assets or fund balances Subtract line 21 from line 20</td><td>84,164,421</td></tr></table> | | Beginning of Current Year | End of Year | 20 | Total assets (Part X, line 16) | 86,924,280 | 21 | Total liabilities (Part X, line 26) | 2,759,859 | 22 | Net assets or fund balances Subtract line 21 from line 20 | 84,164,421 | | | | | | | | | | | | |
| | Beginning of Current Year | End of Year | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | Total assets (Part X, line 16) | 86,924,280 | | | | | | | | | | | | | | | | | | | | | | | |
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| 22 | Net assets or fund balances Subtract line 21 from line 20 | 84,164,421 | | | | | | | | | | | | | | | | | | | | | | | |
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Part II

Signature Block

Under penalties of perjury, I declare that I have examined this return, including accompanying schedules and statements, and to the best of my knowledge and belief, it is true, correct, and complete Declaration of preparer (other than officer) is based on all information of which preparer has any knowledge

Sign Here

Signature of officer

2015-02-16

Date

ALBERT GERMANN VP OF FINANCE

Type or print name and title

Paid Preparer Use Only

Print/Type preparer's name

SUSAN KELLER

Preparer's signature

Date

Check ☐ if self-employed

PTIN P00245169

Firm's name ☐ ELLIN & TUCKER CHARTERED

Firm's EIN ☐ 52-0959934

Firm's address ☐ 400 EAST PRATT ST SUITE 200

Phone no (410) 727-5735

BALTIMORE, MD 21202

May the IRS discuss this return with the preparer shown above? (see instructions)

☒ Yes☐ No

For Paperwork Reduction Act Notice, see the separate instructions.

Cat No 11282Y

Form 990 (2013)

1

Part III

Statement of Program Service Accomplishments

Check if Schedule O contains a response or note to any line in this Part III

☐ Yes ☒ No

1

Briefly describe the organization's mission

ASHLEY, INC IS A NATIONALLY RECOGNIZED LEADER IN THE TREATMENT OF ALCOHOLISM AND CHEMICAL DEPENDENCE AND OUR SOLE PURPOSE IS TO HEAL IN AN ENVIRONMENT OF COMPASSION, DIGNITY, AND RESPECT, ASHLEY PROVIDES QUALITY MEDICAL CARE, CLINICAL EXPERTISE, AND EMOTIONAL SUPPORT WE EDUCATE PATIENTS, THEIR FAMILIES, AND THE COMMUNITY AT LARGE ABOUT CHEMICAL DEPENDENCE AND THE SPIRITUAL PRINCIPLES OF THE 12-STEP PROGRAMS OUR ONGOING SUPPORT PREPARES OUR PATIENTS AND THEIR FAMILIES FOR THE JOURNEY OF LIFE-LONG RECOVERY

2

Did the organization undertake any significant program services during the year which were not listed on the prior Form 990 or 990-EZ?

☐ Yes ☒ No

If "Yes," describe these new services on Schedule O

3

Did the organization cease conducting, or make significant changes in how it conducts, any program services?

☐ Yes ☒ No

If "Yes," describe these changes on Schedule O

4

Describe the organization's program service accomplishments for each of its three largest program services, as measured by expenses Section 501(c)(3) and 501(c)(4) organizations are required to report the amount of grants and allocations to others, the total expenses, and revenue, if any, for each program service reported

4a

(Code) (Expenses \$ 19,144,327 including grants of \$ 3,039,199) (Revenue \$ 21,178,354)

ASHLEY IS A NATIONALLY RECOGNIZED LEADER IN THE TREATMENT OF ALCOHOLISM AND CHEMICAL DEPENDENCE IN AN ENVIRONMENT OF COMPASSION, DIGNITY, AND RESPECT, WE PROVIDE QUALITY MEDICAL CARE, CLINICAL EXPERTISE AND EMOTIONAL SUPPORT WE EDUCATE PARENTS, THEIR FAMILIES AND THE COMMUNITY AT LARGE ABOUT CHEMICAL DEPENDENCE AND THE SPIRITUAL PRINCIPLES OF THE 12 STEP PROGRAM OUR ONGOING SUPPORT PREPARES OUR PATIENTS AND THEIR FAMILIES FOR THE JOURNEY OF LIFELONG RECOVERY IN FISCAL YEAR ENDED JUNE 30, 2014, 1,137 PATIENTS WERE ADMITTED TO THE INPATIENT PROGRAM, 1,075 FAMILY MEMBERS PARTICIPATED IN THE FAMILY WELLNESS PROGRAM, 44 CHILDREN AND 52 PARENTS ATTENDED OUR CHILDREN'S PROGRAM AND 557 ALUMNI ATTENDED THE SOBRIETY ENRICHMENT TREATMENT PROGRAM

4b

(Code) (Expenses \$ including grants of \$) (Revenue \$)

4c

(Code) (Expenses \$ including grants of \$) (Revenue \$)

4d



















Other program services (Describe in Schedule O)

(Expenses \$ including grants of \$) (Revenue \$)

4e

Total program service expenses 19,144,327

Part IV Checklist of Required Schedules

| | Yes | No |
|---|---------|----|
| 1 Is the organization described in section 501(c)(3) or 4947(a)(1) (other than a private foundation)? If "Yes," complete Schedule A  | 1 Yes | |
| 2 Is the organization required to complete Schedule B, Schedule of Contributors (see instructions)?  | 2 Yes | |
| 3 Did the organization engage in direct or indirect political campaign activities on behalf of or in opposition to candidates for public office? If "Yes," complete Schedule C, Part I | 3 | No |
| 4 Section 501(c)(3) organizations. Did the organization engage in lobbying activities, or have a section 501(h) election in effect during the tax year? If "Yes," complete Schedule C, Part II | 4 | No |
| 5 Is the organization a section 501(c)(4), 501(c)(5), or 501(c)(6) organization that receives membership dues, assessments, or similar amounts as defined in Revenue Procedure 98-19? If "Yes," complete Schedule C, Part III | 5 | No |
| 6 Did the organization maintain any donor advised funds or any similar funds or accounts for which donors have the right to provide advice on the distribution or investment of amounts in such funds or accounts? If "Yes," complete Schedule D, Part I  | 6 | No |
| 7 Did the organization receive or hold a conservation easement, including easements to preserve open space, the environment, historic land areas, or historic structures? If "Yes," complete Schedule D, Part II  | 7 | No |
| 8 Did the organization maintain collections of works of art, historical treasures, or other similar assets? If "Yes," complete Schedule D, Part III  | 8 | No |
| 9 Did the organization report an amount in Part X, line 21 for escrow or custodial account liability, serve as a custodian for amounts not listed in Part X, or provide credit counseling, debt management, credit repair, or debt negotiation services? If "Yes," complete Schedule D, Part IV  | 9 | No |
| 10 Did the organization, directly or through a related organization, hold assets in temporarily restricted endowments, permanent endowments, or quasi-endowments? If "Yes," complete Schedule D, Part V  | 10 Yes | |
| 11 If the organization's answer to any of the following questions is "Yes," then complete Schedule D, Parts VI, VII, VIII, IX, or X as applicable | | |
| a Did the organization report an amount for land, buildings, and equipment in Part X, line 10? If "Yes," complete Schedule D, Part VI  | 11a Yes | |
| b Did the organization report an amount for investments—other securities in Part X, line 12 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part VII  | 11b Yes | |
| c Did the organization report an amount for investments—program related in Part X, line 13 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part VIII  | 11c | No |
| d Did the organization report an amount for other assets in Part X, line 15 that is 5% or more of its total assets reported in Part X, line 16? If "Yes," complete Schedule D, Part IX  | 11d | No |
| e Did the organization report an amount for other liabilities in Part X, line 25? If "Yes," complete Schedule D, Part X  | 11e Yes | |
| f Did the organization's separate or consolidated financial statements for the tax year include a footnote that addresses the organization's liability for uncertain tax positions under FIN 48 (ASC 740)? If "Yes," complete Schedule D, Part X  | 11f Yes | |
| 12a Did the organization obtain separate, independent audited financial statements for the tax year? If "Yes," complete Schedule D, Parts XI and XII  | 12a Yes | |
| b Was the organization included in consolidated, independent audited financial statements for the tax year? If "Yes," and if the organization answered "No" to line 12a, then completing Schedule D, Parts XI and XII is optional  | 12b | No |
| 13 Is the organization a school described in section 170(b)(1)(A)(ii)? If "Yes," complete Schedule E | 13 | No |
| 14a Did the organization maintain an office, employees, or agents outside of the United States? | 14a | No |
| b Did the organization have aggregate revenues or expenses of more than \$10,000 from grantmaking, fundraising, business, investment, and program service activities outside the United States, or aggregate foreign investments valued at \$100,000 or more? If "Yes," complete Schedule F, Parts I and IV | 14b | No |
| 15 Did the organization report on Part IX, column (A), line 3, more than \$5,000 of grants or other assistance to or for any foreign organization? If "Yes," complete Schedule F, Parts II and IV | 15 | No |
| 16 Did the organization report on Part IX, column (A), line 3, more than \$5,000 of aggregate grants or other assistance to or for foreign individuals? If "Yes," complete Schedule F, Parts III and IV | 16 | No |
| 17 Did the organization report a total of more than \$15,000 of expenses for professional fundraising services on Part IX, column (A), lines 6 and 11e? If "Yes," complete Schedule G, Part I (see instructions)  | 17 Yes | |
| 18 Did the organization report more than \$15,000 total of fundraising event gross income and contributions on Part VIII, lines 1c and 8a? If "Yes," complete Schedule G, Part II  | 18 Yes | |
| 19 Did the organization report more than \$15,000 of gross income from gaming activities on Part VIII, line 9a? If "Yes," complete Schedule G, Part III  | 19 | No |
| 20a Did the organization operate one or more hospital facilities? If "Yes," complete Schedule H | 20a | No |
| b If "Yes" to line 20a, did the organization attach a copy of its audited financial statements to this return? | 20b | |

Part IV

Checklist of Required Schedules (continued)

| | | | | |
|-----|--|-----|-----|----|
| 21 | Did the organization report more than \$5,000 of grants or other assistance to any domestic organization or government on Part IX, column (A), line 1? <i>If "Yes," complete Schedule I, Parts I and II</i> | 21 | | No |
| 22 | Did the organization report more than \$5,000 of grants or other assistance to individuals in the United States on Part IX, column (A), line 2? <i>If "Yes," complete Schedule I, Parts I and III</i> | 22 | Yes | |
| 23 | Did the organization answer "Yes" to Part VII, Section A, line 3, 4, or 5 about compensation of the organization's current and former officers, directors, trustees, key employees, and highest compensated employees? <i>If "Yes," complete Schedule J</i> | 23 | Yes | |
| 24a | Did the organization have a tax-exempt bond issue with an outstanding principal amount of more than \$100,000 as of the last day of the year, that was issued after December 31, 2002? <i>If "Yes," answer lines 24b through 24d and complete Schedule K. If "No," go to line 25a</i> | 24a | | No |
| b | Did the organization invest any proceeds of tax-exempt bonds beyond a temporary period exception? | 24b | | |
| c | Did the organization maintain an escrow account other than a refunding escrow at any time during the year to defease any tax-exempt bonds? | 24c | | |
| d | Did the organization act as an "on behalf of" issuer for bonds outstanding at any time during the year? | 24d | | |
| 25a | Section 501(c)(3) and 501(c)(4) organizations. Did the organization engage in an excess benefit transaction with a disqualified person during the year? <i>If "Yes," complete Schedule L, Part I</i> | 25a | | No |
| b | Is the organization aware that it engaged in an excess benefit transaction with a disqualified person in a prior year, and that the transaction has not been reported on any of the organization's prior Forms 990 or 990-EZ? <i>If "Yes," complete Schedule L, Part I</i> | 25b | | No |
| 26 | Did the organization report any amount on Part X, line 5, 6, or 22 for receivables from or payables to any current or former officers, directors, trustees, key employees, highest compensated employees, or disqualified persons? <i>If so, complete Schedule L, Part II</i> | 26 | | No |
| 27 | Did the organization provide a grant or other assistance to an officer, director, trustee, key employee, substantial contributor or employee thereof, a grant selection committee member, or to a 35% controlled entity or family member of any of these persons? <i>If "Yes," complete Schedule L, Part III</i> | 27 | | No |
| 28 | Was the organization a party to a business transaction with one of the following parties (see Schedule L, Part IV instructions for applicable filing thresholds, conditions, and exceptions) | | | |
| a | A current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i> | 28a | | No |
| b | A family member of a current or former officer, director, trustee, or key employee? <i>If "Yes," complete Schedule L, Part IV</i> | 28b | | No |
| c | An entity of which a current or former officer, director, trustee, or key employee (or a family member thereof) was an officer, director, trustee, or direct or indirect owner? <i>If "Yes," complete Schedule L, Part IV</i> | 28c | | No |
| 29 | Did the organization receive more than \$25,000 in non-cash contributions? <i>If "Yes," complete Schedule M</i> | 29 | Yes | |
| 30 | Did the organization receive contributions of art, historical treasures, or other similar assets, or qualified conservation contributions? <i>If "Yes," complete Schedule M</i> | 30 | | No |
| 31 | Did the organization liquidate, terminate, or dissolve and cease operations? <i>If "Yes," complete Schedule N, Part I</i> | 31 | | No |
| 32 | Did the organization sell, exchange, dispose of, or transfer more than 25% of its net assets? <i>If "Yes," complete Schedule N, Part II</i> | 32 | | No |
| 33 | Did the organization own 100% of an entity disregarded as separate from the organization under Regulations sections 301.7701-2 and 301.7701-3? <i>If "Yes," complete Schedule R, Part I</i> | 33 | | No |
| 34 | Was the organization related to any tax-exempt or taxable entity? <i>If "Yes," complete Schedule R, Part II, III, or IV, and Part V, line 1</i> | 34 | | No |
| 35a | Did the organization have a controlled entity within the meaning of section 512(b)(13)? | 35a | | No |
| b | If "Yes" to line 35a, did the organization receive any payment from or engage in any transaction with a controlled entity within the meaning of section 512(b)(13)? <i>If "Yes," complete Schedule R, Part V, line 2</i> | 35b | | |
| 36 | Section 501(c)(3) organizations. Did the organization make any transfers to an exempt non-charitable related organization? <i>If "Yes," complete Schedule R, Part V, line 2</i> | 36 | | No |
| 37 | Did the organization conduct more than 5% of its activities through an entity that is not a related organization and that is treated as a partnership for federal income tax purposes? <i>If "Yes," complete Schedule R, Part VI</i> | 37 | | No |
| 38 | Did the organization complete Schedule O and provide explanations in Schedule O for Part VI, lines 11b and 19? Note. All Form 990 filers are required to complete Schedule O | 38 | Yes | |

Part V

Statements Regarding Other IRS Filings and Tax Compliance

Check if Schedule O contains a response or note to any line in this Part V

| | | Yes | No |
|-----|--|-----|----|
| 1a | Enter the number reported in Box 3 of Form 1096. Enter -0- if not applicable. | 51 | |
| 1b | Enter the number of Forms W-2G included in line 1a. Enter -0- if not applicable. | 0 | |
| 1c | Did the organization comply with backup withholding rules for reportable payments to vendors and reportable gaming (gambling) winnings to prize winners? | Yes | |
| 2a | Enter the number of employees reported on Form W-3, Transmittal of Wage and Tax Statements, filed for the calendar year ending with or within the year covered by this return. | 225 | |
| 2b | If at least one is reported on line 2a, did the organization file all required federal employment tax returns? Note. If the sum of lines 1a and 2a is greater than 250, you may be required to e-file (see instructions). | Yes | |
| 3a | Did the organization have unrelated business gross income of \$1,000 or more during the year? | | No |
| 3b | If "Yes," has it filed a Form 990-T for this year? If "No" to line 3b, provide an explanation in Schedule O. | | |
| 4a | At any time during the calendar year, did the organization have an interest in, or a signature or other authority over, a financial account in a foreign country (such as a bank account, securities account, or other financial account)? | | No |
| b | If "Yes," enter the name of the foreign country: _____ See instructions for filing requirements for Form TD F 90-22.1, Report of Foreign Bank and Financial Accounts. | | |
| 5a | Was the organization a party to a prohibited tax shelter transaction at any time during the tax year? | | No |
| 5b | Did any taxable party notify the organization that it was or is a party to a prohibited tax shelter transaction? | | No |
| 5c | If "Yes," to line 5a or 5b, did the organization file Form 8886-T? | | |
| 6a | Does the organization have annual gross receipts that are normally greater than \$100,000, and did the organization solicit any contributions that were not tax deductible as charitable contributions? | | No |
| 6b | If "Yes," did the organization include with every solicitation an express statement that such contributions or gifts were not tax deductible? | | |
| 7 | Organizations that may receive deductible contributions under section 170(c). | | |
| 7a | Did the organization receive a payment in excess of \$75 made partly as a contribution and partly for goods and services provided to the payor? | Yes | |
| 7b | If "Yes," did the organization notify the donor of the value of the goods or services provided? | Yes | |
| 7c | Did the organization sell, exchange, or otherwise dispose of tangible personal property for which it was required to file Form 8282? | | No |
| 7d | If "Yes," indicate the number of Forms 8282 filed during the year. | | |
| 7e | Did the organization receive any funds, directly or indirectly, to pay premiums on a personal benefit contract? | | No |
| 7f | Did the organization, during the year, pay premiums, directly or indirectly, on a personal benefit contract? | | No |
| 7g | If the organization received a contribution of qualified intellectual property, did the organization file Form 8899 as required? | | |
| 7h | If the organization received a contribution of cars, boats, airplanes, or other vehicles, did the organization file a Form 1098-C? | | |
| 8 | Sponsoring organizations maintaining donor advised funds and section 509(a)(3) supporting organizations. Did the supporting organization, or a donor advised fund maintained by a sponsoring organization, have excess business holdings at any time during the year? | | |
| 9 | Sponsoring organizations maintaining donor advised funds. | | |
| 9a | Did the organization make any taxable distributions under section 4966? | | |
| 9b | Did the organization make a distribution to a donor, donor advisor, or related person? | | |
| 10 | Section 501(c)(7) organizations. Enter | | |
| 10a | Initiation fees and capital contributions included on Part VIII, line 12. | | |
| 10b | Gross receipts, included on Form 990, Part VIII, line 12, for public use of club facilities. | | |
| 11 | Section 501(c)(12) organizations. Enter | | |
| 11a | Gross income from members or shareholders. | | |
| 11b | Gross income from other sources (Do not net amounts due or paid to other sources against amounts due or received from them). | | |
| 12a | Section 4947(a)(1) non-exempt charitable trusts. Is the organization filing Form 990 in lieu of Form 1041? | | |
| 12b | If "Yes," enter the amount of tax-exempt interest received or accrued during the year. | | |
| 13 | Section 501(c)(29) qualified nonprofit health insurance issuers. | | |
| 13a | Is the organization licensed to issue qualified health plans in more than one state? Note. See the instructions for additional information the organization must report on Schedule O. | | |
| 13b | Enter the amount of reserves the organization is required to maintain by the states in which the organization is licensed to issue qualified health plans. | | |
| 13c | Enter the amount of reserves on hand. | | |
| 14a | Did the organization receive any payments for indoor tanning services during the tax year? | | No |
| 14b | If "Yes," has it filed a Form 720 to report these payments? If "No," provide an explanation in Schedule O. | | |

Part VI

Governance, Management, and Disclosure

For each "Yes" response to lines 2 through 7b below, and for a "No" response to lines 8a, 8b, or 10b below, describe the circumstances, processes, or changes in Schedule O. See instructions.

Check if Schedule O contains a response or note to any line in this Part VI

Section A. Governing Body and Management

| | | Yes | No |
|----|---|-----|----|
| 1a | Enter the number of voting members of the governing body at the end of the tax year | | |
| 1b | Enter the number of voting members included in line 1a, above, who are independent | | |
| 2 | Did any officer, director, trustee, or key employee have a family relationship or a business relationship with any other officer, director, trustee, or key employee? | | No |
| 3 | Did the organization delegate control over management duties customarily performed by or under the direct supervision of officers, directors or trustees, or key employees to a management company or other person? | | No |
| 4 | Did the organization make any significant changes to its governing documents since the prior Form 990 was filed? | | No |
| 5 | Did the organization become aware during the year of a significant diversion of the organization's assets? | | No |
| 6 | Did the organization have members or stockholders? | | No |
| 7a | Did the organization have members, stockholders, or other persons who had the power to elect or appoint one or more members of the governing body? | | No |
| 7b | Are any governance decisions of the organization reserved to (or subject to approval by) members, stockholders, or persons other than the governing body? | | No |
| 8 | Did the organization contemporaneously document the meetings held or written actions undertaken during the year by the following | | |
| 8a | The governing body? | Yes | |
| 8b | Each committee with authority to act on behalf of the governing body? | Yes | |
| 9 | Is there any officer, director, trustee, or key employee listed in Part VII, Section A, who cannot be reached at the organization's mailing address? If "Yes," provide the names and addresses in Schedule O | | No |

Section B. Policies

(This Section B requests information about policies not required by the Internal Revenue Code.)

| | | Yes | No |
|-----|--|-----|----|
| 10a | Did the organization have local chapters, branches, or affiliates? | | No |
| 10b | If "Yes," did the organization have written policies and procedures governing the activities of such chapters, affiliates, and branches to ensure their operations are consistent with the organization's exempt purposes? | | |
| 11a | Has the organization provided a complete copy of this Form 990 to all members of its governing body before filing the form? | Yes | |
| 12a | Did the organization have a written conflict of interest policy? If "No," go to line 13 | Yes | |
| 12b | Were officers, directors, or trustees, and key employees required to disclose annually interests that could give rise to conflicts? | Yes | |
| 12c | Did the organization regularly and consistently monitor and enforce compliance with the policy? If "Yes," describe in Schedule O how this was done | Yes | |
| 13 | Did the organization have a written whistleblower policy? | Yes | |
| 14 | Did the organization have a written document retention and destruction policy? | Yes | |
| 15 | Did the process for determining compensation of the following persons include a review and approval by independent persons, comparability data, and contemporaneous substantiation of the deliberation and decision? | | |
| 15a | The organization's CEO, Executive Director, or top management official | Yes | |
| 15b | Other officers or key employees of the organization | Yes | |
| 16a | Did the organization invest in, contribute assets to, or participate in a joint venture or similar arrangement with a taxable entity during the year? | | No |
| 16b | If "Yes," did the organization follow a written policy or procedure requiring the organization to evaluate its participation in joint venture arrangements under applicable federal tax law, and take steps to safeguard the organization's exempt status with respect to such arrangements? | | |

Section C. Disclosure

| | | |
|----|---|--|
| 17 | List the States with which a copy of this Form 990 is required to be filed | MD, AK, AZ, AR, CA, CT, DC, FL, GA, KS, KY, MA, MS, NC, ND, NH, NJ, NM, NY, OH, OK, OR, PA, TN, VA, WV, MN, MI, AL, CO, ME, MO, SC, UT, WA, WI |
| 18 | Section 6104 requires an organization to make its Form 1023 (or 1024 if applicable), 990, and 990-T (501(c)(3)s only) available for public inspection. Indicate how you made these available. Check all that apply. | <input type="checkbox"/> Own website <input checked="" type="checkbox"/> Another's website <input checked="" type="checkbox"/> Upon request <input type="checkbox"/> Other (explain in Schedule O) |
| 19 | Describe in Schedule O whether (and if so, how) the organization made its governing documents, conflict of interest policy, and financial statements available to the public during the tax year | |
| 20 | State the name, physical address, and telephone number of the person who possesses the books and records of the organization | ALBERT GERMANN 800 TYDINGS LANE HAVRE DE GRACE, MD 21078 (410) 273-6600 |

Part VII

Compensation of Officers, Directors, Trustees, Key Employees, Highest Compensated Employees, and Independent Contractors

Check if Schedule O contains a response or note to any line in this Part VII

Section A. Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

- 1a Complete this table for all persons required to be listed Report compensation for the calendar year ending with or within the organization's tax year
- List all of the organization's **current** officers, directors, trustees (whether individuals or organizations), regardless of amount of compensation Enter -0- in columns (D), (E), and (F) if no compensation was paid

List all of the organization's **current** key employees, if any See instructions for definition of "key employee "

List the organization's five **current** highest compensated employees (other than an officer, director, trustee or key employee) who received reportable compensation (Box 5 of Form W-2 and/or Box 7 of Form 1099-MISC) of more than \$100,000 from the organization and any related organizations

List all of the organization's **former** officers, key employees, or highest compensated employees who received more than \$100,000 of reportable compensation from the organization and any related organizations

List all of the organization's **former directors or trustees** that received, in the capacity as a former director or trustee of the organization, more than \$10,000 of reportable compensation from the organization and any related organizations

List persons in the following order individual trustees or directors, institutional trustees, officers, key employees, highest compensated employees, and former such persons

Check this box if neither the organization nor any related organization compensated any current officer, director, or trustee

| (A) Name and Title | (B) Average hours per week (list any hours for related organizations below dotted line) | (C) Position (do not check more than one box, unless person is both an officer and a director/trustee) | | | | | | (D) Reportable compensation from the organization (W- 2/1099-MISC) | (E) Reportable compensation from related organizations (W- 2/1099-MISC) | (F) Estimated amount of other compensation from the organization and related organizations |
|--|--|---|-----------------------|---------|--------------|------------------------------|--------|---|--|---|
| | | Individual trustee or director | Institutional Trustee | Officer | Key employee | Highest compensated employee | Former | | | |
| (1) MALCOLM BORG DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (2) PAUL CONAWAY DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (3) JAMES DENVIR DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (4) SCARLETT GLEASON DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (5) GEORGE GOULD DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (6) JAY GRISWOLD DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (7) PHYLLIS HADLEY DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (8) ROBERT JOHNSON DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (9) DAVID NASSEF DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (10) RUSSELL NOBLE DIRECTOR | 1 00 | X | | | | | | 0 | 0 | 0 |
| (11) FR MARK HUSHEN PRESIDENT/CEO | 40 00 | | | X | | | | 326,784 | 0 | 46,522 |
| (12) STEVEN KENDRICK COO | 40 00 | | | X | | | | 193,420 | 0 | 42,202 |
| (13) ALBERT GERMANN CFO/VP OF FINANCE | 40 00 | | | X | | | | 145,459 | 0 | 36,065 |
| (14) BERNADETTE SOLOUNIAS SR VP OF MEDICAL SERVICES | 40 00 | | | X | | | | 222,587 | 0 | 34,475 |
| (15) DANIEL BERARDI VP OF CAMPUS SERVICES | 40 00 | | | X | | | | 125,477 | 0 | 17,111 |
| (16) CATHERINE HRYNCEWICH VP DEVELOPMENT | 40 00 | | | X | | | | 108,703 | 0 | 16,412 |
| (17) KAREN CANTER PHYSICIAN | 40 00 | | | | X | | | 154,612 | 0 | 27,640 |

Part VII

| | | | | |
|-----------|--|-----------|---|---------|
| 1b | Sub-Total | | | |
| c | Total from continuation sheets to Part VII, Section A | | | |
| d | Total (add lines 1b and 1c) | 1,431,151 | 0 | 242,986 |

2

3

Section B. Independent Contractors

1

| | |
|---|--|
| <p>2 Total number of independent contractors (including but not limited to those listed above) who received more than \$100,000 of compensation from the organization ▶6</p> | |
|---|--|

2

Part VIII

Statement of Revenue

Check if Schedule O contains a response or note to any line in this Part VIII

| | | | (A) | (B) | (C) | (D) | |
|---|---|--|---|---|----------------------------------|--|-----------|
| | | | Total revenue | Related or exempt function revenue | Unrelated business revenue | Revenue excluded from tax under sections 512-514 | |
| Contributions, Gifts, Grants and Other Similar Amounts | 1a | Federated campaigns | 1a | | | | |
| | b | Membership dues | 1b | | | | |
| | c | Fundraising events | 1c | 32,400 | | | |
| | d | Related organizations | 1d | | | | |
| | e | Government grants (contributions) | 1e | | | | |
| | f | All other contributions, gifts, grants, and similar amounts not included above | 1f | 915,286 | | | |
| | g | Noncash contributions included in lines 1a-1f \$ | | 26,310 | | | |
| | h | Total. Add lines 1a-1f | | 947,686 | | | |
| Program Service Revenue | 2a | INPATIENT REVENUE | Business Code 900099 | 20,558,019 | 20,558,019 | | |
| | b | FAMILY PROGRAM & OTHER | 900099 | 378,080 | 378,080 | | |
| | c | OUTPATIENT REVENUE | 900099 | 67,177 | 67,177 | | |
| | d | WOMEN IN RECOVERY LUNCHEON | 900099 | 58,260 | 58,260 | | |
| | e | ALUMNI REVENUE | 900099 | 13,772 | 13,772 | | |
| | f | All other program service revenue | | | | | |
| | g | Total. Add lines 2a-2f | | 21,075,308 | | | |
| | Other Revenue | 3 | Investment income (including dividends, interest, and other similar amounts) | | 908,925 | | 908,925 |
| | | 4 | Income from investment of tax-exempt bond proceeds | | | | |
| 5 | | Royalties | | | | | |
| 6a | | Gross rents | (i) Real | (ii) Personal | | | |
| | | b | Less rental expenses | | | | |
| | | c | Rental income or (loss) | | | | |
| | | d | Net rental income or (loss) | | | | |
| 7a | | Gross amount from sales of assets other than inventory | (i) Securities | (ii) Other | | | |
| | | b | Less cost or other basis and sales expenses | | | | |
| | | c | Gain or (loss) | | | | |
| | | d | Net gain or (loss) | | 1,165,092 | | 1,165,092 |
| 8a | | Gross income from fundraising events (not including \$ 32,400 of contributions reported on line 1c) See Part IV, line 18 | a | 71,368 | | | |
| | | b | Less direct expenses | b | 65,397 | | |
| | | c | Net income or (loss) from fundraising events | | 5,971 | | 5,971 |
| 9a | | Gross income from gaming activities See Part IV, line 19 | a | | | | |
| | | b | Less direct expenses | b | | | |
| | | c | Net income or (loss) from gaming activities | | | | |
| 10a | | Gross sales of inventory, less returns and allowances | a | 234,195 | | | |
| | | b | Less cost of goods sold | b | 135,266 | | |
| | | c | Net income or (loss) from sales of inventory | | 98,929 | 98,929 | |
| | Miscellaneous Revenue | | Business Code | | | | |
| 11a | MISCELLANEOUS INCOME (EXPENSE) | 900099 | 4,117 | 4,117 | | | |
| b | | | | | | | |
| c | | | | | | | |
| d | All other revenue | | | | | | |
| e | Total. Add lines 11a-11d | | 4,117 | | | | |
| 12 | Total revenue. See Instructions | | 24,206,028 | 21,178,354 | 0 | 2,079,988 | |

Part IX Statement of Functional Expenses

Section 501(c)(3) and 501(c)(4) organizations must complete all columns All other organizations must complete column (A)

Check if Schedule O contains a response or note to any line in this Part IX

| Do not include amounts reported on lines 6b, 7b, 8b, 9b, and 10b of Part VIII. | | (A) Total expenses | (B) Program service expenses | (C) Management and general expenses | (D) Fundraising expenses |
|--|---|-----------------------|---------------------------------|--|-----------------------------|
| 1 | Grants and other assistance to governments and organizations in the United States See Part IV, line 21 | | | | |
| 2 | Grants and other assistance to individuals in the United States See Part IV, line 22 | 3,039,199 | 3,039,199 | | |
| 3 | Grants and other assistance to governments, organizations, and individuals outside the United States See Part IV, lines 15 and 16 | | | | |
| 4 | Benefits paid to or for members | | | | |
| 5 | Compensation of current officers, directors, trustees, and key employees | 1,531,259 | 950,799 | 551,034 | 29,426 |
| 6 | Compensation not included above, to disqualified persons (as defined under section 4958(f)(1)) and persons described in section 4958(c)(3)(B) | 7,696,673 | 6,870,311 | 464,625 | 361,737 |
| 7 | Other salaries and wages | | | | |
| 8 | Pension plan accruals and contributions (include section 401(k) and 403(b) employer contributions) | 570,841 | 495,604 | 50,435 | 24,802 |
| 9 | Other employee benefits | 1,074,108 | 914,008 | 110,390 | 49,710 |
| 10 | Payroll taxes | 663,577 | 567,942 | 67,104 | 28,531 |
| 11 | Fees for services (non-employees) | | | | |
| a | Management | | | | |
| b | Legal | 76,261 | 43,469 | 30,504 | 2,288 |
| c | Accounting | 93,712 | | 93,712 | |
| d | Lobbying | | | | |
| e | Professional fundraising services See Part IV, line 17 | 130,039 | | | 130,039 |
| f | Investment management fees | 65,596 | 37,390 | 26,238 | 1,968 |
| g | Other (If line 11g amount exceeds 10% of line 25, column (A) amount, list line 11g expenses on Schedule O) | 1,975,166 | 1,739,146 | 202,869 | 33,151 |
| 12 | Advertising and promotion | 260,365 | 232,939 | 19,307 | 8,119 |
| 13 | Office expenses | 1,030,503 | 755,452 | 146,188 | 128,863 |
| 14 | Information technology | 262,869 | 223,439 | 34,173 | 5,257 |
| 15 | Royalties | | | | |
| 16 | Occupancy | 399,988 | 332,863 | 60,099 | 7,026 |
| 17 | Travel | 184,644 | 155,695 | 13,903 | 15,046 |
| 18 | Payments of travel or entertainment expenses for any federal, state, or local public officials | | | | |
| 19 | Conferences, conventions, and meetings | 44,401 | 41,464 | 1,846 | 1,091 |
| 20 | Interest | | | | |
| 21 | Payments to affiliates | | | | |
| 22 | Depreciation, depletion, and amortization | 1,200,126 | 1,049,792 | 122,694 | 27,640 |
| 23 | Insurance | 284,361 | 162,086 | 113,744 | 8,531 |
| 24 | Other expenses Itemize expenses not covered above (List miscellaneous expenses in line 24e If line 24e amount exceeds 10% of line 25, column (A) amount, list line 24e expenses on Schedule O) | | | | |
| a | FOOD PURCHASES | 794,328 | 790,418 | 1,513 | 2,397 |
| b | REPAIRS & MAINTENANCE | 445,140 | 427,975 | 14,177 | 2,988 |
| c | MISC EXPENSE | 165,000 | 165,000 | | |
| d | PHARMACY AND LAB | 149,340 | 149,336 | 4 | 0 |
| e | All other expenses | | | | |
| 25 | Total functional expenses. Add lines 1 through 24e | 22,137,496 | 19,144,327 | 2,124,559 | 868,610 |
| 26 | Joint costs. Complete this line only if the organization reported in column (B) joint costs from a combined educational campaign and fundraising solicitation Check here <input type="checkbox"/> if following SOP 98-2 (ASC 958-720) | | | | |

Part X

Balance Sheet

Check if Schedule O contains a response or note to any line in this Part X

| | | | | (A) | | (B) |
|-----------------------------|---|--|---------------|-------------------|-----|-------------|
| | | | | Beginning of year | | End of year |
| Assets | 1 | Cash—non-interest-bearing | | 114 | 1 | 88 |
| | 2 | Savings and temporary cash investments | | 1,022,975 | 2 | 5,972,117 |
| | 3 | Pledges and grants receivable, net | | 758,416 | 3 | 699,619 |
| | 4 | Accounts receivable, net | | 1,256,409 | 4 | 1,426,763 |
| | 5 | Loans and other receivables from current and former officers, directors, trustees, key employees, and highest compensated employees Complete Part II of Schedule L | | | 5 | |
| | 6 | Loans and other receivables from other disqualified persons (as defined under section 4958(f)(1)), persons described in section 4958(c)(3)(B), and contributing employers and sponsoring organizations of section 501(c)(9) voluntary employees' beneficiary organizations (see instructions) Complete Part II of Schedule L | | | 6 | |
| | 7 | Notes and loans receivable, net | | | 7 | |
| | 8 | Inventories for sale or use | | 54,664 | 8 | 51,525 |
| | 9 | Prepaid expenses and deferred charges | | 324,961 | 9 | 312,568 |
| | 10a | Land, buildings, and equipment cost or other basis Complete Part VI of Schedule D | 10a37,474,152 | | | |
| | b | Less accumulated depreciation | 10b20,214,116 | 16,587,443 | 10c | 17,260,036 |
| | 11 | Investments—publicly traded securities | | | 11 | |
| | 12 | Investments—other securities See Part IV, line 11 | | 56,956,080 | 12 | 61,201,564 |
| | 13 | Investments—program-related See Part IV, line 11 | | | 13 | |
| | 14 | Intangible assets | | | 14 | |
| | 15 | Other assets See Part IV, line 11 | | | 15 | |
| | 16 | Total assets. Add lines 1 through 15 (must equal line 34) | | 76,961,062 | 16 | 86,924,280 |
| Liabilities | 17 | Accounts payable and accrued expenses | | 1,971,085 | 17 | 2,421,836 |
| | 18 | Grants payable | | | 18 | |
| | 19 | Deferred revenue | | | 19 | |
| | 20 | Tax-exempt bond liabilities | | | 20 | |
| | 21 | Escrow or custodial account liability Complete Part IV of Schedule D | | | 21 | |
| | 22 | Loans and other payables to current and former officers, directors, trustees, key employees, highest compensated employees, and disqualified persons Complete Part II of Schedule L | | | 22 | |
| | 23 | Secured mortgages and notes payable to unrelated third parties | | | 23 | |
| | 24 | Unsecured notes and loans payable to unrelated third parties | | | 24 | |
| | 25 | Other liabilities (including federal income tax, payables to related third parties, and other liabilities not included on lines 17-24) Complete Part X of Schedule D | | 519,356 | 25 | 338,023 |
| | 26 | Total liabilities. Add lines 17 through 25 | | 2,490,441 | 26 | 2,759,859 |
| Net Assets or Fund Balances | Organizations that follow SFAS 117 (ASC 958), check here <input checked="" type="checkbox"/> and complete lines 27 through 29, and lines 33 and 34. | | | | | |
| | 27 | Unrestricted net assets | | 69,838,997 | 27 | 79,405,101 |
| | 28 | Temporarily restricted net assets | | 4,631,624 | 28 | 4,659,218 |
| | 29 | Permanently restricted net assets | | | 29 | 100,102 |
| | Organizations that do not follow SFAS 117 (ASC 958), check here <input type="checkbox"/> and complete lines 30 through 34. | | | | | |
| | 30 | Capital stock or trust principal, or current funds | | | 30 | |
| | 31 | Paid-in or capital surplus, or land, building or equipment fund | | | 31 | |
| | 32 | Retained earnings, endowment, accumulated income, or other funds | | | 32 | |
| | 33 | Total net assets or fund balances | | 74,470,621 | 33 | 84,164,421 |
| | 34 | Total liabilities and net assets/fund balances | | 76,961,062 | 34 | 86,924,280 |

Part XI Reconciliation of Net Assets

Check if Schedule O contains a response or note to any line in this Part XI

| | | | |
|----|---|----|------------|
| 1 | Total revenue (must equal Part VIII, column (A), line 12) | 1 | 24,206,028 |
| 2 | Total expenses (must equal Part IX, column (A), line 25) | 2 | 22,137,496 |
| 3 | Revenue less expenses Subtract line 2 from line 1 | 3 | 2,068,532 |
| 4 | Net assets or fund balances at beginning of year (must equal Part X, line 33, column (A)) | 4 | 74,470,621 |
| 5 | Net unrealized gains (losses) on investments | 5 | 7,625,268 |
| 6 | Donated services and use of facilities | 6 | |
| 7 | Investment expenses | 7 | |
| 8 | Prior period adjustments | 8 | |
| 9 | Other changes in net assets or fund balances (explain in Schedule O) | 9 | 0 |
| 10 | Net assets or fund balances at end of year Combine lines 3 through 9 (must equal Part X, line 33, column (B)) | 10 | 84,164,421 |

Part XII Financial Statements and Reporting

Check if Schedule O contains a response or note to any line in this Part XII

| | | Yes | No |
|----|--|-----|-----|
| 1 | Accounting method used to prepare the Form 990 <input type="checkbox"/> Cash <input checked="" type="checkbox"/> Accrual <input type="checkbox"/> Other If the organization changed its method of accounting from a prior year or checked "Other," explain in Schedule O | | |
| 2a | Were the organization's financial statements compiled or reviewed by an independent accountant? If "Yes," check a box below to indicate whether the financial statements for the year were compiled or reviewed on a separate basis, consolidated basis, or both <input type="checkbox"/> Separate basis <input type="checkbox"/> Consolidated basis <input type="checkbox"/> Both consolidated and separate basis | 2a | No |
| 2b | Were the organization's financial statements audited by an independent accountant? If "Yes," check a box below to indicate whether the financial statements for the year were audited on a separate basis, consolidated basis, or both <input checked="" type="checkbox"/> Separate basis <input type="checkbox"/> Consolidated basis <input type="checkbox"/> Both consolidated and separate basis | 2b | Yes |
| 2c | If "Yes," to line 2a or 2b, does the organization have a committee that assumes responsibility for oversight of the audit, review, or compilation of its financial statements and selection of an independent accountant? If the organization changed either its oversight process or selection process during the tax year, explain in Schedule O | 2c | Yes |
| 3a | As a result of a federal award, was the organization required to undergo an audit or audits as set forth in the Single Audit Act and OMB Circular A-133? | 3a | No |
| 3b | If "Yes," did the organization undergo the required audit or audits? If the organization did not undergo the required audit or audits, explain why in Schedule O and describe any steps taken to undergo such audits | 3b | |

SCHEDULE A

(Form 990 or 990EZ)

Department of the
Treasury
Internal Revenue Service

Public Charity Status and Public Support

Complete if the organization is a section 501(c)(3) organization or a section 4947(a)(1) nonexempt charitable trust.

▶ Attach to Form 990 or Form 990-EZ. ▶ See separate instructions.

▶ Information about Schedule A (Form 990 or 990-EZ) and its instructions is at www.irs.gov/form990.

OMB No 1545-0047

2013

Open to Public Inspection

| | |
|--|--|
| Name of the organization ASHLEY INC | Employer identification number 52-1126145 |
|--|--|

Part I

Reason for Public Charity Status (All organizations must complete this part.) See instructions.

The organization is not a private foundation because it is (For lines 1 through 11, check only one box)

| | | |
|----|-------------------------------------|--|
| 1 | <input type="checkbox"/> | A church, convention of churches, or association of churches described in section 170(b)(1)(A)(i). |
| 2 | <input type="checkbox"/> | A school described in section 170(b)(1)(A)(ii). (Attach Schedule E) |
| 3 | <input type="checkbox"/> | A hospital or a cooperative hospital service organization described in section 170(b)(1)(A)(iii). |
| 4 | <input type="checkbox"/> | A medical research organization operated in conjunction with a hospital described in section 170(b)(1)(A)(iii). Enter the hospital's name, city, and state _____ |
| 5 | <input type="checkbox"/> | An organization operated for the benefit of a college or university owned or operated by a governmental unit described in section 170(b)(1)(A)(iv). (Complete Part II) |
| 6 | <input type="checkbox"/> | A federal, state, or local government or governmental unit described in section 170(b)(1)(A)(v). |
| 7 | <input type="checkbox"/> | An organization that normally receives a substantial part of its support from a governmental unit or from the general public described in section 170(b)(1)(A)(vi). (Complete Part II) |
| 8 | <input type="checkbox"/> | A community trust described in section 170(b)(1)(A)(vi) (Complete Part II) |
| 9 | <input checked="" type="checkbox"/> | An organization that normally receives (1) more than 33 1/3% of its support from contributions, membership fees, and gross receipts from activities related to its exempt functions—subject to certain exceptions, and (2) no more than 33 1/3% of its support from gross investment income and unrelated business taxable income (less section 511 tax) from businesses acquired by the organization after June 30, 1975 See section 509(a)(2). (Complete Part III) |
| 10 | <input type="checkbox"/> | An organization organized and operated exclusively to test for public safety See section 509(a)(4). |
| 11 | <input type="checkbox"/> | An organization organized and operated exclusively for the benefit of, to perform the functions of, or to carry out the purposes of one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2) See section 509(a)(3). Check the box that describes the type of supporting organization and complete lines 11e through 11h a <input type="checkbox"/> Type I b <input type="checkbox"/> Type II c <input type="checkbox"/> Type III - Functionally integrated d <input type="checkbox"/> Type III - Non-functionally integrated |
| e | <input type="checkbox"/> | By checking this box, I certify that the organization is not controlled directly or indirectly by one or more disqualified persons other than foundation managers and other than one or more publicly supported organizations described in section 509(a)(1) or section 509(a)(2) |
| f | <input type="checkbox"/> | If the organization received a written determination from the IRS that it is a Type I, Type II, or Type III supporting organization, check this box |
| g | <input type="checkbox"/> | Since August 17, 2006, has the organization accepted any gift or contribution from any of the following persons? (i) A person who directly or indirectly controls, either alone or together with persons described in (ii) and (iii) below, the governing body of the supported organization? (ii) A family member of a person described in (i) above? (iii) A 35% controlled entity of a person described in (i) or (ii) above? |
| h | <input type="checkbox"/> | Provide the following information about the supported organization(s) |

| | Yes | No |
|----------|-----|----|
| 11g(i) | | |
| 11g(ii) | | |
| 11g(iii) | | |

| (i) Name of supported organization | (ii) EIN | (iii) Type of organization (described on lines 1- 9 above or IRC section (see instructions)) | (iv) Is the organization in col (i) listed in your governing document? | | (v) Did you notify the organization in col (i) of your support? | | (vi) Is the organization in col (i) organized in the U S ? | | (vii) Amount of monetary support |
|------------------------------------|----------|--|--|----|---|----|--|----|----------------------------------|
| | | | Yes | No | Yes | No | Yes | No | |
| | | | | | | | | | |
| | | | | | | | | | |
| Total | | | | | | | | | |

Part II

Support Schedule for Organizations Described in Sections 170(b)(1)(A)(iv) and 170(b)(1)(A)(vi)
(Complete only if you checked the box on line 5, 7, or 8 of Part I or if the organization failed to qualify under Part III. If the organization fails to qualify under the tests listed below, please complete Part III.)

| Section A. Public Support | | | | | | |
|---|----------|----------|----------|----------|----------|-----------|
| Calendar year (or fiscal year beginning in) ▶ | (a) 2009 | (b) 2010 | (c) 2011 | (d) 2012 | (e) 2013 | (f) Total |
| 1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.") | | | | | | |
| 2 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf | | | | | | |
| 3 The value of services or facilities furnished by a governmental unit to the organization without charge | | | | | | |
| 4 Total. Add lines 1 through 3 | | | | | | |
| 5 The portion of total contributions by each person (other than a governmental unit or publicly supported organization) included on line 1 that exceeds 2% of the amount shown on line 11, column (f) | | | | | | |
| 6 Public support. Subtract line 5 from line 4 | | | | | | |

| Section B. Total Support | | | | | | |
|--|----------|----------|----------|----------|----------|-----------|
| Calendar year (or fiscal year beginning in) ▶ | (a) 2009 | (b) 2010 | (c) 2011 | (d) 2012 | (e) 2013 | (f) Total |
| 7 Amounts from line 4 | | | | | | |
| 8 Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources | | | | | | |
| 9 Net income from unrelated business activities, whether or not the business is regularly carried on | | | | | | |
| 10 Other income Do not include gain or loss from the sale of capital assets (Explain in Part IV) | | | | | | |
| 11 Total support (Add lines 7 through 10) | | | | | | |
| 12 Gross receipts from related activities, etc (see instructions) | | | | | 12 | |
| 13 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a 501(c)(3) organization, check this box and stop here ▶ | | | | | | |

| Section C. Computation of Public Support Percentage | | | |
|---|----|--|---|
| 14 Public support percentage for 2013 (line 6, column (f) divided by line 11, column (f)) | 14 | | |
| 15 Public support percentage for 2012 Schedule A, Part II, line 14 | 15 | | |
| 16a 33 1/3% support test—2013. If the organization did not check the box on line 13, and line 14 is 33 1/3% or more, check this box and stop here. The organization qualifies as a publicly supported organization | | | ▶ |
| b 33 1/3% support test—2012. If the organization did not check a box on line 13 or 16a, and line 15 is 33 1/3% or more, check this box and stop here. The organization qualifies as a publicly supported organization | | | ▶ |
| 17a 10%-facts-and-circumstances test—2013. If the organization did not check a box on line 13, 16a, or 16b, and line 14 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and stop here. Explain in Part IV how the organization meets the "facts-and-circumstances" test The organization qualifies as a publicly supported organization | | | ▶ |
| b 10%-facts-and-circumstances test—2012. If the organization did not check a box on line 13, 16a, 16b, or 17a, and line 15 is 10% or more, and if the organization meets the "facts-and-circumstances" test, check this box and stop here. Explain in Part IV how the organization meets the "facts-and-circumstances" test The organization qualifies as a publicly supported organization | | | ▶ |
| 18 Private foundation. If the organization did not check a box on line 13, 16a, 16b, 17a, or 17b, check this box and see instructions | | | ▶ |

Part III

Support Schedule for Organizations Described in Section 509(a)(2)
(Complete only if you checked the box on line 9 of Part I or if the organization failed to qualify under Part II. If the organization fails to qualify under the tests listed below, please complete Part II.)

| Section A. Public Support | | | | | | |
|--|------------|------------|------------|------------|------------|-------------|
| Calendar year (or fiscal year beginning in) ▶ | (a) 2009 | (b) 2010 | (c) 2011 | (d) 2012 | (e) 2013 | (f) Total |
| 1 Gifts, grants, contributions, and membership fees received (Do not include any "unusual grants.") | 540,718 | 3,832,267 | 820,356 | 1,301,400 | 947,686 | 7,442,427 |
| 2 Gross receipts from admissions, merchandise sold or services performed, or facilities furnished in any activity that is related to the organization's tax-exempt purpose | 15,636,618 | 18,494,258 | 18,801,579 | 19,575,675 | 21,309,503 | 93,817,633 |
| 3 Gross receipts from activities that are not an unrelated trade or business under section 513 | | | | | | |
| 4 Tax revenues levied for the organization's benefit and either paid to or expended on its behalf | | | | | | |
| 5 The value of services or facilities furnished by a governmental unit to the organization without charge | | | | | | |
| 6 Total. Add lines 1 through 5 | 16,177,336 | 22,326,525 | 19,621,935 | 20,877,075 | 22,257,189 | 101,260,060 |
| 7a Amounts included on lines 1, 2, and 3 received from disqualified persons | 144,771 | 64,162 | 80,282 | 193,131 | 315,750 | 798,096 |
| b Amounts included on lines 2 and 3 received from other than disqualified persons that exceed the greater of \$5,000 or 1% of the amount on line 13 for the year | | | | | | 0 |
| c Add lines 7a and 7b | 144,771 | 64,162 | 80,282 | 193,131 | 315,750 | 798,096 |
| 8 Public support (Subtract line 7c from line 6) | | | | | | 100,461,964 |

| Section B. Total Support | | | | | | |
|--|------------|------------|------------|------------|------------|-------------|
| Calendar year (or fiscal year beginning in) ▶ | (a) 2009 | (b) 2010 | (c) 2011 | (d) 2012 | (e) 2013 | (f) Total |
| 9 Amounts from line 6 | 16,177,336 | 22,326,525 | 19,621,935 | 20,877,075 | 22,257,189 | 101,260,060 |
| 10a Gross income from interest, dividends, payments received on securities loans, rents, royalties and income from similar sources | 593,133 | 766,866 | 1,007,434 | 1,085,811 | 908,925 | 4,362,169 |
| b Unrelated business taxable income (less section 511 taxes) from businesses acquired after June 30, 1975 | | | | | | |
| c Add lines 10a and 10b | 593,133 | 766,866 | 1,007,434 | 1,085,811 | 908,925 | 4,362,169 |
| 11 Net income from unrelated business activities not included in line 10b, whether or not the business is regularly carried on | | | | | | |
| 12 Other income. Do not include gain or loss from the sale of capital assets (Explain in Part IV) | | | | | | |
| 13 Total support. (Add lines 9, 10c, 11, and 12) | 16,770,469 | 23,093,391 | 20,629,369 | 21,962,886 | 23,166,114 | 105,622,229 |
| 14 First five years. If the Form 990 is for the organization's first, second, third, fourth, or fifth tax year as a 501(c)(3) organization, check this box and stop here ▶ | | | | | | |

| Section C. Computation of Public Support Percentage | | | |
|---|----|----------|--|
| 15 Public support percentage for 2013 (line 8, column (f) divided by line 13, column (f)) | 15 | 95 110 % | |
| 16 Public support percentage from 2012 Schedule A, Part III, line 15 | 16 | 95 060 % | |

| Section D. Computation of Investment Income Percentage | | | |
|--|----|---------|--|
| 17 Investment income percentage for 2013 (line 10c, column (f) divided by line 13, column (f)) | 17 | 4 130 % | |
| 18 Investment income percentage from 2012 Schedule A, Part III, line 17 | 18 | 4 430 % | |
| 19a 33 1/3% support tests—2013. If the organization did not check the box on line 14, and line 15 is more than 33 1/3%, and line 17 is not more than 33 1/3%, check this box and stop here. The organization qualifies as a publicly supported organization ▶ | | | |
| b 33 1/3% support tests—2012. If the organization did not check a box on line 14 or line 19a, and line 16 is more than 33 1/3% and line 18 is not more than 33 1/3%, check this box and stop here. The organization qualifies as a publicly supported organization ▶ | | | |
| 20 Private foundation. If the organization did not check a box on line 14, 19a, or 19b, check this box and see instructions ▶ | | | |

Part IV **Supplemental Information.** Provide the explanations required by Part II, line 10; Part II, line 17a or 17b; and Part III, line 12. Also complete this part for any additional information. (See instructions).

| |
|-------------------------------------|
| Facts And Circumstances Test |
| |

| Return Reference | Explanation | |
|------------------|-------------|--|
|------------------|-------------|--|

SCHEDULE D
(Form 990)

Supplemental Financial Statements

OMB No 1545-0047

2013

Open to Public Inspection

Department of the Treasury
Internal Revenue Service

► Complete if the organization answered "Yes," to Form 990, Part IV, line 6, 7, 8, 9, 10, 11a, 11b, 11c, 11d, 11e, 11f, 12a, or 12b

► Attach to Form 990. ► See separate instructions. ► Information about Schedule D (Form 990) and its instructions is at www.irs.gov/form990.

| | |
|--|--|
| Name of the organization ASHLEY INC | Employer identification number 52-1126145 |
|--|--|

Part I Organizations Maintaining Donor Advised Funds or Other Similar Funds or Accounts. Complete if the organization answered "Yes" to Form 990, Part IV, line 6.

| | | |
|---|---|------------------------------|
| | (a) Donor advised funds | (b) Funds and other accounts |
| 1 | Total number at end of year | |
| 2 | Aggregate contributions to (during year) | |
| 3 | Aggregate grants from (during year) | |
| 4 | Aggregate value at end of year | |
| 5 | Did the organization inform all donors and donor advisors in writing that the assets held in donor advised funds are the organization's property, subject to the organization's exclusive legal control? <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div> | |
| 6 | Did the organization inform all grantees, donors, and donor advisors in writing that grant funds can be used only for charitable purposes and not for the benefit of the donor or donor advisor, or for any other purpose conferring impermissible private benefit? <div><input type="checkbox"/> Yes <input type="checkbox"/> No</div> | |

Part II Conservation Easements. Complete if the organization answered "Yes" to Form 990, Part IV, line 7.

1

Purpose(s) of conservation easements held by the organization (check all that apply)

☐ Preservation of land for public use (e g , recreation or education) ☐ Preservation of an historically important land area

☐ Protection of natural habitat ☐ Preservation of a certified historic structure

☐ Preservation of open space

2

Complete lines 2a through 2d if the organization held a qualified conservation contribution in the form of a conservation easement on the last day of the tax year

| | |
|---|--|
| | Held at the End of the Year |
| a | Total number of conservation easements |
| b | Total acreage restricted by conservation easements |
| c | Number of conservation easements on a certified historic structure included in (a) |
| d | Number of conservation easements included in (c) acquired after 8/17/06, and not on a historic structure listed in the National Register |

3

Number of conservation easements modified, transferred, released, extinguished, or terminated by the organization during the tax year ►

4

Number of states where property subject to conservation easement is located ►

5

Does the organization have a written policy regarding the periodic monitoring, inspection, handling of violations, and enforcement of the conservation easements it holds?

☐ Yes ☐ No

6

Staff and volunteer hours devoted to monitoring, inspecting, and enforcing conservation easements during the year ►

7

Amount of expenses incurred in monitoring, inspecting, and enforcing conservation easements during the year ► \$

8

Does each conservation easement reported on line 2(d) above satisfy the requirements of section 170(h)(4)(B)(i) and section 170(h)(4)(B)(ii)?

☐ Yes ☐ No

9

In Part XIII, describe how the organization reports conservation easements in its revenue and expense statement, and balance sheet, and include, if applicable, the text of the footnote to the organization's financial statements that describes the organization's accounting for conservation easements

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets. Complete if the organization answered "Yes" to Form 990, Part IV, line 8.

1a

If the organization elected, as permitted under SFAS 116 (ASC 958), not to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide, in Part XIII, the text of the footnote to its financial statements that describes these items

b

If the organization elected, as permitted under SFAS 116 (ASC 958), to report in its revenue statement and balance sheet works of art, historical treasures, or other similar assets held for public exhibition, education, or research in furtherance of public service, provide the following amounts relating to these items

(i)

Revenues included in Form 990, Part VIII, line 1

► \$

(ii)

Assets included in Form 990, Part X

► \$

2

If the organization received or held works of art, historical treasures, or other similar assets for financial gain, provide the following amounts required to be reported under SFAS 116 (ASC 958) relating to these items

a

Revenues included in Form 990, Part VIII, line 1

► \$

b

Assets included in Form 990, Part X

► \$

Part III Organizations Maintaining Collections of Art, Historical Treasures, or Other Similar Assets *(continued)*

- 3 Using the organization's acquisition, accession, and other records, check any of the following that are a significant use of its collection items (check all that apply)
- a ☐ Public exhibition

b ☐ Scholarly research

c ☐ Preservation for future generations

d ☐ Loan or exchange programs

e ☐ Other
- 4 Provide a description of the organization's collections and explain how they further the organization's exempt purpose in Part XIII
- 5 During the year, did the organization solicit or receive donations of art, historical treasures or other similar assets to be sold to raise funds rather than to be maintained as part of the organization's collection?

☐ Yes ☐ No

Part IV Escrow and Custodial Arrangements. Complete if the organization answered "Yes" to Form 990, Part IV, line 9, or reported an amount on Form 990, Part X, line 21.

- 1a Is the organization an agent, trustee, custodian or other intermediary for contributions or other assets not included on Form 990, Part X?

☐ Yes ☐ No
- b If "Yes," explain the arrangement in Part XIII and complete the following table
- c Beginning balance

d Additions during the year

e Distributions during the year

f Ending balance

| | Amount |
|----|--------|
| 1c | |
| 1d | |
| 1e | |
| 1f | |
- 2a Did the organization include an amount on Form 990, Part X, line 21?

☐ Yes ☐ No
- b If "Yes," explain the arrangement in Part XIII Check here if the explanation has been provided in Part XIII

☐

Part V Endowment Funds. Complete if the organization answered "Yes" to Form 990, Part IV, line 10.

- | | (a)Current year | (b)Prior year | b (c)Two years back | (d)Three years back | (e)Four years back |
|--|-----------------|---------------|---------------------|---------------------|--------------------|
| 1a Beginning of year balance | 0 | 1,000,402 | 1,061,211 | 889,201 | 736,905 |
| b Contributions | 45,500 | | | | |
| c Net investment earnings, gains, and losses | 102 | | -33,936 | 205,467 | 167,281 |
| d Grants or scholarships | | | | | |
| e Other expenditures for facilities and programs | | 1,000,402 | 26,873 | 33,457 | 14,985 |
| f Administrative expenses | | | | | |
| g End of year balance | 45,602 | | 1,000,402 | 1,061,211 | 889,201 |
- 2 Provide the estimated percentage of the current year end balance (line 1g, column (a)) held as
- a Board designated or quasi-endowment ▶

b Permanent endowment ▶ 100 000 %

c Temporarily restricted endowment ▶

The percentages in lines 2a, 2b, and 2c should equal 100%
- 3a Are there endowment funds not in the possession of the organization that are held and administered for the organization by
- (i) unrelated organizations

(ii) related organizations

| | Yes | No |
|--------|-----|----|
| 3a(i) | | No |
| 3a(ii) | | No |
| 3b | | |
- b If "Yes" to 3a(ii), are the related organizations listed as required on Schedule R?
- 4 Describe in Part XIII the intended uses of the organization's endowment funds

Part VI Land, Buildings, and Equipment. Complete if the organization answered 'Yes' to Form 990, Part IV, line 11a. See Form 990, Part X, line 10.

| Description of property | (a) Cost or other basis (investment) | (b)Cost or other basis (other) | (c) Accumulated depreciation | (d) Book value |
|--|--------------------------------------|--------------------------------|------------------------------|----------------|
| 1a Land | | 6,406,102 | | 6,406,102 |
| b Buildings | | 20,098,124 | 13,447,276 | 6,650,848 |
| c Leasehold improvements | | | | |
| d Equipment | | 10,969,926 | 6,766,840 | 4,203,086 |
| e Other | | | | |
| Total. Add lines 1a through 1e (Column (d) must equal Form 990, Part X, column (B), line 10(c).) ▶ | | | | 17,260,036 |

Part XI

Reconciliation of Revenue per Audited Financial Statements With Revenue per Return

Complete if the organization answered 'Yes' to Form 990, Part IV, line 12a.

| | | | |
|---|--|----|------------|
| 1 | Total revenue, gains, and other support per audited financial statements | 1 | 27,606,290 |
| 2 | Amounts included on line 1 but not on Form 990, Part VIII, line 12 | | |
| a | Net unrealized gains on investments | 2a | 7,625,268 |
| b | Donated services and use of facilities | 2b | |
| c | Recoveries of prior year grants | 2c | |
| d | Other (Describe in Part XIII) | 2d | -253,450 |
| e | Add lines 2a through 2d | 2e | 7,371,818 |
| 3 | Subtract line 2e from line 1 | 3 | 20,234,472 |
| 4 | Amounts included on Form 990, Part VIII, line 12, but not on line 1 | | |
| a | Investment expenses not included on Form 990, Part VIII, line 7b | 4a | |
| b | Other (Describe in Part XIII) | 4b | 3,971,556 |
| c | Add lines 4a and 4b | 4c | 3,971,556 |
| 5 | Total revenue Add lines 3 and 4c. (This must equal Form 990, Part I, line 12) | 5 | 24,206,028 |

Part XII

Reconciliation of Expenses per Audited Financial Statements With Expenses per Return.

Complete if the organization answered 'Yes' to Form 990, Part IV, line 12a.

| | | | |
|---|---|----|------------|
| 1 | Total expenses and losses per audited financial statements | 1 | 17,912,490 |
| 2 | Amounts included on line 1 but not on Form 990, Part IX, line 25 | | |
| a | Donated services and use of facilities | 2a | |
| b | Prior year adjustments | 2b | |
| c | Other losses | 2c | |
| d | Other (Describe in Part XIII) | 2d | 200,663 |
| e | Add lines 2a through 2d | 2e | 200,663 |
| 3 | Subtract line 2e from line 1 | 3 | 17,711,827 |
| 4 | Amounts included on Form 990, Part IX, line 25, but not on line 1: | | |
| a | Investment expenses not included on Form 990, Part VIII, line 7b | 4a | |
| b | Other (Describe in Part XIII) | 4b | 4,425,669 |
| c | Add lines 4a and 4b | 4c | 4,425,669 |
| 5 | Total expenses Add lines 3 and 4c. (This must equal Form 990, Part I, line 18) | 5 | 22,137,496 |

Part XIII

Supplemental Information

Provide the descriptions required for Part II, lines 3, 5, and 9, Part III, lines 1a and 4, Part IV, lines 1b and 2b, Part V, line 4, Part X, line 2, Part XI, lines 2d and 4b, and Part XII, lines 2d and 4b. Also complete this part to provide any additional information.

| Return Reference | Explanation |
|---------------------------------------|--|
| PART V, LINE 4 | ENDOWMENT FUNDS WERE ESTABLISHED TO PROVIDE FOR THE ADVANCEMENT OF TREATMENT EXCELLENCE AT ASHLEY, INC |
| PART X, LINE 2 | THE COMPANY IS EXEMPT FROM FEDERAL AND STATE INCOME TAXES UNDER SECTION 501 (C)(3) OF THE INTERNAL REVENUE CODE. IN ADDITION, THE INTERNAL REVENUE SERVICE HAS DETERMINED THE COMPANY IS NOT A PRIVATE FOUNDATION WITHIN THE MEANING OF SECTION 509(A) OF THE CODE. THE COMPANY FOLLOWS THE PROVISIONS OF ACCOUNTING FOR UNCERTAINTY IN INCOME TAXES UNDER THE INCOME TAXES TOPIC OF THE CODIFICATION. THE CODIFICATION REQUIRES THE EVALUATION OF TAX POSITIONS, WHICH INCLUDE MAINTAINING ITS TAX-EXEMPT STATUS AND THE TAXABILITY OF ANY UNRELATED BUSINESS INCOME, AND DOES NOT ALLOW RECOGNITION OF TAX POSITIONS WHICH DO NOT MEET A "MORE-LIKELY-THAN-NOT" THRESHOLD OF BEING SUSTAINED BY THE APPLICABLE TAX AUTHORITY. MANAGEMENT DOES NOT BELIEVE IT HAS TAKEN ANY TAX POSITIONS THAT WOULD NOT MEET THIS THRESHOLD. THE COMPANY FILES FEDERAL AND STATE INFORMATION RETURNS AND IS NO LONGER SUBJECT TO INCOME TAX EXAMINATIONS BY MAJOR TAX AUTHORITIES FOR YEARS PRIOR TO 2010. |
| PART XI, LINE 2D - OTHER ADJUSTMENTS | COST OF GOODS SOLD - NETTED AGAINST SALES ON FORM 990 65,397 FUNDRAISING EVENT EXPENSE-NETTED AGAINST REV ON FORM 990 135,266 DEMOLITION EXP TO RETURN LAND TO NATURAL STATE NETTED AGAINST REV ON F/S -289,113 MISC INSURANCE CLAIM LOSS -165,000 |
| PART XI, LINE 4B - OTHER ADJUSTMENTS | SCHOLARSHIP EXPENSE - NETTED AGAINST REV ON F/S 3,039,199 FUNDRAISING EXPENSE - NETTED AGAINST REV ON F/S 932,357 |
| PART XII, LINE 2D - OTHER ADJUSTMENTS | COST OF GOODS SOLD - NETTED AGAINST REVENUE ON THE FORM 990 65,397 FUNDRAISING EVENT EXPENSE - NETTED AGAINST REVENUE ON THE FORM 990 135,266 |
| PART XII, LINE 4B - OTHER ADJUSTMENTS | SCHOLARSHIP EXPENSE - NETTED AGAINST REVENUE ON THE FORM 990 3,039,199 FUNDRAISING EXPENSE - NETTED AGAINST REVENUE ON THE F/S 932,357 DEMOLITION EXP TO RETURN LAND TO NATURAL STATE NETTED AGAINST REV ON F/S 289,113 MISC EXPENSE - NETTED AGAINST REVENUE ON THE F/S 165,000 |
| | |

[illegible]

SCHEDULE G
(Form 990 or 990-EZ)

Supplemental Information Regarding
Fundraising or Gaming Activities

Complete if the organization answered "Yes" to Form 990, Part IV, lines 17, 18, or 19, or if the organization entered more than \$15,000 on Form 990-EZ, line 6a.
▶ Attach to Form 990 or Form 990-EZ. ▶ See separate instructions.
▶ Information about Schedule G (Form 990 or 990-EZ) and its instructions is at www.irs.gov/form990.

OMB No 1545-0047

2013

Open to Public Inspection

Department of the Treasury
Internal Revenue Service

Name of the organization
ASHLEY INC

Employer identification number
52-1126145

Part I

Fundraising Activities. Complete if the organization answered "Yes" to Form 990, Part IV, line 17.
Form 990-EZ filers are not required to complete this part.

1

Indicate whether the organization raised funds through any of the following activities. Check all that apply.

a

☒

Mail solicitations

e

☒

Solicitation of non-government grants

b

☒

Internet and email solicitations

f

☐

Solicitation of government grants

c

☐

Phone solicitations

g

☒

Special fundraising events

d

☒

In-person solicitations

2a

Did the organization have a written or oral agreement with any individual (including officers, directors, trustees or key employees listed in Form 990, Part VII) or entity in connection with professional fundraising services?

☒ Yes

☐ No

b

If "Yes," list the ten highest paid individuals or entities (fundraisers) pursuant to agreements under which the fundraiser is to be compensated at least \$5,000 by the organization.

| (i) Name and address of individual or entity (fundraiser) | (ii) Activity | (iii) Did fundraiser have custody or control of contributions? | | (iv) Gross receipts from activity | (v) Amount paid to (or retained by) fundraiser listed in col (i) | (vi) Amount paid to (or retained by) organization |
|--|--|--|----|-----------------------------------|--|---|
| | | Yes | No | | | |
| 1 BOB CARTER COMPANIES LLC 400 MADISON DRIVE SUITE 204 SARASOTA, FL 34236 | DATABASE CONSULTING FOR FUTURE CAMPAIGNS | | No | 1,072,332 | 113,895 | 958,437 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| Total ▶ | | | | 1,072,332 | 113,895 | 958,437 |

3

List all states in which the organization is registered or licensed to solicit contributions or has been notified it is exempt from registration or licensing

MD, AK, AL, AZ, CA, CO, CT, DC, FL, GA, KS, KY, MA, ME, MI, MN, MO, MS, NC, ND, NH, NJ, NM, NY, OH, OK, OR, PA, SC, TN, UT, VA, WA, WI, WV, AR

Part II Fundraising Events. Complete if the organization answered "Yes" to Form 990, Part IV, line 18, or reported more than \$15,000 of fundraising event contributions and gross income on Form 990-EZ, lines 1 and 6b. List events with gross receipts greater than \$5,000.

| | | (a) Event #1 | (b) Event #2 | (c) Other events | (d) Total events |
|-----------------|----|---|--------------|------------------|----------------------------------|
| | | LOU BANTLE GOLF TOURNEY (event type) | (event type) | (total number) | (add col (a) through col (c)) |
| Revenue | 1 | Gross receipts | 88,143 | | 88,143 |
| | 2 | Less Contributions . . | 32,400 | | 32,400 |
| | 3 | Gross income (line 1 minus line 2) | 55,743 | | 55,743 |
| Direct Expenses | 4 | Cash prizes | 0 | | |
| | 5 | Noncash prizes . . | | | |
| | 6 | Rent/facility costs . . | 32,081 | | 32,081 |
| | 7 | Food and beverages . | | | |
| | 8 | Entertainment | | | |
| | 9 | Other direct expenses . | 9,312 | | 9,312 |
| | 10 | Direct expense summary Add lines 4 through 9 in column (d) ▶ | | | |
| | 11 | Net income summary Subtract line 10 from line 3, column (d) ▶ | | | |
| | | | | | (41,393) |
| | | | | | 14,350 |

Part III Gaming. Complete if the organization answered "Yes" to Form 990, Part IV, line 19, or reported more than \$15,000 on Form 990-EZ, line 6a.

| Revenue | | (a) Bingo | (b) Pull tabs/Instant bingo/progressive bingo | (c) Other gaming | (d) Total gaming (add col (a) through col (c)) |
|-----------------|---|---|---|---|--|
| | 1 Gross revenue | | | | |
| Direct Expenses | 2 Cash prizes | | | | |
| | 3 Non-cash prizes | | | | |
| | 4 Rent/facility costs | | | | |
| | 5 Other direct expenses | | | | |
| | | | | | |
| | 6 Volunteer labor | <div><input type="checkbox"/> Yes _____ % <input type="checkbox"/> No</div> | <div><input type="checkbox"/> Yes _____ % <input type="checkbox"/> No</div> | <div><input type="checkbox"/> Yes _____ % <input type="checkbox"/> No</div> | |
| | 7 Direct expense summary Add lines 2 through 5 in column (d) ▶ | | | | |
| | 8 Net gaming income summary Subtract line 7 from line 1, column (d) ▶ | | | | |

9 Enter the state(s) in which the organization operates gaming activities _____

a Is the organization licensed to operate gaming activities in each of these states? ☐ Yes ☐ No

b If "No," explain _____

10a Were any of the organization's gaming licenses revoked, suspended or terminated during the tax year? ☐ Yes ☐ No

b If "Yes," explain _____

Does the organization operate gaming activities with nonmembers? ☐ **Yes** ☐ **No**

12 Is the organization a grantor, beneficiary or trustee of a trust or a member of a partnership or other entity formed to administer charitable gaming? ☐ **Yes** ☐ **No**

13 Indicate the percentage of gaming activity operated in

| | | |
|--|------------|---|
| a The organization's facility | 13a | % |
| b An outside facility | 13b | % |

14 Enter the name and address of the person who prepares the organization's gaming/special events books and records

Name ▶

Address ▶

15a Does the organization have a contract with a third party from whom the organization receives gaming revenue? ☐ **Yes** ☐ **No**

b If "Yes," enter the amount of gaming revenue received by the organization ▶ \$ _____ and the amount of gaming revenue retained by the third party ▶ \$ _____

c If "Yes," enter name and address of the third party

Name ▶

Address ▶

16 Gaming manager information

Name ▶

Gaming manager compensation ▶ \$

Description of services provided ▶

☐ Director/officer ☐ Employee ☐ Independent contractor

17 Mandatory distributions

a Is the organization required under state law to make charitable distributions from the gaming proceeds to retain the state gaming license? ☐ **Yes** ☐ **No**

b Enter the amount of distributions required under state law distributed to other exempt organizations or spent in the organization's own exempt activities during the tax year ▶ \$ _____

Part IV **Supplemental Information.** Provide the explanations required by Part I, line 2b, columns (iii) and (v), and Part III, lines 9, 9b, 10b, 15b, 15c, 16, and 17b, as applicable. Also complete this part to provide any additional information (see instructions).

| Return Reference | Explanation |
|------------------|-------------|
|------------------|-------------|

Schedule I
(Form 990)

Department of the Treasury
Internal Revenue Service
Name of the organization
ASHLEY INC

Grants and Other Assistance to Organizations,
Governments and Individuals in the United States

Complete if the organization answered "Yes," to Form 990, Part IV, line 21 or 22.
▶ Attach to Form 990

▶ Information about Schedule I (Form 990) and its instructions is at www.irs.gov/form990.

OMB No 1545-0047

2013

Open to Public
Inspection

Employer identification number
52-1126145

Part I

General Information on Grants and Assistance

1

Does the organization maintain records to substantiate the amount of the grants or assistance, the grantees' eligibility for the grants or assistance, and the selection criteria used to award the grants or assistance?

☒ Yes ☐ No

2

Describe in Part IV the organization's procedures for monitoring the use of grant funds in the United States

Part II

Grants and Other Assistance to Governments and Organizations in the United States. Complete if the organization answered "Yes" to Form 990, Part IV, line 21, for any recipient that received more than \$5,000. Part II can be duplicated if additional space is needed.

| (a) Name and address of organization or government | (b) EIN | (c) IRC Code section if applicable | (d) Amount of cash grant | (e) Amount of non-cash assistance | (f) Method of valuation (book, FMV, appraisal, other) | (g) Description of non-cash assistance | (h) Purpose of grant or assistance |
|--|---------|------------------------------------|--------------------------|-----------------------------------|---|--|------------------------------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

Part III

Grants and Other Assistance to Individuals in the United States. Complete if the organization answered "Yes" to Form 990, Part IV, line 22.
Part III can be duplicated if additional space is needed.

| (a)Type of grant or assistance | (b)Number of recipients | (c)Amount of cash grant | (d)Amount of non-cash assistance | (e)Method of valuation (book, FMV, appraisal, other) | (f)Description of non-cash assistance |
|--------------------------------|-------------------------|-------------------------|----------------------------------|--|---------------------------------------|
| (1) SCHOLARSHIPS | 349 | 3,039,199 | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Part IV

Supplemental Information. Provide the information required in Part I, line 2, Part III, column (b), and any other additional information.

| Return Reference | Explanation |
|------------------|---|
| PART I, LINE 2 | ALL SCHOLARSHIPS ARE UTILIZED TO PROVIDE SERVICES TO INDIVIDUALS EITHER WITHIN OUR FACILITY OR PARTICIPATING IN ONE OF OUR PROGRAMS |

Schedule J
(Form 990)

Department of the Treasury
Internal Revenue Service

Compensation Information

For certain Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees

▶ Complete if the organization answered "Yes" to Form 990, Part IV, line 23.
▶ Attach to Form 990. ▶ See separate instructions.

▶ Information about Schedule J (Form 990) and its instructions is at www.irs.gov/form990.

OMB No 1545-0047

2013

Open to Public Inspection

Name of the organization
ASHLEY INC

Employer identification number
52-1126145

Part I

Questions Regarding Compensation

| | Yes | No |
|---|-----|----|
| <div><div>1a</div><div>Check the appropriate box(es) if the organization provided any of the following to or for a person listed in Form 990, Part VII, Section A, line 1a Complete Part III to provide any relevant information regarding these items</div><div><div><div><input type="checkbox"/> First-class or charter travel</div><div><input type="checkbox"/> Travel for companions</div><div><input type="checkbox"/> Tax idemnification and gross-up payments</div><div><input type="checkbox"/> Discretionary spending account</div></div><div><div><input type="checkbox"/> Housing allowance or residence for personal use</div><div><input type="checkbox"/> Payments for business use of personal residence</div><div><input type="checkbox"/> Health or social club dues or initiation fees</div><div><input type="checkbox"/> Personal services (e g , maid, chauffeur, chef)</div></div></div></div> | | |
| <div><div>b</div><div>If any of the boxes in line 1a are checked, did the organization follow a written policy regarding payment or reimbursement or provision of all of the expenses described above? If "No," complete Part III to explain</div></div> | | |
| <div><div>2</div><div>Did the organization require substantiation prior to reimbursing or allowing expenses incurred by all directors, trustees, officers, including the CEO/Executive Director, regarding the items checked in line 1a?</div></div> | Yes | |
| <div><div>3</div><div>Indicate which, if any, of the following the filing organization used to establish the compensation of the organization's CEO/Executive Director Check all that apply Do not check any boxes for methods used by a related organization to establish compensation of the CEO/Executive Director, but explain in Part III</div><div><div><div><input checked="" type="checkbox"/> Compensation committee</div><div><input type="checkbox"/> Independent compensation consultant</div><div><input type="checkbox"/> Form 990 of other organizations</div></div><div><div><input type="checkbox"/> Written employment contract</div><div><input checked="" type="checkbox"/> Compensation survey or study</div><div><input checked="" type="checkbox"/> Approval by the board or compensation committee</div></div></div></div> | | |
| <div><div>4</div><div>During the year, did any person listed in Form 990, Part VII, Section A, line 1a with respect to the filing organization or a related organization</div></div> | | |
| <div><div>a</div><div>Receive a severance payment or change-of-control payment?</div></div> | | No |
| <div><div>b</div><div>Participate in, or receive payment from, a supplemental nonqualified retirement plan?</div></div> | | No |
| <div><div>c</div><div>Participate in, or receive payment from, an equity-based compensation arrangement?</div></div> <div>If "Yes" to any of lines 4a-c, list the persons and provide the applicable amounts for each item in Part III</div> | | No |
| <div><div></div><div>Only 501(c)(3) and 501(c)(4) organizations only must complete lines 5-9.</div></div> | | |
| <div><div>5</div><div>For persons listed in Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the revenues of</div></div> | | |
| <div><div>a</div><div>The organization?</div></div> | | No |
| <div><div>b</div><div>Any related organization?</div></div> <div>If "Yes," to line 5a or 5b, describe in Part III</div> | | No |
| <div><div>6</div><div>For persons listed in Form 990, Part VII, Section A, line 1a, did the organization pay or accrue any compensation contingent on the net earnings of</div></div> | | |
| <div><div>a</div><div>The organization?</div></div> | | No |
| <div><div>b</div><div>Any related organization?</div></div> <div>If "Yes," to line 6a or 6b, describe in Part III</div> | | No |
| <div><div>7</div><div>For persons listed in Form 990, Part VII, Section A, line 1a, did the organization provide any non-fixed payments not described in lines 5 and 6? If "Yes," describe in Part III</div></div> | | No |
| <div><div>8</div><div>Were any amounts reported in Form 990, Part VII, paid or accrued pursuant to a contract that was subject to the initial contract exception described in Regulations section 53 4958-4(a)(3)? If "Yes," describe in Part III</div></div> | | No |
| <div><div>9</div><div>If "Yes" to line 8, did the organization also follow the rebuttable presumption procedure described in Regulations section 53 4958-6(c)?</div></div> | | |

Part II Officers, Directors, Trustees, Key Employees, and Highest Compensated Employees. Use duplicate copies if additional space is needed.

For each individual whose compensation must be reported in Schedule J, report compensation from the organization on row (i) and from related organizations, described in the instructions, on row (ii). Do not list any individuals that are not listed on Form 990, Part VII.

Note. The sum of columns (B)(i)-(iii) for each listed individual must equal the total amount of Form 990, Part VII, Section A, line 1a, applicable column (D) and (E) amounts for that individual.

| (A) Name and Title | | (B) Breakdown of W-2 and/or 1099-MISC compensation | | | (C) Retirement and other deferred compensation | (D) Nontaxable benefits | (E) Total of columns (B)(i)-(D) | (F) Compensation reported as deferred in prior Form 990 |
|--|------|--|-------------------------------------|-------------------------------------|--|-------------------------|---------------------------------|---|
| | | (i) Base compensation | (ii) Bonus & incentive compensation | (iii) Other reportable compensation | | | | |
| (1)FR MARK HUSHEN PRESIDENT/CEO | (i) | 270,446 | 50,000 | 6,338 | 37,343 | 9,179 | 373,306 | 0 |
| | (ii) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (2)STEVEN KENDRICK COO | (i) | 177,765 | 15,000 | 655 | 24,911 | 17,291 | 235,622 | 0 |
| | (ii) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (3)ALBERT GERMANN CFO/VP OF FINANCE | (i) | 140,360 | 5,000 | 99 | 18,962 | 17,103 | 181,524 | 0 |
| | (ii) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (4)BERNADETTE SOLOUNIAS SR VP OF MEDICAL SERVICES | (i) | 201,399 | 20,000 | 1,188 | 25,296 | 9,179 | 257,062 | 0 |
| | (ii) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (5)KAREN CANTER PHYSICIAN | (i) | 150,506 | 4,100 | 6 | 18,769 | 8,871 | 182,252 | 0 |
| | (ii) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| (6)CAROL BOWMAN PHYSICIAN | (i) | 149,885 | 4,100 | 124 | 9,148 | 13,411 | 176,668 | 0 |
| | (ii) | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Part III **Supplemental Information**

Provide the information, explanation, or descriptions required for Part I, lines 1a, 1b, 3, 4a, 4b, 4c, 5a, 5b, 6a, 6b, 7, and 8, and for Part II. Also complete this part for any additional information.

| Return Reference | Explanation |
|------------------|-------------|
|------------------|-------------|

SCHEDULE M
(Form 990)

Noncash Contributions

OMB No 1545-0047

2013

Open to Public Inspection

►Complete if the organizations answered "Yes" on Form 990, Part IV, lines 29 or 30.
► Attach to Form 990.

►Information about Schedule M (Form 990) and its instructions is at www.irs.gov/form990.

Name of the organization
ASHLEY INC

Employer identification number
52-1126145

Part I

Types of Property

| | (a) Check if applicable | (b) Number of contributions or items contributed | (c) Noncash contribution amounts reported on Form 990, Part VIII, line 1g | (d) Method of determining noncash contribution amounts |
|--|----------------------------------|--|---|--|
| 1 Art—Works of art | | | | |
| 2 Art—Historical treasures | | | | |
| 3 Art—Fractional interests | | | | |
| 4 Books and publications | | | | |
| 5 Clothing and household goods | | | | |
| 6 Cars and other vehicles | | | | |
| 7 Boats and planes | | | | |
| 8 Intellectual property | | | | |
| 9 Securities—Publicly traded | X | 2 | 26,310 | FAIR MARKET VALUE |
| 10 Securities—Closely held stock | | | | |
| 11 Securities—Partnership, LLC, or trust interests | | | | |
| 12 Securities—Miscellaneous | | | | |
| 13 Qualified conservation contribution—Historic structures | | | | |
| 14 Qualified conservation contribution—Other | | | | |
| 15 Real estate—Residential | | | | |
| 16 Real estate—Commercial | | | | |
| 17 Real estate—Other | | | | |
| 18 Collectibles | | | | |
| 19 Food inventory | | | | |
| 20 Drugs and medical supplies | | | | |
| 21 Taxidermy | | | | |
| 22 Historical artifacts | | | | |
| 23 Scientific specimens | | | | |
| 24 Archeological artifacts | | | | |
| 25 Other ► (_____) | | | | |
| 26 Other ► (_____) | | | | |
| 27 Other ► (_____) | | | | |
| 28 Other ► (_____) | | | | |

29 Number of Forms 8283 received by the organization during the tax year for contributions for which the organization completed Form 8283, Part IV, Donee Acknowledgement

29

30a During the year, did the organization receive by contribution any property reported in Part I, lines 1 through 28, that it must hold for at least three years from the date of the initial contribution, and which is not required to be used for exempt purposes for the entire holding period?

30a

Yes

No

b If "Yes," describe the arrangement in Part II

31 Does the organization have a gift acceptance policy that requires the review of any non-standard contributions?

31

Yes

32a Does the organization hire or use third parties or related organizations to solicit, process, or sell noncash contributions?

32a

No

b If "Yes," describe in Part II

33 If the organization did not report an amount in column (c) for a type of property for which column (a) is checked, describe in Part II

Part III

Supplemental Information. Provide the information required by Part I, lines 30b, 32b, and 33, and whether the organization is reporting in Part I, column (b), the number of contributions, the number of items received, or a combination of both. Also complete this part for any additional information.

| Return Reference | Explanation |
|------------------|-------------|
|------------------|-------------|

SCHEDULE O
(Form 990 or 990-EZ)

Department of the Treasury
Internal Revenue Service

Supplemental Information to Form 990 or 990-EZ

**Complete to provide information for responses to specific questions on
Form 990 or to provide any additional information.**

▶ Attach to Form 990 or 990-EZ.

**▶ Information about Schedule O (Form 990 or 990-EZ) and its instructions is at
www.irs.gov/form990.**

OMB No 1545-0047

2013

**Open to Public
Inspection**

Name of the organization
ASHLEY INC

Employer identification number

52-1126145

990 Schedule O, Supplemental Information

| Return Reference | Explanation |
|---|---|
| FORM 990, PART VI, SECTION B, LINE 11 | THE FORM 990 IS E-MAILED TO EACH BOARD MEMBER AND ANY COMMENTS OR QUESTIONS ARE ADDRESSED PRIOR TO FILING THE FORM |
| FORM 990, PART VI, SECTION B, LINE 12C | ON AN ANNUAL BASIS, THE CONFLICT OF INTEREST FORM MUST BE SIGNED AND RETURNED NOTING ANY CONFLICTS OF INTEREST |
| FORM 990, PART VI, SECTION B, LINE 15 | THE COMPENSATION COMMITTEE OF THE BOARD REVIEWS AND APPROVES THE COMPENSATION OF THE CEO AND OTHER OFFICERS AND KEY EMPLOYEES OF THE ORGANIZATION THE REVIEW INCLUDES AN ANALYSIS OF COMPARABILITY DATA, SUCH AS A REVIEW OF OTHER LIKE KIND FORM 990'S OF OTHER ORGANIZATION S, AND FROM TRADE ORGANIZATION SALARY SURVEYS |
| FORM 990, PART VI, SECTION C, LINE 19 | THESE DOCUMENTS ARE MADE AVAILABLE TO THE PUBLIC UPON REQUEST |

EXHIBIT 7

(INSTRUCTIONS: Table 3, "Revenue and Expenses - Entire Facility (including the proposed project)" is to be completed by existing facility applicants only. Applicants for new facilities should not complete Table 3. Table 4, "Revenues and Expenses - Proposed Project," is to be completed by each applicant for the proposed project only. Table 5, "Revenues and Expenses (for the first full year of utilization", is to be completed by each applicant for each proposed service in the space provided. Specify whether data are for calendar year or fiscal year. All projected revenue and expense figures should be presented in current dollars. Medicaid revenues for all years should be calculated on the basis of Medicaid rates and ceilings in effect at the time of submission of this application. Specify sources of non-operating income. State the assumptions used in projecting all revenues and expenses.)

TABLE 3: REVENUES AND EXPENSES - ENTIRE FACILITY (including proposed project). In 000's

(INSTRUCTION: ALL EXISTING FACILITY APPLICANTS MUST SUBMIT AUDITED FINANCIAL STATEMENTS)

| | Two Most Actual Ended Recent Years | | Current Year Projected | Projected Years (ending with first full year at full utilization) | | | |
|--|--|--------|------------------------------|---|--------|--------|--------|
| Fiscal Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 1. Revenue (000) | | | | | | | |
| a. Inpatient services | 22,428 | 23,777 | 24,436 | 25,270 | 27,182 | 32,093 | 33,584 |
| b. Outpatient services | 57 | 75 | 137 | 172 | 172 | 172 | 172 |
| c. Gross Patient Service Revenue | 22,485 | 23,852 | 24,573 | 25,443 | 27,355 | 32,266 | 33,756 |
| d. Allowance for Bad Debt | 59 | 24 | 15 | 15 | 56 | 103 | 111 |
| e. Contractual Allowance | 4,498 | 5,510 | 5,253 | 5,713 | 6,028 | 7,149 | 7,455 |
| f. Charity Care | 2,069 | 2,117 | 2,300 | 2,294 | 2,933 | 3,327 | 3,585 |
| g. Net Patient Services Revenue | 15,859 | 16,201 | 17,006 | 17,420 | 18,337 | 21,687 | 22,605 |
| h. Other Operating Revenues (Specify) | 542 | 438 | 564 | 564 | 564 | 564 | 564 |
| i. Net Operating Revenue | 16,401 | 16,639 | 17,569 | 17,984 | 18,901 | 22,251 | 23,168 |

TABLE 3 Assumptions:

Building to begin occupancy August 2015. Commercial renewal rate increases of 3% with no increase in the published or self pay rate.

Expenses increase at historical rate of 4% per year except depreciation. Depreciation is based on expected capital spending.

[(INSTRUCTION: Complete Table 1 for the Entire Facility, including the proposed project, and Table 2 for the proposed project only using the space provided on the following pages. Only existing facility applicants should complete Table 1. All Applicants should complete Table 2. Please indicate on the Table if the reporting period is Calendar Year (CY) or Fiscal Year (FY)]

TABLE 1: STATISTICAL PROJECTIONS - ENTIRE FACILITY

| | Two Most Actual Ended Recent Years | | Current Year Projected | Projected Years (ending with first full year at full utilization) | | | |
|--------------------|--|--------|------------------------------|--|--------|--------|--------|
| Fiscal Year | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| 1. Admissions | | | | | | | |
| a. ICF-MR | | | | | | | |
| b. RTC-Residents | | | | | | | |
| Day Students | | | | | | | |
| c. ICF-C/D | 1,079 | 1,055 | 1,071 | 1,106 | 1,156 | 1,334 | 1,378 |
| d. Other (Specify) | | | | | | | |
| e. TOTAL | | | | | | | |
| | | | | | | | |
| 2. Patient Days | | | | | | | |
| a. ICF-MR | | | | | | | |
| b. RTC-Residents | | | | | | | |
| c. ICF-C/D | 26,940 | 26,489 | 26,870 | 27,746 | 29,117 | 33,565 | 34,660 |
| d. Other (Specify) | | | | | | | |
| e. TOTAL | | | | | | | |

EXHIBIT 8

Results from the 2013 National Survey on Drug Use and Health: Summary of National Findings

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Behavioral Health Statistics and Quality

Acknowledgments

This report was prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS), and by RTI International (a trade name of Research Triangle Institute), Research Triangle Park, North Carolina. Work by RTI was performed under Contract No. HHSS283201000003C.

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Originating Office

Substance Abuse and Mental Health Services Administration
Center for Behavioral Health Statistics and Quality
1 Choke Cherry Road, Room 2-1067
Rockville, MD 20857

September 2014

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Highlights

This report presents detailed results from the 2013 National Survey on Drug Use and Health (NSDUH), an annual survey sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA). The survey is the primary source of information on the use of illicit drugs, alcohol, and tobacco in the civilian, noninstitutionalized population of the United States aged 12 years old or older. Approximately 67,500 persons are interviewed in NSDUH each year. Unless otherwise noted, all comparisons in this report that are described using terms such as "increased," "decreased," or "more than" are statistically significant at the .05 level.

Illicit Drug Use

- In 2013, an estimated 24.6 million Americans aged 12 or older were current (past month) illicit drug users, meaning they had used an illicit drug during the month prior to the survey interview. This estimate represents 9.4 percent of the population aged 12 or older. Illicit drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics (pain relievers, tranquilizers, stimulants, and sedatives) used nonmedically.
- The rate of current illicit drug use among persons aged 12 or older in 2013 (9.4 percent) was similar to the rates in 2010 (8.9 percent) and 2012 (9.2 percent), but it was higher than the rates in 2002 to 2009 and in 2011 (ranging from 7.9 to 8.7 percent).
- Marijuana was the most commonly used illicit drug in 2013. There were 19.8 million past month users in 2013 (7.5 percent of those aged 12 or older), which was similar to the number and rate in 2012 (18.9 million or 7.3 percent). The 2013 rate was higher than the rates in 2002 to 2011 (ranging from 5.8 to 7.0 percent). Marijuana was used by 80.6 percent of current illicit drug users in 2013.
- Daily or almost daily use of marijuana (used on 20 or more days in the past month) increased from 5.1 million persons in 2005 to 2007 to 8.1 million persons in 2013.
- In 2013, there were 1.5 million current cocaine users aged 12 or older, or 0.6 percent of the population. These estimates were similar to the numbers and rates in 2009 to 2012 (ranging from 1.4 million to 1.7 million or from 0.5 to 0.7 percent), but they were lower than those in 2002 to 2007 (ranging from 2.0 million to 2.4 million or from 0.8 to 1.0 percent).
- The number of past year heroin users in 2013 (681,000) was similar to the numbers in 2009 to 2012 (ranging from 582,000 to 669,000) and was higher than the numbers in 2002 to 2005, 2007, and 2008 (ranging from 314,000 to 455,000).
- An estimated 1.3 million persons aged 12 or older in 2013 (0.5 percent) used hallucinogens in the past month. The number of users in 2013 was similar to that in 2012 (1.1 million), but it was higher than in 2011 (1.0 million).
- The percentage of persons aged 12 or older who used prescription-type psychotherapeutic drugs nonmedically in the past month in 2013 (2.5 percent) was similar to the percentages in 2010 to 2012 (ranging from 2.4 to 2.7 percent).
- The number and percentage of past month methamphetamine users in 2013 (595,000 or 0.2 percent) were similar to those in 2012 (440,000 or 0.2 percent) and 2011 (439,000 or 0.2 percent), but they were higher than the estimates in 2010 (353,000 or 0.1 percent).
- Among youths aged 12 to 17, the rate of current illicit drug use was lower in 2013 (8.8 percent) than in 2002 to 2007 (ranging from 9.6 to 11.6 percent) and in 2009 to 2012 (ranging from 9.5 to 10.1 percent).
- The rate of current marijuana use among youths aged 12 to 17 in 2013 (7.1 percent) was similar to the 2012 rate (7.2 percent) and the rates in 2004 to 2010 (ranging from 6.7 to 7.6 percent); however, it was lower than the rates in 2002, 2003, and 2011 (ranging from 7.9 to 8.2 percent).
- Among youths aged 12 to 17, the rate of current nonmedical use of prescription-type drugs declined from 4.0 percent in 2002 and 2003 to 2.2 percent in 2013. The rate of nonmedical pain reliever use among youths also declined from 3.2 percent in 2002 and 2003 to 1.7 percent in 2013.
- The rate of current use of illicit drugs among young adults aged 18 to 25 in 2013 (21.5 percent) was similar to the rates in 2009 to 2012 (ranging from 21.3 to 21.6 percent), which was consistent with the steady rate of current marijuana use in this age group during this time (19.1 percent in 2013 and ranging from 18.2 to 19.0 percent in 2009 to 2012).
- Among young adults aged 18 to 25, the rate of current nonmedical use of prescription-type drugs in 2013 was 4.8 percent, which was similar to the rates in 2011 (5.0 percent) and 2012 (5.3 percent), but it was lower than the rates in the years from 2002 to 2010 (ranging from 5.5 to 6.5 percent).
- The rate of current cocaine use in 2013 among young adults aged 18 to 25 was 1.1 percent, which was similar to the rates in 2009, 2011, and 2012, but it was lower than the rates from 2002 to 2008 and in 2010.
- Among adults aged 26 or older, the rate of current illicit drug use in 2013 (7.3 percent) was similar to the rate in 2012 (7.0 percent), but it was higher than the rates in 2002 to 2011 (ranging from 5.5 to 6.6 percent). This was driven by rates of current marijuana use, which also remained steady between 2013 and 2012 (5.6 and 5.3 percent, respectively). However, the rate of current marijuana use in 2013 was higher than the rates in 2002 to 2011 (ranging from 3.9 to 4.8 percent).

- Among adults aged 50 to 64, the rate of current illicit drug use increased from 2.7 percent in 2002 to 6.0 percent in 2013. For adults aged 50 to 54, the rate increased from 3.4 percent in 2002 to 7.9 percent in 2013. Among those aged 55 to 59, the rate of current illicit drug use increased from 1.9 percent in 2002 to 5.7 percent in 2013. Among those aged 60 to 64, the rate of current illicit drug use increased from 1.1 percent in 2003 and 2004 to 3.9 percent in 2013.
- Among unemployed adults aged 18 or older in 2013, 18.2 percent were current illicit drug users, which was higher than the rates of 9.1 percent for those who were employed full time and 13.7 percent for those who were employed part time. However, most illicit drug users were employed. Of the 22.4 million current illicit drug users aged 18 or older in 2013, 15.4 million (68.9 percent) were employed either full or part time.
- In 2013, 9.9 million persons (3.8 percent of those aged 12 or older) reported driving under the influence of illicit drugs during the past year, which was similar to the rate in 2012 (3.9 percent). In 2013, the rate was highest among young adults aged 18 to 25 (10.6 percent), although this rate was lower than the rate in 2012 for this age group (11.9 percent).
- Among persons aged 12 or older in 2012-2013 who used pain relievers nonmedically in the past 12 months, 53.0 percent got the drug they used most recently from a friend or relative for free, and 10.6 percent bought the drug from a friend or relative. Another 21.2 percent reported that they got the drug through a prescription from one doctor. An annual average of 4.3 percent got pain relievers from a drug dealer or other stranger, and 0.1 percent bought them on the Internet.

Alcohol Use

- Slightly more than half (52.2 percent) of Americans aged 12 or older reported being current drinkers of alcohol in the 2013 survey, which was similar to the rate in 2012 (52.1 percent). This translates to an estimated 136.9 million current drinkers in 2013.
- In 2013, nearly one quarter (22.9 percent) of persons aged 12 or older were binge alcohol users in the past 30 days. This translates to about 60.1 million people. The rate in 2013 was similar to the estimate in 2012 (23.0 percent). Binge drinking is defined as having five or more drinks on the same occasion on at least 1 day in the 30 days prior to the survey.
- In 2013, heavy drinking was reported by 6.3 percent of the population aged 12 or older, or 16.5 million people. This rate was similar to the rate of heavy drinking in 2012 (6.5 percent). Heavy drinking is defined as binge drinking on at least 5 days in the past 30 days.
- Among young adults aged 18 to 25 in 2013, the rate of binge drinking was 37.9 percent, and the rate of heavy drinking was 11.3 percent. These rates were lower than the corresponding rates in 2012 (39.5 and 12.7 percent, respectively).
- The rate of current alcohol use among youths aged 12 to 17 was 11.6 percent in 2013. Youth binge and heavy drinking rates in 2013 were 6.2 and 1.2 percent, respectively. The rates for current and binge alcohol use were lower than those reported in 2012 (12.9 and 7.2 percent, respectively).
- In 2013, an estimated 10.9 percent of persons aged 12 or older drove under the influence of alcohol at least once in the past year. This percentage was lower than in 2002 (14.2 percent), but it was similar to the rate in 2012 (11.2 percent). The rate was highest among persons aged 21 to 25 and persons aged 26 to 29 (19.7 and 20.7 percent, respectively). Among persons aged 12 to 20 and those aged 21 to 25, the rates of driving under the influence of alcohol were lower in 2013 (4.7 and 19.7 percent, respectively) than in 2012 (5.7 and 21.9 percent, respectively).
- An estimated 8.7 million underage persons (aged 12 to 20) were current drinkers in 2013, including 5.4 million binge drinkers and 1.4 million heavy drinkers. Corresponding percentages of underage persons in 2013 were 22.7 percent for current alcohol use, 14.2 percent for binge alcohol use, and 3.7 percent for heavy use. All of these percentages were lower than those in 2012.
- Past month, binge, and heavy drinking rates among underage persons declined between 2002 and 2013. Past month alcohol use declined from 28.8 to 22.7 percent, binge drinking declined from 19.3 to 14.2 percent, and heavy drinking declined from 6.2 to 3.7 percent.
- In 2013, 52.2 percent of current underage drinkers reported that their last use of alcohol occurred in someone else's home, and 34.2 percent reported that it had occurred in their own home. Most current drinkers aged 12 to 20 (77.6 percent) were with two or more other people the last time they drank alcohol. The rate of drinking alone the last time that underage persons drank alcohol was highest among youths aged 12 to 14 (14.5 percent).
- Among current underage drinkers, 28.7 percent paid for the alcohol the last time they drank, including 7.8 percent who purchased the alcohol themselves and 20.5 percent who gave money to someone else to purchase it. Among those who did not pay for the alcohol they last drank, 36.6 percent got it from an unrelated person aged 21 or older; 24.5 percent got it from a parent, guardian, or other adult family member; and 16.4 percent got it from another person younger than 21 years old.
- In 2013, underage current drinkers were more likely than current alcohol users aged 21 or older to use illicit drugs within 2 hours of alcohol use on their last reported drinking occasion (19.9 vs. 5.7 percent, respectively). The most commonly reported illicit drug used by underage drinkers in combination with alcohol was marijuana.

Tobacco Use

- In 2013, an estimated 66.9 million Americans aged 12 or older were current (past month) users of a tobacco product. This represents 25.5 percent of the population in that age range. Also, 55.8 million persons (21.3 percent of the population) were current cigarette smokers; 12.4 million (4.7 percent) smoked cigars; 8.8 million (3.4 percent) used smokeless tobacco; and 2.3 million (0.9 percent) smoked tobacco in pipes.
- Between 2002 and 2013, past month use of any tobacco product among persons aged 12 or older decreased from 30.4 to 25.5 percent, and past month cigarette use declined from 26.0 to 21.3 percent. Rates of past month use of smokeless tobacco and pipe tobacco in 2013 were similar to corresponding rates in 2002. However, past month cigar use decreased from 5.4 percent in 2002 to 4.7 percent in 2013.
- The rate of past month tobacco use among 12 to 17 year olds declined from 15.2 percent in 2002 to 7.8 percent in 2013, including a decline from 2012 (8.6 percent) to 2013. The rate of past month cigarette use among 12 to 17 year olds also declined between 2002 and 2013, from 13.0 to 5.6 percent.
- Among youths aged 12 to 17 who smoked cigarettes in the past month, 53.9 percent also used an illicit drug compared with only 6.1 percent of youths who did not smoke cigarettes.

Initiation of Substance Use (Incidence, or First-Time Use) within the Past 12 Months

- In 2013, an estimated 2.8 million persons aged 12 or older used an illicit drug for the first time within the past 12 months. This averages to about 7,800 initiates per day and was similar to the estimate for 2012 (2.9 million). A majority of these past year illicit drug initiates reported that their first drug was marijuana (70.3 percent). About 1 in 5 initiated with nonmedical use of prescription drugs (20.6 percent, including 12.5 percent with pain relievers, 5.2 percent with

tranquilizers, 2.7 percent with stimulants, and 0.2 percent with sedatives). In 2013, 6.3 percent of initiates reported inhalants as their first illicit drug, and 2.6 percent used hallucinogens as their first drug.

- In 2013, the illicit drug categories with the largest number of past year initiates were marijuana use (2.4 million) and nonmedical use of pain relievers (1.5 million). The marijuana estimate was similar to the numbers in 2008 to 2012; however, the estimate for nonmedical use of pain relievers was lower in 2013 than in 2002 through 2012.
- The number of past year initiates of methamphetamine was 144,000 in 2013, which was similar to the estimates in 2007 to 2012.
- The number of past year initiates of Ecstasy was 751,000 in 2013, which was similar to the number in 2012 (869,000), but was lower than the numbers in 2009, 2010, and 2011 (1.1 million, 949,000, and 922,000, respectively). Most (69.4 percent) of the recent Ecstasy initiates in 2013 were aged 18 or older at the time they first used Ecstasy.
- The number of past year cocaine initiates was 601,000 in 2013, which was similar to the numbers in 2008 to 2012, but was lower than the estimates from 2002 through 2007. The number of crack cocaine initiates was 58,000 in 2013, which was similar to the estimates in 2009 to 2012, but was lower than the estimates from 2002 through 2008.
- In 2013, there were 169,000 persons aged 12 or older who used heroin for the first time within the past year, which was similar to the estimates in 2002 to 2005 and from 2007 to 2012.
- Most (83.5 percent) of the 4.6 million past year alcohol initiates in 2013 were younger than age 21 at the time of initiation.
- The number of persons aged 12 or older who smoked cigarettes for the first time within the past 12 months was 2.1 million in 2013, which was lower than the estimates from 2008 to 2012 (ranging from 2.3 million to 2.5 million). About half of new smokers in 2013 were younger than 18 when they first smoked cigarettes (50.5 percent).
- The number of persons aged 12 or older who used smokeless tobacco for the first time within the past year was 1.1 million in 2013, which was similar to the estimates in 2011 and 2012.

Youth Prevention-Related Measures

- In 2013, 39.0 percent of youths aged 12 to 17 perceived great risk in having five or more drinks once or twice a week. Similarly, 39.5 percent of youths perceived great risk in smoking marijuana once or twice a week.
- The percentage of youths aged 12 to 17 perceiving great risk in smoking marijuana once or twice a week decreased from 54.6 percent in 2007 to 39.5 percent in 2013.
- The percentage of youths who reported great risk in smoking one or more packs of cigarettes per day was 64.3 percent in 2013. The 2013 rate was lower than the rates between 2004 and 2009 (ranging from 65.5 to 69.5 percent) and was similar to the rates in 2002 (63.1 percent) and 2003 (64.2 percent).
- About half (48.6 percent) of youths aged 12 to 17 reported in 2013 that it would be "fairly easy" or "very easy" for them to obtain marijuana if they wanted some. One in eleven reported it would be easy to get heroin (9.1 percent), 11.3 percent indicated that LSD would be easily available, and 14.4 percent reported easy availability for cocaine. In comparison with the rates in 2002, the 2013 rates represent declines in perceived availability for all four of these drugs.
- About one in eight youths aged 12 to 17 (12.4 percent) indicated that they had been approached by someone selling drugs in the past month, which was similar to the rate in 2012 (13.2 percent).
- A majority of youths aged 12 to 17 (88.4 percent) in 2013 reported that their parents would strongly disapprove of their trying marijuana once or twice, which was a decline from 2012 (89.3 percent). Current marijuana use was much less prevalent among youths who perceived strong parental disapproval for trying marijuana once or twice than for those who did not (4.1 vs. 29.3 percent, respectively).
- In 2013, 72.6 percent of youths aged 12 to 17 reported having seen or heard drug or alcohol prevention messages from sources outside of school, which was lower than in 2002 (83.2 percent) and in 2012 (75.9 percent). The percentage of school-enrolled youths reporting that they had seen or heard prevention messages at school also declined during this period, from 78.8 percent in 2002 to 73.5 percent. The prevalence of past month illicit drug use in 2013 was lower among youths who reported having such exposure to prevention messages compared with youths who did not have such exposure.

Substance Dependence, Abuse, and Treatment

- In 2013, an estimated 21.6 million persons aged 12 or older (8.2 percent) were classified with substance dependence or abuse in the past year based on criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV). Of these, 2.6 million were classified with dependence or abuse of both alcohol and illicit drugs, 4.3 million had dependence or abuse of illicit drugs but not alcohol, and 14.7 million had dependence or abuse of alcohol but not illicit drugs.
- The annual number of persons with substance dependence or abuse in 2013 (21.6 million) was similar to the number in each year from 2002 through 2012 (ranging from 20.6 million to 22.7 million).
- The specific illicit drugs with the largest numbers of persons with past year dependence or abuse in 2013 were marijuana (4.2 million), pain relievers (1.9 million), and cocaine (855,000). The number of persons with marijuana dependence or abuse was similar between 2002 and 2013. The number with pain reliever dependence or abuse in 2013 was similar to the numbers from 2006 to 2012. The number with cocaine dependence or abuse in 2013 was similar to the numbers in 2010 to 2012.
- The number of persons who had heroin dependence or abuse in 2013 (517,000) was similar to the numbers in 2009 to 2012 (ranging from 361,000 to 467,000), but it was higher than the numbers in 2002 to 2008 (ranging from 189,000 to 324,000).
- In 2013, adults aged 21 or older who had first used alcohol at age 14 or younger were more likely to be classified with alcohol dependence or abuse than adults who had their first drink at age 21 or older (14.8 vs. 2.3 percent).
- Between 2002 and 2013, the percentage of youths aged 12 to 17 with substance dependence or abuse declined from 8.9 to 5.2 percent. For young adults aged 18 to 25, substance dependence or abuse also declined during this period from 21.7 percent in 2002 to 17.3 percent in 2013.
- Treatment need is defined as having substance dependence or abuse or receiving substance use treatment at a specialty facility (hospital inpatient, drug or alcohol rehabilitation, or mental health centers) within the past 12 months. In 2013, 22.7 million persons aged 12 or older needed treatment for an illicit drug or alcohol use problem (8.6 percent of persons aged 12 or older). Of these, 2.5 million (0.9 percent of persons aged 12 or older and 10.9 percent of those who needed treatment)

received treatment at a specialty facility. Thus, 20.2 million persons (7.7 percent of the population aged 12 or older) needed treatment for an illicit drug or alcohol use problem but did not receive treatment at a specialty facility in the past year.

- Of the 20.2 million persons aged 12 or older in 2013 who were classified as needing substance use treatment but did not receive treatment at a specialty facility in the past year, 908,000 persons (4.5 percent) reported that they felt they needed treatment for their illicit drug or alcohol use problem. Of these 908,000 persons who felt they needed treatment, 316,000 (34.8 percent) reported that they made an effort to get treatment. Based on combined 2010-2013 data, the most commonly reported reason for not receiving treatment among this group of persons was a lack of insurance coverage and inability to afford the cost (37.3 percent).

1. Introduction

This report presents a detailed look at results from the 2013 National Survey on Drug Use and Health (NSDUH), an annual survey of the civilian, noninstitutionalized population of the United States aged 12 years old or older. The report presents national estimates of rates of use, numbers of users, and other measures related to illicit drugs, alcohol, and tobacco products. The report focuses on trends between 2012 and 2013 and from 2002 to 2013, as well as differences across population subgroups in 2013. A first glimpse of the NSDUH substance use and mental health data was provided in September 2014 through a shorter report available on the Substance Abuse and Mental Health Services Administration (SAMHSA) Web site (<http://www.samhsa.gov/data/>). Detailed NSDUH national estimates related to mental health and NSDUH State-level estimates related to both substance use and mental health will be published in separate releases in the fall of 2014.

Summary of NSDUH

NSDUH is the primary source of statistical information on the use of illegal drugs, alcohol, and tobacco by the U.S. civilian, noninstitutionalized population aged 12 or older. Conducted by the Federal Government since 1971, the survey collects data through face-to-face interviews with a representative sample of the population at the respondent's place of residence. The survey is sponsored by SAMHSA, U.S. Department of Health and Human Services, and is planned and managed by SAMHSA's Center for Behavioral Health Statistics and Quality (CBHSQ). Data collection and analysis are conducted under contract with RTI International.¹ This section briefly describes the survey methodology; a more complete description is provided in [Appendix A](#).

NSDUH collects information from residents of households and noninstitutional group quarters (e.g., shelters, rooming houses, dormitories) and from civilians living on military bases. The survey excludes homeless persons who do not use shelters, military personnel on active duty, and residents of institutional group quarters, such as jails and hospitals. [Appendix C](#) describes sources of data on substance use and treatment, including those that include populations outside the NSDUH target population.

From 1971 through 1998, the survey employed paper-and-pencil data collection. Since 1999, the NSDUH interview has been carried out using computer-assisted interviewing (CAI). Most of the questions are administered with audio computer-assisted self-interviewing (ACASI). ACASI is designed to provide the respondent with a highly private and confidential mode for responding to questions in order to increase the level of honest reporting of illicit drug use and other sensitive behaviors. Less sensitive items are administered by interviewers using computer-assisted personal interviewing.

The 2013 NSDUH continued to employ a State-based design with an independent, multistage area probability sample within each State and the District of Columbia. The eight States with the largest population (which together account for about half of the total U.S. population aged 12 or older) are designated as large sample States (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) and have a sample size of about 3,600 each. For the remaining 42 States and the District of Columbia, the sample size is about 900 per State. In all States and the District of Columbia, the design oversampled youths and young adults; each State's sample was approximately equally distributed among three age groups: 12 to 17 years, 18 to 25 years, and 26 years or older.

Nationally, screening was completed at 160,325 addresses, and 67,838 completed interviews were obtained. The survey was conducted from January through December 2013. Weighted response rates for household screening and for interviewing were 83.9 and 71.7 percent, respectively. See [Appendix B](#) for more information on NSDUH response rates.

Limitations on Trend Measurement

Trend analysis using NSDUH data is limited to 2002 to 2013, even though the survey has been conducted since 1971. Because of the change in interviewing method in 1999, the estimates from the pre-1999 surveys are not comparable with estimates from the current CAI-based surveys. Although the design of the 2002 through 2012 NSDUHs is similar to the design of the 1999 through 2001 surveys, methodological differences affect the comparability of the 2002 to 2013 estimates with estimates from prior surveys. The most important change was the addition of a \$30 incentive in 2002. Also, the name of the survey was changed in 2002, from the National Household Survey on Drug Abuse (NHSDA) to the current name. Improved data collection quality control procedures were introduced in the survey starting in 2001, and updated population data from the 2000 decennial census were incorporated into the sample weights starting with the 2002 estimates. Analyses of the effects of these factors on NSDUH estimates have shown that 2002 and later data should not be compared with 2001 and earlier data from the survey series to assess changes over time. Appendix C of the 2004 NSDUH report on national findings discusses this in more detail (Office of Applied Studies, 2005).

Because of changes in the questionnaire, estimates for methamphetamine, stimulants, and psychotherapeutics in this report should not be compared with corresponding estimates presented in previous reports for data years prior to 2007. Estimates for 2002 to 2006 for these drug categories in this report, as well as in the 2007 and 2008 reports, incorporate statistical adjustments that enable year-to-year comparisons to be made over the period from 2002 to 2013.

The calculation of NSDUH person-level weights includes a calibration step that results in weights that are consistent with population control totals obtained from the U.S. Census Bureau (see [Section A.3.3](#) in [Appendix A](#)). These control totals are based on the most recently available decennial census; the Census Bureau updates these control totals annually to account for population changes after the census. For the analysis weights in the 2002 through 2010 NSDUHs, the control totals were derived from the 2000 census data; starting with the 2011 NSDUH weights, the control totals were based on data from the 2010 census. This shift to the 2010 census data could affect comparisons between substance use estimates for 2011 onward and those from prior years. Analyses of the impact of this change for the 2011 NSDUH weights show that estimates of the number of substance users for some demographic groups were substantially affected, but percentages of substance users within these groups (i.e., rates) were not. Details for this investigation are provided in Section B.4.3 in Appendix B of the 2011 national findings report for NSDUH (CBHSQ, 2012b). This change in control totals does not affect comparisons between 2012 and 2013 because the control totals for each of these years were based on the 2010 census. However, some trends between 2013 and years prior to 2011 may need to be interpreted with caution because of differences in how the control totals for each of these years were developed.

Format of Report and Data Presentation

This report has separate chapters that discuss findings on the use of illicit drugs; use of alcohol; use of tobacco products; initiation of substance use; prevention-related issues; and substance dependence, abuse, and treatment. A final chapter discusses key findings on trends in substance use among youths and young adults, including comparisons with other survey results. The data and findings described in this report are based on a comprehensive set of tables, referred to as "detailed tables," that include population estimates (e.g., numbers of drug users), rates (e.g., percentages of the population using drugs), and standard errors of estimates. These tables are available separately at <http://www.samhsa.gov/data/>. In addition, the tables are accompanied by a glossary that covers key definitions used in this report and in the detailed

tables. Appendices in this report describe the survey ([Appendix A](#)), technical details on the statistical methods and measurement ([Appendix B](#)), and other sources of related data ([Appendix C](#)). A list of references cited in the report ([Appendix D](#)) and a list of contributors to this report ([Appendix E](#)) also are provided.

Text, figures, and detailed tables present prevalence measures for the population in terms of both the number of persons and the percentage of the population and by lifetime (i.e., ever used), past year, and past month use. Analyses focus primarily on past month use, also referred to as "current use." Where applicable, footnotes are included in tables and figures to indicate whether the 2013 estimates are significantly different from 2012 or earlier estimates. In addition, some estimates are based on data combined from two or more survey years to increase precision of the estimates; those estimates are annual averages based on multiple years of data.

During regular data collection and processing checks for the 2011 NSDUH, data errors were identified. These errors affected the data for Pennsylvania (2006 to 2010) and Maryland (2008 and 2009). Data and estimates for 2011 onward were not affected, including those for 2013. The errors had minimal impact on the national estimates. The only 2008 to 2011 estimates appreciably affected were estimates for the mid-Atlantic division and the Northeast region. Cases with erroneous data were removed from data files, and the remaining cases were reweighted to provide representative estimates. Therefore, some estimates for 2010 and other prior years in the 2013 national findings report and the 2013 detailed tables will differ from corresponding estimates found in some previous reports and tables. Further information is available in [Section B.3.5](#) in [Appendix B](#) of this report.

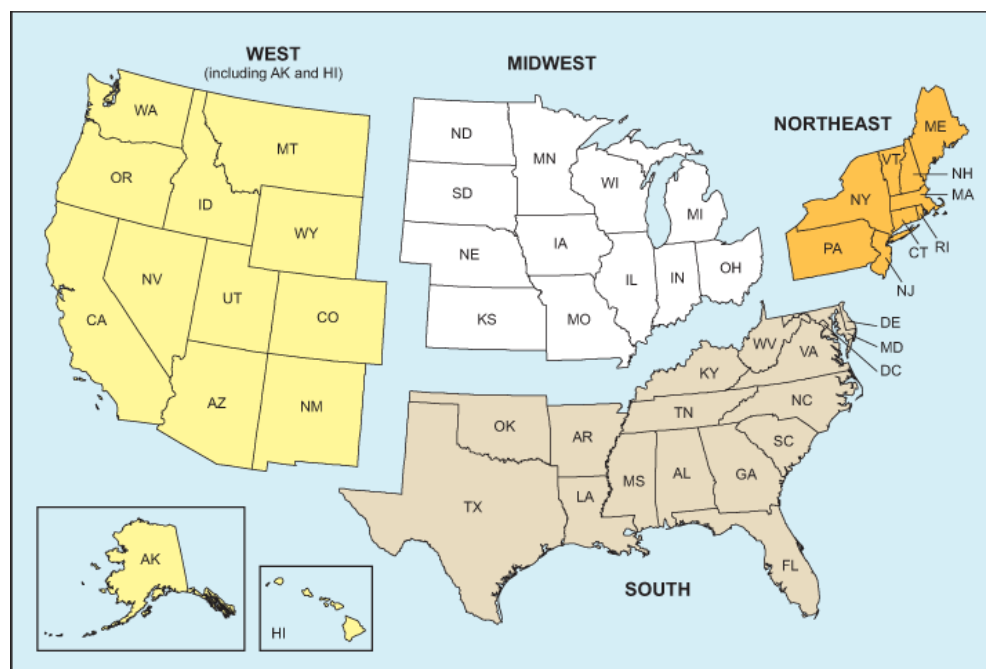
All estimates presented in the report have met the criteria for statistical reliability (see [Section B.2.2](#) in [Appendix B](#)). Estimates that do not meet these criteria are suppressed and do not appear in tables, figures, or text. Statistical tests have been conducted for all statements appearing in the text of the report that compare estimates between years or subgroups of the population. Suppressed estimates are not included in statistical tests of comparisons. For example, a statement that "whites had the highest prevalence" means that the rate among whites was higher than the rate among all nonsuppressed racial/ethnic subgroups, but not necessarily higher than the rate among a subgroup for which the estimate was suppressed. Unless explicitly stated that a difference is not statistically significant, all statements that describe differences are significant at the .05 level. Statistically significant differences are described using terms such as "higher," "lower," "increased," and "decreased." Statements that use terms such as "similar," "no difference," "same," or "remained steady" to describe the relationship between estimates denote that a difference is not statistically significant. When a set of estimates for survey years or population subgroups is presented without a statement of comparison, statistically significant differences among these estimates are not implied and testing may not have been conducted.

Data are presented for racial/ethnic groups based on guidelines for collecting and reporting race and ethnicity data (Office of Management and Budget [OMB], 1997). Because respondents could choose more than one racial group, a "two or more races" category is included for persons who reported more than one category (i.e., white, black or African American, American Indian or Alaska Native, Native Hawaiian, Guamanian or Chamorro, Samoan,² Other Pacific Islander, Asian, Other). Respondents choosing more than one category from among Native Hawaiian, Guamanian or Chamorro, Samoan, and Other Pacific Islander but no other categories are classified as being in the "Native Hawaiian or Other Pacific Islander" category instead of the "two or more races" category. Except for the "Hispanic or Latino" group, the racial/ethnic groups include only non-Hispanics. The category "Hispanic or Latino" includes Hispanics of any race.

Data in this report also are presented for four U.S. geographic regions as defined by the U.S. Census Bureau ([Figure 1.1](#)). Other geographic comparisons also are made based on county type, a variable that reflects different levels of urbanicity and metropolitan area inclusion of counties. This county classification was originally developed and subsequently updated by the U.S. Department of Agriculture (Butler & Beale, 1994). All U.S. counties and county equivalents were grouped based on revised definitions of metropolitan statistical areas (MSAs) and definitions of micropolitan statistical areas as defined by the OMB in June 2003 (OMB, 2003). Large metropolitan areas have a population of 1 million or more. Small metropolitan areas have a population of fewer than 1 million. Nonmetropolitan areas are outside of MSAs. Counties in nonmetropolitan areas are further classified based on the number of people in the county who live in an urbanized area, as defined by the Census Bureau at the subcounty level. "Urbanized" counties have a population of 20,000 or more in urbanized areas, "less urbanized" counties have at least 2,500 but fewer than 20,000 population in urbanized areas, and "completely rural" counties have populations of fewer than 2,500 in urbanized areas. Additional details about this county type definition are included in the glossary that accompanies the 2013 detailed tables.

Below is a map of the United States. [Click here](#) for the text describing this map.

Figure 1.1 U.S. Census Bureau Regions



Other NSDUH Reports and Data

Other reports using the 2013 NSDUH data and focusing on specific topics of interest will be made available on SAMHSA's Web site. In particular, detailed estimates on mental health will be released later in 2014 in a separate report: *Results from the 2013 National Survey on Drug Use and Health: Mental Health Findings*. State-level estimates for substance use and mental health for 2012-2013 are scheduled to be released later this year as well.

The detailed tables, other descriptive reports and in-depth analytic reports focusing on specific issues or populations, and methodological information on NSDUH are all available at <http://www.samhsa.gov/data/>. In addition, CBHSQ makes public use data files available through the Substance Abuse and Mental Health Data Archive (SAMHDA) at <http://www.datafiles.samhsa.gov>. Currently, files are available from the 1979 to 2012 surveys. The 2013 NSDUH public use file will be available by the end of 2014. CBHSQ also makes confidential restricted-use data available in two ways. Restricted-use data, including State codes and other detailed variables, can be included in tables as part of the online Restricted-use Data Analysis System (R-DAS). In the R-DAS, data are not available for downloading, but estimates can be generated by State and other restricted variables that are specified by the data user. Estimates that are generated by the R-DAS do not require any further review for protection of respondent confidentiality. CBHSQ also makes restricted-use microdata files available through a data portal on the SAMHDA Web site. More details on both of these programs are available at <http://www.datafiles.samhsa.gov>.

2. Illicit Drug Use

The National Survey on Drug Use and Health (NSDUH) obtains information on nine categories of illicit drug use: use of marijuana, cocaine, heroin, hallucinogens, and inhalants, as well as the nonmedical use of prescription-type pain relievers, tranquilizers, stimulants, and sedatives. In these categories, hashish is included with marijuana, and crack is considered a form of cocaine. Several drugs are grouped under the hallucinogens category, including LSD, PCP, peyote, mescaline, psilocybin mushrooms, and "Ecstasy" (MDMA). Inhalants include a variety of substances, such as nitrous oxide, amyl nitrite, cleaning fluids, gasoline, spray paint, other aerosol sprays, and glue. Respondents are asked to report use of inhalants to get high but not to report times when they accidentally inhaled a substance.

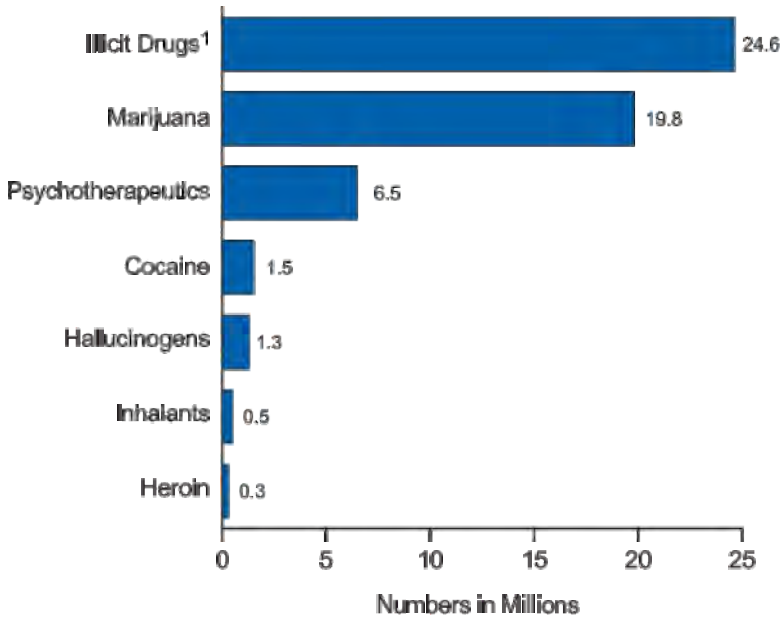
The four categories of prescription-type drugs (pain relievers, tranquilizers, stimulants, and sedatives) cover numerous medications that currently are or have been available by prescription. They also include drugs within these groupings that originally were prescription medications but currently may be manufactured and distributed illegally, such as methamphetamine, which is included under stimulants. Respondents are asked to report only "nonmedical" use of these drugs, defined as use without a prescription of the individual's own or simply for the experience or feeling the drugs caused. Use of over-the-counter drugs and legitimate use of prescription drugs are not included. NSDUH reports combine the four prescription-type drug groups into a category referred to as "psychotherapeutics."

Estimates of "illicit drug use" reported from NSDUH reflect the use of any of the nine drug categories listed above. Use of alcohol and tobacco products, while illegal for youths, is not included in these estimates, but is discussed in [Chapters 3](#) and [4](#).

- In 2013, an estimated 24.6 million Americans aged 12 or older were current (past month) illicit drug users, meaning they had used an illicit drug during the month prior to the survey interview ([Figure 2.1](#)). The estimate represents 9.4 percent of the population aged 12 or older.

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 2.1 Past Month Illicit Drug Use among Persons Aged 12 or Older: 2013

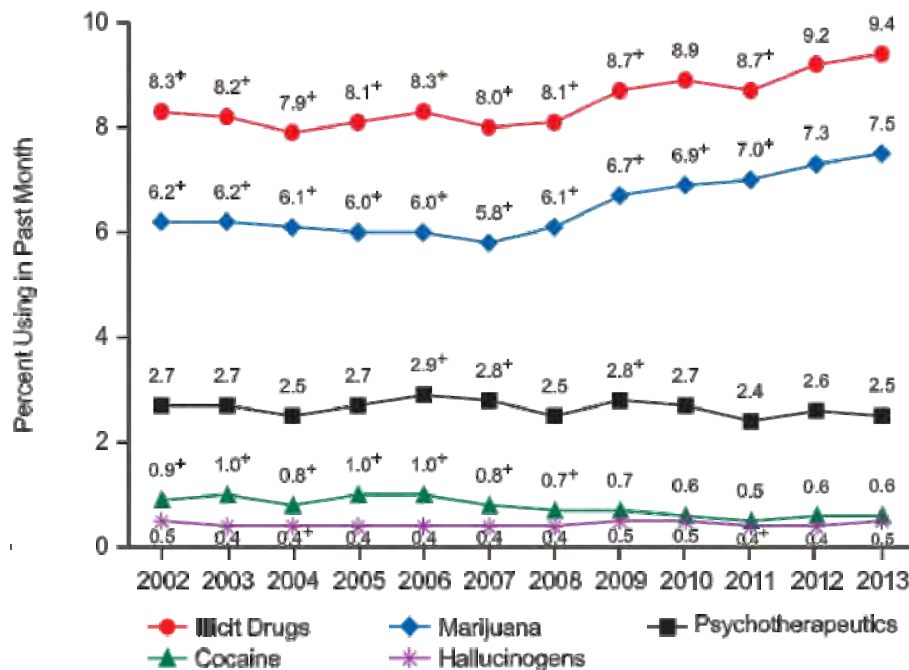


¹ Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically.

- The overall rate of current illicit drug use among persons aged 12 or older in 2013 (9.4 percent) was similar to the rates in 2010 (8.9 percent) and 2012 (9.2 percent), but it was higher than the rates in 2002 to 2009 and in 2011 ([Figure 2.2](#)).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.2 Past Month Use of Selected Illicit Drugs among Persons Aged 12 or Older: 2002-2013

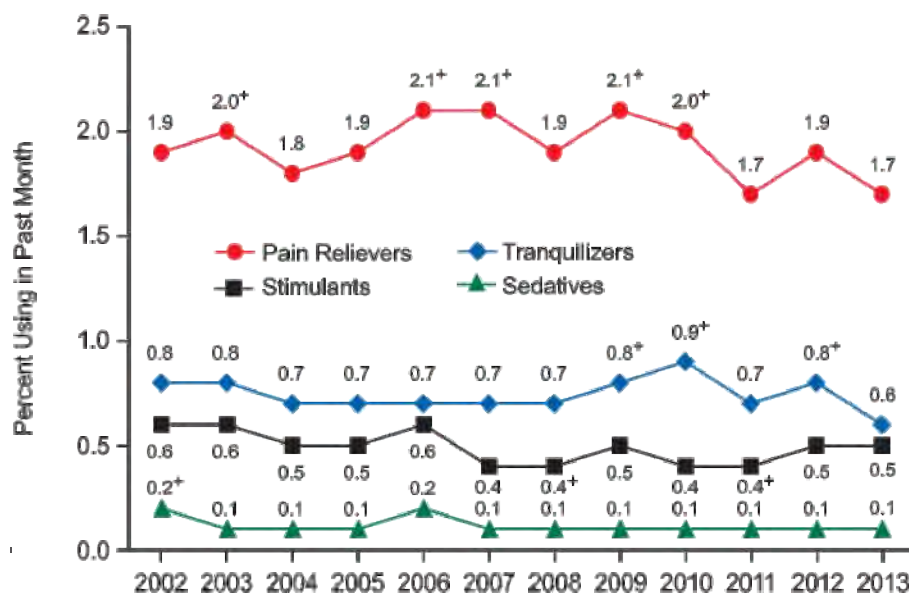


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- In 2013, marijuana was the most commonly used illicit drug, with 19.8 million current (past month) users. It was used by 80.6 percent of current illicit drug users. Nearly two thirds (64.7 percent) of current illicit drug users used only marijuana in the past month. Also, in 2013, 8.7 million persons aged 12 or older were current users of illicit drugs other than marijuana (or 35.3 percent of illicit drug users aged 12 or older). Current use of other drugs but not marijuana was reported by 19.4 percent of illicit drug users, and 15.9 percent reported using both marijuana and other drugs.
- The number and percentage of persons aged 12 or older who were current users of marijuana in 2013 (19.8 million or 7.5 percent) were similar to the estimates in 2012 (18.9 million or 7.3 percent) (Figure 2.2). The rate of current marijuana use in 2013 was higher than the rates in 2002 to 2011. For example, during the period from 2002 to 2008, the rates varied from 5.8 to 6.2 percent. By 2009, the rate increased to 6.7 percent, then continued to increase to the rate in 2013.
- An estimated 8.7 million persons aged 12 or older (3.3 percent) were current users of illicit drugs other than marijuana in 2013. The majority of these users (6.5 million persons or 2.5 percent of the population) were nonmedical users of psychotherapeutic drugs, including 4.5 million users of pain relievers (1.7 percent), 1.7 million users of tranquilizers (0.6 percent), 1.4 million users of stimulants (0.5 percent), and 251,000 users of sedatives (0.1 percent).
- The percentage of persons aged 12 or older who were current nonmedical users of psychotherapeutic drugs in 2013 (2.5 percent) was lower than the percentages in 2006, 2007, and 2009 (ranging from 2.8 to 2.9 percent), but it was similar to the percentages in all of the other years from 2002 to 2012 (ranging from 2.4 to 2.7 percent) (Figure 2.2). The number of persons aged 12 or older who were current nonmedical users of psychotherapeutic drugs in 2013 (6.5 million) was similar to the number of users in 2002 to 2012 (ranging from 6.1 million to 7.1 million).
- The number and percentage of persons aged 12 or older who were current nonmedical users of pain relievers in 2013 (4.5 million or 1.7 percent) were similar to those in 2011 and 2012 (4.5 million and 4.9 million, respectively, or 1.7 and 1.9 percent) (Figure 2.3).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.3 Past Month Nonmedical Use of Types of Psychotherapeutic Drugs among Persons Aged 12 or Older: 2002-2013

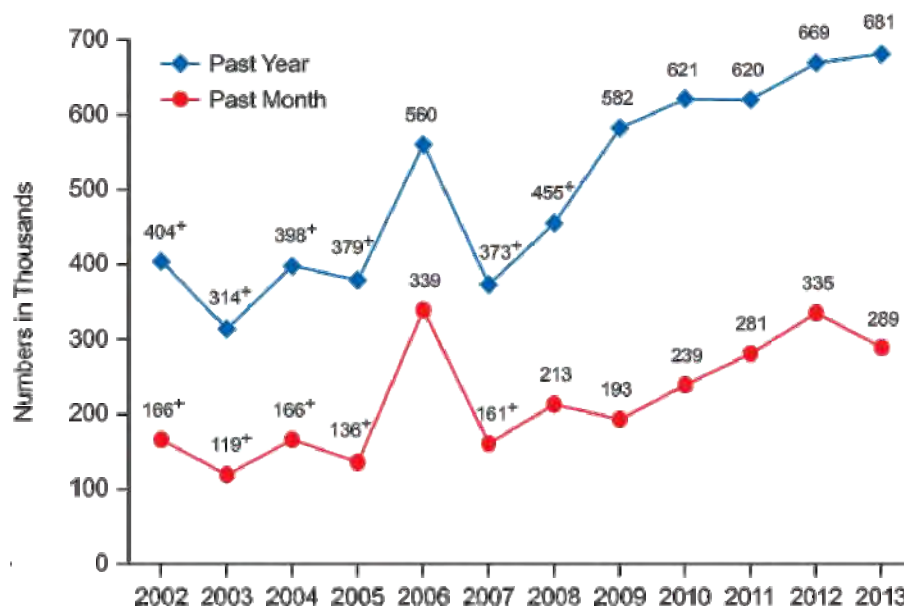


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The number and percentage of persons aged 12 or older who were current nonmedical users of the pain reliever OxyContin® in 2013 (492,000 or 0.2 percent) were similar to the numbers in 2007 to 2012 (ranging from 358,000 to 566,000 or 0.1 to 0.2 percent).
- The number and percentage of current nonmedical users of tranquilizers in 2013 (1.7 million or 0.6 percent) were lower than the estimates in 2012 (2.1 million or 0.8 percent).
- The number and percentage of persons aged 12 or older who were current nonmedical users of stimulants in 2013 (1.4 million or 0.5 percent) were similar to those in 2012 (1.2 million or 0.5 percent), but were higher than the estimates in 2011 (970,000 or 0.4 percent).
- The number and percentage of persons aged 12 or older who were current users of methamphetamine in 2013 (595,000 or 0.2 percent) were similar to those in 2012 (440,000 or 0.2 percent) and 2011 (439,000 or 0.2 percent). However, the estimates in 2013 were higher than those in 2010 (353,000 or 0.1 percent).
- The number and percentage of persons aged 12 or older who were current users of cocaine in 2013 (1.5 million or 0.6 percent) were similar to those in 2009 to 2012 (ranging from 1.4 million to 1.7 million or from 0.5 to 0.7 percent), but were lower than those in 2002 to 2007 (ranging from 2.0 million to 2.4 million or from 0.8 to 1.0 percent) ([Figure 2.2](#)).
- The number and percentage of persons aged 12 or older who were current heroin users in 2013 (289,000 or 0.1 percent) were similar to those in 2008 to 2012 (ranging from 193,000 to 335,000 or 0.1 percent for all 4 years) ([Figure 2.4](#)). The number of current heroin users in 2013 was higher than the number of users in 2002 to 2005 (ranging from 119,000 to 166,000) and in 2007 (161,000). The number of persons aged 12 or older who were past year heroin users in 2013 also was higher than the numbers in 2002 to 2005, 2007, and 2008 (ranging from 314,000 to 455,000). (See [Section B.2.3](#) in [Appendix B](#) for additional discussion of the estimated numbers of past year and past month heroin users in 2006.)

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.4 Past Month and Past Year Heroin Use among Persons Aged 12 or Older: 2002-2013



* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

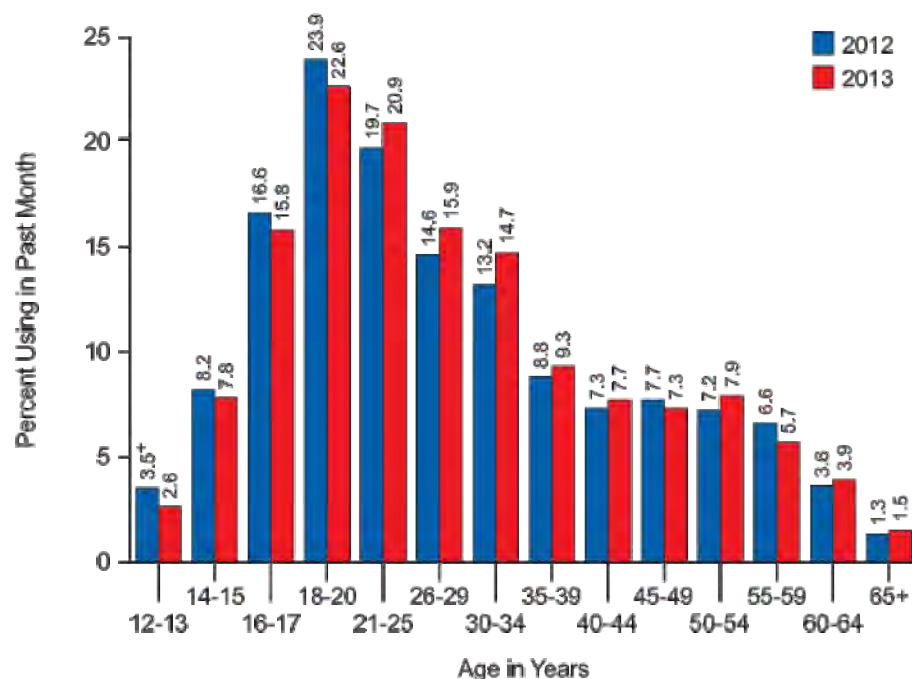
- The number and percentage of persons aged 12 or older who were current users of hallucinogens in 2013 (1.3 million or 0.5 percent) were similar to those in 2012 (1.1 million or 0.4 percent), but were higher than in 2011 (1.0 million or 0.4 percent) ([Figure 2.2](#)).

Age

- In 2013, the rate of current illicit drug use varied by age. Among youths aged 12 to 17 in 2013, the rate increased from 2.6 percent at ages 12 or 13 to 7.8 percent at ages 14 or 15 to 15.8 percent at ages 16 or 17 ([Figure 2.5](#)). The highest rate of current illicit drug use was among 18 to 20 year olds (22.6 percent), with the next highest rate occurring among 21 to 25 year olds (20.9 percent). Thereafter, the rate generally declined with age, although not all decreases between consecutive age groups were significant.

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 2.5 Past Month Illicit Drug Use among Persons Aged 12 or Older, by Age: 2012 and 2013

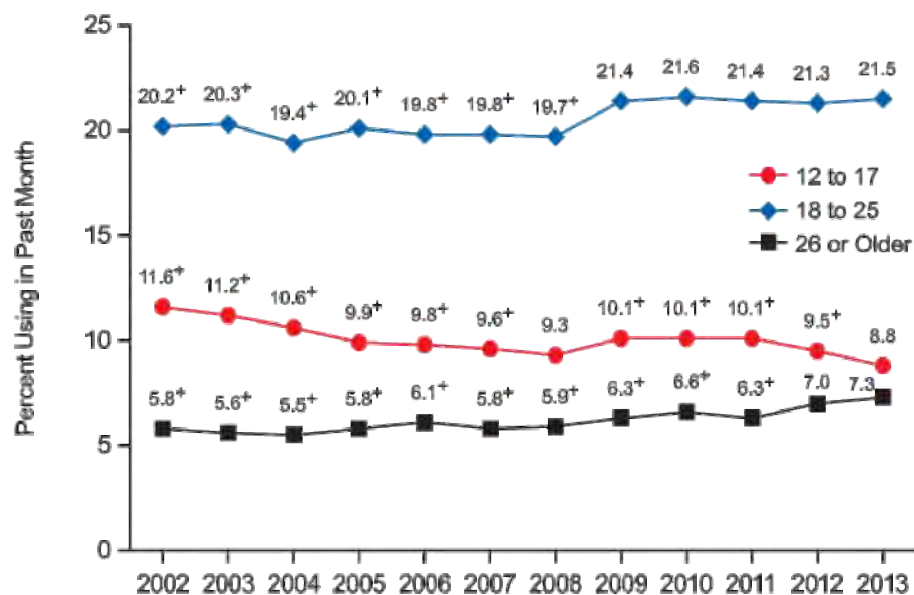


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- In 2013, the rate of current use of illicit drugs was highest among young adults aged 18 to 25 (21.5 percent), followed by youths aged 12 to 17 (8.8 percent), then by adults aged 26 or older (7.3 percent) (Figure 2.6). The number and percentage of current illicit drug users among youths aged 12 to 17 decreased from 2.4 million (9.5 percent) in 2012 to 2.2 million (8.8 percent) in 2013.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.6 Past Month Illicit Drug Use among Persons Aged 12 or Older, by Age: 2002-2013



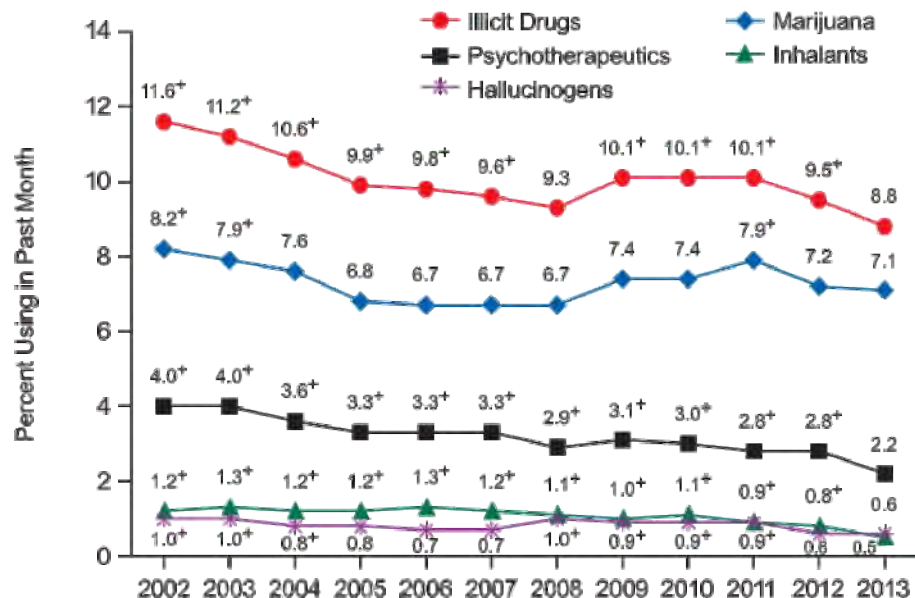
⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

Youths Aged 12 to 17

- In 2013, 8.8 percent of youths aged 12 to 17 were current illicit drug users (Figure 2.7). This rate was lower than the rates of current illicit drug use among 12 to 17 year olds in 2002 to 2007 and in 2009 to 2012, but was similar to the rate in 2008 (9.3 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.7 Past Month Use of Selected Illicit Drugs among Youths Aged 12 to 17: 2002-2013

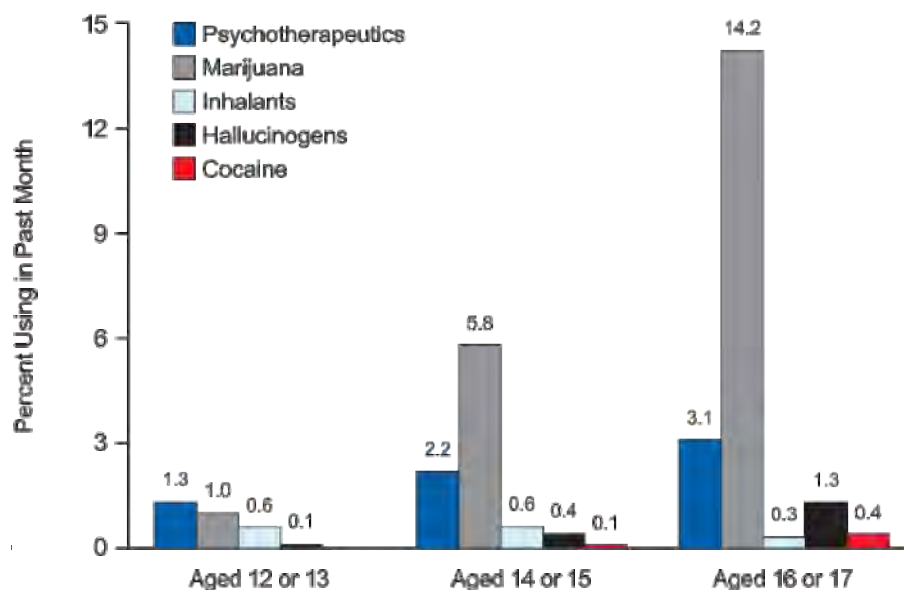


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- In 2013, 7.1 percent of youths aged 12 to 17 were current users of marijuana, 2.2 percent were current nonmedical users of psychotherapeutic drugs (including 1.7 percent who were current nonmedical users of pain relievers), 0.6 percent were current users of hallucinogens, 0.5 percent were current users of inhalants, 0.2 percent were current users of cocaine, and 0.1 percent were current users of heroin. Current marijuana use among 12 to 17 year olds declined from 8.2 percent in 2002 to 6.8 percent in 2005, remained similar through 2008, then increased to 7.9 percent in 2011 before decreasing again to 7.2 percent in 2012 and 7.1 percent in 2013 (Figure 2.7). Current nonmedical use of psychotherapeutic drugs declined from 4.0 percent in 2002 and 2003 to 2.2 percent in 2013. This includes a decrease in the prevalence of current nonmedical use of pain relievers from 3.2 percent in 2002 and 2003 to 1.7 percent in 2013.
- Among youths aged 12 to 17, the specific types of illicit drugs used in the past month varied by age in 2013 (Figure 2.8). Among 12 or 13 year olds, 1.3 percent used psychotherapeutic drugs nonmedically, including 0.9 percent using pain relievers nonmedically (which was a decrease from 1.5 percent in 2012), 1.0 percent used marijuana, and 0.6 percent used inhalants. Among 14 or 15 year olds, 5.8 percent used marijuana, 2.2 percent used psychotherapeutic drugs nonmedically, including 1.8 percent using pain relievers nonmedically, 0.6 percent used inhalants, and 0.4 percent used hallucinogens. Among 16 or 17 year olds, 14.2 percent used marijuana, 3.1 percent used psychotherapeutic drugs nonmedically (which was a decrease from 4.0 percent in 2012), 1.3 percent used hallucinogens (including an increase in the use of LSD from 0.2 percent in 2012 to 0.5 percent in 2013), 0.4 percent used cocaine, and 0.3 percent used inhalants (which was a decrease from 0.7 percent in 2012). Rates of current nonmedical use of psychotherapeutic drugs among youths aged 16 or 17 included 2.3 percent for pain relievers (which was a decrease from 3.1 percent in 2012) and 0.5 percent for tranquilizers (which was a decrease from 1.2 percent in 2012).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 2.8 Past Month Use of Selected Illicit Drugs among Youths Aged 12 to 17: 2013

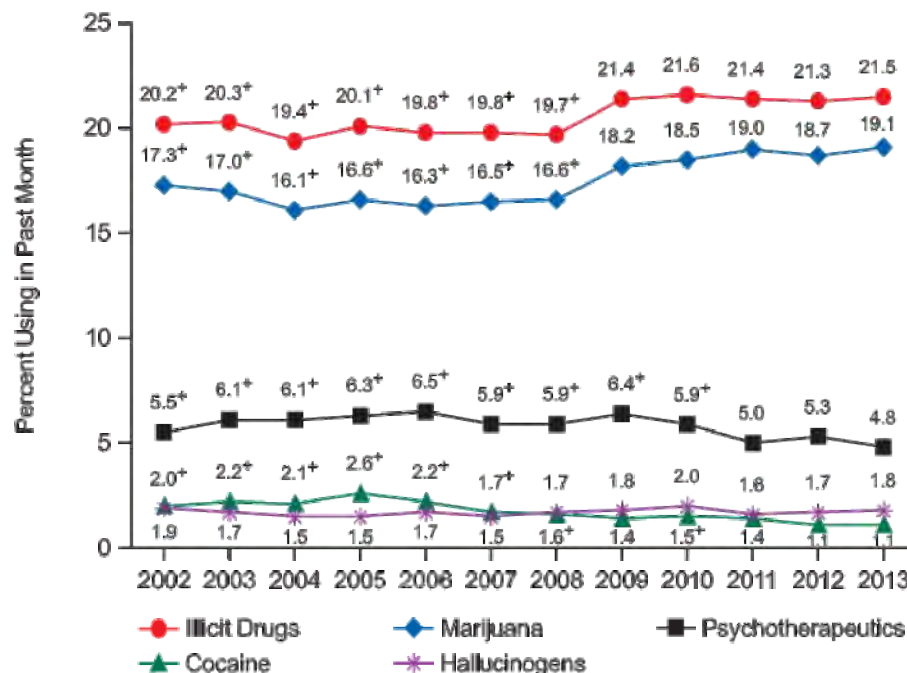


Note: The prevalence of past month cocaine use among youths aged 12 or 13 rounds to less than 0.1 percent and is not shown.

Young Adults Aged 18 to 25

- Among young adults aged 18 to 25, the rate of current illicit drug use in 2013 (21.5 percent) was similar to the rates in 2009 to 2012 (ranging from 21.3 to 21.6 percent), but was higher than the rates in 2002 to 2008 (ranging from 19.4 to 20.3 percent) (Figure 2.9).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.9 Past Month Use of Selected Illicit Drugs among Young Adults Aged 18 to 25: 2002-2013

⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

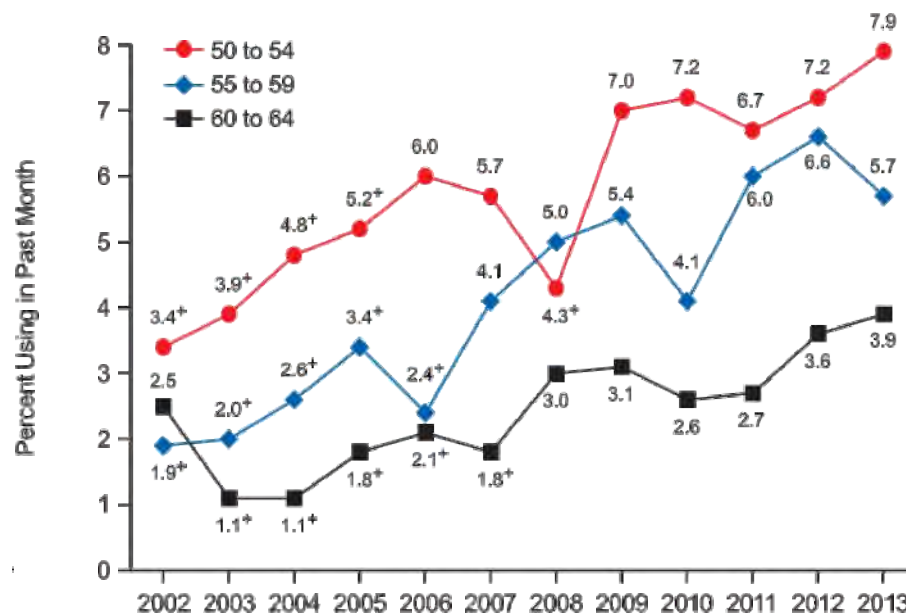
- The rate of current marijuana use in 2013 among young adults aged 18 to 25 (19.1 percent) was similar to the rates in 2009 to 2012 (ranging from 18.2 to 19.0 percent), but was higher than the rates in 2002 to 2008 (ranging from 16.1 to 17.3 percent) ([Figure 2.9](#)).
- Among young adults aged 18 to 25, the rate of current nonmedical use of psychotherapeutic drugs in 2013 (4.8 percent) was similar to the rates in 2011 (5.0 percent) and 2012 (5.3 percent), but it was lower than the rates in 2002 to 2010 (ranging from 5.5 to 6.5 percent) ([Figure 2.9](#)). The rate of current nonmedical use of pain relievers among young adults in 2013 (3.3 percent) was lower than the rates in 2012 (3.8 percent) and in 2002 to 2010 (ranging from 4.1 to 5.0 percent), but it was similar to the rate in 2011 (3.6 percent).
- In 2013, the rate of current cocaine use among young adults aged 18 to 25 was 1.1 percent, which was similar to the rates in 2009, 2011, and 2012, but it was lower than the rates from 2002 to 2008 and in 2010 ([Figure 2.9](#)).
- Among 18 to 25 year olds in 2013, the rates of current use of hallucinogens (1.8 percent), heroin (0.3 percent), and inhalants (0.3 percent) were similar to the rates in 2012.

Adults Aged 26 or Older

- In 2013, the rate of current illicit drug use among adults aged 26 or older was 7.3 percent, including rates of 5.6 percent for current use of marijuana and 2.1 percent for current nonmedical use of psychotherapeutic drugs. Less than 1 percent of adults in this age group were current users of cocaine (0.5 percent), hallucinogens (0.3 percent), heroin (0.1 percent), and inhalants (0.1 percent). The rate of current illicit drug use in 2013 was similar to the rate in 2012 (7.0 percent), but it was higher than the rates in 2002 to 2011 (ranging from 5.5 to 6.6 percent). Also, the rate of current marijuana use in 2013 (5.6 percent) was similar to the rate in 2012 (5.3 percent), but it was higher than the rates in 2002 to 2011 (ranging from 3.9 to 4.8 percent).
- Among adults aged 50 to 64, the rate of current illicit drug use increased from 2.7 percent in 2002 to 6.0 percent in 2013. For adults aged 50 to 54, the rate increased from 3.4 percent in 2002 to 7.9 percent in 2013 ([Figure 2.10](#)). Among those aged 55 to 59, the rate of current illicit drug use increased from 1.9 percent in 2002 to 5.7 percent in 2013. Among those aged 60 to 64, the rate of current illicit drug use increased from 1.1 percent in 2003 and 2004 to 3.9 percent in 2013.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.10 Past Month Illicit Drug Use among Adults Aged 50 to 64: 2002-2013



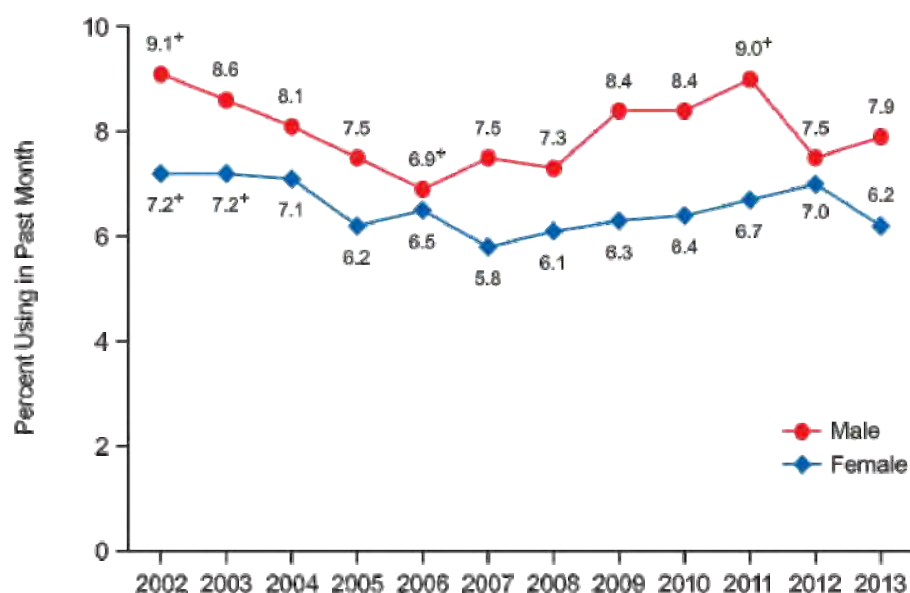
* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

Gender

- In 2013, as in prior years, the rate of current illicit drug use among persons aged 12 or older was higher for males (11.5 percent) than for females (7.3 percent). Males were more likely than females to be current users of several different illicit drugs, including marijuana (9.7 vs. 5.6 percent), cocaine (0.8 vs. 0.4 percent), and hallucinogens (0.7 vs. 0.3 percent).
- In 2013, the rate of current illicit drug use was higher for males than females aged 12 to 17 (9.6 vs. 8.0 percent). This represents a change from 2012, when the rates of current illicit drug use were similar among males and females aged 12 to 17 (9.6 and 9.5 percent, respectively), and reflects a decrease in the rate of current illicit drug use among females from 2012 to 2013. Likewise, in 2013, the rate of current marijuana use was higher for males than females aged 12 to 17 (7.9 vs. 6.2 percent), which is a change from 2012 when the rates of current marijuana use for males and females were similar (7.5 and 7.0 percent).
- The rate of current marijuana use among males aged 12 to 17 declined from 9.1 percent in 2002 to 6.9 percent in 2006, then increased between 2006 and 2011 (9.0 percent) (Figure 2.11). The rate decreased from 2011 to 2012 (7.5 percent) and remained stable in 2013 (7.9 percent). Among females aged 12 to 17, the rate of current marijuana use decreased from 7.2 percent in 2002 and 2003 to 6.2 percent in 2013.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.11 Past Month Marijuana Use among Youths Aged 12 to 17, by Gender: 2002-2013



* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The rate of current nonmedical use of psychotherapeutic drugs among males aged 12 to 17 decreased from a high of 3.7 percent in 2003 to 2.0 percent in 2013. Among females aged 12 to 17, the rate of current nonmedical use of psychotherapeutic drugs decreased from a high of 4.4 percent in 2002 to 2.4 percent in 2013, including a decrease from 3.2 percent in 2012.

Pregnant Women

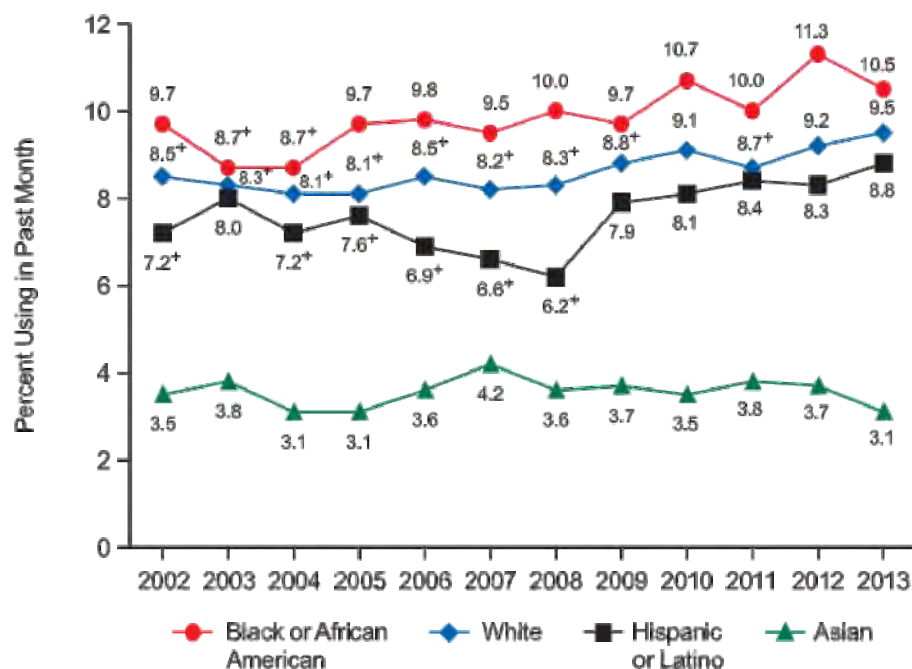
- Among pregnant women aged 15 to 44, 5.4 percent were current illicit drug users based on data averaged across 2012 and 2013. This was lower than the rate among women in this age group who were not pregnant (11.4 percent). Among pregnant women aged 15 to 44, the average rate of current illicit drug use in 2012-2013 (5.4 percent) was not significantly different from the rate averaged across 2010-2011 (5.0 percent). Current illicit drug use in 2012-2013 was lower among pregnant women aged 15 to 44 during the third trimester than during the first and second trimesters (2.4 percent vs. 9.0 and 4.8 percent).
- The rate of current illicit drug use in the combined 2012-2013 data was 14.6 percent among pregnant women aged 15 to 17, 8.6 percent among women aged 18 to 25, and 3.2 percent among women aged 26 to 44. These rates were not significantly different from those in the combined 2010-2011 data (20.9 percent among pregnant women aged 15 to 17, 8.2 percent among pregnant women aged 18 to 25, and 2.2 percent among pregnant women aged 26 to 44).

Race/Ethnicity

- In 2013, among persons aged 12 or older, the rate of current illicit drug use was 3.1 percent among Asians, 8.8 percent among Hispanics, 9.5 percent among whites, 10.5 percent among blacks, 12.3 percent among American Indians or Alaska Natives, 14.0 percent among Native Hawaiians or Other Pacific Islanders, and 17.4 percent among persons reporting two or more races.
- There were no statistically significant differences in the rates of current illicit drug use between 2012 and 2013 for any of the racial/ethnic groups. Between 2002 and 2013, the rate of current illicit drug use increased from 8.5 to 9.5 percent for whites. Among blacks, the rate increased from 8.7 percent in 2003 and 2004 to 10.5 percent in 2013 ([Figure 2.12](#)).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.12 Past Month Illicit Drug Use among Persons Aged 12 or Older, by Race/Ethnicity: 2002-2013



* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

Note: Sample sizes for American Indians or Alaska Natives, Native Hawaiians or Other Pacific Islanders, and persons of two or more races were too small for reliable trend presentation for these groups.

Education

- Illicit drug use in 2013 varied by the educational status of adults aged 18 or older. The rate of current illicit drug use was lower among college graduates (6.7 percent) than those with some college education but no degree (10.8 percent), high school graduates with no further education (9.9 percent), and those who had not graduated from high school (11.8 percent).

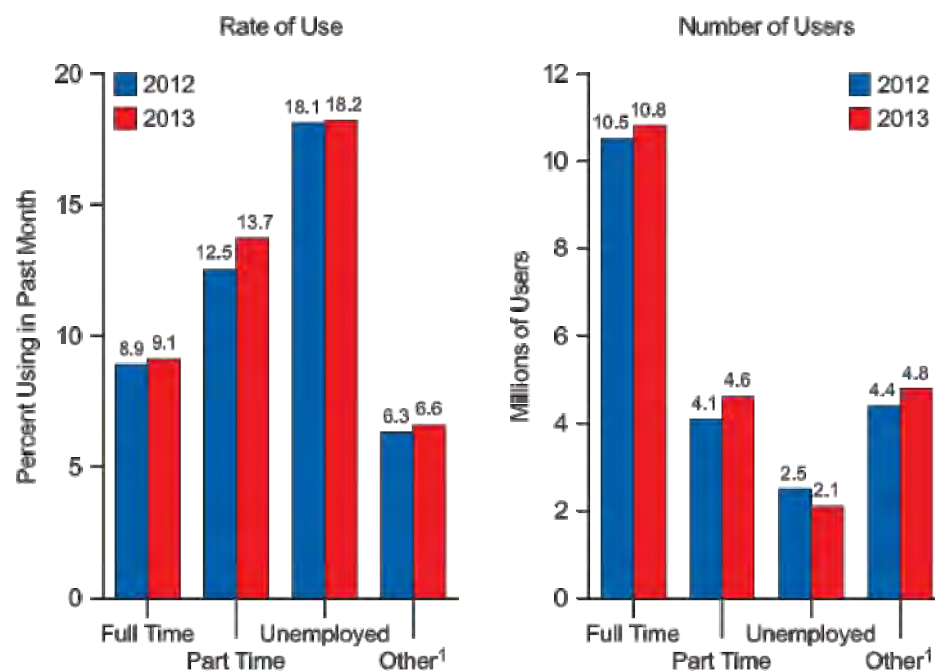
College Students

- In 2013, the rate of current illicit drug use was 22.3 percent among full-time college students aged 18 to 22. This was similar to the rate among other persons aged 18 to 22 (23.0 percent), which included part-time college students, students in other grades or types of institutions, and nonstudents.
- In 2013, about one quarter of male full-time college students aged 18 to 22 were current illicit drug users (26.0 percent). This rate was higher than the rate of current illicit drug use among female full-time college students aged 18 to 22 (19.2 percent). Similarly, 23.6 percent of male full-time college students aged 18 to 22 were current marijuana users compared with 16.6 percent of female full-time college students aged 18 to 22.
- Among full-time college students aged 18 to 22 in 2013, the rate of current illicit drug use was 9.4 percent for Asians, 19.7 percent for blacks, 21.5 percent for Hispanics, and 25.1 percent for whites.

Employment

- Current illicit drug use differed by employment status in 2013. Among adults aged 18 or older, the rate of current illicit drug use was higher for those who were unemployed (18.2 percent) than for those who were employed full time (9.1 percent), employed part time (13.7 percent), or "other" (6.6 percent) (which includes students, persons keeping house or caring for children full time, retired or disabled persons, or other persons not in the labor force) ([Figure 2.13](#)). The percentage of adults employed full time who were current illicit drug users in 2013 was similar to that in 2012 (8.9 percent).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 2.13 Past Month Illicit Drug Use among Persons Aged 18 or Older, by Employment Status: 2012 and 2013

⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

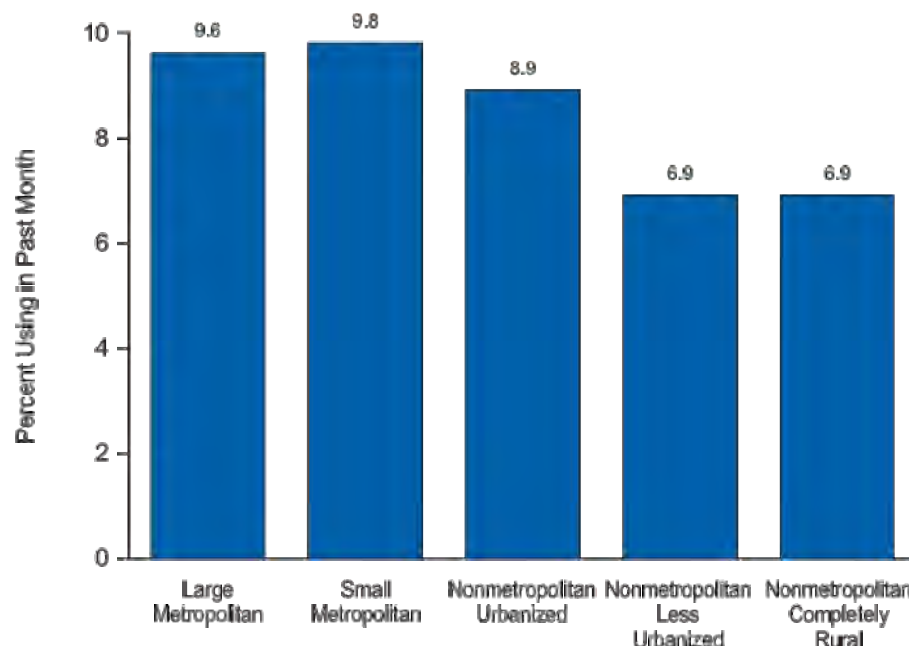
¹ The Other Employment category includes students, persons keeping house or caring for children full time, retired or disabled persons, or other persons not in the labor force.

- Although the rate of current illicit drug use was higher among unemployed persons in 2013 than it was among those who were employed full time, employed part time, or in the "other" employment category, most of these users were employed. Of the 22.4 million current illicit drug users aged 18 or older in 2013, 15.4 million (68.9 percent) were employed either full or part time.

Geographic Area

- Among persons aged 12 or older, the rate of current illicit drug use in 2013 was 11.8 percent in the West, 9.2 percent in the Northeast, 8.7 percent in the Midwest, and 8.3 percent in the South.
- In 2013, the rate of current illicit drug use among persons aged 12 or older was 9.6 percent in large metropolitan areas, 9.8 percent in small metropolitan areas, and 7.8 percent in nonmetropolitan areas (Figure 2.14). Within nonmetropolitan areas, the rate was 8.9 percent in urbanized counties and 6.9 percent in both less urbanized counties and rural counties.

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 2.14 Past Month Illicit Drug Use among Persons Aged 12 or Older, by County Type: 2013

Criminal Justice Populations

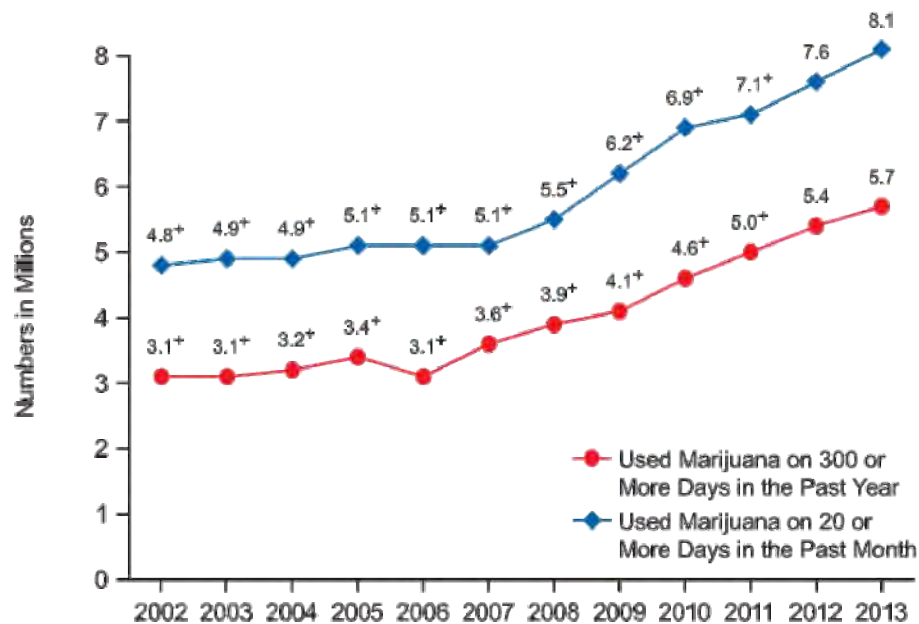
- In 2013, an estimated 1.7 million adults aged 18 or older were on parole or other supervised release from prison at some time during the past year. About one quarter (27.4 percent) were current illicit drug users, with 20.4 percent reporting current use of marijuana and 12.1 percent reporting current nonmedical use of psychotherapeutic drugs. These rates were higher than those reported by adults aged 18 or older who were not on parole or other supervised release during the past year (9.3 percent for current illicit drug use, 7.5 percent for current marijuana use, and 2.4 percent for current nonmedical use of psychotherapeutic drugs).
- In 2013, an estimated 4.5 million adults aged 18 or older were on probation at some time during the past year. More than one quarter (31.4 percent) were current illicit drug users, with 23.5 percent reporting current use of marijuana and 12.3 percent reporting current nonmedical use of psychotherapeutic drugs. These rates were higher than those reported by adults who were not on probation during the past year (9.0 percent for current illicit drug use, 7.3 percent for current marijuana use, and 2.3 percent for current nonmedical use of psychotherapeutic drugs).

Frequency of Marijuana Use

- In 2013, 5.7 million persons aged 12 or older used marijuana on a daily or almost daily basis in the past 12 months (i.e., on 300 or more days in that period), which was an increase from the 3.1 million daily or almost daily users in 2006 ([Figure 2.15](#)). The number of daily or almost daily users of marijuana in 2013 represented 17.4 percent of past year users.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 2.15 Daily or Almost Daily Marijuana Use in the Past Year and Past Month among Persons Aged 12 or Older: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- In 2013, 8.1 million persons aged 12 or older used marijuana on 20 or more days in the past month, which was an increase from the 5.1 million daily or almost daily past month users in 2005 to 2007 ([Figure 2.15](#)). The number of daily or almost daily users in 2013 represented 41.1 percent of past month marijuana users.

Association with Cigarette and Alcohol Use

- In 2013, the rate of current illicit drug use among youths aged 12 to 17 who smoked cigarettes in the past month was approximately 9 times the rate among youths who did not smoke cigarettes in the past month (53.9 vs. 6.1 percent). Also, the rate of current marijuana use in 2013 among youths aged 12 to 17 who smoked cigarettes in the past month was about 11 times the rate among youths who did not smoke cigarettes (49.5 vs. 4.6 percent).
- In 2013, the rate of current illicit drug use was associated with the level of past month alcohol use. Among youths aged 12 to 17 who were heavy drinkers (i.e., consumed five or more drinks on the same occasion on each of 5 or more days in the past 30 days), 62.3 percent were current illicit drug users and 57.9 percent were current marijuana users. These rates were higher than the rates among youths who were not current alcohol users (4.9 percent for current illicit drug use and 3.3 percent for current marijuana use). Additionally, among youths aged 12 to 17 who were binge but not heavy alcohol users (i.e., consumed five or more drinks on the same occasion on 1 to 4 days in the past 30 days), 46.6 percent were current illicit drug users and 43.2 percent were current marijuana users (with the marijuana use rate being higher than the 2012 rate of 37.8 percent).
- In 2013, the rate of current illicit drug use among youths aged 12 to 17 who both smoked cigarettes and drank alcohol in the past month was approximately 16 times the rate among those who neither smoked cigarettes nor drank alcohol in the past month (64.5 vs. 3.9 percent). Additionally, the rate of current marijuana use among youths aged 12 to 17 who both smoked cigarettes and drank alcohol in the past month was about 25 times the rate among those who neither smoked cigarettes nor drank alcohol in the past month (59.7 vs. 2.4 percent).

Driving Under the Influence of Illicit Drugs

- In 2013, 9.9 million persons, or 3.8 percent of the population aged 12 or older, reported driving under the influence of illicit drugs during the past year. This rate was lower than the rate in 2002 (4.7 percent), but was similar to the rate in 2012 (3.9 percent). Across age groups, the rate of driving under the influence of illicit drugs in 2013 was highest among young adults aged 18 to 25 (10.6 percent); this rate for young adults was lower than the rate in 2012 (11.9 percent). Additionally, the rate of driving under the influence of illicit drugs during the past year among youths aged 12 to 17 decreased from 2.3 percent in 2012 to 1.9 percent in 2013.

Source of Prescription Drugs

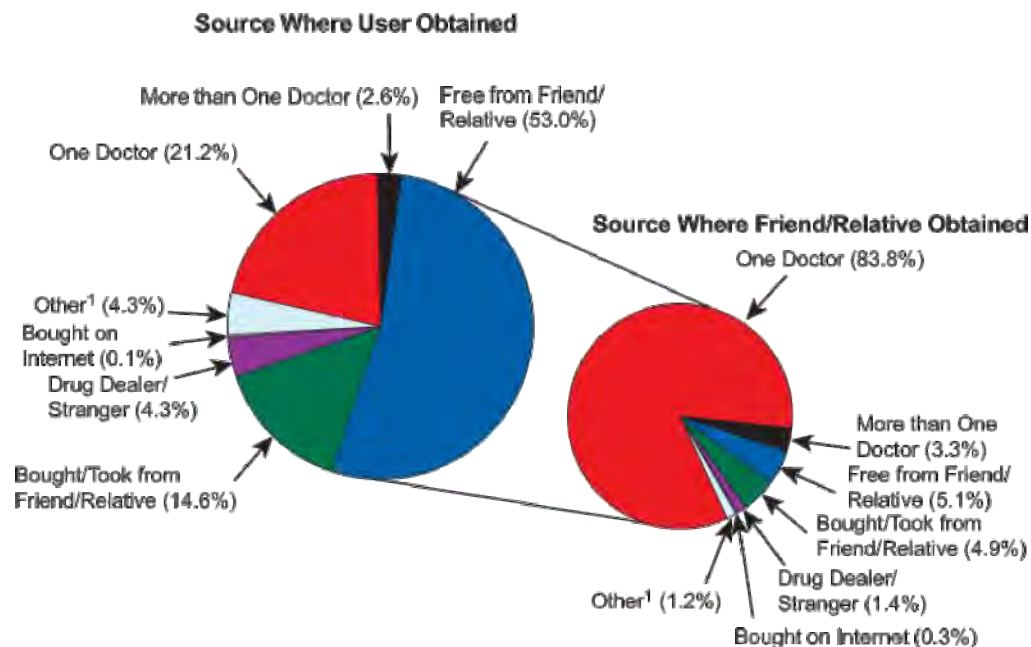
- Past year nonmedical users of psychotherapeutic drugs are asked how they obtained the drugs for their most recent nonmedical use. Rates averaged across 2012 and 2013 show that more than half of the nonmedical users of pain relievers, tranquilizers, stimulants, and sedatives aged 12 or older got the prescription drugs they

most recently used "from a friend or relative for free." More than four in five of these nonmedical users who obtained prescription drugs from a friend or relative for free indicated that their friend or relative had obtained the drugs from one doctor.

- Among persons aged 12 or older in 2012-2013 who used pain relievers nonmedically in the past year, 53.0 percent got the pain relievers they most recently used from a friend or relative for free ([Figure 2.16](#)). About one in five (21.2 percent) received them through a prescription from one doctor (which was higher than the 18.1 percent in 2010-2011). Another 10.6 percent of these nonmedical users in 2012-2013 bought pain relievers from a friend or relative, and 4.0 percent took pain relievers from a friend or relative without asking. An annual average of 4.3 percent got the pain relievers from a drug dealer or other stranger; 2.6 percent got pain relievers from more than one doctor; 0.1 percent bought pain relievers on the Internet; and 4.3 percent got pain relievers in other ways, including 0.7 percent who stole pain relievers from a doctor's office, clinic, hospital, or pharmacy.

Below is a pie graph. [Click here](#) for the text describing this graph.

Figure 2.16 Source Where Pain Relievers Were Obtained for Most Recent Nonmedical Use among Past Year Users Aged 12 or Older: 2012-2013



¹ The Other category includes the sources "Wrote Fake Prescription," "Stole from Doctor's Office/Clinic/Hospital/Pharmacy," and "Some Other Way."

Note: The percentages do not add to 100 percent due to rounding.

- Among persons aged 12 or older in 2012-2013 who used pain relievers nonmedically in the past year and indicated that they most recently obtained the drugs from a friend or relative for free in the past year, 83.8 percent reported that their friend or relative obtained the drugs from just one doctor ([Figure 2.16](#)). About 1 in 20 (5.1 percent) of these past year nonmedical users of pain relievers reported that the friend or relative got the pain relievers from another friend or relative for free, 4.9 percent reported that the friend or relative bought or took them from a friend or relative (including 3.7 percent who reported that the friend or relative bought the pain relievers from a friend or relative and 1.2 percent who reported that the friend or relative took the pain relievers from another friend or relative without asking), 1.4 percent reported that the friend or relative bought the pain relievers from a drug dealer or other stranger, and 0.3 percent reported that the friend or relative bought the pain relievers on the Internet.

3. Alcohol Use

The National Survey on Drug Use and Health (NSDUH) includes questions about the recency and frequency of consumption of alcoholic beverages, such as beer, wine, whiskey, brandy, and mixed drinks. A "drink" is defined as a can or bottle of beer, a glass of wine or a wine cooler, a shot of liquor, or a mixed drink with liquor in it. Times when the respondent only had a sip or two from a drink are not considered to be consumption. For this report, estimates for the prevalence of alcohol use are reported primarily at three levels defined for both males and females and for all ages as follows:

Current (past month) use - At least one drink in the past 30 days.

Binge use - Five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

Heavy use - Five or more drinks on the same occasion on each of 5 or more days in the past 30 days.

These levels are not mutually exclusive categories of use; heavy use is included in estimates of binge and current use, and binge use is included in estimates of current use.

This chapter is divided into two main sections. [Section 3.1](#) describes trends and patterns of alcohol use among the population aged 12 or older. [Section 3.2](#) is concerned particularly with the use of alcohol by persons aged 12 to 20. These persons are under the legal drinking age in all 50 States and the District of Columbia.

3.1. Alcohol Use among Persons Aged 12 or Older

- Slightly more than half (52.2 percent) of Americans aged 12 or older reported being current drinkers of alcohol in the 2013 survey, which was similar to the rate in 2012 (52.1 percent). This translates to an estimated 136.9 million current drinkers in 2013.
- Nearly one quarter (22.9 percent) of persons aged 12 or older in 2013 were binge alcohol users in the 30 days prior to the survey. This translates to about 60.1 million people. The rate in 2013 was similar to the rate in 2012 (23.0 percent).

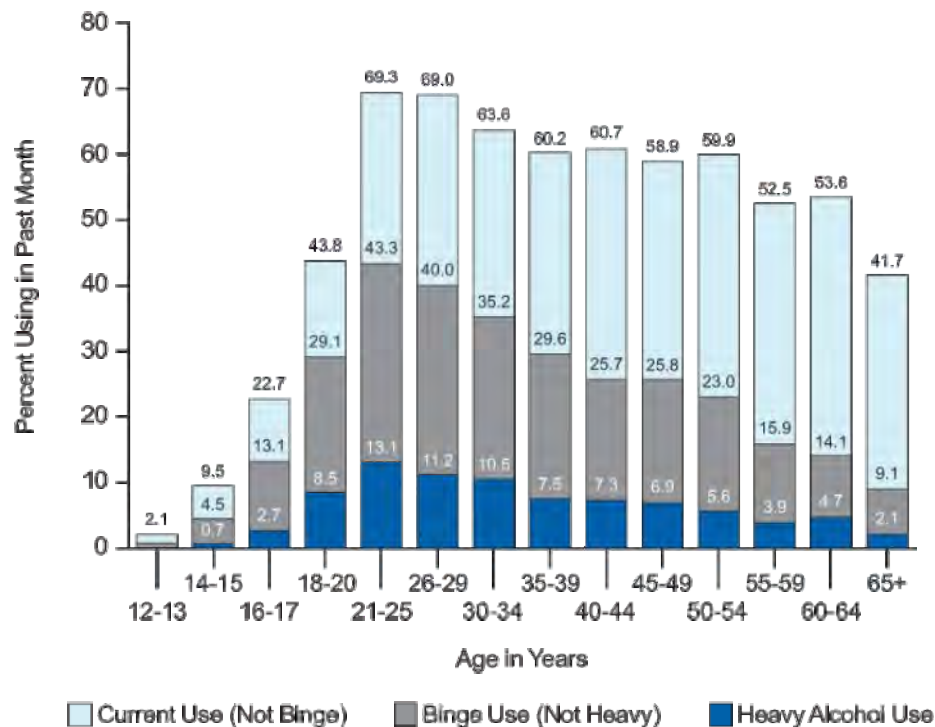
- In 2013, heavy drinking was reported by 6.3 percent of the population aged 12 or older, or 16.5 million people. This percentage was similar to the rate of heavy drinking in 2012 (6.5 percent).

Age

- In 2013, rates of current alcohol use were 2.1 percent among persons aged 12 or 13, 9.5 percent for persons aged 14 or 15, 22.7 percent for 16 or 17 year olds, 43.8 percent for those aged 18 to 20, and 69.3 percent for 21 to 25 year olds ([Figure 3.1](#)). The estimates for persons aged 14 or 15 and those aged 16 or 17 were lower than those reported in 2012 (11.1 and 24.8 percent, respectively).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 3.1 Current, Binge, and Heavy Alcohol Use among Persons Aged 12 or Older, by Age: 2013



Note: The past month binge alcohol use estimate for 12 or 13 year olds was 0.8 percent, and the past month heavy alcohol use estimate was 0.1 percent.

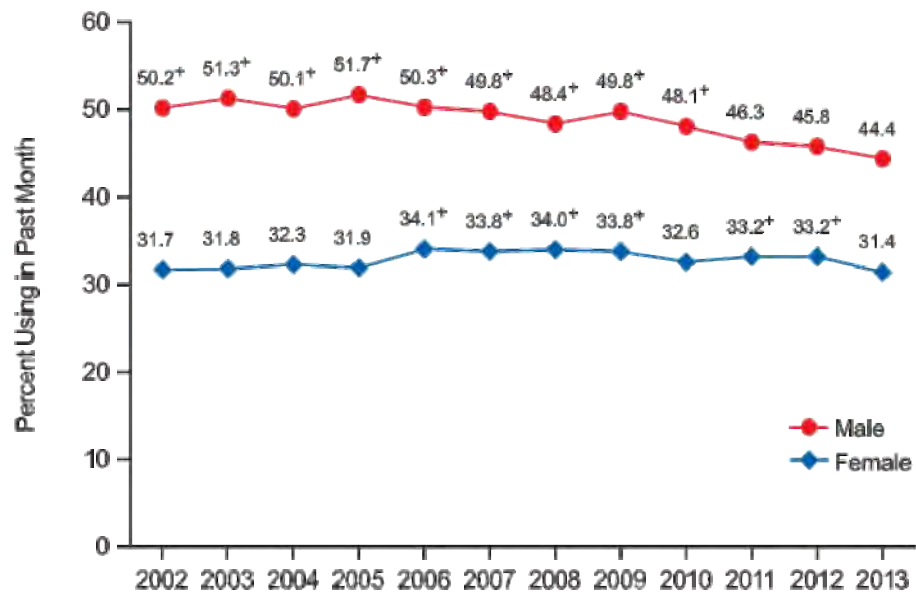
- Rates of binge alcohol use in 2013 were 0.8 percent among 12 or 13 year olds, 4.5 percent for 14 or 15 year olds, 13.1 percent for 16 or 17 year olds, 29.1 percent for persons aged 18 to 20, and peaked at 43.3 percent for those aged 21 to 25 ([Figure 3.1](#)). The estimates for persons aged 14 or 15, 16 or 17, and 21 to 25 were lower than those reported in 2012 (5.4, 15.0, and 45.1 percent, respectively).
- Rates of heavy alcohol use in 2013 were 0.1 percent among 12 or 13 year olds, 0.7 percent for 14 or 15 year olds, 2.7 percent for 16 or 17 year olds, 8.5 percent for persons aged 18 to 20, and peaked at 13.1 percent for those aged 21 to 25 ([Figure 3.1](#)). The estimates for persons aged 18 to 20 and 21 to 25 were lower than those reported in 2012 (10.0 and 14.4 percent, respectively).
- The rate of current alcohol use among youths aged 12 to 17 was 11.6 percent in 2013. Youth binge and heavy drinking rates were 6.2 and 1.2 percent, respectively. The rates for current and binge youth alcohol use were lower than those in 2012 (12.9 and 7.2 percent, respectively).
- In 2013, the rate of current alcohol use was 59.6 percent among young adults aged 18 to 25, which was similar to the rate in 2012 (60.2 percent). The rate of binge drinking in 2013 was 37.9 percent for young adults. Heavy alcohol use was reported by 11.3 percent of persons in this age group. The binge and heavy drinking rates were lower than the rates in 2012 (39.5 and 12.7 percent, respectively).
- The prevalence of current, binge, and heavy alcohol use in 2013 was lower among adults aged 65 or older (41.7, 9.1, and 2.1 percent, respectively) than among all other adult age groups ([Figure 3.1](#)). These rates among adults aged 65 or older were similar to the current, binge, and heavy drinking rates in this age group in 2012 (41.2, 8.2, and 2.0 percent, respectively).

Gender

- In 2013, an estimated 57.1 percent of males aged 12 or older were current drinkers, which was higher than the rate for females (47.5 percent). Among youths aged 12 to 17, however, the percentage of males who were current drinkers (11.2 percent) was similar to the rate for females (11.9 percent). The rates for male and female youths were lower than those reported in 2012 (12.6 and 13.2 percent, respectively).
- Among young adults aged 18 to 25, an estimated 62.3 percent of males and 56.9 percent of females were current drinkers in 2013. In this age group, 44.4 percent of males and 31.4 percent of females reported binge drinking in 2013 ([Figure 3.2](#)). In 2013, the rate of binge drinking among females aged 18 to 25 was lower than the rate reported in 2012 (33.2 percent). The rate of binge alcohol use in 2013 among males in this age group was similar to the rate in 2012 (45.8 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 3.2 Binge Alcohol Use among Adults Aged 18 to 25, by Gender: 2002-2013



* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- Among persons aged 26 or older, an estimated 62.2 percent of males and 50.1 percent of females reported current drinking in 2013. In this age group, the rate of binge drinking for males was approximately twice the rate for females (30.7 vs. 14.7 percent).

Pregnant Women

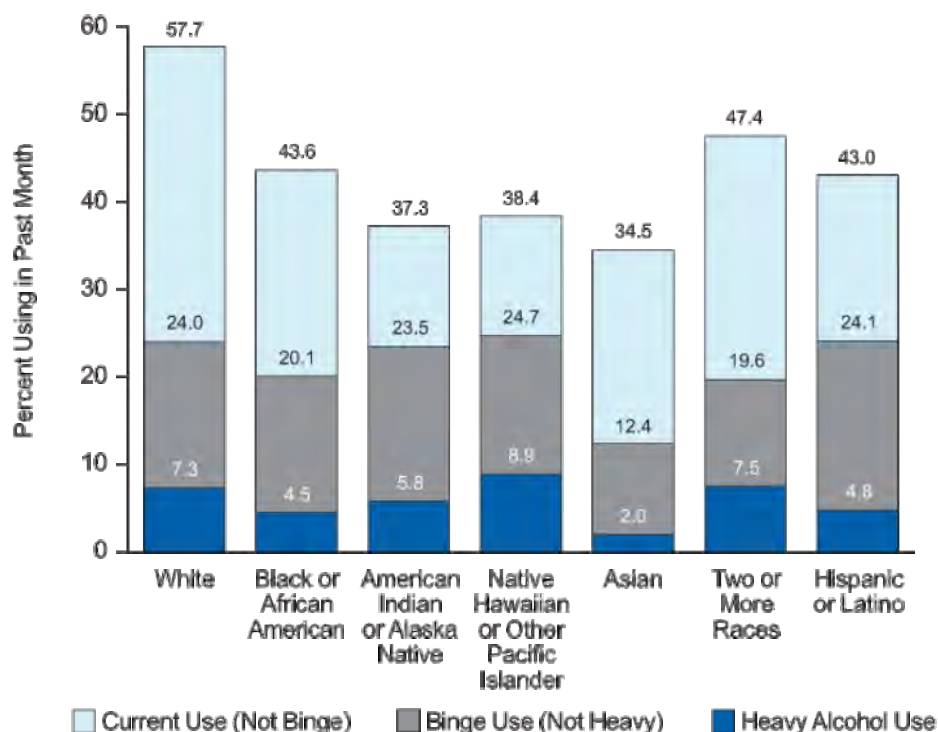
- Among pregnant women aged 15 to 44 in 2012-2013, an annual average of 9.4 percent reported current alcohol use, 2.3 percent reported binge drinking, and 0.4 percent reported heavy drinking. These rates were lower than the rates for nonpregnant women in the same age group (55.4, 24.6, and 5.3 percent, respectively). Current alcohol use in 2012-2013 was lower among pregnant women aged 15 to 44 during the second and third trimesters than during the first trimester (5.0 and 4.4 percent vs. 19.0 percent).

Race/Ethnicity

- Among persons aged 12 or older, whites in 2013 were more likely than other racial/ethnic groups to report current use of alcohol (57.7 percent) ([Figure 3.3](#)). The rates were 47.4 percent for persons reporting two or more races, 43.6 percent for blacks, 43.0 percent for Hispanics, 38.4 percent for Native Hawaiians or Other Pacific Islanders, 37.3 percent for American Indians or Alaska Natives, and 34.5 percent for Asians.

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 3.3 Current, Binge, and Heavy Alcohol Use among Persons Aged 12 or Older, by Race/Ethnicity: 2013



- The rate of binge alcohol use in 2013 was lowest among Asians (12.4 percent) ([Figure 3.3](#)). Rates for other racial/ethnic groups were 19.6 percent for persons reporting two or more races, 20.1 percent for blacks, 23.5 percent for American Indians or Alaska Natives 24.0 percent for whites, 24.1 percent for Hispanics, and 24.7 percent for Native Hawaiians or Other Pacific Islanders.

- Among youths aged 12 to 17 in 2013, rates of current alcohol use were 8.0 percent among Asians, 8.2 percent for Native Hawaiians or Other Pacific Islanders, 9.0 percent for those reporting two or more races, 9.3 percent for American Indians or Alaska Natives, 9.7 percent for blacks, 10.7 percent for Hispanics, and 12.9 percent for whites. The rates for Hispanic and white youths were lower than those reported in 2012 (12.8 and 14.6 percent, respectively).

Education

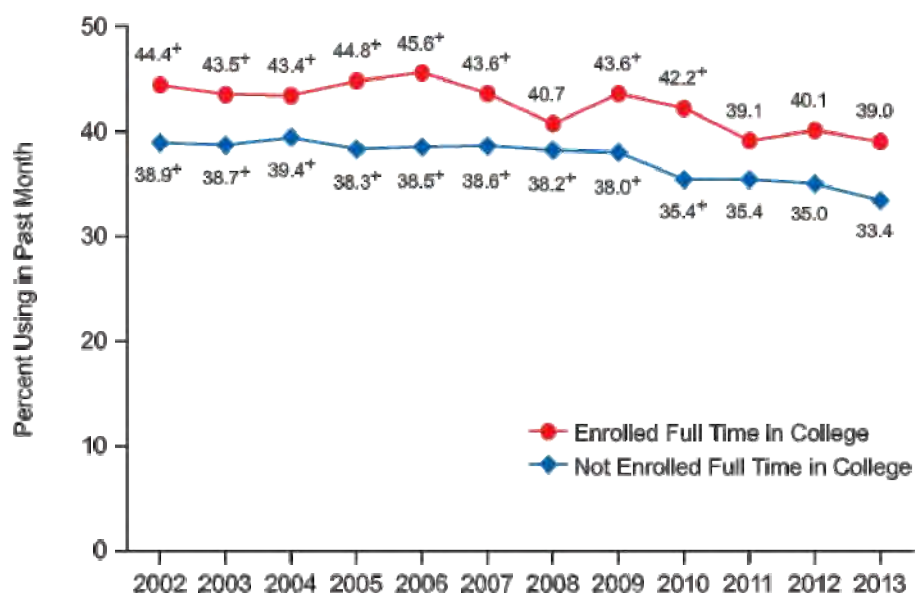
- Among adults aged 18 or older, the rate of past month alcohol use increased with increasing levels of education. Among adults in 2013 with less than a high school education, 36.5 percent were current drinkers. In comparison, 69.2 percent of college graduates were current drinkers.
- Among adults aged 18 or older, rates of binge and heavy alcohol use varied by level of education. Among adults in 2013, those who had graduated from college were less likely than those with some college education but no degree to be binge drinkers (23.1 vs. 26.4 percent) or heavy drinkers (6.0 vs. 7.6 percent).

College Students

- Young adults aged 18 to 22 who were enrolled full time in college were more likely than their peers who were not enrolled full time (i.e., part-time college students and persons not currently enrolled in college) to report current, binge, or heavy drinking. Among full-time college students in 2013, 59.4 percent were current drinkers, 39.0 percent were binge drinkers, and 12.7 percent were heavy drinkers. Among those not enrolled full time in college, these rates were 50.6, 33.4, and 9.3 percent, respectively.
- The pattern of higher rates of current alcohol use, binge alcohol use, and heavy alcohol use among full-time college students compared with rates for others aged 18 to 22 has remained consistent since 2002 ([Figure 3.4](#)).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 3.4 Binge Alcohol Use among Adults Aged 18 to 22, by College Enrollment: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- Among young adults aged 18 to 22, the rate of binge drinking declined somewhat since 2002. In 2002, the binge drinking rate within this age group was 41.0 percent compared with 35.6 percent in 2013. Among full-time college students, the rate decreased over this period from 44.4 to 39.0 percent ([Figure 3.4](#)). Among part-time college students and others not in college, the rate decreased from 38.9 to 33.4 percent during the same time period. For both full-time college students and others aged 18 to 22, the rates in 2013 were similar to those in 2012 (40.1 and 35.0 percent, respectively).
- In 2013, male full-time college students aged 18 to 22 were more likely than their female counterparts to be binge drinkers (44.8 vs. 33.9 percent) as well as heavy drinkers (16.5 vs. 9.3 percent). The rates for current drinking were similar for males and females who were full-time college students (60.8 and 58.2 percent, respectively).

Employment

- The rate of current alcohol use in 2013 was 65.8 percent for full-time employed adults aged 18 or older, which was higher than the rate for unemployed adults (53.8 percent). The rates of binge drinking were similar for adults who were employed full time and those who were unemployed (30.5 and 31.3 percent, respectively).
- Among adults in 2013, most binge and heavy alcohol users were employed. Among the 58.5 million adults who were binge drinkers, 44.5 million (76.1 percent) were employed either full or part time. Among the 16.2 million adults who were heavy drinkers, 12.4 million (76.0 percent) were employed.

Geographic Area

- The rate of past month alcohol use for people aged 12 or older in 2013 was lowest in the South (48.2 percent), followed by the West (50.7 percent), then the Midwest (55.7 percent), then the Northeast (58.0 percent). Rates of binge drinking in these regions were 21.3, 22.2, 25.6, and 23.8 percent, respectively.
- In 2013, the rates of past month alcohol use among persons aged 12 or older in large and small metropolitan areas (54.3 and 51.6 percent, respectively) were higher than in nonmetropolitan areas (46.3 percent). Rates of binge drinking were similar in large and small metropolitan areas (23.3 and 23.1 percent, respectively). However, binge drinking among persons aged 12 or older was less prevalent in nonmetropolitan areas (21.1 percent) than in large metropolitan areas.

- In 2013, roughly 1 in 9 youths aged 12 to 17 were current alcohol users, regardless of whether they were in large metropolitan, small metropolitan, or nonmetropolitan areas (11.7, 11.4, and 11.3 percent, respectively). Among youths aged 12 to 17 in 2013, the rates of binge alcohol use in large and small metropolitan areas (6.2 percent in both areas) were similar to the rate for youths in nonmetropolitan areas (6.6 percent). Youths in nonmetropolitan areas were less likely to be current alcohol drinkers and to be binge alcohol users than they were in 2012 (14.2 and 9.2 percent, respectively).

Association with Illicit Drug and Tobacco Use

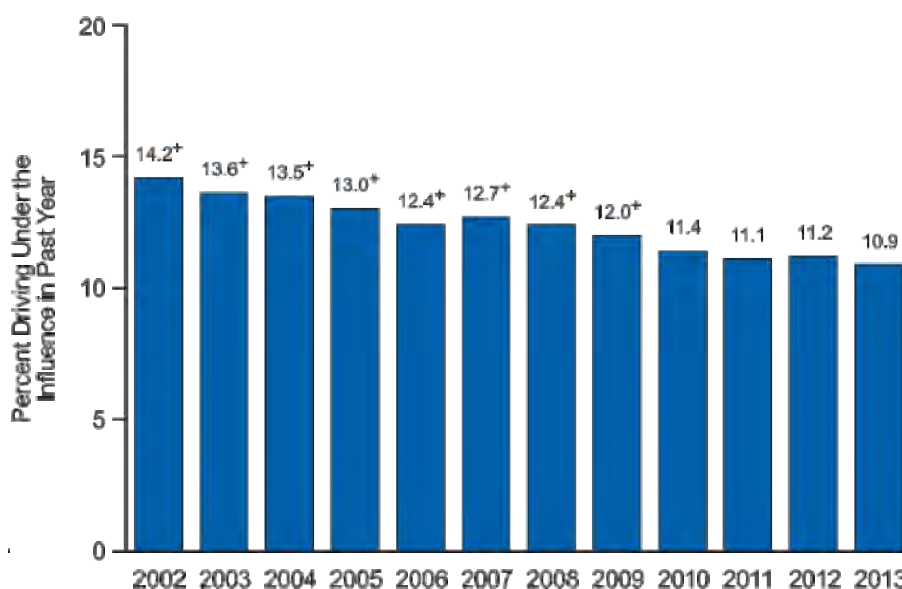
- As was the case in prior years, the level of alcohol use was associated with illicit drug use in 2013. Among the 16.5 million heavy drinkers aged 12 or older, 33.7 percent were current illicit drug users. Persons who were not current alcohol users were less likely to have used illicit drugs in the past month (4.3 percent) than those who reported current use of alcohol but no binge or heavy use (7.3 percent), binge use but no heavy use (18.5 percent), or heavy use of alcohol (33.7 percent).
- Alcohol consumption levels also were associated with tobacco use in 2013. Among heavy alcohol users aged 12 or older, 53.1 percent smoked cigarettes in the past month compared with 16.2 percent of non-binge current drinkers and 15.5 percent of persons who did not drink alcohol in the past month. Smokeless tobacco use and cigar use also were more prevalent among heavy drinkers (12.1 and 15.4 percent, respectively) than among non-binge drinkers (2.0 and 3.9 percent) and persons who were not current alcohol users (2.0 and 1.8 percent).

Driving Under the Influence of Alcohol

- In 2013, roughly 1 in 9 persons aged 12 or older (10.9 percent) drove under the influence of alcohol at least once in the past year ([Figure 3.5](#)). This corresponds to 28.7 million persons. The 2013 rate was lower than the rate in 2002 (14.2 percent), but was similar to the rate in 2012 (11.2 percent).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 3.5 Driving Under the Influence of Alcohol in the Past Year among Persons Aged 12 or Older: 2002-2013

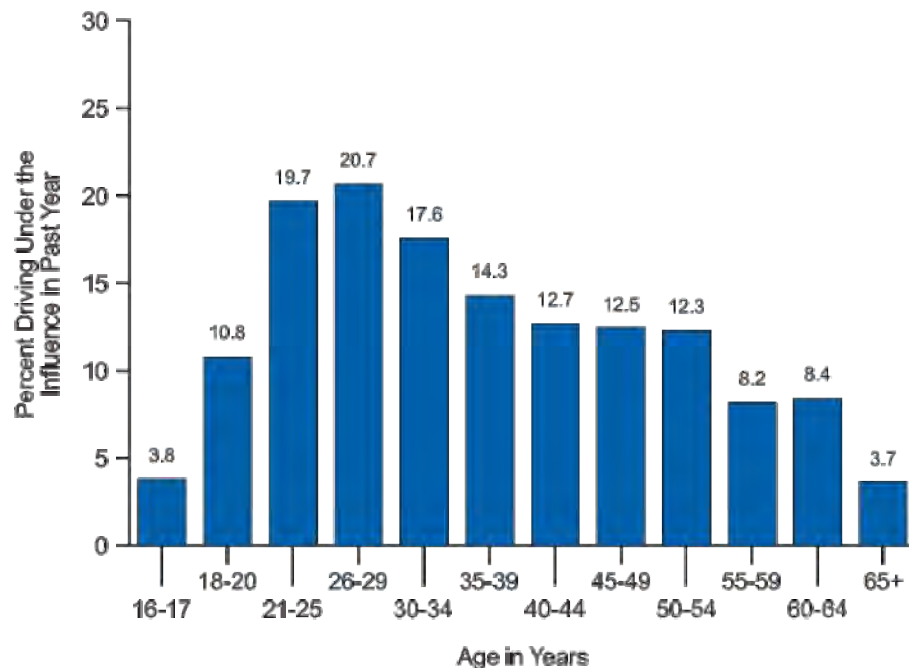


* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- Driving under the influence of alcohol among persons aged 16 or older differed by age group in 2013. The rate was highest among persons aged 21 to 25 and persons aged 26 to 29 (19.7 and 20.7 percent, respectively) ([Figure 3.6](#)). An estimated 3.8 percent of 16 or 17 year olds and 10.8 percent of 18 to 20 year olds reported driving under the influence of alcohol in the past year.

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 3.6 Driving Under the Influence of Alcohol in the Past Year among Persons Aged 16 or Older, by Age: 2013



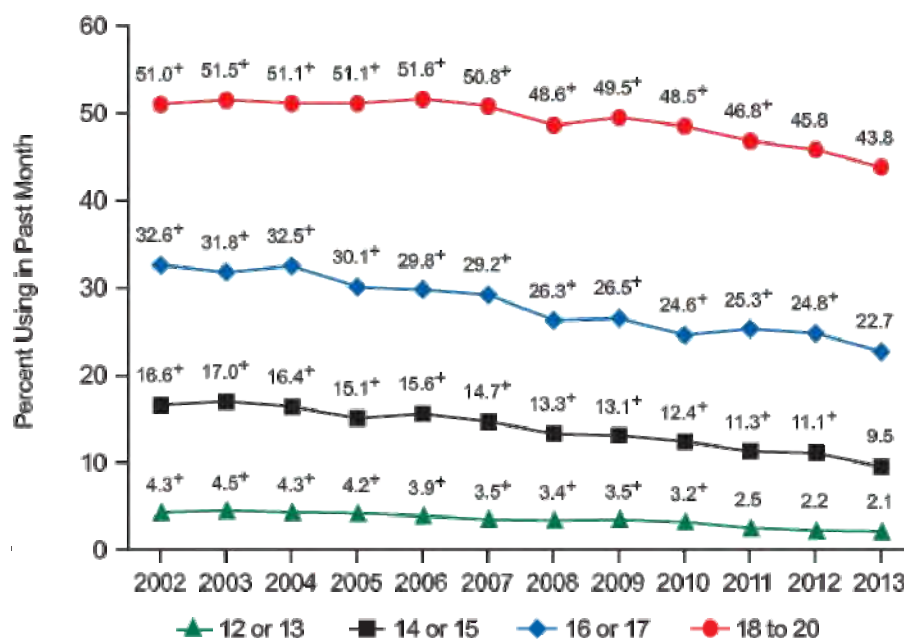
- Among persons aged 12 to 20 and those aged 21 to 25, the rates of driving under the influence of alcohol in 2013 (4.7 and 19.7 percent, respectively) were lower than the rates in 2012 (5.7 and 21.9 percent, respectively). The rates of driving under the influence for those 26 or older were similar in 2012 and 2013 (11.1 and 11.2 percent, respectively).
- Among persons aged 12 or older in 2013, males were more likely than females to drive under the influence of alcohol in the past year (14.1 vs. 7.9 percent).

3.2. Underage Alcohol Use

- In 2013, about 8.7 million persons aged 12 to 20 (22.7 percent of this age group) reported drinking alcohol in the past month. Approximately 5.4 million (14.2 percent) were binge drinkers, and 1.4 million (3.7 percent) were heavy drinkers. All three of these rates were lower than those reported in 2012 (24.3, 15.3, and 4.3 percent, respectively).
- Rates of current, binge, and heavy alcohol use among underage persons declined between 2002 and 2013. The rate of current alcohol use among 12 to 20 year olds decreased from 28.8 percent in 2002 to 22.7 percent in 2013. The binge drinking rate declined from 19.3 to 14.2 percent, and the rate of heavy drinking declined from 6.2 to 3.7 percent between 2002 and 2013.
- Rates of current alcohol use increased with age among underage persons. In 2013, 2.1 percent of persons aged 12 or 13, 9.5 percent of persons aged 14 or 15, 22.7 percent of 16 or 17 year olds, and 43.8 percent of 18 to 20 year olds drank alcohol during the 30 days before they were surveyed ([Figure 3.7](#)). This pattern by age has been observed since 2002. The rates in 2013 for youths aged 14 or 15 and those aged 16 or 17 were lower than the rates in 2012 (11.1 and 24.8 percent, respectively).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 3.7 Current Alcohol Use among Persons Aged 12 to 20, by Age: 2002-2013

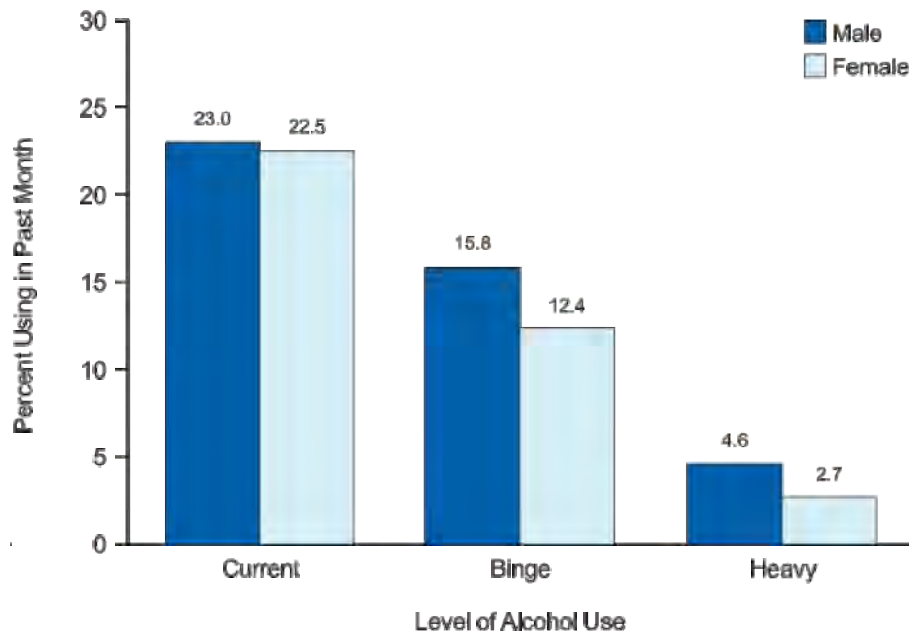


* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- Males and females aged 12 to 20 in 2013 had similar rates of current alcohol use (23.0 and 22.5 percent) ([Figure 3.8](#)). However, underage males were more likely than underage females to report binge (15.8 vs. 12.4 percent) or heavy alcohol use (4.6 vs. 2.7 percent).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 3.8 Current, Binge, and Heavy Alcohol Use among Persons Aged 12 to 20, by Gender: 2013



- Among persons aged 12 to 20, past month alcohol use rates in 2013 were 15.2 percent among Asians, 17.8 percent for blacks, 17.8 percent for those reporting two or more races, 17.8 percent for American Indians or Alaska Natives, 20.6 percent for Hispanics, and 25.8 percent for whites. The rates of current alcohol use among Hispanics and whites were lower than those reported in 2012 (23.2 and 27.4 percent, respectively).
- In 2013, among persons aged 12 to 20, binge drinking was reported by 16.8 percent of whites, 13.9 percent of American Indians or Alaska Natives, 13.5 percent of Hispanics, 12.1 percent of Native Hawaiians or Other Pacific Islanders, 11.1 percent of persons reporting two or more races, 8.4 percent of blacks, and 7.6 percent of Asians.
- Across geographic regions in 2013, the rate of current alcohol use among persons aged 12 to 20 was 25.9 percent in the Northeast, 24.5 percent in the Midwest, 22.5 percent in the West, and 20.4 percent in the South. The rate of current alcohol use in the South in 2013 was lower than it was in 2012 (22.3 percent).
- In 2013, the current alcohol use rates among underage persons were 22.7 percent in large metropolitan areas, 23.1 percent in small metropolitan areas, and 21.9 percent in nonmetropolitan areas. The underage current drinking rate in 2013 was lower in large metropolitan areas than the rate reported in 2012 (24.7 percent).
- In 2013, 77.6 percent of current drinkers aged 12 to 20 were with two or more other people the last time they drank alcohol, 16.3 percent were with one other person the last time they drank, and 6.1 percent were alone. The rate of drinking alone the last time that underage persons drank alcohol was highest among youths aged 12 to 14 (14.5 percent), followed by youths aged 15 to 17 (7.8 percent), then by persons aged 18 to 20 (4.8 percent).
- A majority of underage current drinkers in 2013 reported that their last use of alcohol in the past month occurred in a home setting, either in someone else's home (52.2 percent) or their own home (34.2 percent). The rate for drinking at home was higher than it was in 2012 (31.4 percent). In 2013, underage females were more likely than males to have been in a restaurant, bar, or club on their last drinking occasion (8.8 vs. 4.5 percent).
- Among underage current drinkers in 2013, 28.7 percent paid for the alcohol the last time they drank, including 7.8 percent who purchased the alcohol themselves and 20.5 percent who gave money to someone else to purchase it. These rates were similar to those reported in 2012 (28.2, 7.6, and 20.4 percent, respectively). Youths aged 12 to 14 were least likely to report that they paid for the alcohol the last time they drank (6.3 percent), followed by youths aged 15 to 17 (20.8 percent), then by persons aged 18 to 20 (33.6 percent).
- In 2013, among underage current drinkers who did not pay for the alcohol the last time they drank, the most common source was an unrelated person aged 21 or older (36.6 percent). Parents, guardians, or other adult family members provided the last alcohol to 24.5 percent of nonpaying underage drinkers. Other underage persons provided the alcohol on the last occasion for 16.4 percent of nonpaying underage drinkers. Additional sources of alcohol for underage drinkers who did not pay included (a) took the alcohol from home (7.8 percent), (b) took it from someone else's home (2.9 percent), and (c) got it some other way (6.0 percent).
- In 2013, underage current drinkers were more likely than current alcohol users aged 21 or older to use illicit drugs within 2 hours of alcohol use on their last reported drinking occasion (19.9 vs. 5.7 percent). The most commonly reported illicit drug used by underage drinkers in combination with alcohol was marijuana, which was used within 2 hours of alcohol use by 19.5 percent of current underage drinkers (1.6 million persons) on their last drinking occasion.

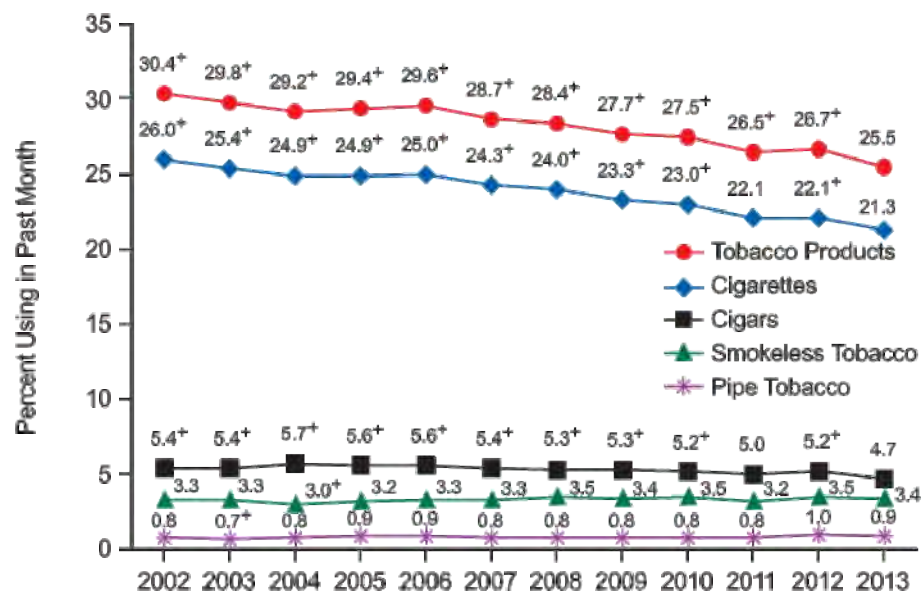
4. Tobacco Use

The National Survey on Drug Use and Health (NSDUH) includes a series of questions about the use of tobacco products, including cigarettes, chewing tobacco, snuff, cigars, and pipe tobacco. Cigarette use is defined as smoking "part or all of a cigarette." For analytic purposes, data for chewing tobacco and snuff are combined and termed "smokeless tobacco."

- In 2013, an estimated 66.9 million Americans aged 12 or older were current (past month) users of a tobacco product. This represents 25.5 percent of the population in that age range ([Figure 4.1](#)). Also, 55.8 million persons (21.3 percent of the population) were current cigarette smokers; 12.4 million (4.7 percent) smoked cigars; 8.8 million (3.4 percent) used smokeless tobacco; and 2.3 million (0.9 percent) smoked tobacco in pipes.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 4.1 Past Month Tobacco Use among Persons Aged 12 or Older: 2002-2013



* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

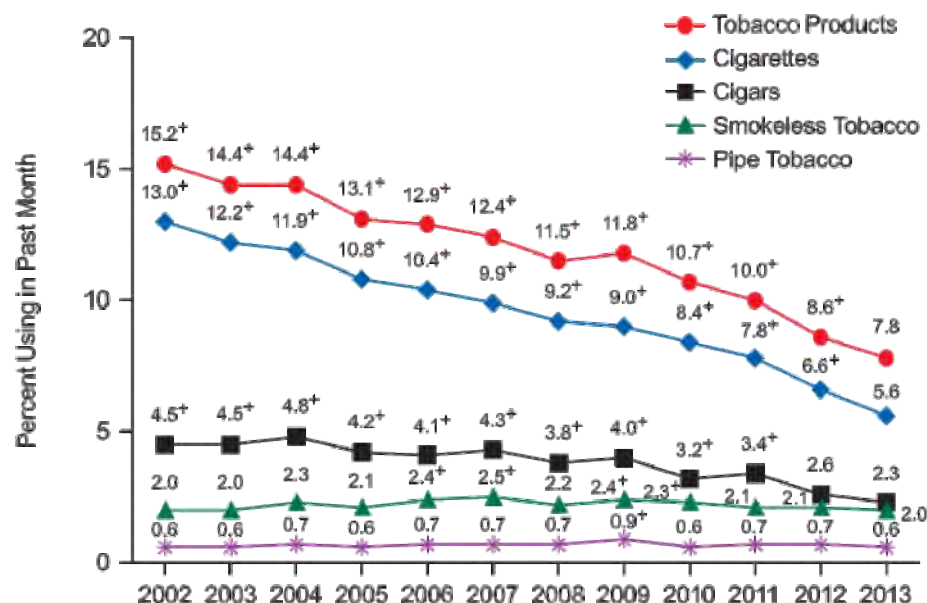
- Between 2002 and 2013, past month use of any tobacco product among persons aged 12 or older decreased from 30.4 to 25.5 percent, and past month cigarette use declined from 26.0 to 21.3 percent ([Figure 4.1](#)). Past month cigar use decreased from 5.4 percent in 2002 to 4.7 percent in 2013. Rates of past month use of smokeless tobacco and pipe tobacco were similar in 2002 and 2013.

Age

- In 2013, young adults aged 18 to 25 had the highest rate of current use of a tobacco product (37.0 percent), followed by adults aged 26 or older (25.7 percent), then by youths aged 12 to 17 (7.8 percent). Young adults also had the highest rates of current use of the specific tobacco products. Among young adults, the rates of past month use in 2013 were 30.6 percent for cigarettes, 10.0 percent for cigars, 5.8 percent for smokeless tobacco, and 2.2 percent for pipe tobacco.
- The rate of current use of a tobacco product by young adults aged 18 to 25 declined from 45.3 percent in 2002 to 37.0 percent in 2013. The rate of current cigarette use among young adults also declined from 40.8 percent in 2002 to 30.6 percent in 2013. However, the rates of current use of smokeless tobacco and pipe tobacco by young adults increased from 4.8 percent in 2002 to 5.8 percent in 2013 for smokeless tobacco and from 1.1 percent in 2002 to 2.2 percent in 2013 for pipe tobacco. The rates in 2013 for current use of a tobacco product, cigarettes, smokeless tobacco, and cigars among young adults were similar to the rates in 2012 (38.1, 31.8, 5.5, and 10.7 percent, respectively). However, the rate of pipe tobacco use among young adults in 2013 was higher than the rate in 2012 (1.8 percent).
- The rate of past month tobacco use among 12 to 17 year olds declined from 15.2 percent in 2002 to 7.8 percent in 2013, including a decline from 8.6 percent in 2012 ([Figure 4.2](#)). The rate of past month cigarette use among 12 to 17 year olds declined from 13.0 percent in 2002 to 5.6 percent in 2013. The rate of past month cigar use among this age group declined from 4.5 percent in 2002 to 2.3 percent in 2013. The rate of past month smokeless tobacco use among 12 to 17 year olds declined from 2.5 percent in 2007 to 2.0 percent in 2013, which was the same as the rate in 2002.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 4.2 Past Month Tobacco Use among Youths Aged 12 to 17: 2002-2013

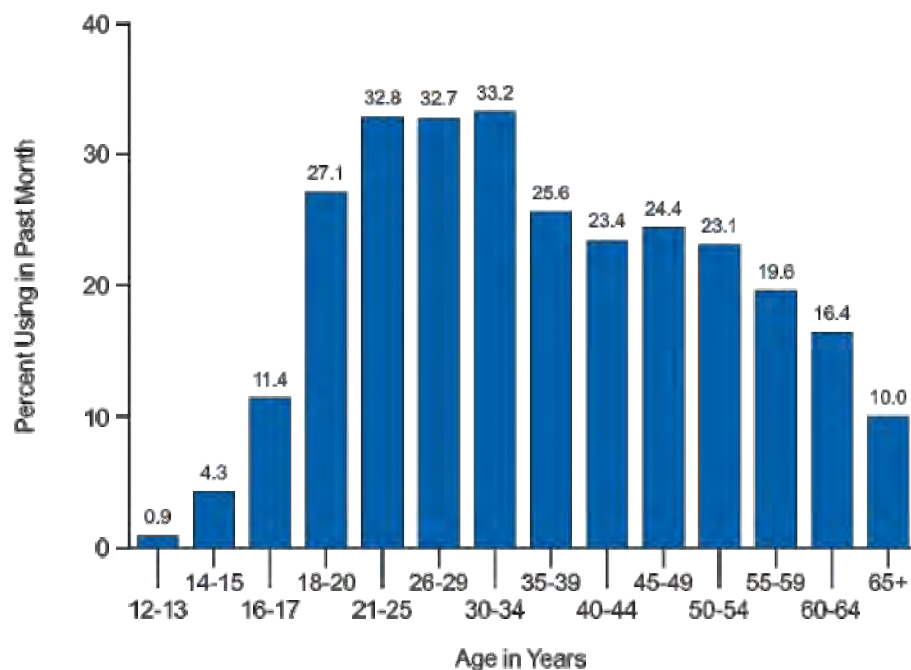


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- Adults aged 21 to 34 had higher rates of current cigarette use than did persons in either older or younger age groups ([Figure 4.3](#)). Rates of current cigarette use in 2013 were similar among adults aged 30 to 34 (33.2 percent), those aged 21 to 25 (32.8 percent), and those aged 26 to 29 (32.7 percent). Among adults aged 35 or older in 2013, 19.0 percent smoked cigarettes in the past month.

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 4.3 Past Month Cigarette Use among Persons Aged 12 or Older, by Age: 2013

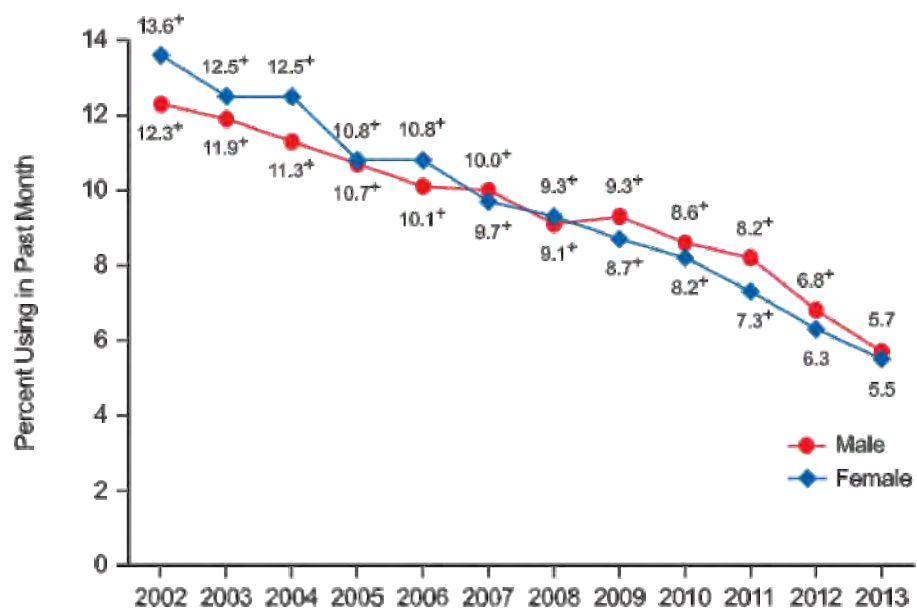


Gender

- In 2013, current use of a tobacco product among persons aged 12 or older was reported by a higher percentage of males (31.1 percent) than females (20.2 percent). Males also had higher rates of past month use than females of each specific tobacco product: cigarettes (23.6 percent among males vs. 19.0 percent among females), cigars (7.7 vs. 2.0 percent), smokeless tobacco (6.5 vs. 0.4 percent), and pipe tobacco (1.5 vs. 0.3 percent).
- The rate of any tobacco use among males aged 12 or older declined from 37.0 percent in 2002 to 31.1 percent in 2013. The rate of any tobacco use for females aged 12 or older also declined from 24.3 percent in 2002 to 20.2 percent in 2013. Rates of any tobacco use were similar between 2012 and 2013 for females (20.9 and 20.2 percent, respectively), but declined from 33.0 to 31.1 percent for males.
- Among youths aged 12 to 17, the rates of current cigarette smoking in 2013 were 5.7 percent for males and 5.5 percent for females ([Figure 4.4](#)). From 2002 to 2013, the rate of current cigarette smoking among youths decreased for both males (from 12.3 to 5.7 percent) and females (from 13.6 to 5.5 percent). In 2013, the rate for males was lower than the rate in 2012 (6.8 percent), while the rate was similar to the rate in 2012 for females (6.3 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 4.4 Past Month Cigarette Use among Youths Aged 12 to 17, by Gender: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

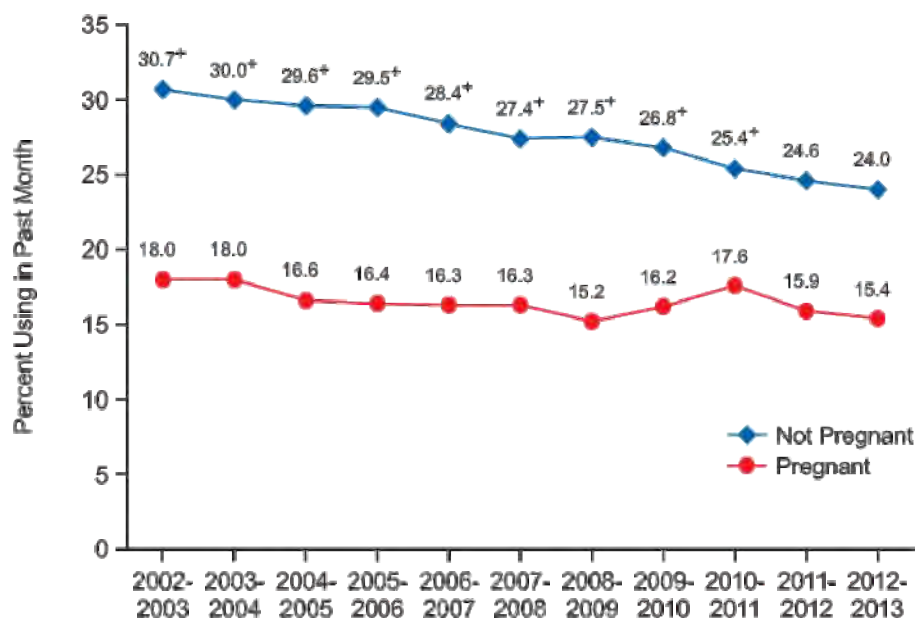
- The rate of current cigarette smoking among male young adults aged 18 to 25 declined from 44.4 percent in 2002 to 36.3 percent in 2013. Among female young adults, the rate declined from 37.1 percent in 2002 to 24.9 percent in 2013. For females aged 18 to 25, the rate of current cigarette smoking in 2013 was lower than the rate in 2012 (27.1 percent), while the rate for males in 2013 was similar to the rate in 2012 (36.6 percent).

Pregnant Women

- The annual average rate of past month cigarette use in 2012 and 2013 among women aged 15 to 44 who were pregnant was 15.4 percent ([Figure 4.5](#)). The rate of current cigarette use among women aged 15 to 44 who were pregnant was lower than that among women who were not pregnant (24.0 percent). This pattern was also evident among women aged 18 to 25 (21.0 vs. 26.2 percent for pregnant and nonpregnant women, respectively) and among women aged 26 to 44 (11.8 vs. 25.4 percent, respectively). Rates of current cigarette use in 2012-2013 among pregnant women aged 15 to 44 were 19.9 percent in the first trimester, 13.4 percent in the second trimester, and 12.8 percent in the third trimester.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 4.5 Past Month Cigarette Use among Women Aged 15 to 44, by Pregnancy Status: Combined Years 2002-2003 to 2012-2013



⁺ Difference between this estimate and the 2012-2013 estimate is statistically significant at the .05 level.

- The annual average rates of current cigarette use among women aged 15 to 44 who were not pregnant decreased from 30.7 percent in 2002-2003 to 24.0 percent in 2012-2013 ([Figure 4.5](#)). However, the prevalence of cigarette use among pregnant women in this age range did not change significantly during the same time period (18.0 percent in 2002-2003 and 15.4 percent in 2012-2013).

Race/Ethnicity

- In 2013, the prevalence of current use of a tobacco product was 40.1 percent for American Indians or Alaska Natives, 31.2 percent for persons reporting two or more races, 27.7 percent for whites, 27.1 percent for blacks, 25.8 percent for Native Hawaiians or Other Pacific Islanders, 18.8 percent for Hispanics, and 10.1 percent for Asians. The rate of current tobacco use among American Indians or Alaska Natives was higher than the rates for all other groups except persons reporting two or more races. The rate of current tobacco use among Asians was lower than the rates among other groups. The rate of current tobacco use in 2013 for whites was

lower than the rate in 2012 (29.2 percent). Otherwise, there were no statistically significant changes in past month use of any tobacco product between 2012 and 2013 across racial/ethnic groups.

- The rate of past month cigarette use in 2013 was higher among American Indians or Alaska Natives (36.5 percent) than among persons reporting two or more races (27.1 percent), blacks (23.0 percent), whites (22.7 percent), Native Hawaiians or Other Pacific Islanders (21.1 percent), Hispanics (16.8 percent), and Asians (8.5 percent). Rates of past month cigarette use in 2013 were similar to rates in 2012 across racial/ethnic groups.
- Rates of past month cigar use in 2013 were 6.9 percent for blacks, 6.1 percent for American Indians or Alaska Natives, 5.5 percent for persons reporting two or more races, 4.8 percent for whites, 3.7 percent for Hispanics, 2.1 percent for Native Hawaiians or Other Pacific Islanders, and 2.0 percent for Asians. There were no statistically significant changes in past month cigar use between 2012 and 2013 across racial/ethnic groups, except for whites (5.3 vs. 4.8 percent).
- Rates of past month smokeless tobacco use in 2013 were 5.3 percent for American Indians or Alaska Natives, 4.3 percent for whites, 3.9 percent for Native Hawaiians or Other Pacific Islanders, 3.1 percent for persons reporting two or more races, 1.8 percent for blacks, 1.3 percent for Hispanics, and 0.7 percent for Asians. Rates of past month smokeless tobacco use in 2013 were similar to rates in 2012 across racial/ethnic groups.

Education

- Since 2002, cigarette smoking in the past month has been less prevalent among adults who were college graduates compared with those who completed less education. Among adults aged 18 or older, current cigarette use in 2013 was reported by 33.6 percent of those who had not completed high school, 27.7 percent of high school graduates with no further education, 25.5 percent of persons with some college but no degree, and 11.2 percent of college graduates. These rates by educational attainment were similar to the rates in 2012, except for high school graduates who did not attend college (29.4 percent in 2012).

College Students

- Among young adults aged 18 to 22, full-time college students were less likely to be current cigarette smokers than their peers who were not enrolled full time in college. The same pattern was found among both males and females in this age range.
- The rate of past month cigarette use among full-time college students aged 18 to 22 declined from 32.6 percent in 2002 to 21.0 percent in 2013. The rate among those who were not enrolled full time declined from 45.8 percent in 2002 to 34.4 percent in 2013.
- Among males aged 18 to 22 who were full-time college students, the rate of past month cigarette use in 2013 (25.3 percent) was lower than the rate in 2002 (33.3 percent). Among males aged 18 to 22 who were not enrolled full time in college, the rate of current cigarette use in 2013 (39.5 percent) also was lower than the rate in 2002 (49.5 percent).
- Among females aged 18 to 22 who were full-time college students, the rate of past month cigarette use declined from 32.0 percent in 2002 to 17.2 percent in 2013. Among females aged 18 to 22 who were not enrolled full time in college, the rate of current cigarette use in 2013 (28.6 percent) also was lower than the rate in 2002 (41.7 percent).

Employment

- In 2013, current cigarette smoking was more common among unemployed adults aged 18 or older (40.1 percent) than among adults who were working full time or part time (22.8 and 23.4 percent, respectively). Cigar smoking followed a similar pattern, with 10.9 percent of unemployed adults reporting past month use compared with 5.6 percent of full-time workers and 5.0 percent of part-time workers.
- Current use of smokeless tobacco in 2013 was higher among adults aged 18 or older who were employed full time (4.8 percent) and those who were unemployed (4.9 percent) than among those who were employed part time (2.2 percent) and those in the "other" employment category, which includes persons not in the labor force (1.9 percent).

Geographic Area

- In 2013, current cigarette smoking among persons aged 12 or older was lowest in the West (17.6 percent), followed by the Northeast (19.6 percent), then the South (22.4 percent), then the Midwest (24.6 percent). Use of smokeless tobacco was lowest in the Northeast (2.0 percent), followed by the West (2.7 percent), then the Midwest and South (3.9 and 4.1 percent, respectively).
- Consistent with the findings in previous years since 2002, the rates of use of any tobacco product in 2013 were associated with county type among persons aged 12 or older. The rate of current cigarette use was lowest in large metropolitan areas (19.0 percent), followed by small metropolitan areas (22.4 percent), then by nonmetropolitan areas (26.6 percent). Use of smokeless tobacco in the past month in 2013 among persons aged 12 or older was lowest in large metropolitan areas (2.1 percent), followed by small metropolitan areas (3.7 percent), then by nonmetropolitan areas (6.7 percent).

Association with Illicit Drug and Alcohol Use

- Use of illicit drugs and alcohol was more common among current cigarette smokers than among nonsmokers in 2013, as in previous years since 2002. Among persons aged 12 or older, 24.1 percent of past month cigarette smokers reported current use of an illicit drug compared with 5.4 percent of persons who were not current cigarette smokers. Among youths aged 12 to 17 who smoked cigarettes in the past month, 53.9 percent also used an illicit drug compared with 6.1 percent of youths who did not smoke cigarettes.
- In 2013, past month alcohol use was reported by 65.2 percent of current cigarette smokers compared with 48.7 percent of those who did not use cigarettes in the past month. This association also was found for binge alcohol use (42.9 percent of current cigarette smokers vs. 17.5 percent of current nonsmokers) and heavy alcohol use (15.7 vs. 3.8 percent, respectively).³

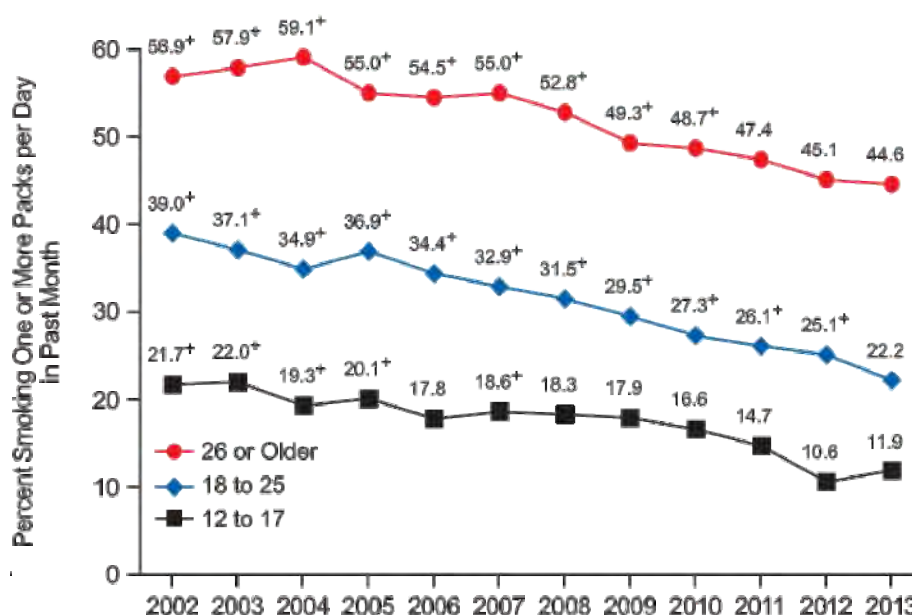
Frequency of Cigarette Use

- Among the 55.8 million current cigarette smokers aged 12 or older in 2013, 33.2 million (59.6 percent) used cigarettes daily. The percentage of daily cigarette smokers among past month cigarette users increased with age (19.4 percent of past month cigarette users aged 12 to 17, 43.1 percent of those aged 18 to 25, and 64.9 percent of those aged 26 or older).
- The percentage of current smokers aged 12 or older who used cigarettes daily decreased from 63.4 percent in 2002 to 59.6 percent in 2013. During the same time period, daily cigarette use declined among current smokers aged 12 to 17 (from 31.8 to 19.4 percent), those aged 18 to 25 (from 51.8 to 43.1 percent), and those aged 26 or older (from 68.8 to 64.9 percent).

- In 2013, 41.3 percent of daily smokers aged 12 or older reported smoking 16 or more cigarettes per day (i.e., approximately one pack or more). The percentage of daily smokers who smoked at least one pack of cigarettes per day increased with age, from 11.9 percent among daily smokers aged 12 to 17, to 22.2 percent of those aged 18 to 25, then to 44.6 percent of those aged 26 or older ([Figure 4.6](#)).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 4.6 Past Month Smokers of One or More Packs of Cigarettes per Day among Daily Smokers, by Age Group: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The percentage of daily smokers aged 26 or older who smoked one or more packs of cigarettes per day was lower in 2013 (44.6 percent) than in 2002 (56.9 percent). Declines also were seen among daily smokers from 2002 to 2013 for youths aged 12 to 17 (from 21.7 to 11.9 percent) and for young adults aged 18 to 25 (from 39.0 to 22.2 percent).

5. Initiation of Substance Use

Estimates of substance use initiation (also known as incidence or first-time use) are often considered leading indicators that can be used to assess the volume of new users by drug or drug category, track emerging patterns of use, and forecast the associated treatment needs in various population subgroups. These estimates can also be useful to target prevention efforts and evaluate prevention programs.

With its large sample size and oversampling of youths aged 12 to 17 and young adults aged 18 to 25, the National Survey on Drug Use and Health (NSDUH) provides estimates of recent (i.e., past year) initiation of use of illicit drugs, tobacco, and alcohol based on reported age and on year and month at first use. Recent initiates are defined as those who reported use of a particular substance for the first time within 12 months preceding the date of interview. There is a caveat to the past year initiation measure worth mentioning. Because survey respondents are aged 12 or older, the past year initiation estimates reflect only a portion of the initiation that occurred at age 11 and none of the initiation that occurred at age 10 or younger. This underestimation primarily affects estimates of initiation for cigarettes, alcohol, and inhalants because they tend to be initiated at a younger age than other substances. See [Section B.4.1](#) in [Appendix B](#) for further discussion of the methods and bias in initiation estimates.

This chapter includes estimates of the number and rate of past year initiation of illicit drug, tobacco, and alcohol use among the total population aged 12 or older and by selected age and gender categories from the 2013 NSDUH, comparing with prior years. Also included are initiation estimates that pertain to persons at risk for initiation. Persons at risk for initiation of use of a particular substance are those who never used the substance in their lifetime plus those who used that substance for the first time in the 12 months prior to the interview. In other words, persons at risk are those who had never used as of 12 months prior to the interview date. Some analyses are based on the age at the time of interview, and others focus on the age at the time of first substance use. Readers need to be aware of these alternative estimation approaches when interpreting NSDUH incidence estimates and pay close attention to the approach used in each situation. Titles and notes on figures and associated detailed tables document which method applies.

For trend measurement, initiation estimates for each year (2002 to 2013) are produced independently based on the data from the survey conducted that year. Estimates of trends in incidence based on longer recall periods have not been considered because of concerns about their validity (Gfroerer, Hughes, Chromy, Heller, & Packer, 2004).

Regarding the age at first use estimates, means, as measures of central tendency, are heavily influenced by the presence of extreme values in the data for persons aged 12 or older. To reduce the effect of extreme values, the mean age at initiation was calculated for persons aged 12 to 49, leaving out those few respondents who were past year initiates at age 50 or older. Including data from initiates aged 26 to 49 in this broad age group also can cause instability of estimates of the mean age at initiation among persons aged 12 to 49, but this effect is less than that of including data from initiates aged 50 or older. Nevertheless, caution is needed in interpreting these trends for persons aged 12 to 49. [Section B.4.1](#) in [Appendix B](#) also discusses this issue. Note, however, that this constraint affects only the estimates of mean age at initiation. Other estimates in this chapter, including the numbers and percentages of past year initiates, are not affected by extreme ages at initiation and therefore are reported for all persons aged 12 or older.

Another important consideration in examining incidence estimates across different drug categories is that substance users typically initiate use of different substances at different times in their lives. Thus, the estimates for past year initiation of each specific illicit drug cannot be added to obtain the total number of overall illicit drug initiates because some of the initiates previously had used other drugs. The initiation estimate for any illicit drug represents the past year initiation of use of a specific drug that was not preceded by use of other illicit drugs. For example, a respondent who reported initiating marijuana use in the past 12 months is counted as a marijuana initiate. The same respondent also can be counted as an illicit drug initiate with marijuana as the first drug only if his or her marijuana use initiation was not preceded by use of any other drug (cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, or sedatives).⁴ In addition, past year initiates of lysergic acid diethylamide (LSD), phencyclidine (PCP), or Ecstasy use are counted as past year initiates of any hallucinogen use only if they had not previously used other hallucinogens. Similarly,

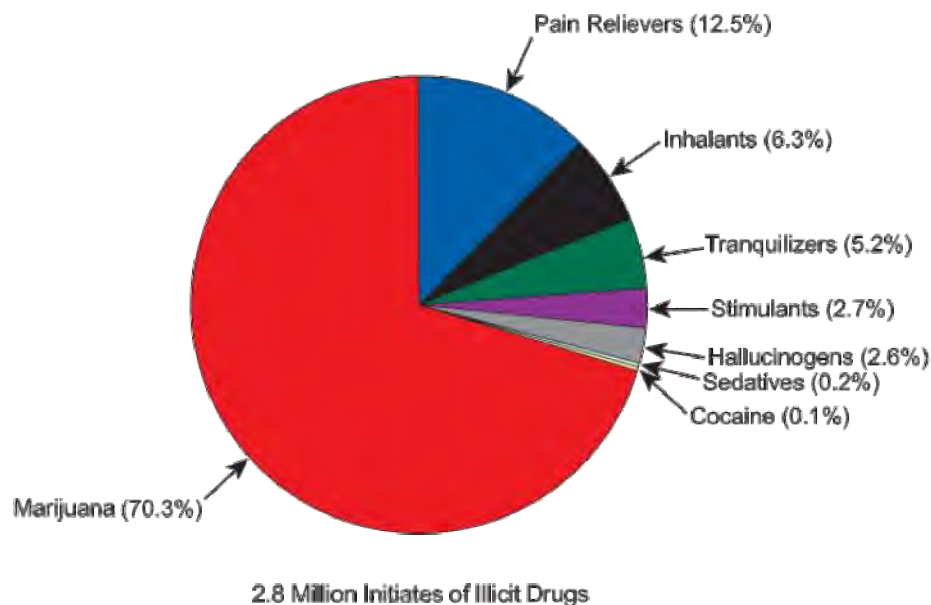
past year initiates of crack cocaine, OxyContin®, or methamphetamine use are counted as past year initiates for the broader category (i.e., any cocaine, pain relievers, or stimulants, respectively) only if they did not report previous use for the broader category.

Initiation of Illicit Drug Use

- In 2013, an estimated 2.8 million persons aged 12 or older used an illicit drug for the first time within the past 12 months; this averages to about 7,800 new users per day. This estimate was similar to the 2012 estimate of 2.9 million. Over half of initiates (54.1 percent) were younger than age 18 when they first used, and 58.3 percent of new users were female. The 2013 average age at initiation among persons aged 12 to 49 was 19.0 years, which was similar to the 2012 estimate (18.7 years). See [Section B.4.1](#) in [Appendix B](#) for a discussion of the effects of older adult initiates on estimates of mean age at first use.
- Of the estimated 2.8 million persons aged 12 or older in 2013 who used illicit drugs for the first time within the past 12 months, a majority reported that their first drug was marijuana (70.3 percent) ([Figure 5.1](#)). About 1 in 5 initiated with nonmedical use of psychotherapeutics (20.6 percent, including 12.5 percent with pain relievers, 5.2 percent with tranquilizers, 2.7 percent with stimulants, and 0.2 percent with sedatives). A notable proportion reported inhalants (6.3 percent) as their first illicit drug, and a small proportion used hallucinogens (2.6 percent). The percentage of persons in 2013 reporting marijuana as the first illicit drug in past year initiation was greater than the corresponding percentage in 2012 (70.3 vs. 65.6 percent). The percentage reporting nonmedical use of pain relievers as the first illicit drug was lower in 2013 than in 2012 (12.5 vs. 17.0 percent).

Below is a pie graph. [Click here](#) for the text describing this graph.

Figure 5.1 First Specific Drug Associated with Initiation of Illicit Drug Use among Past Year Illicit Drug Initiates Aged 12 or Older: 2013



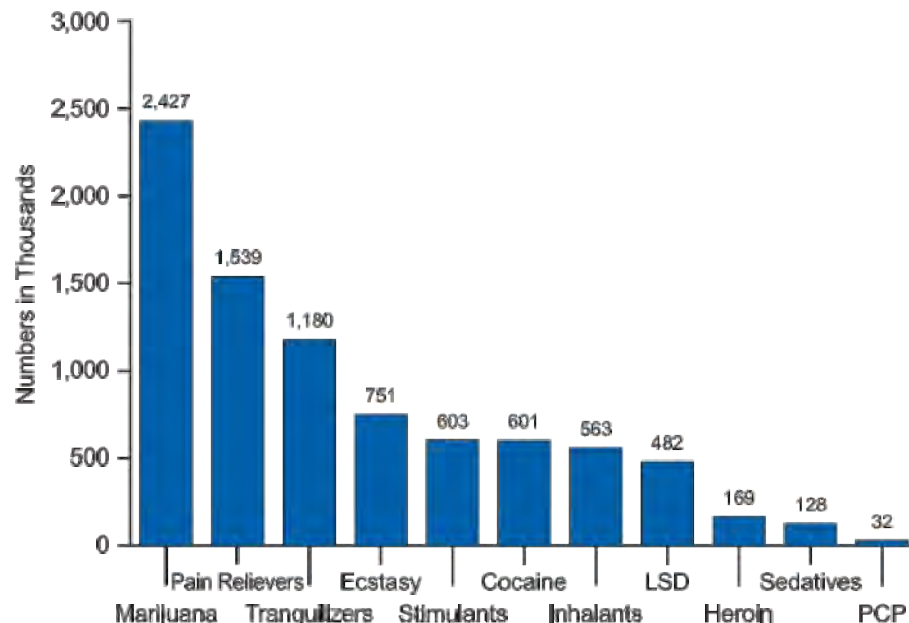
Note: The percentages do not add to 100 percent due to rounding or because a small number of respondents initiated multiple drugs on the same day. The first specific drug refers to the one that was used on the occasion of first-time use of any illicit drug.

Comparison, by Drug

- In 2013, the specific illicit drug category with the largest number of recent initiates among persons aged 12 or older was marijuana (2.4 million), followed by nonmedical use of pain relievers (1.5 million), followed by nonmedical use of tranquilizers (1.2 million), followed by Ecstasy (0.8 million), followed by stimulants, cocaine, and inhalants (0.6 million each) ([Figure 5.2](#)).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 5.2 Past Year Initiates of Specific Illicit Drugs among Persons Aged 12 or Older: 2013

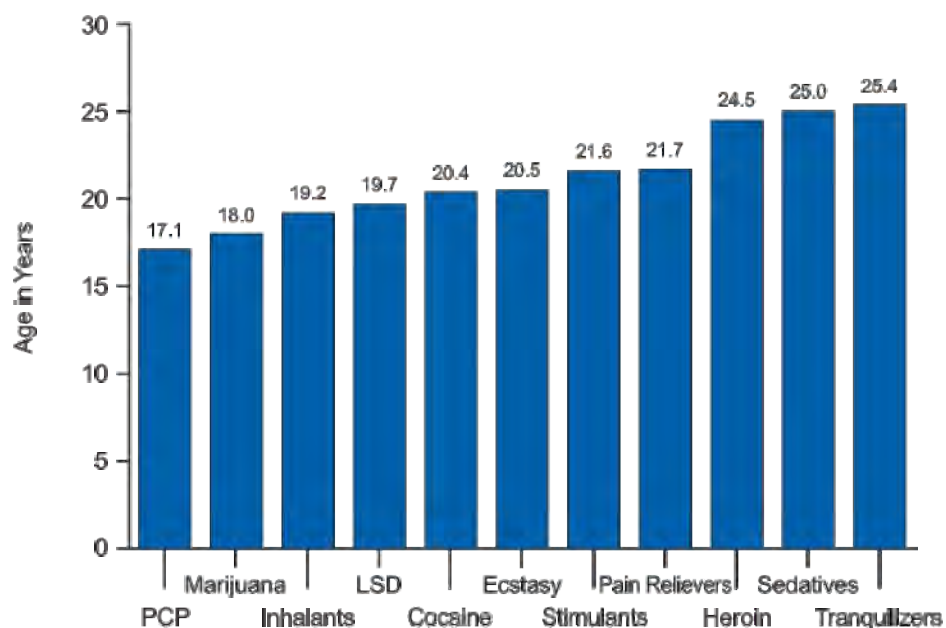


Note: Numbers refer to persons who used a specific drug for the first time in the past year, regardless of whether initiation of other drug use occurred prior to the past year.

- Among past year initiates aged 12 to 49 in 2013, the average age at first use was 17.1 years for PCP, 18.0 years for marijuana, 19.2 years for inhalants, 19.7 years for LSD, 20.4 years for cocaine, 20.5 years for Ecstasy, 21.6 years for stimulants, 21.7 years for pain relievers, 24.5 years for heroin, 25.0 years for sedatives, and 25.4 years for tranquilizers ([Figure 5.3](#)).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 5.3 Mean Age at First Use for Specific Illicit Drugs among Past Year Initiates Aged 12 to 49: 2013

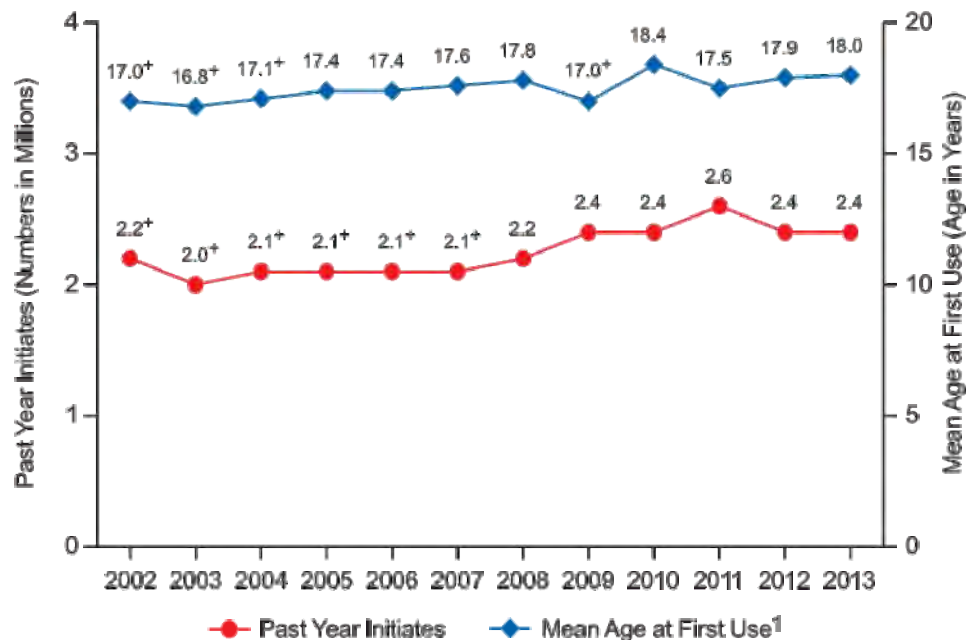


Marijuana

- In 2013, there were 2.4 million persons aged 12 or older who had used marijuana for the first time within the past 12 months; this averages to about 6,600 new users each day. The 2013 estimate was similar to the estimates in 2008 through 2012 (ranging from 2.2 million to 2.6 million), but was higher than the estimates from 2002 through 2007 (ranging from 2.0 million to 2.2 million) ([Figure 5.4](#)).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 5.4 Past Year Marijuana Initiates among Persons Aged 12 or Older and Mean Age at First Use of Marijuana among Past Year Marijuana Initiates Aged 12 to 49: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

¹ Mean-age-at-first-use estimates are for past year initiates aged 12 to 49.

- In 2013, among persons aged 12 or older, an estimated 1.4 million first-time past year marijuana users initiated prior to the age of 18. This estimate was similar to the corresponding estimate in 2012. The estimated 1.4 million persons in 2013 who initiated prior to the age of 18 represented the majority (56.6 percent) of the 2.4 million recent marijuana initiates.
- Among all youths aged 12 to 17, an estimated 4.8 percent had used marijuana for the first time within the past year in 2013, which was similar to the rate in 2012 (5.0 percent). As a percentage of those aged 12 to 17 who had not used marijuana prior to the past year (i.e., those at risk for initiation), the youth marijuana initiation rate in 2013 (5.5 percent) was similar to the rate in 2012 (5.7 percent).
- In 2013, the average age at first marijuana use among recent initiates aged 12 to 49 was 18.0 years, which was similar to the average ages in 2005 through 2008 and 2010 through 2012, but was higher than the average ages in 2002 through 2004 and in 2009 ([Figure 5.4](#)). [Section B.4.1](#) in [Appendix B](#) discusses the potential instability of estimates of older adult initiation and the impact on estimates of mean age at first use.
- In 2013, among recent initiates aged 12 or older who initiated marijuana use prior to the age of 21, the mean age at first use was 16.2 years, which was similar to the 2012 estimate of 16.3 years.

Cocaine

- In 2013, there were 601,000 persons aged 12 or older who had used cocaine for the first time within the past 12 months; this averages to approximately 1,600 initiates per day. This estimate was similar to the number in 2008 to 2012 (ranging from 623,000 to 724,000). The annual number of cocaine initiates in 2013 was lower than the estimates from 2002 through 2007 (ranging from 0.9 million to 1.0 million).
- The number of initiates of crack cocaine ranged from 209,000 to 353,000 in 2002 to 2008 and declined to 95,000 in 2009. The number of initiates of crack cocaine has been similar each year since 2009 (e.g., 58,000 in 2013).
- In 2013, most (81.9 percent) of the 0.6 million recent cocaine initiates were aged 18 or older when they first used. The average age at first use among recent initiates aged 12 to 49 was 20.4 years. The average age estimates have remained fairly stable since 2002.

Heroin

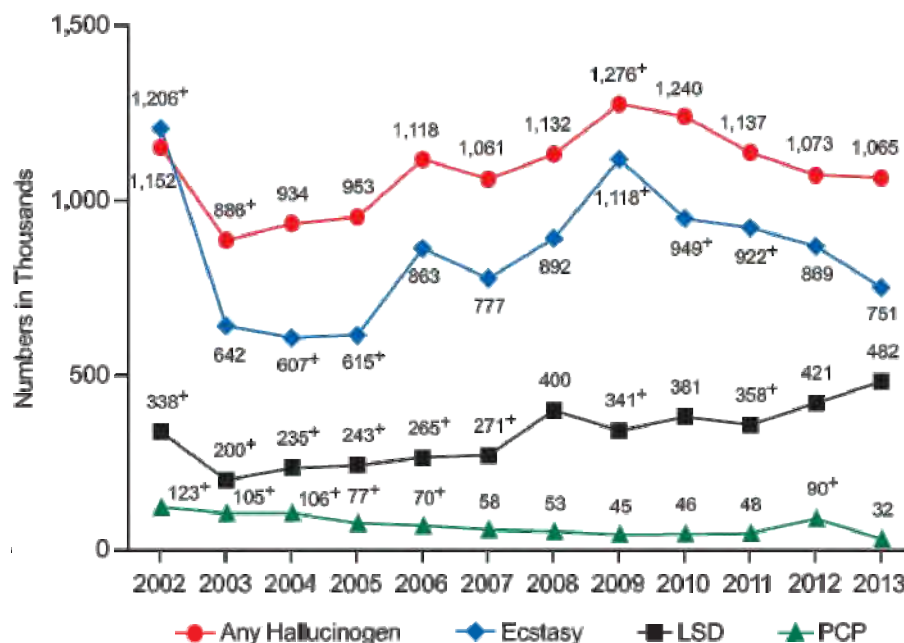
- In 2013, there were 169,000 persons aged 12 or older who had used heroin for the first time within the past 12 months. This estimated number in 2013 was similar to the numbers in 2002 to 2005 and from 2007 to 2012, but it was higher than the number in 2006 (90,000). The average age at first use among recent heroin initiates aged 12 to 49 in 2013 was 24.5 years, which was similar to the 2012 estimate (23.0 years).

Hallucinogens

- In 2013, there were 1.1 million persons aged 12 or older who had used hallucinogens for the first time within the past 12 months ([Figure 5.5](#)). This estimate was similar to the estimates for 2002, 2004 to 2008, and 2010 to 2012 (ranging from 0.9 million to 1.2 million). However, this estimate for 2013 was higher than the 2003 estimate (886,000) and was lower than the 2009 estimate (1.3 million). The average age at first use among recent hallucinogen initiates aged 12 to 49 in 2013 was 19.9 years, which was similar to the 2012 estimate (19.1 years).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 5.5 Past Year Hallucinogen Initiates among Persons Aged 12 or Older: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The number of past year initiates of LSD aged 12 or older was 482,000 in 2013, which was similar to the numbers in 2008, 2010, and 2012 (ranging from 381,000 to 421,000), but was higher than the numbers in 2002 to 2007, 2009, and 2011 (ranging from 200,000 to 358,000) (Figure 5.5). The average age at first use among recent LSD initiates aged 12 to 49 in 2013 was 19.7 years, which was similar to the 2012 estimate (19.0 years).
- The number of past year initiates of PCP aged 12 or older was 32,000 in 2013. This number was lower than the numbers from 2002 through 2006 and in 2012 (ranging from 70,000 to 123,000), but was similar to the numbers in 2007 to 2011 (ranging from 45,000 to 58,000). The average age at first use among recent PCP initiates aged 12 to 49 in 2013 was 17.1 years, which was similar to the 2012 estimate (16.6 years). This average age at initiation of PCP has remained fairly stable since 2002.
- The number of past year initiates of Ecstasy was 751,000 in 2013, which was similar to the number in 2012 (869,000), but was lower than the numbers in 2009, 2010, and 2011 (1.1 million, 949,000, and 922,000, respectively) (Figure 5.5). The 2002 estimate of 1.2 million past year initiates declined to 642,000 in 2003, followed by an increase between 2004 and 2013.
- Most (69.4 percent) of the recent Ecstasy initiates in 2013 were aged 18 or older at the time they first used Ecstasy. The number of Ecstasy initiates who first used prior to the age of 18 was 230,000, which was similar to the estimate in 2012 (255,000).
- Among past year initiates aged 12 to 49, the average age at initiation of Ecstasy in 2013 was 20.5 years. This average age at initiation of Ecstasy has remained fairly stable since 2002. In 2013, among recent initiates aged 12 or older who initiated Ecstasy use prior to the age of 21, the mean age at first use was 17.4 years, which was similar to the 2012 estimate of 17.5 years.

Inhalants

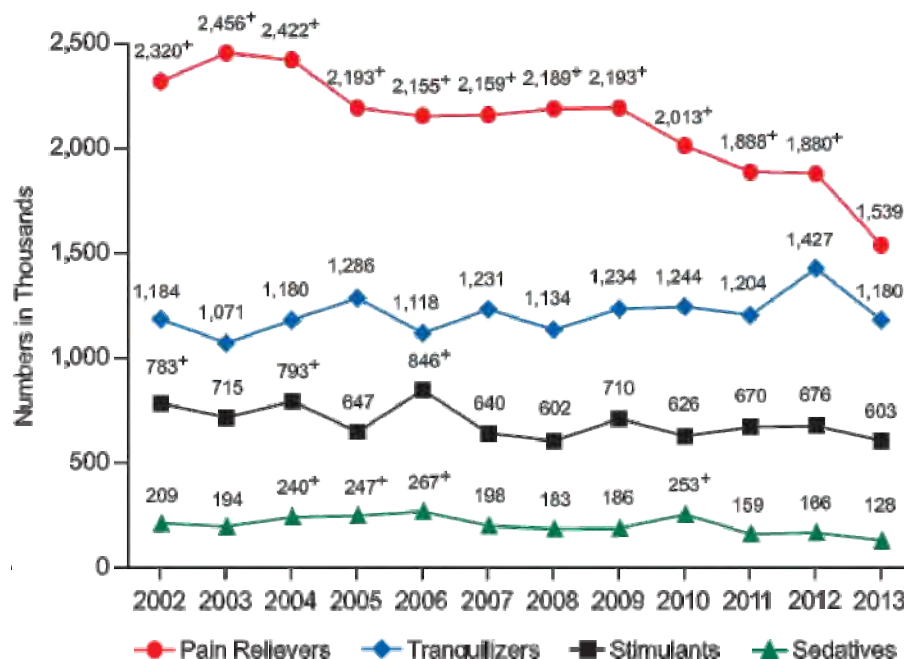
- In 2013, there were 563,000 persons aged 12 or older who had used inhalants for the first time within the past 12 months, which was similar to the 2012 estimate of 584,000, but was lower than the numbers in 2002 to 2011 (ranging from 719,000 to 877,000). An estimated 46.8 percent of past year initiates of inhalants in 2013 were younger than age 18 when they first used. The average age at first use among recent initiates aged 12 to 49 was 19.2 years, which was higher than the 2012 estimate of 16.9 years.

Psychotherapeutics

- Nonmedical use of psychotherapeutics includes nonmedical use of any prescription-type pain relievers, tranquilizers, stimulants, or sedatives. Over-the-counter substances are not included. In 2013, there were approximately 2.0 million persons aged 12 or older who used psychotherapeutics nonmedically for the first time within the past year, which averages to about 5,500 initiates per day. The number of new nonmedical users of psychotherapeutics in 2013 was lower than the estimates for prior years from 2002 through 2012 (ranging from 2.3 million to 2.8 million).
- In 2013, the numbers of initiates were 1.5 million for pain relievers, 1.2 million for tranquilizers, 603,000 for stimulants, and 128,000 for sedatives (Figure 5.6).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 5.6 Past Year Nonmedical Psychotherapeutic Initiates among Persons Aged 12 or Older: 2002-2013

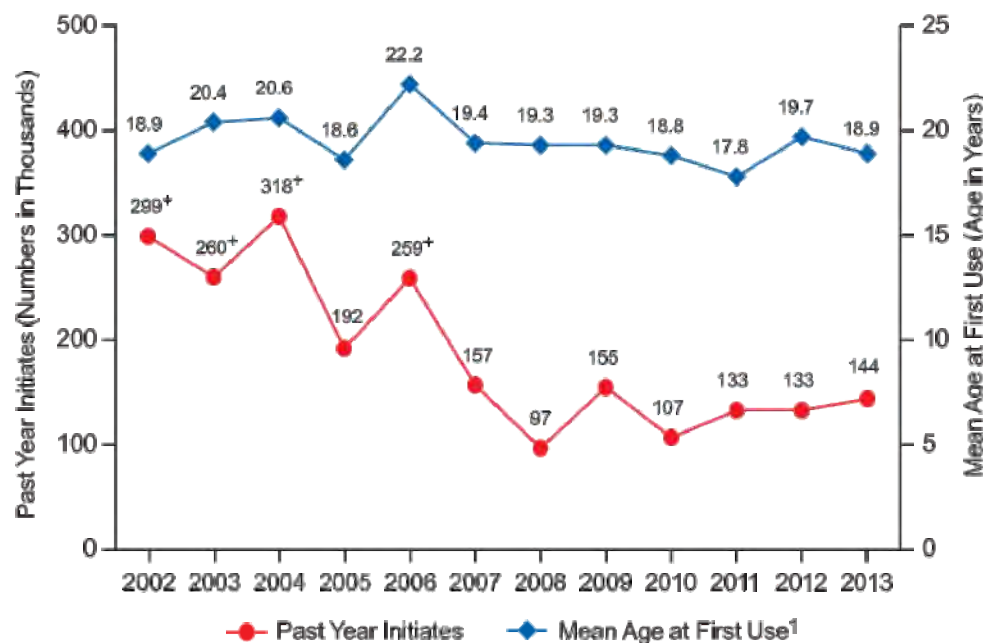


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The number of new nonmedical users of pain relievers in 2013 (1.5 million) was lower than the numbers in 2002 through 2012 (ranging from 1.9 million to 2.5 million) (Figure 5.6). The number of past year initiates for nonmedical use of tranquilizers has been fairly stable from 2002 to 2013 (ranging from 1.1 million to 1.4 million). The number of initiates for nonmedical use of stimulants in 2013 was similar to the numbers in 2003, 2005, and in 2007 to 2012 (ranging from 602,000 to 715,000), but was lower than the numbers in 2002, 2004, and 2006 (ranging from 783,000 to 846,000). The number of initiates for nonmedical use of sedatives in 2013 was similar to the numbers in 2002, 2003, 2007 to 2009, 2011, and 2012 (ranging from 159,000 to 209,000), but was lower than the numbers in 2004 to 2006 and in 2010 (ranging from 240,000 to 267,000).
- In 2013, the average age at first nonmedical use of any psychotherapeutics among recent initiates aged 12 to 49 was 22.4 years. Average ages at first nonmedical use were 21.6 years for stimulants, 21.7 years for pain relievers, 25.0 years for sedatives, and 25.4 years for tranquilizers. All of these 2013 estimates were similar to the corresponding estimates in 2012.
- In 2013, the number of new nonmedical users of OxyContin[®] aged 12 or older was 436,000, which was similar to the estimates for prior years from 2004 through 2012. The average age at first use of OxyContin[®] among past year initiates aged 12 to 49 was similar in 2012 and 2013 (22.0 and 23.6 years, respectively).
- The number of recent new users of methamphetamine among persons aged 12 or older was 144,000 in 2013 (Figure 5.7), which was similar to the estimates in 2005 and from 2007 through 2012. However, the number of initiates in 2013 was lower than the estimates in 2002 to 2004 and in 2006 (ranging from 259,000 to 318,000). The average age at first use among new methamphetamine users aged 12 to 49 in 2013 was 18.9 years, which was similar to the corresponding estimates from 2002 to 2012 (ranging from 17.8 to 22.2 years).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 5.7 Past Year Methamphetamine Initiates among Persons Aged 12 or Older and Mean Age at First Use of Methamphetamine among Past Year Methamphetamine Initiates Aged 12 to 49: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

¹ Mean-age-at-first-use estimates are for past year initiates aged 12 to 49.

Alcohol

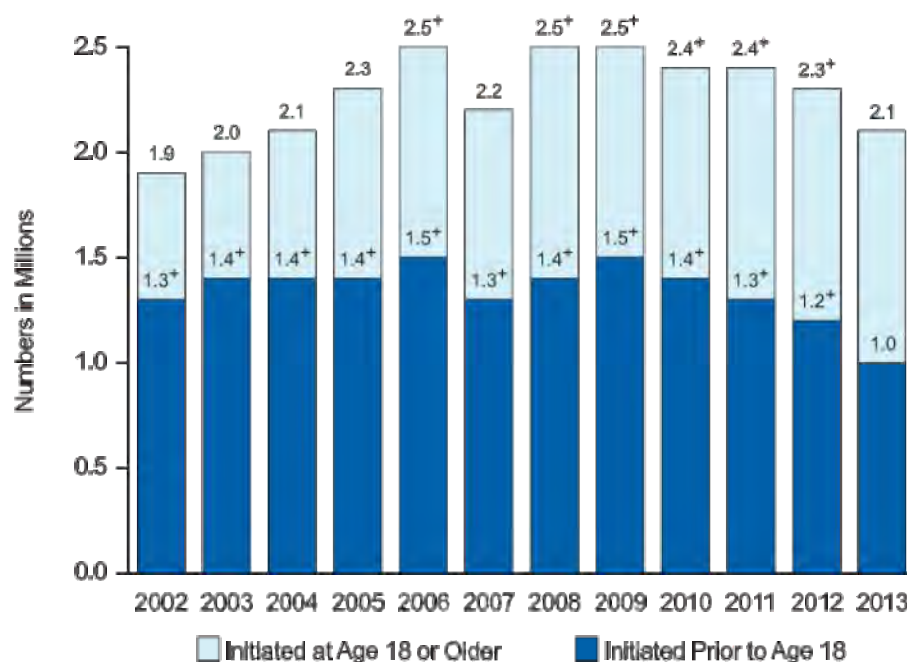
- In 2013, there were 4.6 million persons aged 12 or older who had used alcohol for the first time within the past 12 months; this averages to approximately 12,500 initiates per day.
- In 2013, most (83.5 percent) of the 4.6 million recent alcohol initiates were younger than age 21 at the time of initiation. An estimated 59.1 percent initiated prior to age 18.
- In 2013, the average age at first alcohol use among recent initiates aged 12 to 49 was 17.3 years, which was similar to the 2008, 2010, 2011, and 2012 estimates, but was higher than the estimates in 2002 to 2007 and in 2009 (ranging from 16.4 to 16.9 years). In 2013, the mean age at first use among recent initiates aged 12 or older who initiated use prior to the age of 21 was 16.2 years, which was slightly higher than the 2012 estimate of 16.0 years.

Tobacco

- The number of persons aged 12 or older who smoked cigarettes for the first time within the past 12 months was approximately 2.1 million in 2013, which was lower than the estimates for 2006 and from 2008 through 2012 (ranging from 2.3 million to 2.5 million), but was similar to the estimates from 2002 to 2005 and 2007 ([Figure 5.8](#)). The 2013 estimate averages to about 5,700 new cigarette smokers every day. About half of new cigarette smokers in 2013 (50.5 percent) initiated prior to age 18.⁵

Below is a stacked bar graph. [Click here](#) for the text describing this graph.

Figure 5.8 Past Year Cigarette Initiates among Persons Aged 12 or Older, by Age at First Use: 2002-2013

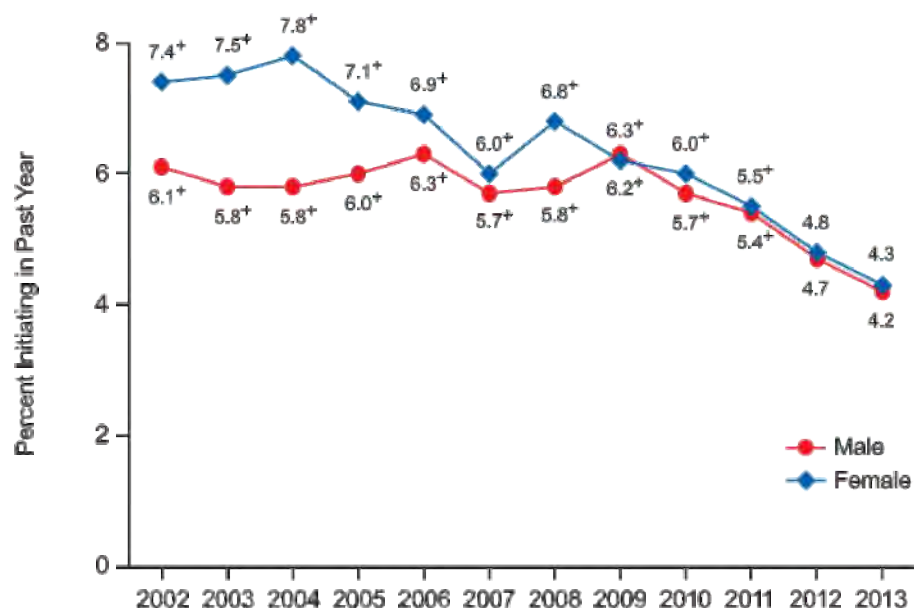


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The number of cigarette initiates who were younger than age 18 when they first used was lower in 2013 than in 2002 (1.0 million vs. 1.3 million). However, the number of cigarette initiates who began smoking at age 18 or older increased from 623,000 in 2002 to 1.0 million in 2013.
- In 2013, among recent initiates aged 12 to 49, the average age of first cigarette use was 17.8 years, which was the same as the corresponding average age in 2012.
- Of persons aged 12 or older who had not smoked cigarettes prior to the past year (i.e., those at risk for initiation), the past year initiation rate for cigarettes was 2.0 percent in 2013, which was lower than the rate in 2012 (2.3 percent).
- Among youths aged 12 to 17 who had not smoked cigarettes prior to the past year (i.e., youths at risk for initiation), the first-time cigarette use rate in 2013 was 4.3 percent, which was lower than the 2012 rate (4.8 percent). However, for each gender subgroup, this incidence rate was similar in 2012 and 2013 (4.7 and 4.2 percent, respectively, for male youths; 4.8 and 4.3 percent for female youths) ([Figure 5.9](#)). Past year initiation rates in 2013 among males and females aged 12 to 17 who were at risk for initiation of cigarette use were lower than the rates in 2002 to 2011.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 5.9 Past Year Cigarette Initiation among Youths Aged 12 to 17 Who Had Never Smoked Prior to the Past Year, by Gender: 2002-2013

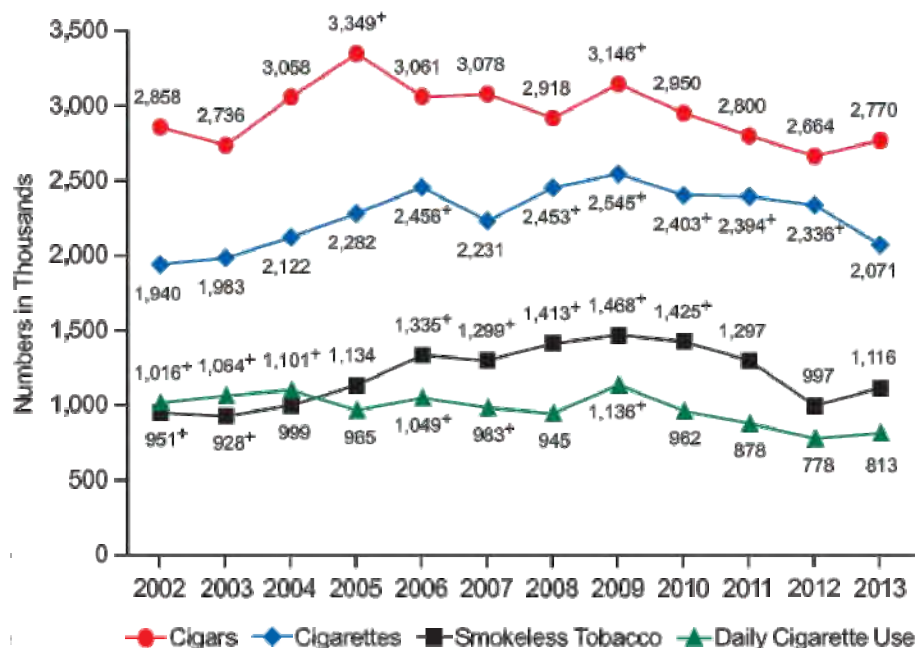


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- In 2013, the number of persons aged 12 or older who had started smoking cigarettes daily within the past 12 months was 813,000 (Figure 5.10). This estimate was similar to the estimates in 2005, 2008, and from 2010 through 2012 (ranging from 778,000 to 965,000), but was lower than the estimates from 2002 through 2004 and in 2006, 2007, and 2009 (ranging from 1.0 million to 1.1 million). Of the new daily smokers in 2013, 33.2 percent, or 270,000 persons, were younger than age 18 when they started smoking daily. This number is equivalent to an average of approximately 700 persons per day under the age of 18 who started smoking cigarettes on a daily basis.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 5.10 Past Year Specific Tobacco Product Initiates among Persons Aged 12 or Older: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- In 2013, the average age of first daily cigarette smoking among new daily smokers aged 12 to 49 was similar in 2012 and 2013 (19.9 and 19.8 years, respectively). Among male initiates of daily cigarette smoking in this age group, the average age at first daily use also was similar in 2012 and 2013 (19.1 and 19.0 years, respectively). Among female initiates, the 2013 estimate of 21.0 years was the same as the 2012 estimate.
- In 2013, there were 2.8 million persons aged 12 or older who had used cigars for the first time in the past 12 months, which was similar to the 2012 estimate (2.7 million) (Figure 5.10). However, the 2013 estimate was lower than the estimate in 2005 (3.3 million) and in 2009 (3.1 million). Among past year cigar initiates aged 12 to 49, the average age at first use was 21.6 years in 2013, which was similar to the estimate in 2012 (20.5 years).
- The number of persons aged 12 or older initiating use of smokeless tobacco in the past year was 1.1 million in 2013, which was similar to the estimates in 2011 and 2012 (Figure 5.10). The number of smokeless tobacco initiates in 2013 was higher than the estimates in 2002 and 2003, but was lower than the estimates from 2006 through 2010 (ranging from 1.3 million to 1.5 million). In 2013, about three quarters (73.8 percent) of new initiates were male, and over two fifths (47.9 percent) were younger than age 18. In 2013, the average age at first smokeless tobacco use among recent initiates aged 12 to 49 was 18.4 years, which was similar to the estimate in 2012.

6. Youth Prevention-Related Measures

Research has shown that substance use by adolescents can often be prevented through interventions involving risk and protective factors associated with the onset or escalation of use (Catalano, Hawkins, Berglund, Pollard, & Arthur, 2002). Risk and protective factors include variables that operate at different stages of development and reflect different domains of influence, including the individual, family, peer, school, community, and societal levels (Hawkins, Catalano, & Miller, 1992; Robertson, David, & Rao, 2003). Interventions to prevent substance use generally are designed to ameliorate the influence of risk factors and enhance the effectiveness of protective factors.

The National Survey on Drug Use and Health (NSDUH) includes questions for youths aged 12 to 17 to measure the risk and protective factors that may affect the likelihood that they will engage in substance use. This chapter presents findings on youth prevention-related measures. Where applicable, findings from 2013 are compared with estimates from prior years since 2002. Included in this chapter are measures of the perceived risk of substance use (cigarettes, alcohol, and specific illicit drugs), perceived availability of substances (including being approached by someone selling drugs), perceived parental disapproval of youth substance use, attitudes about peer substance use, involvement in fighting and delinquent behavior, religious involvement and beliefs, exposure to substance use prevention messages and programs, and parental involvement. Also presented are findings on the associations between selected measures of risk and protective factors and substance use from NSDUH. However, the cross-sectional nature of these data precludes making any causal connections between these risk and protective factors and substance use.

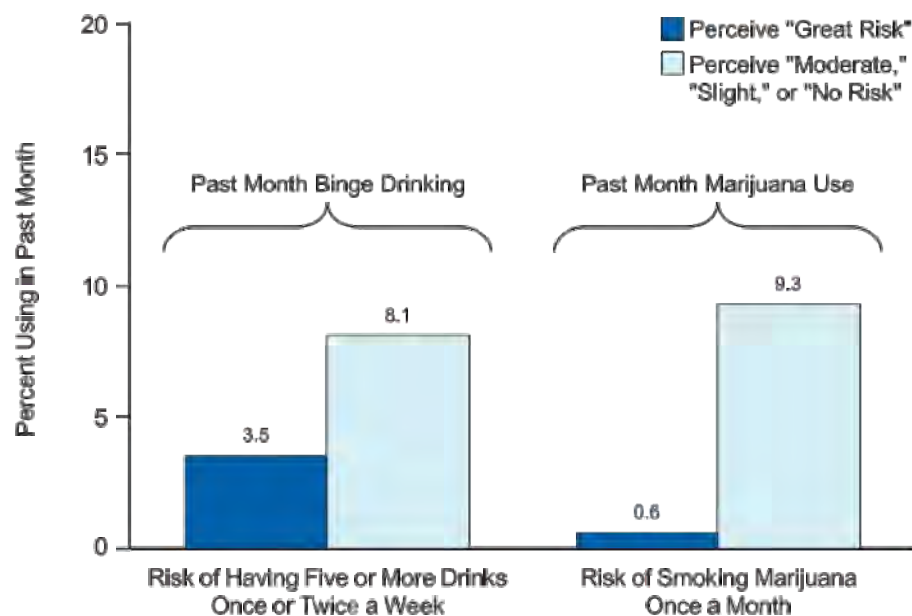
Perceived Risk of Substance Use

One factor that can influence whether youths will use tobacco, alcohol, or illicit drugs is the extent to which they believe these substances might cause them harm. NSDUH respondents were asked how much they thought people risk harming themselves physically and in other ways when they use various substances in certain amounts or frequencies. Response choices for these items were "great risk," "moderate risk," "slight risk," or "no risk."

- In 2013, 64.3 percent of youths aged 12 to 17 perceived great risk in smoking one or more packs of cigarettes per day, 62.5 percent perceived great risk in having four or five drinks of an alcoholic beverage nearly every day, and 39.0 percent perceived great risk in having five or more drinks once or twice a week. For marijuana, 39.5 percent of youths perceived great risk in smoking marijuana once or twice a week, and 24.2 percent perceived great risk in smoking marijuana once a month. The percentages of youths who perceived great risk in using other drugs once or twice a week were 79.8 percent for heroin, 78.4 percent for cocaine, and 69.7 percent for LSD.
- The percentages of youths reporting binge alcohol use and the use of cigarettes and marijuana in the past month were lower among those who perceived great risk in using these substances than among those who did not perceive great risk. For instance, in 2013, past month binge drinking (consumption of five or more drinks of an alcoholic beverage on a single occasion on at least 1 day in the past 30 days) was reported by 3.5 percent of youths aged 12 to 17 who perceived great risk from "having five or more drinks of an alcoholic beverage once or twice a week," which was lower than the rate (8.1 percent) for youths who saw moderate, slight, or no risk from having five or more drinks of an alcoholic beverage once or twice a week ([Figure 6.1](#)). Past month marijuana use was reported by 0.6 percent of youths who saw great risk in smoking marijuana once a month compared with 9.3 percent of youths who saw moderate, slight, or no risk.

Below is a bar graph. [Click here](#) for the text describing this graph.

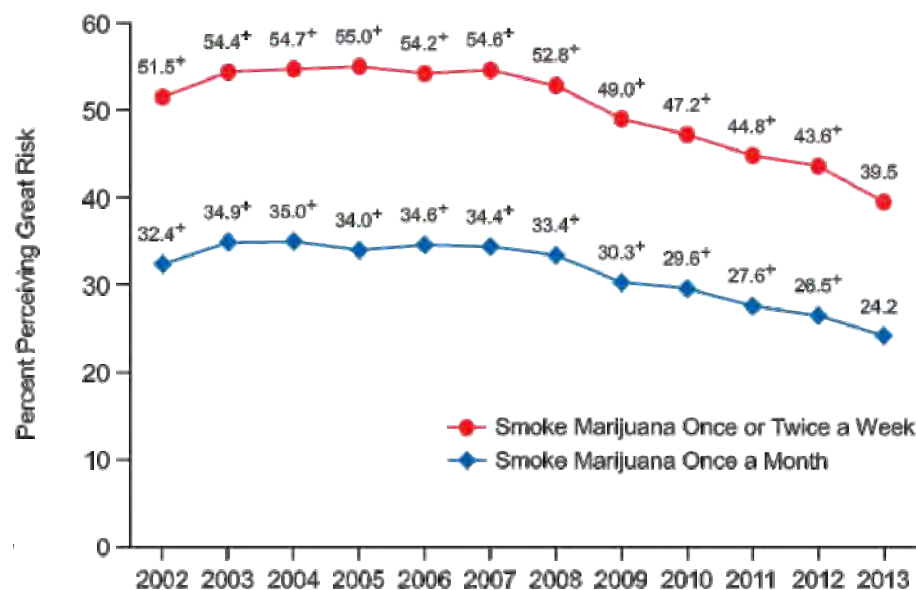
Figure 6.1 Past Month Binge Drinking and Marijuana Use among Youths Aged 12 to 17, by Perceptions of Risk: 2013



- Trends in substance use often coincide with trends in perceived risk. Increases in perceived risk typically precede or occur simultaneously with decreases in use, and vice versa. For example, the percentage of youths aged 12 to 17 indicating great risk in smoking marijuana once a month decreased from 34.4 percent in 2007 to 24.2 percent in 2013 ([Figure 6.2](#)). The rate of youths perceiving great risk in smoking marijuana once or twice a week also decreased from 54.6 percent in 2007 to 39.5 percent in 2013. Consistent with these decreasing trends in the perceived risk of marijuana use, the prevalence of past month marijuana use among youths increased between 2007 (6.7 percent) and 2011 (7.9 percent). Despite the perceived risk of marijuana use among youths continuing to decline between 2011 and 2013, however, the rate of past month marijuana use declined between 2011 and 2013 (7.1 percent). The rate of past month marijuana use among youths in 2013 was similar to that in 2007.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 6.2 Perceived Great Risk of Marijuana Use among Youths Aged 12 to 17: 2002-2013

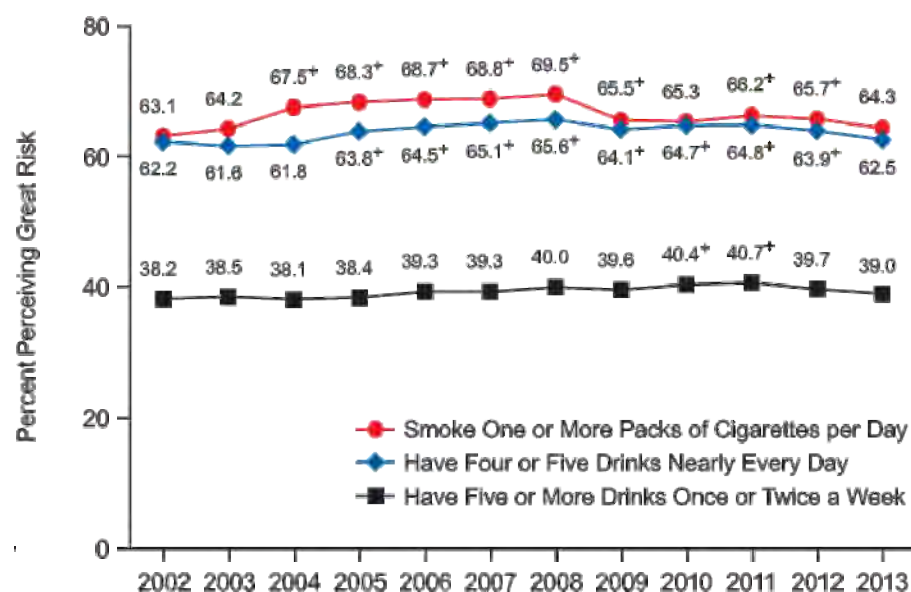


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The proportion of youths aged 12 to 17 who reported perceiving great risk from smoking one or more packs of cigarettes per day increased from 63.1 percent in 2002 to 69.5 percent in 2008 (Figure 6.3). This rate declined between 2009 (65.5 percent) and 2013 (64.3 percent). Consequently, the 2013 rate was similar to the 2002 rate. Although rates of use often increase as perceptions of risk decrease, the rate of past month adolescent cigarette use decreased from 9.0 percent in 2009 to 5.6 percent in 2013. Also, the rate of past month cigarette use among youths in 2013 was lower than that in 2002 (13.0 percent), despite similar percentages of youths perceiving great risk from smoking one or more packs of cigarettes in both of these years.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 6.3 Perceived Great Risk of Cigarette and Alcohol Use among Youths Aged 12 to 17: 2002-2013

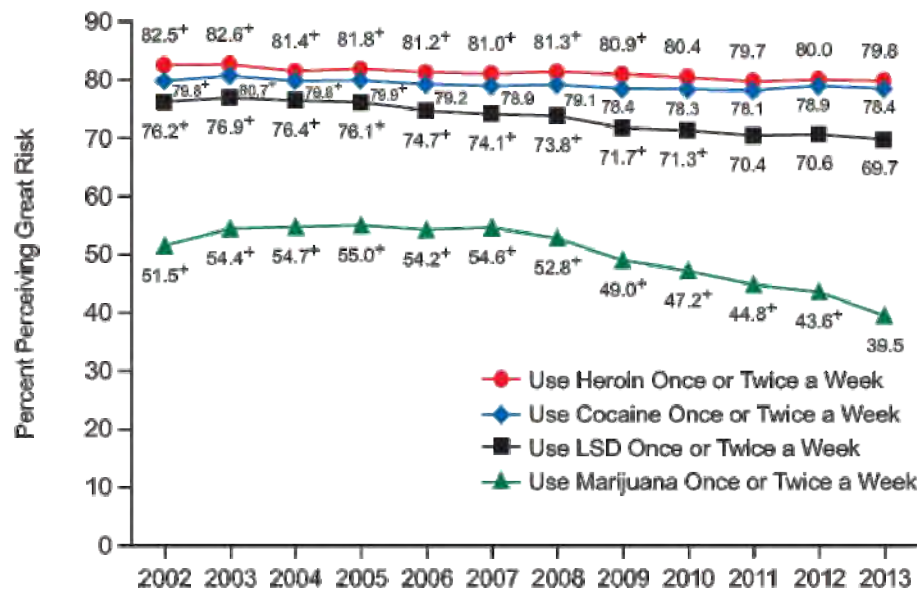


⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The percentage of youths aged 12 to 17 indicating great risk in having four or five drinks of an alcoholic beverage nearly every day increased from 62.2 percent in 2002 to 65.6 percent in 2008 (Figure 6.3). This rate declined between 2009 (64.1 percent) and 2013 (62.5 percent), such that the 2013 rate was similar to the 2002 rate. The percentage of youths perceiving great risk in having five or more drinks of an alcoholic beverage once or twice a week increased from 38.2 percent in 2002 to 40.7 percent in 2011. This rate declined between 2011 and 2013 (39.0 percent). Consistent with the increases in perceived risk of alcohol use among youths aged 12 to 17 between 2002 and 2008, there were decreases during this period in the rate of binge alcohol use (from 10.7 to 8.9 percent) and heavy alcohol use (from 2.5 to 2.0 percent). Although perceived risk of alcohol use peaked in 2008 for both measures of perceived risk, the rate of adolescent alcohol use continued to decline between 2008 and 2013 for both binge alcohol use (to 6.2 percent in 2013) and heavy alcohol use (to 1.2 percent in 2013).
- Between 2002 and 2013, the percentage of youths aged 12 to 17 perceiving great risk from using an illicit drug once or twice a week declined for the following substances: heroin (from 82.5 to 79.8 percent), cocaine (from 79.8 to 78.4 percent), LSD (from 76.2 to 69.7 percent), and marijuana (from 51.5 to 39.5 percent) (Figure 6.4). The rates remained unchanged between 2011 and 2013 for heroin, cocaine, and LSD. For marijuana, the rate in 2013 was lower than the rate in 2011 (44.8 percent). Youths were less likely to perceive great risk for smoking marijuana once or twice a week than for corresponding use of the other listed illicit drugs.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 6.4 Perceived Great Risk of Use of Selected Illicit Drugs Once or Twice a Week among Youths Aged 12 to 17: 2002-2013



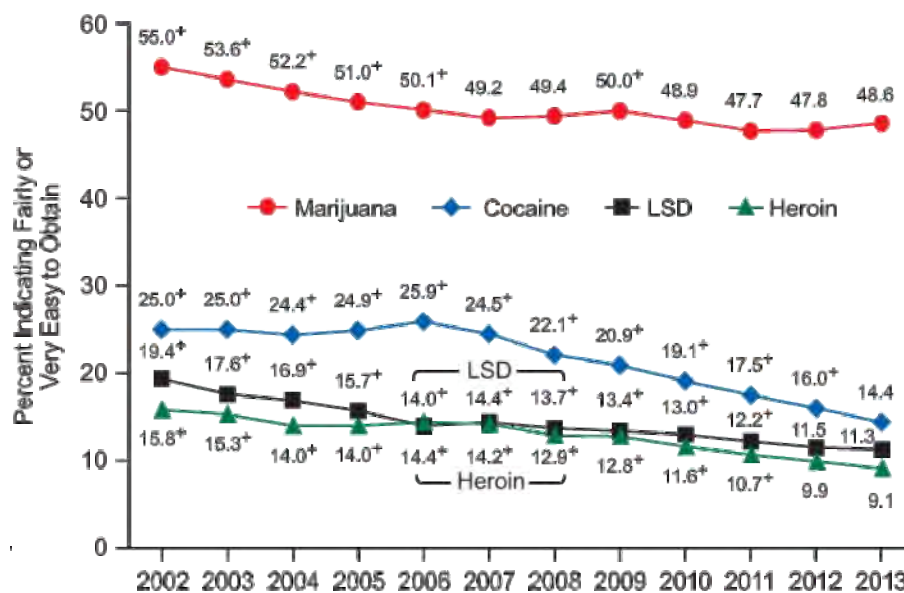
⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

Perceived Availability

- In 2013, about half (48.6 percent) of youths aged 12 to 17 reported that it would be "fairly easy" or "very easy" for them to obtain marijuana if they wanted some (Figure 6.5). About 1 in 11 (9.1 percent) indicated that heroin would be fairly or very easily available, and 11.3 percent reported so for LSD. Between 2002 and 2013, there were decreases in the perceived easy availability of marijuana (from 55.0 to 48.6 percent), cocaine (from 25.0 to 14.4 percent), crack (from 26.5 to 14.9 percent), LSD (from 19.4 to 11.3 percent), and heroin (from 15.8 to 9.1 percent). There was no change between 2012 and 2013 in the perceived easy availability for marijuana, heroin, or LSD. However, the percentage of youths who perceived that cocaine would be fairly easy or very easy to obtain was lower in 2013 than in 2012 (16.0 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 6.5 Perceived Availability of Selected Illicit Drugs among Youths Aged 12 to 17: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- Youths aged 12 to 17 in 2013 who perceived that it was easy to obtain specific illicit drugs were more likely to be past month users of those illicit drugs than were youths who perceived that obtaining specific illicit drugs would be fairly difficult, very difficult, or probably impossible. For example, 15.8 percent of youths who reported that marijuana would be easy to obtain were past month illicit drug users, but only 2.7 percent of those who thought marijuana would be more difficult to obtain were past month users. Similarly, 13.9 percent of youths who reported that marijuana would be easy to obtain were past month marijuana users, but only 1.1 percent of those who thought marijuana would be more difficult to obtain were past month users.
- The percentage of youths who reported that marijuana, cocaine, crack, heroin, and LSD would be easy to obtain generally increased with age in 2013. For instance, 20.5 percent of youths aged 12 or 13 reported it would be fairly or very easy to obtain marijuana compared with 51.2 percent of those aged 14 or 15 and 71.5 percent of those aged 16 or 17. However, the differences in perceived availability between youths aged 14 or 15 and those aged 16 or 17 were not significant for crack and heroin.
- In 2013, about one in eight youths aged 12 to 17 (12.4 percent) indicated that they had been approached by someone selling drugs in the past month. This rate declined between 2002 (16.7 percent) and 2013, although the 2013 rate was similar to the 2012 rate (13.2 percent).

Perceived Parental Disapproval of Substance Use

- Most youths aged 12 to 17 believed their parents would "strongly disapprove" of them using substances. In 2013, 88.4 percent of youths reported that their parents would strongly disapprove of them trying marijuana or hashish once or twice, which was lower than the rates in 2012 (89.3 percent) and 2002 (89.1 percent). Most youths in 2013 (90.7 percent) reported that their parents would strongly disapprove of them having one or two drinks of an alcoholic beverage nearly every day, which was similar to the rate in 2012 (90.5 percent), but was higher than the rate in 2002 (89.0 percent). In 2013, 93.5 percent of youths reported that their parents would strongly disapprove of them smoking one or more packs of cigarettes per day, which was similar to the rate reported in 2012 (93.1 percent), but was higher than the 89.5 percent reported in 2002.
- Youths aged 12 to 17 who believed their parents would strongly disapprove of them using specific substances were less likely to use these substances than were youths who believed their parents would somewhat disapprove or neither approve nor disapprove. For instance, in 2013, past month cigarette use was reported by 4.0 percent of youths who perceived strong parental disapproval if they were to smoke one or more packs of cigarettes per day compared with 27.8 percent of youths who believed their parents would not strongly disapprove. Also, past month marijuana use was much less prevalent among youths who perceived strong parental disapproval for trying marijuana or hashish once or twice than among those who did not perceive this level of disapproval (4.1 vs. 29.3 percent, respectively).

Attitudes toward Peer Substance Use

- A majority of youths aged 12 to 17 reported that they disapproved of their peers using substances. In 2013, 91.4 percent of youths "strongly" or "somewhat" disapproved of their peers smoking one or more packs of cigarettes per day, which was also the rate in 2012, but was higher than the 87.1 percent in 2002. Also in 2013, 79.2 percent strongly or somewhat disapproved of peers using marijuana or hashish once a month or more, which was lower than the rates reported in 2012 (80.3 percent) and in 2002 (80.4 percent). In addition, 88.7 percent of youths strongly or somewhat disapproved of peers having one or two drinks of an alcoholic beverage nearly every day in 2013, which was also the rate in 2012, but was higher than the 84.7 percent reported in 2002.
- The percentage of youths who reported that they disapproved of their peers using substances decreased with age in 2013. For instance, 92.4 percent of those aged 12 or 13 reported that they strongly or somewhat disapproved of peers using marijuana once a month or more compared with 80.6 percent of those aged 14 or 15 and 65.6 percent of those aged 16 or 17.
- In 2013, youths aged 12 to 17 who strongly or somewhat disapproved of their peers using marijuana once a month or more were less likely to be past month marijuana users than those who neither approved nor disapproved of this behavior from their peers (2.0 vs. 26.2 percent).

Fighting and Delinquent Behavior

- NSDUH includes questions for youths aged 12 to 17 about the number of times they had engaged in fighting or other delinquent behavior in the 12 months prior to the interview. In 2013, 17.7 percent of youths aged 12 to 17 reported that they had gotten into a serious fight at school or at work in the past year; 11.0 percent had taken part in a group-against-group fight; 5.1 percent attacked others in at least one instance with the intent to harm or seriously hurt them; 3.4 percent had carried a handgun at least once; 2.8 percent had, at least once, stolen or tried to steal something worth more than \$50; and 2.4 percent sold illegal drugs in the past year. The 2013 rates for taking part in a group-against-group fight and for stealing or trying to steal something worth more than \$50 among youths aged 12 to 17 were lower than the 2012 rates.
- Rates of the following behaviors in the past year among youths aged 12 to 17 were lower in 2013 than in 2002: getting into a serious fight at school or work (17.7 vs. 20.6 percent); taking part in a group-against-group fight (11.0 vs. 15.9 percent); attacking others with the intent to harm or seriously hurt them (5.1 vs. 7.8 percent); stealing or trying to steal something worth more than \$50 (2.8 vs. 4.9 percent); and selling illegal drugs (2.4 vs. 4.4 percent). Percentages of youths who had carried a handgun in the past year were similar in 2013 and 2002 (3.4 and 3.3 percent).
- Youths aged 12 to 17 who had engaged in fighting or other delinquent behaviors were more likely than other youths to have used illicit drugs in the past month. In 2013, past month illicit drug use was reported by 17.0 percent of youths who had gotten into a serious fight at school or work in the past year compared with 7.1 percent of those who had not engaged in fighting at school or work. An estimated 34.6 percent of youths who had stolen or tried to steal something worth over \$50 in the past year used illicit drugs in the past month compared with 8.0 percent of those who had not attempted or had engaged in such theft.

Religious Involvement and Beliefs

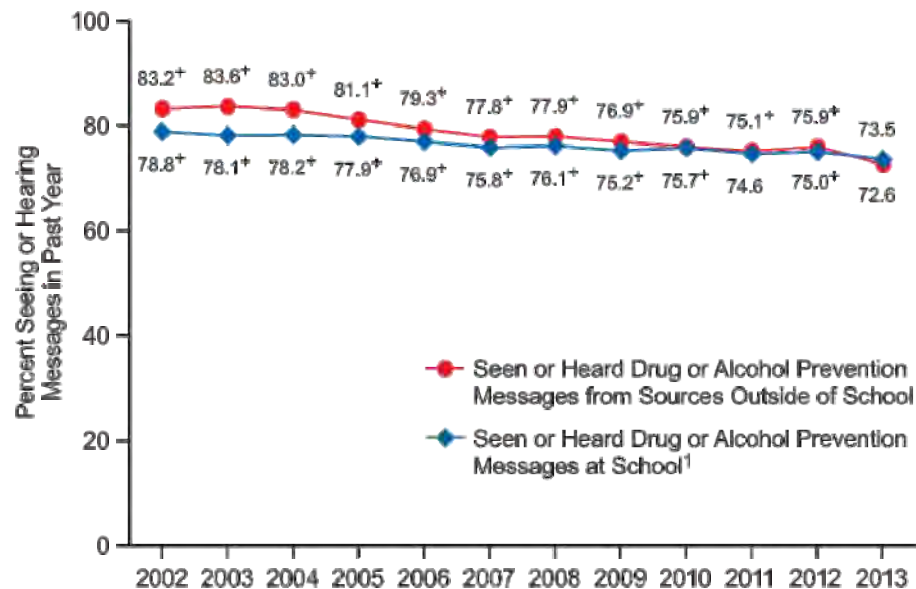
- In 2013, 29.8 percent of youths aged 12 to 17 reported that they had attended religious services 25 or more times in the past year; 73.3 percent agreed or strongly agreed with the statement that religious beliefs are a very important part of their lives; and 66.2 percent agreed or strongly agreed with the statement that religious beliefs influence their decision making in life. These rates were lower than the corresponding rates in 2002, but were similar to corresponding rates in 2012. In 2013, 32.0 percent of youths agreed or strongly agreed with the statement that it is important for their friends to share their religious beliefs, which was lower than the 2002 rate (35.8 percent) and the 2012 rate (33.7 percent).
- The rates of past month use of illicit drugs and cigarettes and binge alcohol use were lower among youths aged 12 to 17 who agreed with statements about the importance of religious beliefs than among those who disagreed. In 2013, past month illicit drug use was reported by 6.6 percent of those who agreed or strongly agreed that religious beliefs are a very important part of their lives compared with 14.9 percent of those who disagreed with that statement. Similar differences were found between those two subgroups for the past month use of cigarettes (4.1 vs. 9.8 percent) and past month binge alcohol use (4.8 vs. 10.3 percent).

Exposure to Substance Use Prevention Messages and Programs

- In 2013, approximately one in nine youths aged 12 to 17 (11.5 percent) reported that they had participated in drug, tobacco, or alcohol prevention programs outside of school in the past year. This rate was similar to the 11.9 percent reported in 2012, but was lower than the rate reported in 2002 (12.7 percent). In 2013, youths who did or did not participate in these programs had similar rates of past month use for illicit drugs (8.9 and 8.7 percent), marijuana (7.0 percent for both groups), cigarettes (6.5 and 5.4 percent), and binge alcohol use (5.2 and 6.3 percent).
- In 2013, 72.6 percent of youths aged 12 to 17 reported having seen or heard drug or alcohol prevention messages in the past year from sources outside of school, such as from posters or pamphlets, on the radio, or on television ([Figure 6.6](#)). This rate in 2013 was lower than the 75.9 percent reported in 2012 and the 83.2 percent reported in 2002. In 2013, the prevalence of past month use of illicit drugs among those who reported having such exposure (8.4 percent) was lower than the prevalence among those who reported having no such exposure (10.0 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 6.6 Exposure to Substance Use Prevention Messages and Programs among Youths Aged 12 to 17: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

¹ Estimates are from youths aged 12 to 17 who were enrolled in school in the past year. Youths who were enrolled in school in the past year included those who were home schooled.

- In 2013, 73.5 percent of youths aged 12 to 17 who were enrolled in school in the past year reported having seen or heard drug or alcohol prevention messages at school, which was lower than the 75.0 percent reported in 2012 and the 78.8 percent reported in 2002 (Figure 6.6). In 2013, the prevalence of past month use of illicit drugs or marijuana was lower among those who reported having such exposure in school (8.4 and 6.7 percent for illicit drugs and marijuana, respectively) than among youths who were enrolled in school but reported having no such exposure (10.2 and 8.7 percent).

Parental Involvement

- Youths aged 12 to 17 were asked several questions related to the extent of support, oversight, and control that they perceived their parents provided or exercised over them in the year prior to the survey interview. In 2013, among youths aged 12 to 17 who were enrolled in school in the past year, 68.4 percent reported that their parents limited the amount of time that they spent out with friends on school nights. This rate in 2013 was lower than the rate reported in 2012 (70.3 percent) and in 2002 (70.7 percent). In 2013, 83.0 percent reported that in the past year their parents always or sometimes checked on whether or not they had completed their homework, and 79.4 percent reported that their parents always or sometimes provided help with their homework. The rate in 2013 for parents checking on whether youths had completed their homework was higher than in 2012 (81.3 percent) and in 2002 (78.4 percent). However, the rate for parents providing help with homework in 2013 was lower than the rate in 2012 (80.6 percent) and the rate in 2002 (81.4 percent).
- In 2013, 88.5 percent of youths aged 12 to 17 reported that their parents always or sometimes made them do chores around the house in the past year, which was also the rate in 2012, but was slightly higher than the rate in 2002 (87.4 percent). In 2013, 85.7 percent of youths reported that their parents always or sometimes let them know that they had done a good job, and 85.7 percent reported that their parents always or sometimes let them know they were proud of something they had done. These percentages in 2013 were similar to those reported in 2012 and 2002. In 2013, 40.8 percent of youths reported that their parents limited the amount of time that they watched television, which was similar to the rate in 2012 (41.0 percent), but was higher than the 36.9 percent reported in 2002.
- In 2013, past month use of illicit drugs and cigarettes and binge alcohol use were lower among youths aged 12 to 17 who reported that their parents always or sometimes engaged in supportive or monitoring behaviors than among youths whose parents seldom or never engaged in such behaviors. For instance, the rate of past month use of any illicit drug in 2013 was 7.3 percent for youths whose parents always or sometimes helped with homework compared with 14.7 percent among youths who indicated that their parents seldom or never helped. Rates of current cigarette smoking and past month binge alcohol use also were lower among youths whose parents always or sometimes helped with homework (4.5 and 5.1 percent, respectively) than among youths whose parents seldom or never helped (10.3 and 11.4 percent).

7. Substance Dependence, Abuse, and Treatment

The National Survey on Drug Use and Health (NSDUH) includes a series of questions to assess the prevalence of substance use disorders (substance dependence or abuse) in the past 12 months. Substances include alcohol and illicit drugs, such as marijuana, cocaine, heroin, hallucinogens, inhalants, and the nonmedical use of prescription-type psychotherapeutic drugs. These questions are used to classify persons as dependent on or abusing specific substances based on criteria specified in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV) (American Psychiatric Association [APA], 1994).

The questions related to dependence ask about health and emotional problems associated with substance use, unsuccessful attempts to cut down on use, tolerance, withdrawal, reducing other activities to use substances, spending a lot of time engaging in activities related to substance use, or using the substance in greater quantities or for a longer time than intended. The questions on abuse ask about problems at work, home, and school; problems with family or friends; physical danger; and trouble with the law due to substance use. Dependence is considered to be a more severe substance use problem than abuse because it involves the psychological and physiological effects of tolerance and withdrawal.

This chapter provides estimates from the 2013 NSDUH of the prevalence and patterns of substance use disorders occurring in the past year and compares these estimates against the results from the 2002 through 2012 surveys. It also provides estimates of the prevalence and patterns of the receipt of treatment in the past year for problems related to substance use. This chapter concludes with a discussion of the need for and the receipt of treatment at specialty facilities for problems associated with substance use. Note that the terms "substance use disorders," "substance dependence or abuse," and "alcohol or illicit drug dependence or abuse" are used interchangeably.

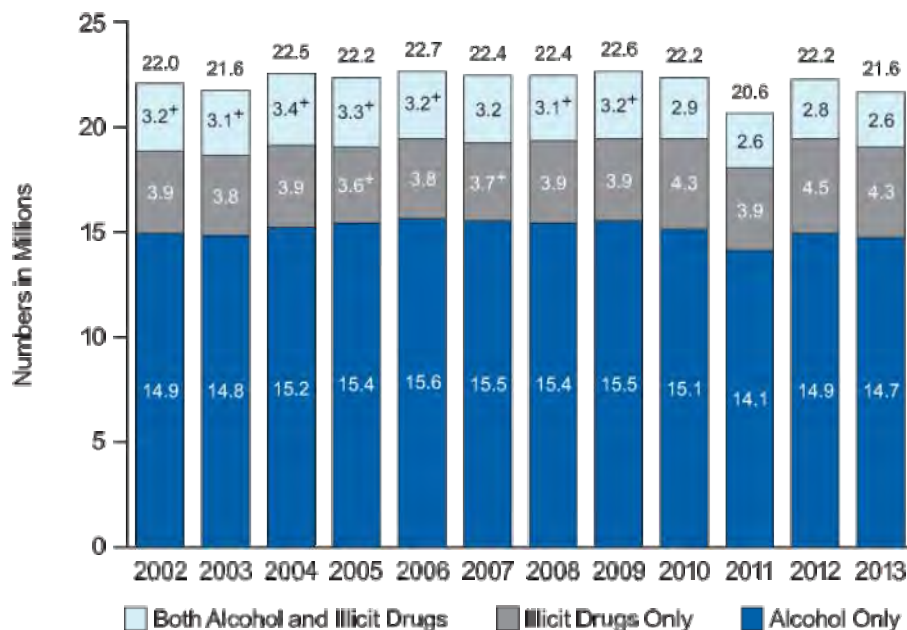
7.1 Substance Dependence or Abuse

- In 2013, an estimated 21.6 million persons aged 12 or older were classified with substance dependence or abuse in the past year (8.2 percent of the population aged 12 or older) (Figure 7.1). Of these, 2.6 million were classified with dependence or abuse of both alcohol and illicit drugs, 4.3 million had dependence or abuse of

illicit drugs but not alcohol, and 14.7 million had dependence or abuse of alcohol but not illicit drugs. Overall, 17.3 million had alcohol dependence or abuse, and 6.9 million had illicit drug dependence or abuse.

Below is a stacked bar graph. [Click here](#) for the text describing this graph.

Figure 7.1 Substance Dependence or Abuse in the Past Year among Persons Aged 12 or Older: 2002-2013



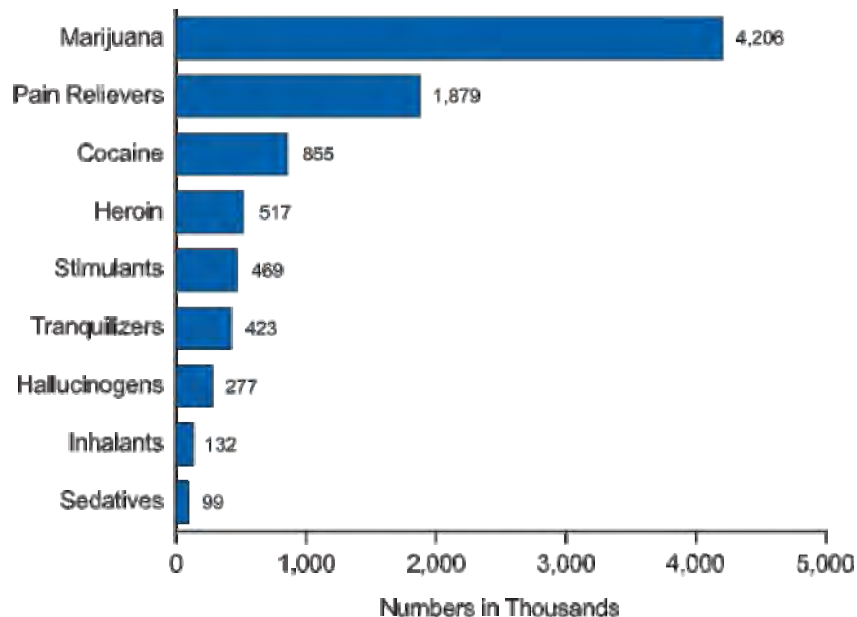
* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

Note: Due to rounding, the stacked bar totals may not add to the overall total.

- The annual number of persons with substance dependence or abuse in 2013 (21.6 million) was similar to the number in each year from 2002 through 2012 (ranging from 20.6 million to 22.7 million) ([Figure 7.1](#)).
- The rate of persons aged 12 or older who had substance dependence or abuse in 2013 (8.2 percent) was similar to the rates in 2011 (8.0 percent) and 2012 (8.5 percent), but it was lower than the rate in each year from 2002 through 2010 (ranging from 8.8 to 9.4 percent).
- In 2013, 6.6 percent of the population aged 12 or older had alcohol dependence or abuse, which was similar to the rates in 2011 (6.5 percent) and 2012 (6.8 percent), but it was lower than the rate in each year from 2002 through 2010 (ranging from 7.1 to 7.8 percent).
- The rate of persons aged 12 or older who had illicit drug dependence or abuse in 2013 (2.6 percent) was similar to the rate in 2012 (2.8 percent) and in each year since 2005 (ranging from 2.5 to 2.9 percent), but it was lower than the rates in 2002 to 2004 (ranging from 2.9 to 3.0 percent).
- Marijuana was the illicit drug with the largest number of persons with past year dependence or abuse in 2013, followed by pain relievers, then by cocaine. Of the 6.9 million persons aged 12 or older who were classified with illicit drug dependence or abuse in 2013, 4.2 million persons had marijuana dependence or abuse (representing 1.6 percent of the total population aged 12 or older, and 61.4 percent of all those classified with illicit drug dependence or abuse), 1.9 million persons had pain reliever dependence or abuse, and 855,000 persons had cocaine dependence or abuse ([Figure 7.2](#)).

Below is a bar graph. [Click here](#) for the text describing this graph.

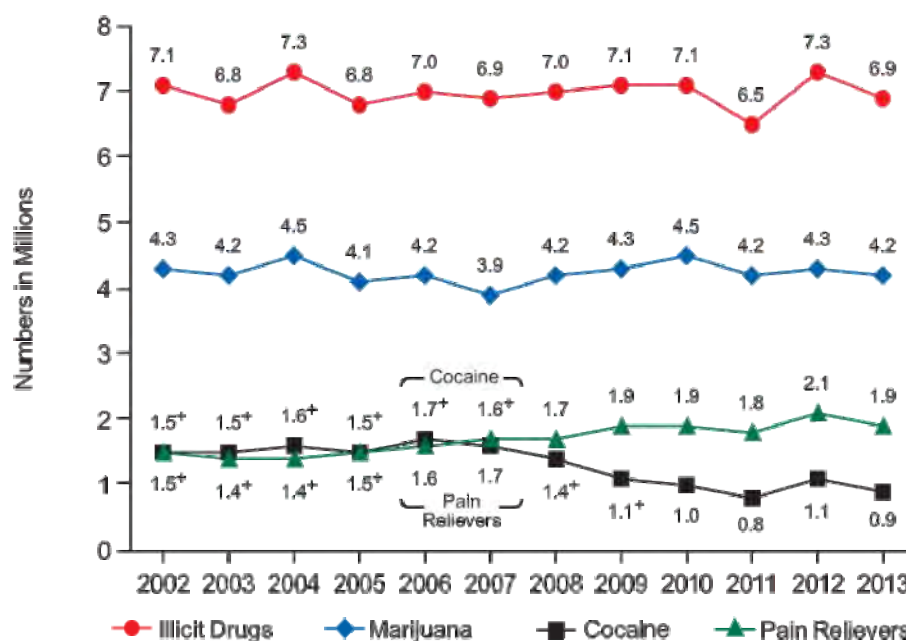
Figure 7.2 Specific Illicit Drug Dependence or Abuse in the Past Year among Persons Aged 12 or Older: 2013



- The number of persons who had marijuana dependence or abuse in 2013 (4.2 million) was similar to the number in 2012 (4.3 million) and in each year from 2002 through 2011 (ranging from 3.9 million to 4.5 million) (Figure 7.3). The rate of marijuana dependence or abuse in 2013 (1.6 percent) was lower than the rates in 2002 (1.8 percent) and 2004 (1.9 percent). Otherwise, the rate in 2013 was similar to the rates in prior years (ranging from 1.6 to 1.8 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 7.3 Illicit Drug Dependence or Abuse in the Past Year among Persons Aged 12 or Older: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

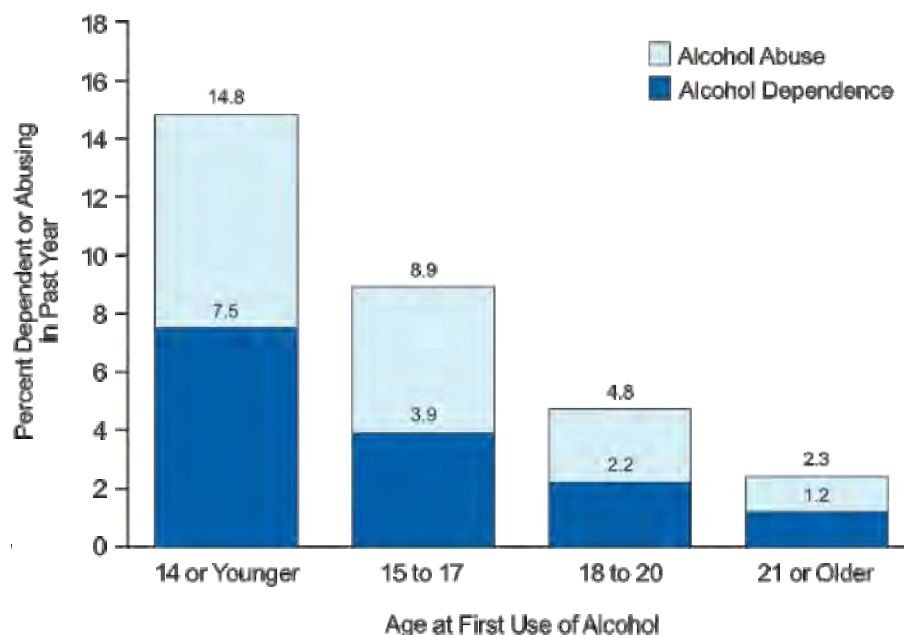
- The number of persons who had pain reliever dependence or abuse in 2013 (1.9 million) was similar to the number in 2012 (2.1 million) and in each year from 2006 through 2011 (ranging from 1.6 million to 1.9 million) (Figure 7.3). However, the number in 2013 was higher than the numbers in 2002 to 2005 (ranging from 1.4 million to 1.5 million).
- The rate of pain reliever dependence or abuse in 2013 (0.7 percent) was higher than the rate in 2004 (0.6 percent). However, the rate in 2013 was similar to the rates in 2012 (0.8 percent), 2002, 2003, and from 2005 through 2011 (ranging from 0.6 to 0.8 percent).
- The rate and the number of persons who had cocaine dependence or abuse in 2013 (0.3 percent and 855,000) were similar to those in 2010 to 2012 (ranging from 0.3 to 0.4 percent and from 821,000 to 1.1 million). However, the rate and the number in 2013 were lower than those in 2002 to 2009 (ranging from 0.4 to 0.7 percent and from 1.1 million to 1.7 million).
- The number of persons who had heroin dependence or abuse in 2013 (517,000) was similar to the numbers in 2009 to 2012 (ranging from 361,000 to 467,000), but it was higher than the numbers in 2002 to 2008 (ranging from 189,000 to 324,000). The rate of persons who had heroin dependence or abuse in 2013 (0.2 percent) was similar to the rate in 2006 and in 2009 to 2012 (ranging from 0.1 to 0.2 percent), but it was higher than the rate of 0.1 percent in 2002 through 2005, 2007, and 2008.

Age at First Use

- In 2013, among adults aged 18 or older, age at first use of marijuana was associated with illicit drug dependence or abuse. Among those who first tried marijuana at age 14 or younger, 11.5 percent were classified with illicit drug dependence or abuse, which was higher than the 2.6 percent of adults who had first used marijuana at age 18 or older.
- Among adults, age at first use of alcohol was associated with alcohol dependence or abuse. In 2013, among adults aged 18 or older who first tried alcohol at age 14 or younger, 15.4 percent were classified with alcohol dependence or abuse, which was higher than the 3.8 percent of adults who had first used alcohol at age 18 or older.
- Adults aged 21 or older who had first used alcohol before age 21 were more likely than adults who had their first drink at age 21 or older to be classified with alcohol dependence or abuse. In particular, adults aged 21 or older who had first used alcohol at age 14 or younger were more likely to be classified with alcohol dependence or abuse than adults who had their first drink at age 21 or older (14.8 vs. 2.3 percent) ([Figure 7.4](#)).

Below is a stacked bar graph. [Click here](#) for the text describing this graph.

Figure 7.4 Alcohol Dependence or Abuse in the Past Year among Adults Aged 21 or Older, by Age at First Use of Alcohol: 2013

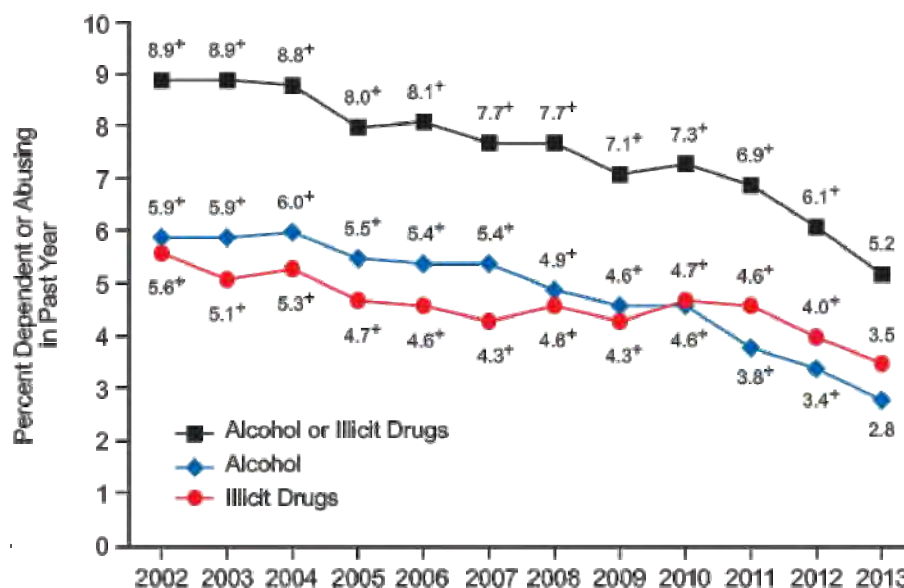


Age

- Rates of substance dependence or abuse were associated with age. In 2013, the rate of substance dependence or abuse among adults aged 18 to 25 (17.3 percent) was higher than that among adults aged 26 or older (7.0 percent), followed by youths aged 12 to 17 (5.2 percent). From 2002 to 2013, the rate decreased for youths aged 12 to 17 (from 8.9 to 5.2 percent) ([Figure 7.5](#)) and for young adults aged 18 to 25 (from 21.7 to 17.3 percent).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 7.5 Alcohol and Illicit Drug Dependence or Abuse among Youths Aged 12 to 17: 2002-2013



⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

- The rate of alcohol dependence or abuse among youths aged 12 to 17 was 2.8 percent in 2013, which was lower than the rates of 3.4 percent in 2012 and 5.9 percent in 2002 ([Figure 7.5](#)). Among young adults aged 18 to 25, the rate of alcohol dependence or abuse was 13.0 percent in 2013, which also was lower than the rates of

14.3 percent in 2012 and 17.7 percent in 2002. Among adults aged 26 or older, the rates were not significantly different between 2012 (5.9 percent) and 2013 (6.0 percent) and between 2002 (6.2 percent) and 2013.

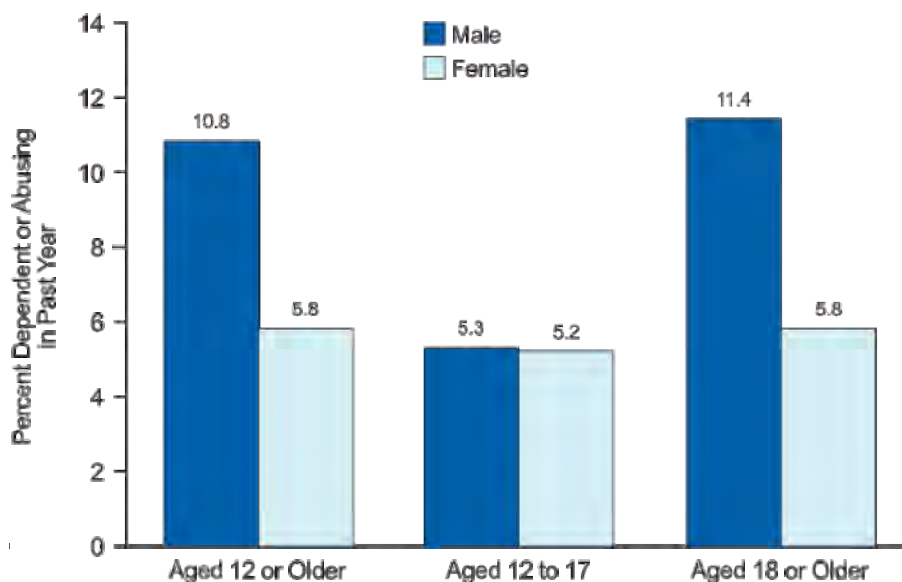
- The rate of illicit drug dependence or abuse among youths aged 12 to 17 was 3.5 percent in 2013, which was lower than the rates in 2012 (4.0 percent), 2011 (4.6 percent), 2010 (4.7 percent), and 2002 (5.6 percent) ([Figure 7.5](#)). Among young adults aged 18 to 25, the rate of illicit drug dependence or abuse was 7.4 percent in 2013, which was similar to the rates in 2012 (7.8 percent), 2011 (7.5 percent), and 2010 (7.9 percent). Among adults aged 26 or older, the rate of illicit drug dependence or abuse remained stable between 2012 (1.8 percent) and 2013 (1.7 percent) and between 2002 (1.8 percent) and 2013.

Gender

- As was the case from 2002 through 2012, the rate of substance dependence or abuse for males aged 12 or older in 2013 was greater than the rate for females (10.8 vs. 5.8 percent) ([Figure 7.6](#)). Among youths aged 12 to 17, however, the rate of substance dependence or abuse among males in 2013 (5.3 percent) was similar to the rate among their female counterparts (5.2 percent).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 7.6 Substance Dependence or Abuse in the Past Year, by Age and Gender: 2013



Race/Ethnicity

- In 2013, among persons aged 12 or older, the rate of substance dependence or abuse was 4.6 percent among Asians, 7.4 percent among blacks, 8.4 percent among whites, 8.6 percent among Hispanics, 10.9 percent among persons reporting two or more races, 11.3 percent among Native Hawaiians or Other Pacific Islanders, and 14.9 percent among American Indians or Alaska Natives. Except for Native Hawaiians or Other Pacific Islanders, the rate for Asians was lower than the rates for the other racial/ethnic groups.

Education

- In 2013, rates of illicit drug or alcohol dependence or abuse among adults aged 26 or older were not associated with levels of educational attainment.⁶ Among this group, rates of illicit drug or alcohol dependence or abuse were 6.4 percent for those who graduated from high school but had no further education, 7.2 percent for college graduates, 7.3 percent for those who did not graduate from high school, and 7.4 percent for those with some college education but no degree.
- Among adults aged 26 or older in 2013, rates of alcohol dependence or abuse also were not associated with levels of educational attainment. Rates of alcohol dependence or abuse for this age group were 5.4 percent for those who graduated from high school but had no further education, 5.7 percent for those who did not graduate from high school, 5.9 percent for those with some college education but no degree, and 6.6 percent for college graduates.
- However, rates of illicit drug dependence or abuse were associated with levels of educational attainment among adults aged 26 or older in 2013. Adults aged 26 or older who were college graduates had a lower rate of illicit drug dependence or abuse (0.9 percent) than those who did not graduate from high school (2.5 percent), those with some college education but no degree (2.1 percent), and those who graduated from high school but had no further education (1.9 percent).

Employment

- Rates of substance dependence or abuse were associated with current employment status in 2013. A higher percentage of unemployed adults aged 18 or older were classified with dependence or abuse (15.2 percent) than were full-time employed adults (9.5 percent) or part-time employed adults (9.3 percent).
- Over half of the adults aged 18 or older with substance dependence or abuse were employed full time in 2013. Of the 20.3 million adults who were classified with dependence or abuse, 11.3 million (55.7 percent) were employed full time.

Criminal Justice Populations

- In 2013, adults aged 18 or older who were on parole or a supervised release from jail during the past year had a higher rate of illicit drug or alcohol dependence or abuse (34.3 percent) than their counterparts who were not on parole or supervised release during the past year (8.4 percent).
- In 2013, probation status was associated with substance dependence or abuse. The rate of substance dependence or abuse was 35.0 percent among adults who were on probation during the past year, which was higher than the rate among adults who were not on probation during the past year (8.0 percent).

Geographic Area

- In 2013, rates of illicit drug or alcohol dependence or abuse among persons aged 12 or older were 8.9 percent in the West, 8.3 percent in the Northeast, 8.2 percent in the Midwest, and 7.8 percent in the South.
- Rates for illicit drug or alcohol dependence or abuse among persons aged 12 or older in 2013 were similar in large metropolitan areas (8.6 percent) and small metropolitan areas (8.4 percent), but were higher than in nonmetropolitan areas (6.6 percent).

7.2 Past Year Treatment for a Substance Use Problem

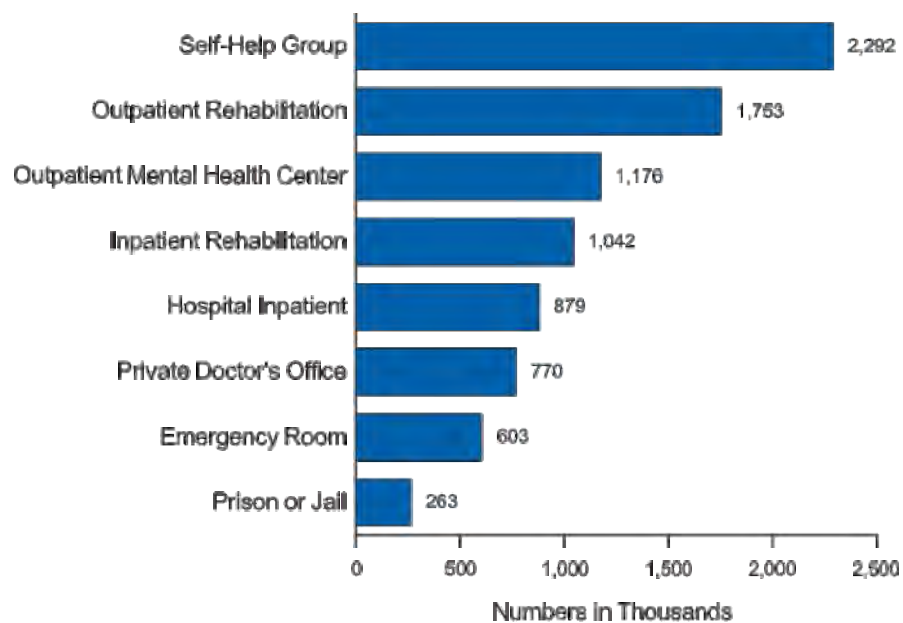
Estimates described in this section refer to treatment received for illicit drug or alcohol use, or for medical problems associated with the use of illicit drugs or alcohol. This includes treatment received in the past year at any location, such as a hospital (inpatient), rehabilitation facility (outpatient or inpatient), mental health center, emergency room, private doctor's office, prison or jail, or a self-help group, such as Alcoholics Anonymous or Narcotics Anonymous. Persons could report receiving treatment at more than one location. Note that the definition of treatment in this section is different from the definition of specialty treatment described in [Section 7.3](#). Specialty treatment includes treatment only at a hospital (inpatient), a rehabilitation facility (inpatient or outpatient), or a mental health center.

Individuals who reported receiving substance use treatment but were missing information on whether the treatment was specifically for alcohol use or illicit drug use were not counted in estimates of either illicit drug use treatment or alcohol use treatment; however, they were counted in estimates for "drug or alcohol use" treatment.

- In 2013, 4.1 million persons aged 12 or older (1.5 percent of the population) received treatment for a problem related to the use of alcohol or illicit drugs. Of these, 1.3 million received treatment for the use of both alcohol and illicit drugs, 0.9 million received treatment for the use of illicit drugs but not alcohol, and 1.4 million received treatment for the use of alcohol but not illicit drugs. (Note that estimates by substance do not sum to the total number of persons receiving treatment because the total includes persons who reported receiving treatment but did not report for which substance the treatment was received.)
- The rate and the number of persons in the population aged 12 or older receiving any substance use treatment within the past year remained stable between 2012 (1.5 percent and 4.0 million) and 2013 (1.5 percent and 4.1 million). The rate and number of persons receiving any substance use treatment within the past year in 2002 were 1.5 percent and 3.5 million. The rate in 2002 was similar to that in 2013, but the number of persons who received substance use treatment in 2002 was lower than that in 2013.
- In 2013, among the 4.1 million persons aged 12 or older who received treatment for alcohol or illicit drug use in the past year, 2.3 million persons received treatment at a self-help group, and 1.8 million received treatment at a rehabilitation facility as an outpatient ([Figure 7.7](#)). The numbers of persons who received treatment at other locations were 1.2 million at a mental health center as an outpatient, 1.0 million at a rehabilitation facility as an inpatient, 879,000 at a hospital as an inpatient, 770,000 at a private doctor's office, 603,000 at an emergency room, and 263,000 at a prison or jail. None of these estimates changed significantly between 2012 and 2013. The number of persons receiving treatment at a private doctor's office was lower in 2002 (523,000) than in 2013.

Below is a bar graph. [Click here](#) for the text describing this graph.

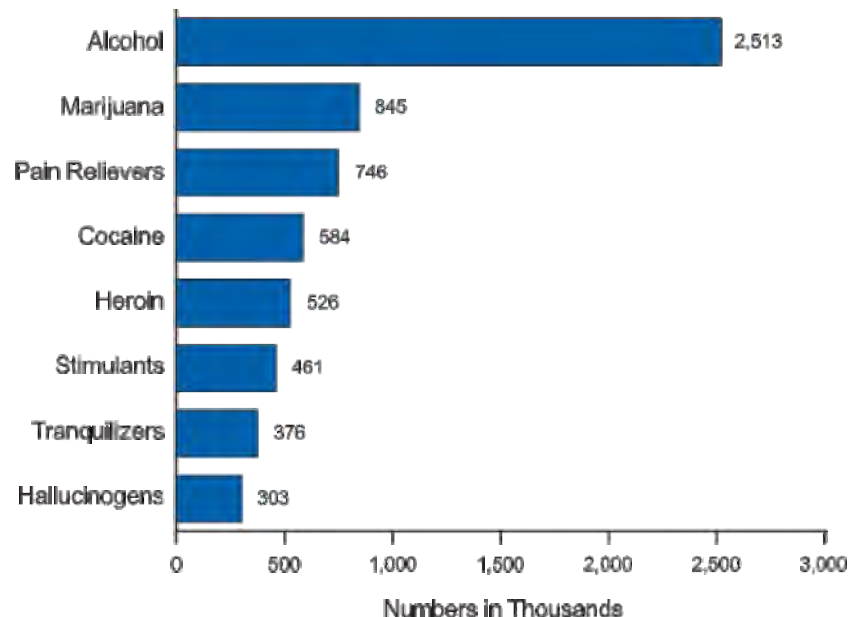
Figure 7.7 Locations Where Past Year Substance Use Treatment Was Received among Persons Aged 12 or Older: 2013



- In 2013, 2.5 million persons aged 12 or older reported receiving treatment for alcohol use during their most recent treatment in the past year, 845,000 persons received treatment for marijuana use, and 746,000 persons received treatment for pain relievers ([Figure 7.8](#)). Estimates for receiving treatment for the use of other drugs were 584,000 for cocaine, 526,000 for heroin, 461,000 for stimulants, 376,000 for tranquilizers, and 303,000 for hallucinogens. None of these estimates changed significantly between 2012 and 2013.

Below is a bar graph. [Click here](#) for the text describing this graph.

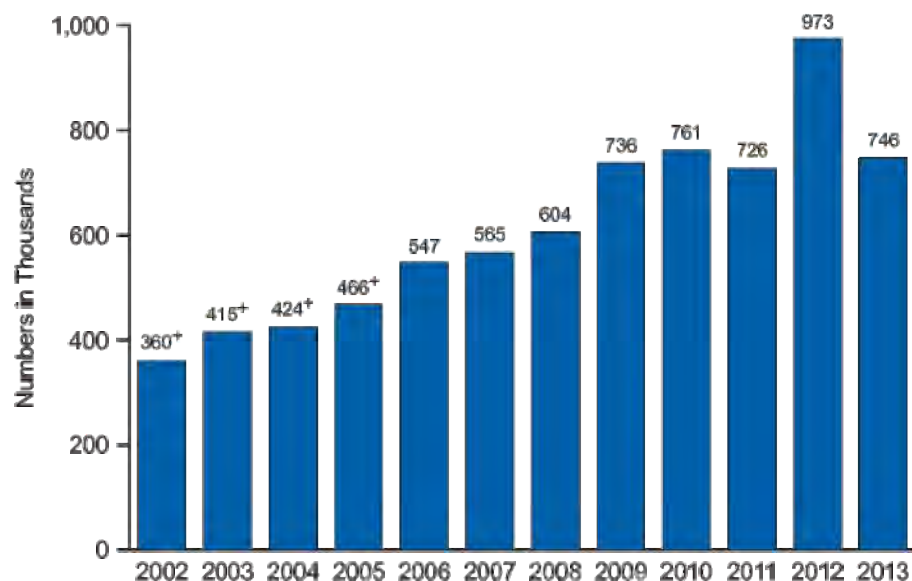
Figure 7.8 Substances for Which Most Recent Treatment Was Received in the Past Year among Persons Aged 12 or Older: 2013



- The numbers of persons aged 12 or older who received their most recent treatment in the past year for alcohol, marijuana, cocaine, hallucinogens, inhalants, and sedatives were similar in 2002 and 2013. However, the number of persons who received treatment for tranquilizers increased from 2002 (197,000 persons) to 2013 (376,000 persons). The number who received treatment for heroin increased from 277,000 persons in 2002 to 526,000 persons in 2013. The number who received treatment for nonmedical use of prescription pain relievers increased from 2002 (360,000 persons) to 2013 (746,000 persons) ([Figure 7.9](#)). The number who received treatment for stimulants increased from 268,000 persons in 2002 to 461,000 persons in 2013. (Note that respondents could indicate that they received treatment for more than one substance during their most recent treatment.)

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 7.9 Received Most Recent Treatment in the Past Year for the Use of Pain Relievers among Persons Aged 12 or Older: 2002-2013



* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

7.3 Need for and Receipt of Specialty Treatment

This section discusses the need for and receipt of treatment for a substance use problem at a "specialty" treatment facility. Specialty treatment is defined as treatment received at any of the following types of facilities: hospitals (inpatient only), drug or alcohol rehabilitation facilities (inpatient or outpatient), or mental health centers. It does not include treatment at an emergency room, private doctor's office, self-help group, prison or jail, or hospital as an outpatient. An individual is defined as needing treatment for an alcohol or drug use problem if he or she met the DSM-IV (APA, 1994) diagnostic criteria for alcohol or illicit drug dependence or abuse in the past 12 months or if he or she received specialty treatment for alcohol use or illicit drug use in the past 12 months.

In this section, an individual needing treatment for an illicit drug use problem is defined as receiving treatment for his or her drug use problem only if he or she reported receiving specialty treatment for illicit drug use in the past year. Thus, an individual who needed treatment for illicit drug use but received specialty treatment only for alcohol use in the past year or who received treatment for illicit drug use only at a facility not classified as a specialty facility was not counted as receiving treatment for illicit drug use. Similarly, an individual who needed treatment for an alcohol use problem was counted as receiving alcohol use treatment only if the treatment was received for alcohol use at a specialty treatment facility. Individuals who reported receiving specialty substance use treatment but were missing information on whether the treatment was specifically for alcohol use or drug use were not counted in estimates of specialty drug use treatment or in estimates of specialty alcohol use treatment; however, they were counted in estimates for "drug or alcohol use" treatment.

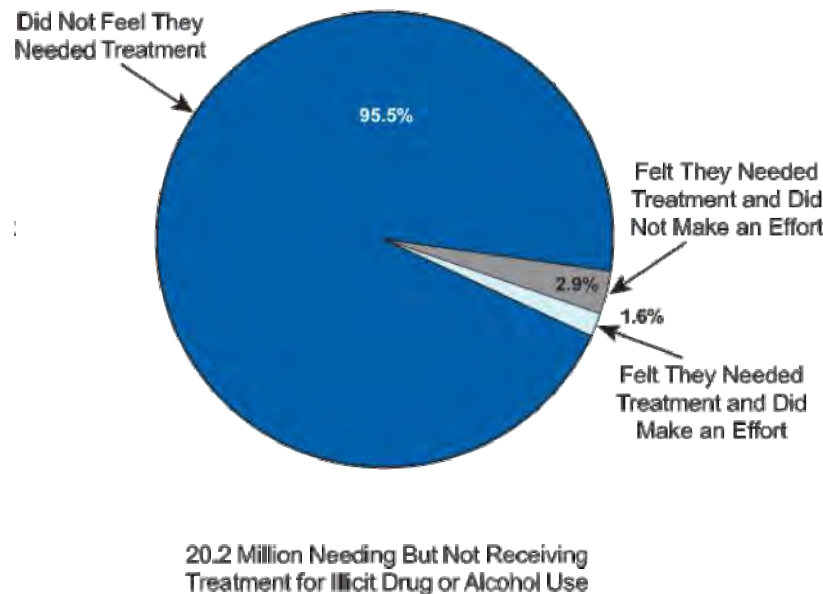
In addition to questions about symptoms of substance use problems that are used to classify respondents' need for treatment based on DSM-IV criteria, NSDUH includes questions asking respondents about their perceived need for treatment (i.e., whether they felt they needed treatment or counseling for illicit drug use or alcohol use). In this report, estimates for perceived need for treatment are discussed only for persons who were classified as needing treatment (based on DSM-IV criteria) but did not receive treatment at a specialty facility. Similarly, estimates for whether a person made an effort to get treatment are discussed only for persons who felt the need for treatment and did not receive it.

Illicit Drug or Alcohol Use Treatment and Treatment Need

- In 2013, 22.7 million persons aged 12 or older needed treatment for an illicit drug or alcohol use problem (8.6 percent of persons aged 12 or older). The number in 2013 was similar to the numbers in 2002 to 2012 (ranging from 21.6 million to 23.6 million). The rate in 2013 was similar to the rates in 2011 (8.4 percent) and 2012 (8.9 percent), but it was lower than the rates in 2002 to 2010 (ranging from 9.2 to 9.8 percent).
- In 2013, 2.5 million persons (0.9 percent of persons aged 12 or older and 10.9 percent of those who needed treatment) received treatment at a specialty facility for an illicit drug or alcohol problem. The number in 2013 was similar to the numbers in 2002 (2.3 million) and in 2004 through 2012 (ranging from 2.3 million to 2.6 million), and it was higher than the number in 2003 (1.9 million). The rate in 2013 was not different from the rates in 2002 to 2012 (ranging from 0.8 to 1.0 percent).
- In 2013, 20.2 million persons (7.7 percent of the population aged 12 or older) needed treatment for an illicit drug or alcohol use problem but did not receive treatment at a specialty facility in the past year. The number in 2013 was similar to the numbers in 2002 to 2012 (ranging from 19.3 million to 21.1 million). The rate in 2013 was similar to the rates in 2010 to 2012 (ranging from 7.5 to 8.1 percent), but it was lower than the rates in 2002 to 2009 (ranging from 8.3 to 8.8 percent).
- Of the 2.5 million persons aged 12 or older who received specialty substance use treatment in 2013, 875,000 received treatment for alcohol use only, 936,000 received treatment for illicit drug use only, and 547,000 received treatment for both alcohol and illicit drug use. These estimates in 2013 were similar to the estimates in 2012 and 2002.
- Among persons in 2013 who received their most recent substance use treatment at a specialty facility in the past year, 41.7 percent reported using private health insurance as a source of payment for their most recent specialty treatment, 40.6 percent reported using their "own savings or earnings," 29.0 percent reported using Medicaid, 29.0 percent reported using public assistance other than Medicaid, 26.8 percent reported using Medicare, and 23.0 percent reported using funds from family members. None of these estimates changed significantly between 2012 and 2013.
- In 2013, among the 20.2 million persons aged 12 or older who were classified as needing substance use treatment but not receiving treatment at a specialty facility in the past year, 908,000 persons (4.5 percent) reported that they perceived a need for treatment for their illicit drug or alcohol use problem ([Figure 7.10](#)). Of these 908,000 persons who felt they needed treatment but did not receive treatment in 2013, 316,000 (34.8 percent) reported that they made an effort to get treatment, and 592,000 (65.2 percent) reported making no effort to get treatment. These estimates were stable between 2012 and 2013.

Below is a pie graph. [Click here](#) for the text describing this graph.

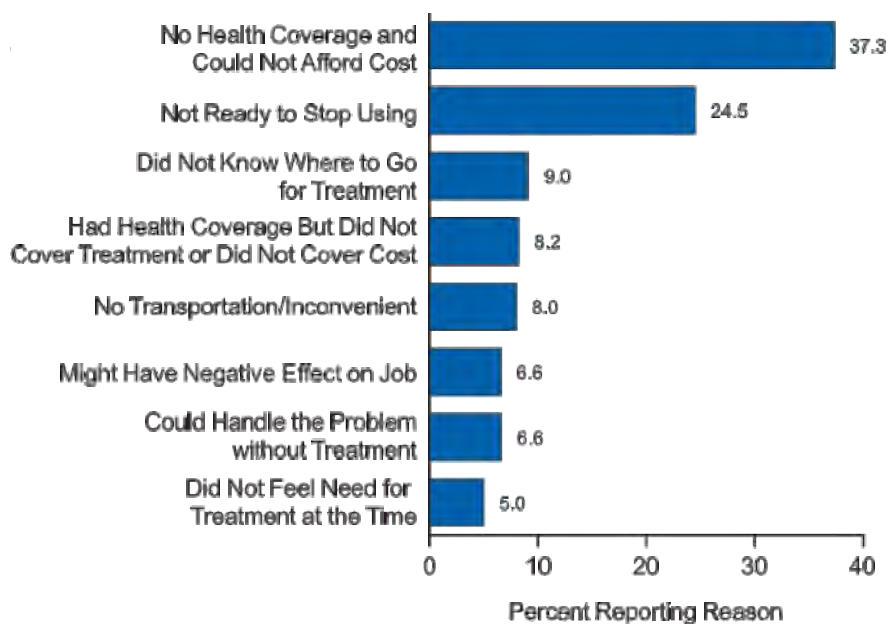
Figure 7.10 Past Year Perceived Need for and Effort Made to Receive Specialty Treatment among Persons Aged 12 or Older Needing But Not Receiving Treatment for Illicit Drug or Alcohol Use: 2013



- The rate and the number of youths aged 12 to 17 who needed treatment for an illicit drug or alcohol use problem in 2013 (5.4 percent and 1.3 million) were lower than those in 2012 (6.3 percent and 1.6 million), 2011 (7.0 percent and 1.7 million), 2010 (7.5 percent and 1.8 million), and 2002 (9.1 percent and 2.3 million). Of the 1.3 million youths who needed treatment in 2013, 122,000 received treatment at a specialty facility (about 9.1 percent of the youths who needed treatment), leaving about 1.2 million who needed treatment for a substance use problem but did not receive it at a specialty facility.
- Based on 2010-2013 combined data, commonly reported reasons for not receiving illicit drug or alcohol use treatment among persons aged 12 or older who needed and perceived a need for treatment but did not receive treatment at a specialty facility were (a) not ready to stop using (40.3 percent), (b) no health coverage and could not afford cost (31.4 percent), (c) possible negative effect on job (10.7 percent), (d) concern that receiving treatment might cause neighbors/community to have a negative opinion (10.1 percent), (e) not knowing where to go for treatment (9.2 percent), and (f) no program having type of treatment (8.0 percent).
- Based on 2010-2013 combined data, among persons aged 12 or older who needed but did not receive illicit drug or alcohol use treatment, felt a need for treatment, and made an effort to receive treatment, commonly reported reasons for not receiving treatment were (a) no health coverage and could not afford cost (37.3 percent), (b) not ready to stop using (24.5 percent), (c) did not know where to go for treatment (9.0 percent), (d) had health coverage but did not cover treatment or did not cover cost (8.2 percent), and (e) no transportation or inconvenient (8.0 percent) ([Figure 7.11](#)).

Below is a bar graph. [Click here](#) for the text describing this graph.

Figure 7.11 Reasons for Not Receiving Substance Use Treatment among Persons Aged 12 or Older Who Needed and Made an Effort to Get Treatment But Did Not Receive Treatment and Felt They Needed Treatment: 2010-2013 Combined



Illicit Drug Use Treatment and Treatment Need

- In 2013, the number of persons aged 12 or older needing treatment for an illicit drug use problem was 7.6 million (2.9 percent of the total population). The number in 2013 was similar to the number in each year from 2002 through 2012 (ranging from 7.2 million to 8.1 million). The rate of persons needing treatment for an illicit drug use problem in 2013 was lower than the rates in 2002 (3.3 percent) and 2004 (3.3 percent), but it was similar to the rates in 2012 and 2003 (3.1 percent in each year) and in 2005 to 2011 (ranging from 2.8 to 3.2 percent).
- Of the 7.6 million persons aged 12 or older who needed treatment for an illicit drug use problem in 2013, 1.5 million (0.6 percent of the total population and 19.5 percent of persons who needed treatment) received treatment at a specialty facility for an illicit drug use problem in the past year. The number in 2013 was similar to the numbers in 2012 (1.5 million), 2002 (1.4 million), and in 2004 to 2011 (ranging from 1.2 million to 1.6 million), but it was higher than the number in 2003 (1.1 million). The rate in 2013 was similar to the rates in 2002 to 2012 (ranging from 0.5 to 0.6 percent).
- There were 6.1 million persons (2.3 percent of the total population) who needed but did not receive treatment at a specialty facility for an illicit drug use problem in 2013. The number in 2013 was similar to the numbers in 2002 to 2012 (ranging from 5.8 million to 6.6 million). The rate in 2013 was similar to the rates in 2006 to 2012 (ranging from 2.3 to 2.5 percent), but it was lower than the rates in 2002 to 2005 (ranging from 2.6 to 2.8 percent).
- Of the 6.1 million persons aged 12 or older who needed but did not receive specialty treatment for illicit drug use in 2013, 395,000 (6.4 percent) reported that they perceived a need for treatment for their illicit drug use problem, and 5.7 million did not perceive a need for treatment. The number of persons in 2013 who needed treatment for an illicit drug use problem but did not perceive a need for treatment was similar to the number in 2012 (5.9 million). However, the number of persons who needed treatment and perceived a need for treatment for an illicit drug problem in 2013 was lower than the number in 2012 (588,000 persons).
- Of the 395,000 persons aged 12 or older in 2013 who felt a need for treatment for use of illicit drugs, 148,000 reported that they made an effort to get treatment, and 247,000 reported making no effort to get treatment. These estimates in 2013 for making or not making an effort to get treatment were similar to those in 2012.
- In 2013, among youths aged 12 to 17, 908,000 persons (3.6 percent) needed treatment for an illicit drug use problem, but only 90,000 received treatment at a specialty facility (10.0 percent of youths aged 12 to 17 who needed treatment), leaving 817,000 youths who needed treatment but did not receive it at a specialty facility. These estimates in 2013 were similar to those in 2012, except that the number and the rate of youths who needed treatment for an illicit drug use problem in 2013 were lower than those in 2012 (1.0 million and 4.2 percent).
- Among persons aged 12 or older who needed but did not receive illicit drug use treatment and felt they needed treatment (based on 2010-2013 combined data), the commonly reported reasons for not receiving treatment were (a) no health coverage and could not afford cost (42.1 percent), (b) not ready to stop using (27.5 percent), (c) concern that receiving treatment might cause neighbors/community to have negative opinion (15.9 percent), (d) possible negative effect on job (15.2 percent), (e) not knowing where to go for treatment (12.8 percent), and (f) having health coverage that did not cover treatment or did not cover the cost (9.6 percent).

Alcohol Use Treatment and Treatment Need

- In 2013, the number of persons aged 12 or older needing treatment for an alcohol use problem was 18.0 million (6.9 percent of the population aged 12 or older). The number in 2013 was similar to the numbers in 2010 to 2012 (ranging from 17.4 million to 18.6 million) and in 2002, 2003, and 2008 (ranging from 18.2 million to 19.1 million). However, the number in 2013 was lower than the numbers in 2004 to 2007 and in 2009 (ranging from 19.4 million to 19.6 million). The rate in 2013 (6.9 percent) was similar to the rates in 2011 (6.8 percent) and 2012 (7.0 percent), but it was lower than the rates in 2002 to 2010 (ranging from 7.3 to 8.0 percent).
- Among the 18.0 million persons aged 12 or older who needed treatment for an alcohol use problem in 2013, 1.4 million (0.5 percent of the total population and 7.9 percent of the persons who needed treatment for an alcohol use problem) received alcohol use treatment at a specialty facility. The number and the rate of the need and receipt of treatment at a specialty facility for an alcohol use problem in 2013 did not change significantly since 2002 (ranging from 1.3 million to 1.7 million and from 0.5 to 0.7 percent).
- The number of persons aged 12 or older who needed but did not receive treatment at a specialty facility for an alcohol use problem in 2013 (16.6 million) was similar to the numbers in 2002 (17.1 million), 2003 (16.9 million), and from 2008 to 2012 (ranging from 15.9 million to 17.7 million), but it was lower than the

numbers from 2004 to 2007 (ranging from 17.8 million to 18.0 million). The rate in 2013 (6.3 percent of the population aged 12 or older) was similar to the rates in 2010 to 2012 (ranging from 6.2 to 6.7 percent), but it was lower than the rates in 2002 to 2009 (ranging from 7.0 to 7.4 percent).

- Among the 16.6 million persons aged 12 or older who needed but did not receive specialty treatment for an alcohol use problem in 2013, 554,000 persons (3.3 percent) felt they needed treatment for their alcohol use problem. The number and rate in 2013 were similar to those in 2012 (665,000 persons and 4.0 percent) and 2002 (761,000 persons and 4.5 percent). Of the 554,000 persons in 2013 who perceived a need for treatment for an alcohol use problem but did not receive specialty treatment, 353,000 did not make an effort to get treatment, and 201,000 made an effort but were unable to get treatment.
- The number and the rate of youths aged 12 to 17 who needed treatment for an alcohol use problem in 2013 (735,000 and 3.0 percent) were lower than those in 2012 (889,000 and 3.6 percent). Of the youths in 2013 who needed treatment for an alcohol use problem, only 73,000 received treatment at a specialty facility (0.3 percent of all youths and 10.0 percent of youths who needed treatment). These estimates were similar to those in 2012. The number and the rate of youths who needed but did not receive treatment for an alcohol use problem in 2013 (662,000 and 2.7 percent) were lower than those in 2012 (814,000 and 3.3 percent).
- Among persons aged 12 or older who needed but did not receive alcohol use treatment and felt they needed treatment (based on 2010-2013 combined data), commonly reported reasons for not receiving treatment were (a) not ready to stop using (50.5 percent), (b) no health coverage and could not afford cost (26.4 percent), (c) not finding a program that offered the type of treatment (7.6 percent), (d) not knowing where to go for treatment (7.3 percent), (e) possible negative effect on job (7.1 percent), (f) no transportation or inconvenient (7.0 percent), (g) could handle the problem without treatment (6.8 percent), and (h) having health coverage that did not cover treatment or did not cover cost (6.7 percent).

8. Comparison of Trends in Substance Use among Youths and Young Adults

Previous chapters in this report presented findings from the 2013 National Survey on Drug Use and Health (NSDUH) that describe trends and demographic differences for the incidence and prevalence of use for a variety of substances. In this chapter, comparisons are presented of NSDUH trend results with substance use results from other surveys of youths and young adults.

Description of NSDUH and Other Data Sources

Conducted since 1971 and previously named the National Household Survey on Drug Abuse (NHSDA), the survey underwent several methodological improvements in 2002 that have affected prevalence estimates (see [Chapter 1](#)). As a result, the 2002 through 2013 estimates are not comparable with estimates from 2001 and earlier surveys. Therefore, the primary focus of this report is on comparisons of measures of substance use across subgroups of the U.S. population in 2013, changes between 2012 and 2013, and changes between 2002 and 2013. An important step in the analysis and interpretation of NSDUH or any other survey data is to compare the results with those from other data sources. This can be difficult because the other surveys typically have different purposes, definitions, and designs. Research has established that surveys of substance use and other sensitive topics often produce inconsistent results because of different methods that are used. Thus, it is important to understand that conflicting results often reflect differing methodologies, not incorrect results. Despite this limitation, comparisons can be very useful. Consistency across surveys can confirm or support conclusions about trends and patterns of use, and inconsistent results can point to areas for further study. Further discussion of this issue is included in [Appendix C](#), along with descriptions of methods and results from other sources of substance use data.

Unfortunately, few additional data sources are available to compare with NSDUH results. One established source is Monitoring the Future (MTF), a study sponsored by the National Institute on Drug Abuse (NIDA). MTF surveys students in the 8th, 10th, and 12th grades in classrooms during the spring of each year. MTF also collects data by mail from a subsample of adults who had participated earlier in the study as 12th graders. Further details about MTF are available on the MTF Web site at <http://www.monitoringthefuture.org/>. Historically, NSDUH rates of youth substance use have been lower than those of MTF. Although the two surveys occasionally have shown different trends in youth substance use over a short time period, these two sources of youth behavior have shown very similar long-term trends in prevalence. NSDUH and MTF rates of substance use generally have been similar among young adults, and the two sources also have shown similar trends for this age group.

Another source of data on trends in the use of drugs among youths is the Youth Risk Behavior Survey (YRBS), sponsored by the Centers for Disease Control and Prevention (CDC). The YRBS interviews students in the 9th through 12th grades in classrooms every other year during February through May (Brener et al., 2013). The most recent survey was completed in 2013 (Kann et al., 2014). Generally, the YRBS has shown higher prevalence rates but similar trends when compared with NSDUH and MTF. However, trend comparisons between the YRBS and NSDUH or MTF can be less straightforward because of the different periodicity (i.e., biennially instead of annually) and ages covered, the limited number of drug use questions, and smaller sample size in the YRBS.

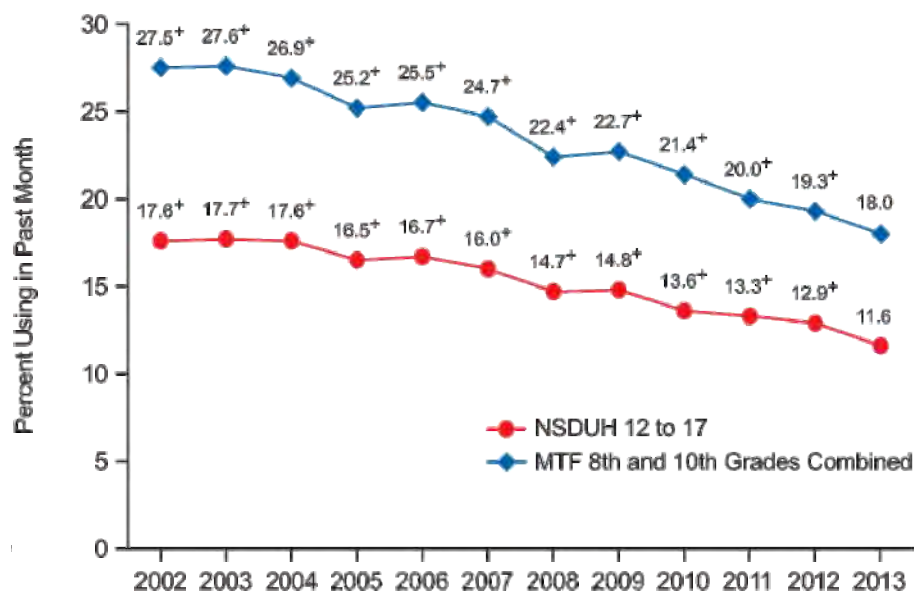
Comparison of NSDUH, MTF, and YRBS Trends for Youths

A comparison of NSDUH and MTF estimates among youths for 2002 to 2013 is shown in [Tables 8.1](#) through [8.3](#) at the end of this chapter for several substances that are defined similarly in the two surveys. For comparison purposes, MTF data on 8th and 10th graders are combined to give an age range close to 12 to 17 years, the standard youth age group for NSDUH. [Table C.1](#) in [Appendix C](#) provides comparisons according to the MTF definitions for youths who are in school. The NSDUH results in [Tables 8.1](#) through [8.3](#) are remarkably consistent with MTF trends for youths, as discussed in the following paragraphs.

Both surveys showed decreases between 2002 and 2013 in the percentages of youths who used cocaine, Ecstasy, inhalants, alcohol, and cigarettes in the past month ([Table 8.3](#)). For youth alcohol and cigarette use in the past month, both surveys showed lower rates in 2013 compared with all other years from 2002 to 2012. Although the MTF rate has been consistently higher than the NSDUH rate because of methodological differences between the surveys, the relative changes over time have been similar. For example, NSDUH data for past month alcohol use showed a 15 percent decline between 2010 and 2013 (from 13.6 to 11.6 percent), and the MTF data showed a 16 percent decrease during those years (from 21.4 to 18.0 percent) ([Figure 8.1](#)).

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 8.1 Past Month Alcohol Use among Youths in NSDUH and MTF: 2002-2013



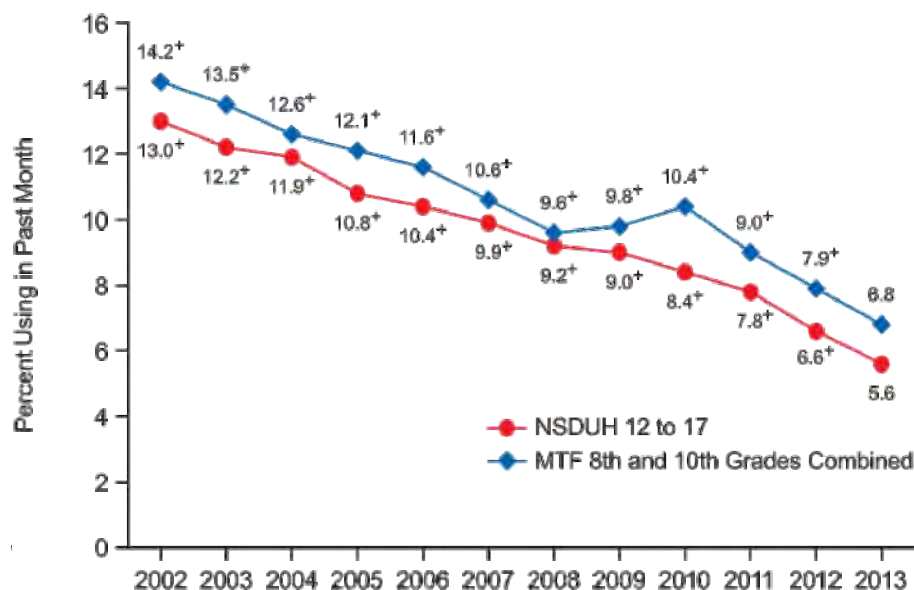
MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.

⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

There have been instances where the two surveys showed differing trends from 1 year to the next, but these discrepancies usually "correct" themselves with 1 or 2 more years of data, pointing to the need to use caution in the interpretation of 1-year shifts in prevalence levels. For example, 2010 MTF data indicated a leveling or possible increase in current cigarette use among youths, in contrast to the 2010 NSDUH data, which showed a lower rate in 2010 compared with rates in 2002 to 2008. The 2012 and 2013 MTF estimates, however, showed a continuing decline, consistent with the NSDUH trend in youth smoking. Over the long term, the two surveys showed consistent decreases in the prevalence of smoking among youths (Figure 8.2). During the 4-year period from 2010 to 2013, NSDUH showed a 33 percent decline (from 8.4 to 5.6 percent) and MTF showed a 35 percent decline (from 10.4 to 6.8 percent) in current cigarette use.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 8.2 Past Month Cigarette Use among Youths in NSDUH and MTF: 2002-2013



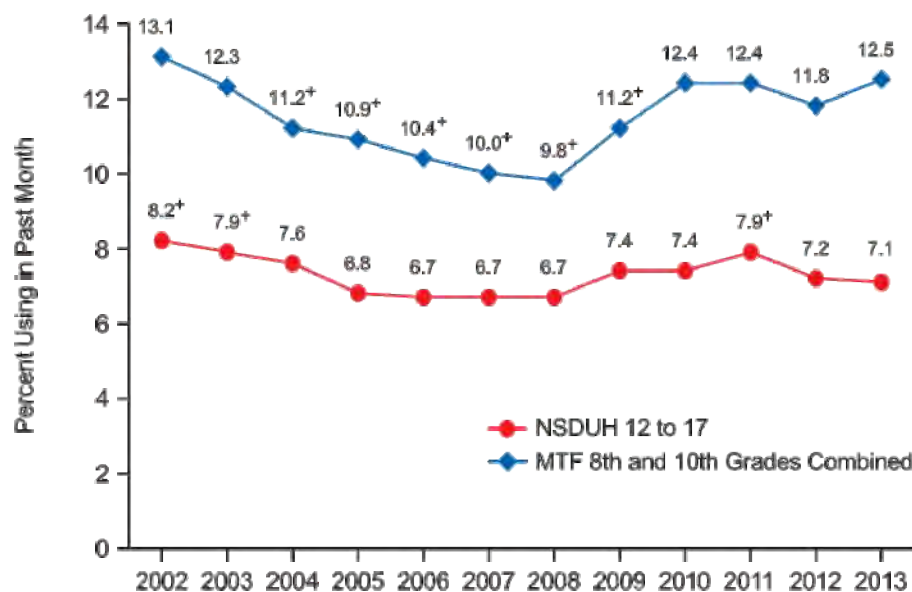
MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.

⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

For current marijuana use, both surveys showed declines from 2002 to 2006 and increases from 2008 to 2011 (Figure 8.3). The estimate of current marijuana use was lower in NSDUH in 2012 than in 2011, but the MTF change was not statistically significant over that period. However, rates of current marijuana use remained similar between 2012 and 2013 in both NSDUH and MTF.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 8.3 Past Month Marijuana Use among Youths in NSDUH and MTF: 2002-2013



MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.

* Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

NSDUH and MTF data showed generally consistent trends for past month use of Ecstasy, with decreases in use from 2002 to the middle of the decade, then increases in use from 2007 to 2010, declines between 2010 and 2012, and no change between 2012 and 2013. For past month use of cocaine, both surveys showed declines between 2013 and 2002 to 2008. Rates of past month use of inhalants also were lower in both surveys in 2013 than in 2002 to 2011, although NSDUH showed a continued decline from 2012 to 2013 that was not shown in MTF. For LSD, most rates of current use in 2002 to 2012 were similar to the rates in 2013 for both surveys.

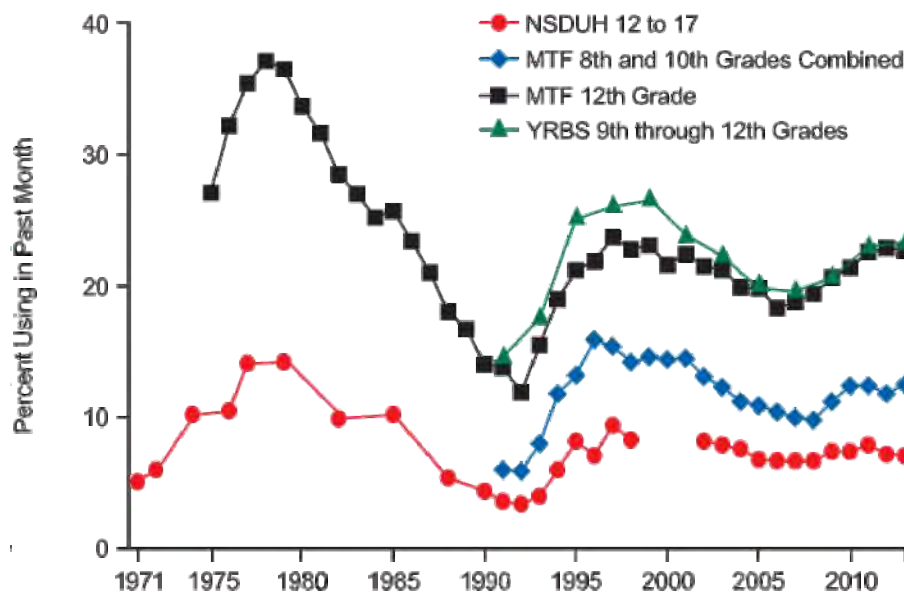
NSDUH and MTF also collect data on perceived risk of harm. The extent to which youths believe that substances might cause them harm can influence whether or not they will use these substances. Declining levels of perceived risk among youths historically have been associated with subsequent increases in rates of use. Among youths aged 12 to 17, the percentage reporting in NSDUH that they thought there was a great risk of harm in smoking marijuana once or twice a week declined from 43.6 percent in 2012 to 39.5 percent in 2013. MTF data for combined 8th and 10th graders showed a similar decline in perceived great risk of harm of regular marijuana use over this time period, from 58.9 to 53.8 percent.

For the substances for which information on current use was collected in the YRBS, including alcohol, cigarettes, marijuana, and cocaine, the YRBS trend results between 2001 and 2013 were consistent with NSDUH and MTF (see the link for the Youth Online interactive data tables at <http://www.cdc.gov/HealthyYouth/yrbs/>; Grunbaum et al., 2002). YRBS data for the combined grades 9 through 12 showed decreases in past month alcohol use (47.1 percent in 2001² and 34.9 percent in 2013) and cigarette use (28.5 percent in 2001 and 15.7 percent in 2013). YRBS showed a decline in past month marijuana use between 2001 (23.9 percent) and 2007 (19.7 percent) and an increase between 2007 and 2013 (23.4 percent). This increase between 2007 and 2013 was consistent with the increase in MTF across that same period. The prevalence of current marijuana use also increased between 2007 and 2011 both for NSDUH (from 6.7 to 7.9 percent) and YRBS (from 19.7 to 23.1 percent). However, the prevalence in NSDUH among youths declined between 2011 and 2013, such that the rates in 2007 and 2013 were similar for NSDUH. All three surveys showed no significant change in rates of current marijuana use between their most recent pair of survey years (2012 and 2013 for NSDUH and MTF; 2011 and 2013 for YRBS).

Although changes in NSDUH survey methodology preclude direct comparisons of recent estimates with estimates before 2002, it is important to put the recent trends in context by reviewing longer term trends in use. NSDUH data (prior to the design changes in 1999 and 2002) on youths aged 12 to 17 and MTF data on high school seniors showed substantial increases in youth illicit drug use during the 1970s, reaching a peak in the late 1970s. Both surveys then showed declines throughout the 1980s until about 1992, when rates reached a low point. These trends were driven by the trend in marijuana use (Figure 8.4). With the start of annual data collection in NSDUH in 1991, along with the biennial YRBS and the annual 8th and 10th grade samples in MTF, trends among youths are well documented since the low point that occurred in the early 1990s. Although they employ different survey designs and cover different age groups, the three surveys are consistent in showing increasing rates of marijuana use during the early to mid-1990s, reaching a peak in the late 1990s (but lower than in the late 1970s). This peak in the late 1990s was followed by declines in use after the turn of the 21st century and fairly stable rates in the most recent years.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 8.4 Past Month Marijuana Use among Youths in NSDUH, MTF, and YRBS: 1971-2013



MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health; YRBS = Youth Risk Behavior Survey.

Note: NSDUH data for youths aged 12 to 17 are not presented for 1999 to 2001 because of design changes in the survey. These design changes preclude direct comparisons of estimates from 2002 to 2013 with estimates prior to 1999.

As noted in [Chapter 2](#) of this report, NSDUH data indicated that nonmedical use of prescription drugs among youths aged 12 to 17 in 2013 was the second most prevalent illicit drug use category, with marijuana being first. The most prevalent category of misused prescription drugs among youths in 2013 was pain relievers.

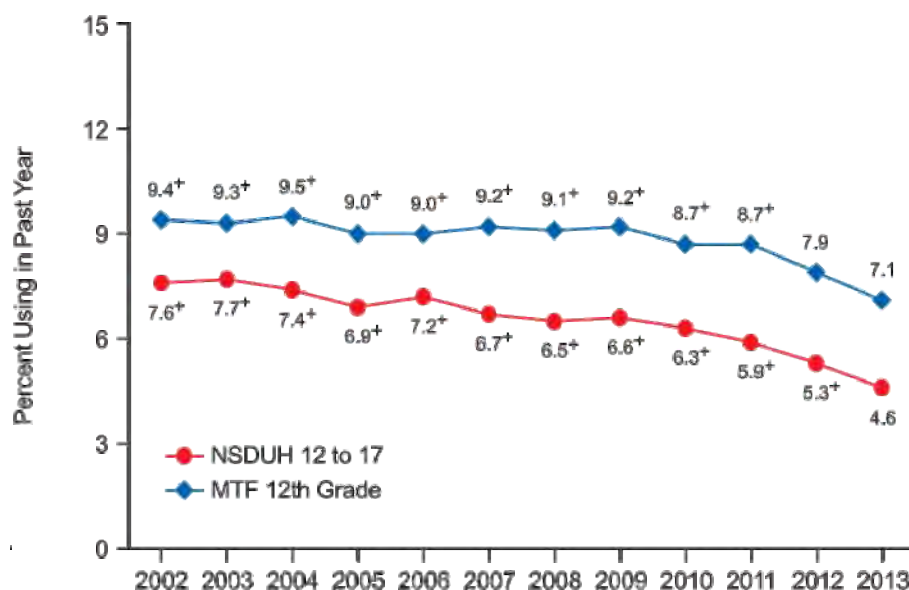
NSDUH and MTF both collect data on misuse of prescription drugs, but they use somewhat different definitions and questioning strategies. For example, NSDUH defines misuse as use of prescription drugs that were not prescribed for the respondent or use of these drugs only for the experience or feeling they caused; MTF defines misuse as use not under a doctor's orders. MTF also does not estimate overall prescription drug misuse. However, MTF asks questions about "narcotics other than heroin," a category that is similar in coverage to the pain reliever category in NSDUH. Also, MTF data on misuse of narcotics other than heroin are reported only for 12th graders because of concerns about the validity of estimates for 8th and 10th graders (Johnston, O'Malley, Bachman, Schulenberg, & Miech, 2014).

In addition, as has been the case with NSDUH trends, methodological changes in MTF have sometimes resulted in discontinuities. For the data on narcotics other than heroin, there was a questionnaire change in the 2002 MTF that resulted in increased reporting of misuse of narcotics other than heroin, such that estimates prior to 2002 are not strictly comparable with estimates for 2002 and beyond.

[Figure 8.5](#) shows NSDUH data for past year misuse of pain relievers from 2002 to 2013 for youths aged 12 to 17 and MTF data for 12th graders. Both surveys showed lower rates of nonmedical use in 2013 compared with rates in 2002 to 2011. The rate of nonmedical use of pain relievers in 2013 in the past year among 12 to 17 year olds in NSDUH was 4.6 percent and ranged from 5.9 to 7.7 percent in 2002 to 2011. The rate in 2012 among 12 to 17 year olds in NSDUH also was lower than the rate in 2013. In MTF, the rate for nonmedical use of narcotics other than heroin in the past year was 7.1 percent in 2013 and ranged from 8.7 to 9.5 percent in 2002 to 2011. The rates among 12th graders did not differ from 2011 to 2012 and from 2012 to 2013; see Johnston, O'Malley, Bachman, and Schulenberg (2013) for a comparison of rates between 2011 and 2012.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 8.5 Past Year Nonmedical Pain Reliever Use among Youths in NSDUH and MTF: 2002-2013



MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.

⁺ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.

Note: Data for MTF are for "narcotics other than heroin."

Comparison of NSDUH and MTF Trends for Young Adults

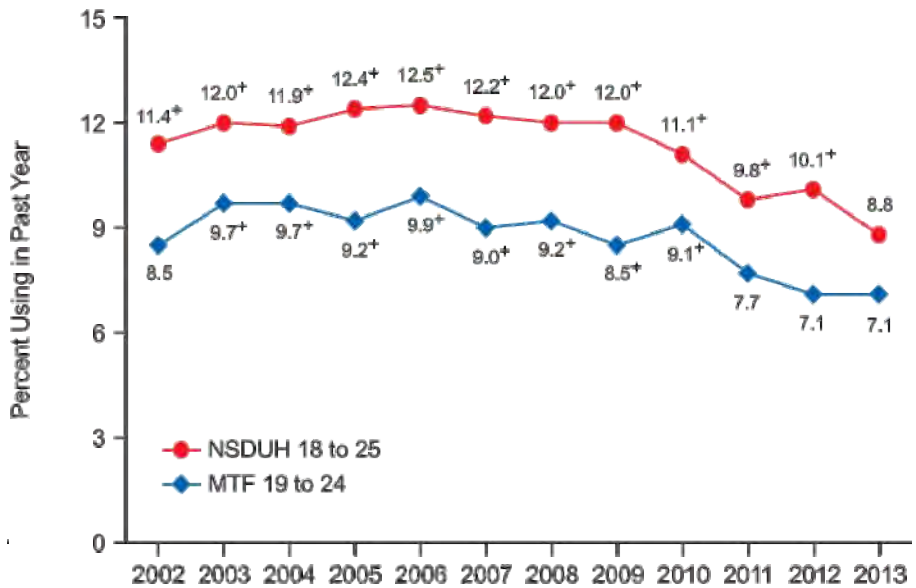
MTF follow-up data on persons aged 19 to 24 provide the closest match on age to estimates for NSDUH young adults aged 18 to 25. As shown in [Tables 8.4 to 8.6](#), data for young adults showed similar trends in NSDUH and MTF, although not as consistent as for the youth data. Potential reasons for differences from the data for youths are the relatively smaller MTF sample size for young adults and possible bias in the MTF sample due to noncoverage of school dropouts and a low overall response rate; the MTF response rate for young adults is affected by nonresponse by schools, by students in the 12th grade survey, and by young adults in the follow-up mail survey.

Both surveys showed an increase in past month marijuana use among young adults from 2008 to 2013 (from 16.6 to 19.1 percent in NSDUH; from 17.3 to 21.6 percent in MTF) ([Table 8.6](#)). Both surveys showed declines in past month cigarette use between 2002 and 2013, with NSDUH showing a decline from 40.8 to 30.6 percent and MTF showing a decline from 31.4 to 20.2 percent. Both surveys showed no significant change in rates of past month cigarette use among young adults between 2012 and 2013. There also was no significant change between 2012 and 2013 in the rate of current alcohol use among young adults in either survey. Both surveys showed declines in past year and past month cocaine use from 2002 to 2013, with no significant changes in rates between 2012 and 2013 ([Tables 8.5 and 8.6](#), respectively). Similarly, past year Ecstasy use among young adults increased between 2007 and 2010 and remained steady in 2011 through 2013, according to both NSDUH and MTF.

As was the case for youths aged 12 to 17, NSDUH data indicated that nonmedical use of prescription drugs among young adults aged 18 to 25 in 2013 was the second most prevalent illicit drug use category (see [Chapter 2](#)). Both NSDUH and MTF indicated lower rates of past year nonmedical use of pain relievers in 2013 than in 2003 to 2010 among young adults ([Figure 8.6](#)). The rate of past year nonmedical use among young adults aged 18 to 25 in NSDUH for 2013 (8.8 percent) also was lower than the rate in 2002 and showed continued declines since 2010. Trend data for adults aged 19 to 24 in MTF showed similar rates in 2011 to 2013.

Below is a line graph. [Click here](#) for the text describing this graph.

Figure 8.6 Past Year Nonmedical Pain Reliever Use among Young Adults in NSDUH and MTF: 2002-2013



MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.
+ Difference between this estimate and the 2013 estimate is statistically significant at the .05 level.
Note: Data for MTF are for "narcotics other than heroin."

Table 8.1 – Comparison of NSDUH, MTF, and YRBS Lifetime Prevalence Estimates among Youths: Percentages, 2002-2013

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|-------------------|------|
| Marijuana | | | | | | | | | | | | |
| NSDUH | 20.6 ^a | 19.6 ^a | 19.0 ^a | 17.4 | 17.3 | 16.2 | 16.6 | 17.1 | 17.1 | 17.5 ^a | 17.0 | 16.4 |
| MTF | 29.0 ^a | 27.0 | 25.7 | 25.3 | 23.8 ^a | 22.6 ^a | 22.3 ^a | 24.0 ^a | 25.4 | 25.5 | 24.5 ^a | 26.2 |
| YRBS | -- | 40.2 | -- | 38.4 | -- | 38.1 | -- | 36.8 ^a | -- | 39.9 | -- | 40.7 |
| Cocaine | | | | | | | | | | | | |
| NSDUH | 2.7 ^a | 2.6 ^a | 2.4 ^a | 2.3 ^a | 2.2 ^a | 2.2 ^a | 1.9 ^a | 1.6 ^a | 1.5 ^a | 1.3 ^a | 1.1 | 0.9 |
| MTF | 4.9 ^a | 4.4 ^a | 4.4 ^a | 4.5 ^a | 4.1 ^a | 4.2 ^a | 3.8 ^a | 3.6 ^a | 3.2 | 2.8 | 2.6 | 2.5 |
| YRBS | -- | 8.7 ^a | -- | 7.6 ^a | -- | 7.2 ^a | -- | 6.4 | -- | 6.8 ^a | -- | 5.5 |
| Ecstasy | | | | | | | | | | | | |
| NSDUH | 3.3 ^a | 2.4 ^a | 2.1 ^a | 1.6 | 1.9 ^a | 1.8 | 2.1 ^a | 2.3 ^a | 2.5 ^a | 2.4 ^a | 2.0 ^a | 1.5 |
| MTF | 5.5 ^a | 4.3 | 3.6 | 3.4 | 3.5 | 3.8 | 3.4 | 3.9 | 4.9 ^a | 4.6 ^a | 3.5 | 3.8 |
| YRBS | -- | 11.1 ^a | -- | 6.3 | -- | 5.8 | -- | 6.7 | -- | 8.2 ^a | -- | 6.6 |
| LSD | | | | | | | | | | | | |
| NSDUH | 2.7 ^a | 1.6 ^a | 1.2 ^a | 1.1 ^a | 0.9 | 0.8 | 1.1 | 1.0 | 0.9 | 0.9 | 1.0 | 0.9 |

MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health; YRBS = Youth Risk Behavior Survey.
-- Not available.
NOTE: NSDUH data are for youths aged 12 to 17. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).
NOTE: MTF data are simple averages of estimates for 8th and 10th graders. MTF data for 8th and 10th graders are reported in Johnston et al. (2014), as are the MTF design effects used for variance estimation.
NOTE: Statistical tests for the YRBS were conducted using the "Youth Online" tool at <http://www.cdc.gov/HealthyYouth/yrebs/>. Results of testing for statistical significance in this table may differ from published YRBS reports of change.
^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.
Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013. Centers for Disease Control and Prevention, Youth Risk Behavior Survey, 2003, 2005, 2007, 2009, 2011, and 2013.

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| MTF | 3.8 ^a | 2.8 ^a | 2.3 | 2.2 | 2.2 | 2.3 | 2.3 | 2.4 | 2.4 | 2.3 | 2.0 | 2.1 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Inhalants | | | | | | | | | | | | |
| NSDUH | 10.5 ^a | 10.7 ^a | 11.0 ^a | 10.5 ^a | 10.1 ^a | 9.6 ^a | 9.3 ^a | 9.3 ^a | 8.3 ^a | 7.5 ^a | 6.5 ^a | 5.3 |
| MTF | 14.4 ^a | 14.3 ^a | 14.9 ^a | 15.1 ^a | 14.7 ^a | 14.6 ^a | 14.3 ^a | 13.6 ^a | 13.3 ^a | 11.6 ^a | 10.9 ^a | 9.8 |
| YRBS | -- | 12.1 ^a | -- | 12.4 ^a | -- | 13.3 ^a | -- | 11.7 ^a | -- | 11.4 ^a | -- | 8.9 |
| Alcohol | | | | | | | | | | | | |
| NSDUH | 43.4 ^a | 42.9 ^a | 42.0 ^a | 40.6 ^a | 40.4 ^a | 39.5 ^a | 38.6 ^a | 38.4 ^a | 35.4 ^a | 34.5 ^a | 32.4 ^a | 30.8 |
| MTF | 57.0 ^a | 55.8 ^a | 54.1 ^a | 52.1 ^a | 51.0 ^a | 50.3 ^a | 48.6 ^a | 47.9 ^a | 47.0 ^a | 44.6 ^a | 41.8 ^a | 40.0 |
| YRBS | -- | 74.9 ^a | -- | 74.3 ^a | -- | 75.0 ^a | -- | 72.5 ^a | -- | 70.8 ^a | -- | 66.2 |
| Cigarettes | | | | | | | | | | | | |
| NSDUH | 33.3 ^a | 31.0 ^a | 29.2 ^a | 26.7 ^a | 25.9 ^a | 23.7 ^a | 23.1 ^a | 22.3 ^a | 20.5 ^a | 19.1 ^a | 17.4 ^a | 15.7 |
| MTF | 39.4 ^a | 35.7 ^a | 34.3 ^a | 32.4 ^a | 30.4 ^a | 28.4 ^a | 26.1 ^a | 26.4 ^a | 26.5 ^a | 24.4 ^a | 21.6 ^a | 20.3 |
| YRBS | -- | 58.4 ^a | -- | 54.3 ^a | -- | 50.3 ^a | -- | 46.3 ^a | -- | 44.7 ^a | -- | 41.1 |

MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health; YRBS = Youth Risk Behavior Survey.
 -- Not available.
 NOTE: NSDUH data are for youths aged 12 to 17. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).
 NOTE: MTF data are simple averages of estimates for 8th and 10th graders. MTF data for 8th and 10th graders are reported in Johnston et al. (2014), as are the MTF design effects used for variance estimation.
 NOTE: Statistical tests for the YRBS were conducted using the "Youth Online" tool at <http://www.cdc.gov/HealthyYouth/yrbs/>. Results of testing for statistical significance in this table may differ from published YRBS reports of change.
^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.
 Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013. Centers for Disease Control and Prevention, Youth Risk Behavior Survey, 2003, 2005, 2007, 2009, 2011, and 2013.

Table 8.2 – Comparison of NSDUH, MTF, and YRBS Past Year Prevalence Estimates among Youths: Percentages, 2002-2013

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| Marijuana | | | | | | | | | | | | |
| NSDUH | 15.8 ^a | 15.0 ^a | 14.5 ^a | 13.3 | 13.2 | 12.5 ^a | 13.1 | 13.7 | 14.0 | 14.2 | 13.5 | 13.4 |
| MTF | 22.5 | 20.5 | 19.7 ^a | 19.4 ^a | 18.5 ^a | 17.5 ^a | 17.4 ^a | 19.3 ^a | 20.6 | 20.7 | 19.7 ^a | 21.3 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cocaine | | | | | | | | | | | | |
| NSDUH | 2.1 ^a | 1.8 ^a | 1.6 ^a | 1.7 ^a | 1.6 ^a | 1.5 ^a | 1.2 ^a | 1.0 ^a | 1.0 ^a | 0.9 ^a | 0.7 ^a | 0.5 |
| MTF | 3.2 ^a | 2.8 ^a | 2.9 ^a | 2.9 ^a | 2.6 ^a | 2.7 ^a | 2.4 ^a | 2.2 ^a | 1.9 | 1.7 | 1.6 | 1.5 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Ecstasy | | | | | | | | | | | | |
| NSDUH | 2.2 ^a | 1.3 ^a | 1.2 ^a | 1.0 | 1.2 ^a | 1.3 ^a | 1.4 ^a | 1.7 ^a | 1.9 ^a | 1.7 ^a | 1.2 | 0.9 |
| MTF | 3.9 ^a | 2.6 | 2.1 | 2.2 | 2.1 | 2.5 | 2.3 | 2.5 | 3.6 ^a | 3.1 ^a | 2.1 | 2.4 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| LSD | | | | | | | | | | | | |
| NSDUH | 1.3 ^a | 0.6 | 0.6 | 0.6 | 0.4 ^a | 0.5 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| MTF | 2.1 ^a | 1.5 | 1.4 | 1.4 | 1.3 | 1.5 | 1.6 | 1.5 | 1.6 | 1.5 | 1.3 | 1.4 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Inhalants | | | | | | | | | | | | |
| NSDUH | 4.4 ^a | 4.5 ^a | 4.6 ^a | 4.5 ^a | 4.4 ^a | 3.9 ^a | 4.0 ^a | 3.9 ^a | 3.6 ^a | 3.3 ^a | 2.6 ^a | 1.9 |
| MTF | 6.8 ^a | 7.1 ^a | 7.8 ^a | 7.8 ^a | 7.8 ^a | 7.5 ^a | 7.4 ^a | 7.1 ^a | 6.9 ^a | 5.8 ^a | 5.2 ^a | 4.4 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Alcohol | | | | | | | | | | | | |
| NSDUH | 34.6 ^a | 34.3 ^a | 33.9 ^a | 33.3 ^a | 33.0 ^a | 31.9 ^a | 31.0 ^a | 30.5 ^a | 28.7 ^a | 27.8 ^a | 26.3 ^a | 24.6 |
| MTF | 49.4 ^a | 48.3 ^a | 47.5 ^a | 45.3 ^a | 44.7 ^a | 44.1 ^a | 42.3 ^a | 41.6 ^a | 40.7 ^a | 38.4 ^a | 36.1 ^a | 34.6 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Cigarettes | | | | | | | | | | | | |
| NSDUH | 20.3 ^a | 19.0 ^a | 18.4 ^a | 17.3 ^a | 17.0 ^a | 15.7 ^a | 15.1 ^a | 15.1 ^a | 14.2 ^a | 13.2 ^a | 11.8 ^a | 10.3 |
| MTF | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health; YRBS = Youth Risk Behavior Survey.
 -- Not available.
 NOTE: NSDUH data are for youths aged 12 to 17. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).
 NOTE: MTF data are simple averages of estimates for 8th and 10th graders. MTF data for 8th and 10th graders are reported in Johnston et al. (2014), as are the MTF design effects used for variance estimation.
 NOTE: Statistical tests for the YRBS were conducted using the "Youth Online" tool at <http://www.cdc.gov/HealthyYouth/yrbs/>. Results of testing for statistical significance in this table may differ from published YRBS reports of change.
^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.
 Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013.
 Centers for Disease Control and Prevention, Youth Risk Behavior Survey, 2003, 2005, 2007, 2009, 2011, and 2013.

Table 8.3 – Comparison of NSDUH, MTF, and YRBS Past Month Prevalence Estimates among Youths: Percentages, 2002-2013

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| Marijuana | | | | | | | | | | | | |
| NSDUH | 8.2 ^a | 7.9 ^a | 7.6 | 6.8 | 6.7 | 6.7 | 6.7 | 7.4 | 7.4 | 7.9 ^a | 7.2 | 7.1 |
| MTF | 13.1 | 12.3 | 11.2 ^a | 10.9 ^a | 10.4 ^a | 10.0 ^a | 9.8 ^a | 11.2 ^a | 12.4 | 12.4 | 11.8 | 12.5 |
| YRBS | -- | 22.4 | -- | 20.2 ^a | -- | 19.7 ^a | -- | 20.8 ^a | -- | 23.1 | -- | 23.4 |
| Cocaine | | | | | | | | | | | | |
| NSDUH | 0.6 ^a | 0.6 ^a | 0.5 ^a | 0.6 ^a | 0.4 ^a | 0.4 ^a | 0.4 ^a | 0.3 | 0.2 | 0.3 | 0.1 | 0.2 |
| MTF | 1.4 ^a | 1.1 ^a | 1.3 ^a | 1.3 ^a | 1.3 ^a | 1.1 ^a | 1.0 ^a | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 |
| YRBS | -- | 4.1 | -- | 3.4 | -- | 3.3 | -- | 2.8 | -- | 3.0 | -- | -- |
| Ecstasy | | | | | | | | | | | | |
| NSDUH | 0.5 ^a | 0.4 ^a | 0.3 | 0.3 | 0.3 ^a | 0.3 | 0.4 ^a | 0.5 ^a | 0.5 ^a | 0.4 ^a | 0.3 | 0.2 |
| MTF | 1.6 ^a | 0.9 | 0.8 | 0.8 | 1.0 | 0.9 | 1.0 | 1.0 | 1.5 ^a | 1.1 | 0.8 | 0.9 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| LSD | | | | | | | | | | | | |
| NSDUH | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 ^a | 0.2 |
| MTF | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.7 | 0.6 | 0.4 | 0.6 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Inhalants | | | | | | | | | | | | |
| NSDUH | 1.2 ^a | 1.3 ^a | 1.2 ^a | 1.2 ^a | 1.3 ^a | 1.2 ^a | 1.1 ^a | 1.0 ^a | 1.1 ^a | 0.9 ^a | 0.8 ^a | 0.5 |
| MTF | 3.1 ^a | 3.2 ^a | 3.5 ^a | 3.2 ^a | 3.2 ^a | 3.2 ^a | 3.1 ^a | 3.0 ^a | 2.8 ^a | 2.5 ^a | 2.1 | 1.8 |
| YRBS | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Alcohol | | | | | | | | | | | | |
| NSDUH | 17.6 ^a | 17.7 ^a | 17.6 ^a | 16.5 ^a | 16.7 ^a | 16.0 ^a | 14.7 ^a | 14.8 ^a | 13.6 ^a | 13.3 ^a | 12.9 ^a | 11.6 |
| MTF | 27.5 ^a | 27.6 ^a | 26.9 ^a | 25.2 ^a | 25.5 ^a | 24.7 ^a | 22.4 ^a | 22.7 ^a | 21.4 ^a | 20.0 ^a | 19.3 ^a | 18.0 |
| YRBS | -- | 44.9 ^a | -- | 43.3 ^a | -- | 44.7 ^a | -- | 41.8 ^a | -- | 38.7 ^a | -- | 34.9 |
| Cigarettes | | | | | | | | | | | | |
| NSDUH | 13.0 ^a | 12.2 ^a | 11.9 ^a | 10.8 ^a | 10.4 ^a | 9.9 ^a | 9.2 ^a | 9.0 ^a | 8.4 ^a | 7.8 ^a | 6.6 ^a | 5.6 |
| MTF | 14.2 ^a | 13.5 ^a | 12.6 ^a | 12.1 ^a | 11.6 ^a | 10.6 ^a | 9.6 ^a | 9.8 ^a | 10.4 ^a | 9.0 ^a | 7.9 ^a | 6.8 |
| YRBS | -- | 21.9 ^a | -- | 23.0 ^a | -- | 20.0 ^a | -- | 19.5 ^a | -- | 18.1 | -- | 15.7 |

MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health; YRBS = Youth Risk Behavior Survey.

-- Not available.

NOTE: NSDUH data are for youths aged 12 to 17. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).

NOTE: MTF data are simple averages of estimates for 8th and 10th graders. MTF data for 8th and 10th graders are reported in Johnston et al. (2014), as are the MTF design effects used for variance estimation.

NOTE: Statistical tests for the YRBS were conducted using the "Youth Online" tool at <http://www.cdc.gov/HealthyYouth/yrbbs/>. Results of testing for statistical significance in this table may differ from published YRBS reports of change.

^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.

Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013.

Centers for Disease Control and Prevention, Youth Risk Behavior Survey, 2003, 2005, 2007, 2009, 2011, and 2013.

Table 8.4 – Comparison of NSDUH and MTF Lifetime Prevalence Estimates among Young Adults: Percentages, 2002-2013

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------|
| Marijuana | | | | | | | | | | | | |
| NSDUH | 53.8 ^a | 53.9 ^a | 52.8 | 52.4 | 52.5 | 50.9 | 50.8 | 52.6 | 51.4 | 51.9 | 52.2 | 51.9 |
| MTF | 56.1 ^a | 56.4 ^a | 55.6 | 54.4 | 53.8 | 53.9 | 53.0 | 53.8 | 53.2 | 53.1 | 53.0 | 53.3 |
| Cocaine | | | | | | | | | | | | |
| NSDUH | 15.4 ^a | 15.0 ^a | 15.2 ^a | 15.1 ^a | 15.7 ^a | 15.0 ^a | 14.5 ^a | 14.9 ^a | 13.4 ^a | 12.4 | 12.3 | 11.6 |
| MTF | 12.9 ^a | 14.5 ^a | 14.3 ^a | 12.6 ^a | 13.6 ^a | 12.4 ^a | 12.2 ^a | 12.2 ^a | 10.9 ^a | 10.3 ^a | 9.2 | 8.7 |
| Ecstasy | | | | | | | | | | | | |
| NSDUH | 15.1 ^a | 14.8 ^a | 13.8 ^a | 13.7 ^a | 13.4 | 12.8 | 12.2 | 12.5 | 12.4 | 12.3 | 12.9 | 12.8 |
| MTF | 16.0 ^a | 16.6 ^a | 14.9 ^a | 12.4 ^a | 11.5 | 9.5 | 10.1 | 9.3 | 10.2 | 9.9 | 9.8 | 10.1 |
| LSD | | | | | | | | | | | | |
| NSDUH | 15.9 ^a | 14.0 ^a | 12.1 ^a | 10.5 ^a | 9.0 ^a | 7.3 ^a | 6.6 | 6.9 | 6.4 | 6.0 | 5.9 | 6.5 |
| MTF | 13.9 ^a | 13.8 ^a | 10.4 ^a | 7.9 ^a | 6.7 | 5.9 | 5.6 | 5.3 | 5.7 | 5.4 | 5.3 | 5.7 |
| Inhalants | | | | | | | | | | | | |
| NSDUH | 15.7 ^a | 14.9 ^a | 14.0 ^a | 13.3 ^a | 12.5 ^a | 11.3 ^a | 10.5 ^a | 10.8 ^a | 10.0 ^a | 9.1 ^a | 8.4 ^a | 7.5 |

NSDUH = National Survey on Drug Use and Health; MTF = Monitoring the Future.

-- Not available.

NOTE: NSDUH data are for persons aged 18 to 25. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).

NOTE: MTF data were calculated for persons aged 19 to 24 using simple averages of modal age groups 19-20, 21-22, and 23-24 (source data at <http://www.monitoringthefuture.org/pubs.html>). Estimates may differ from those published previously due to rounding. For the 19 to 24 age group in the MTF data, significance tests were performed assuming independent samples between years an odd number of years apart because two distinct cohorts a year apart were monitored longitudinally at 2-year intervals. Although appropriate for comparisons of 2002, 2004, 2006, 2008, 2010, and 2012 estimates with 2013 estimates, this assumption results in conservative tests for comparisons of 2003, 2005, 2007, 2009, and 2011 data with 2013 estimates because it does not take into account covariances that are associated with repeated observations from the longitudinal samples. Estimates of covariances were not available.

^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.

¹ MTF data are for "narcotics other than heroin."

Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013.

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| MTF | 11.7 ^a | 11.4 ^a | 10.6 ^a | 9.3 ^a | 9.7 ^a | 7.5 | 8.4 ^a | 7.7 | 6.8 | 6.0 | 6.7 | 6.1 |
| Alcohol | | | | | | | | | | | | |
| NSDUH | 86.7 ^a | 87.1 ^a | 86.2 ^a | 85.7 ^a | 86.5 ^a | 85.2 ^a | 85.6 ^a | 85.8 ^a | 85.7 ^a | 84.3 | 84.4 | 83.8 |
| MTF | 88.4 ^a | 87.6 ^a | 87.2 ^a | 87.1 ^a | 87.0 ^a | 86.0 ^a | 86.4 ^a | 85.7 ^a | 84.9 ^a | 84.4 ^a | 82.5 | 82.0 |
| Cigarettes | | | | | | | | | | | | |
| NSDUH | 71.2 ^a | 70.2 ^a | 68.7 ^a | 67.3 ^a | 66.6 ^a | 64.8 ^a | 64.4 ^a | 63.8 ^a | 62.3 ^a | 61.0 ^a | 59.5 ^a | 57.9 |
| MTF | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Pain Relievers ¹ | | | | | | | | | | | | |
| NSDUH | 22.1 ^a | 23.7 ^a | 24.3 ^a | 25.5 ^a | 25.5 ^a | 24.9 ^a | 24.6 ^a | 24.5 ^a | 23.9 ^a | 22.2 ^a | 22.4 ^a | 20.8 |
| MTF | -- | 17.3 ^a | 17.7 ^a | 16.9 ^a | 17.9 ^a | 17.8 ^a | 17.8 ^a | 17.2 ^a | 16.6 ^a | 16.0 | 14.7 | 14.5 |

NSDUH = National Survey on Drug Use and Health; MTF = Monitoring the Future.
 -- Not available.
 NOTE: NSDUH data are for persons aged 18 to 25. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).
 NOTE: MTF data were calculated for persons aged 19 to 24 using simple averages of modal age groups 19-20, 21-22, and 23-24 (source data at <http://www.monitoringthefuture.org/pubs.html>). Estimates may differ from those published previously due to rounding. For the 19 to 24 age group in the MTF data, significance tests were performed assuming independent samples between years an odd number of years apart because two distinct cohorts a year apart were monitored longitudinally at 2-year intervals. Although appropriate for comparisons of 2002, 2004, 2006, 2008, 2010, and 2012 estimates with 2013 estimates, this assumption results in conservative tests for comparisons of 2003, 2005, 2007, 2009, and 2011 data with 2013 estimates because it does not take into account covariances that are associated with repeated observations from the longitudinal samples. Estimates of covariances were not available.
^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.
¹ MTF data are for "narcotics other than heroin."
 Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013.

Table 8.5 – Comparison of NSDUH and MTF Past Year Prevalence Estimates among Young Adults: Percentages, 2002-2013

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------|
| Marijuana | | | | | | | | | | | | |
| NSDUH | 29.8 ^a | 28.5 ^a | 27.8 ^a | 28.0 ^a | 28.1 ^a | 27.5 ^a | 27.8 ^a | 30.8 | 30.0 ^a | 30.8 | 31.5 | 31.6 |
| MTF | 34.2 | 33.0 ^a | 31.6 ^a | 31.4 ^a | 30.9 ^a | 31.0 ^a | 30.9 ^a | 32.2 ^a | 31.7 ^a | 33.7 | 32.8 ^a | 35.5 |
| Cocaine | | | | | | | | | | | | |
| NSDUH | 6.7 ^a | 6.6 ^a | 6.6 ^a | 6.9 ^a | 6.9 ^a | 6.4 ^a | 5.6 ^a | 5.3 ^a | 4.7 | 4.6 | 4.6 | 4.4 |
| MTF | 6.5 ^a | 7.3 ^a | 7.8 ^a | 6.9 ^a | 7.0 ^a | 6.3 ^a | 6.0 ^a | 5.7 ^a | 4.7 | 4.8 | 4.1 | 3.9 |
| Ecstasy | | | | | | | | | | | | |
| NSDUH | 5.8 ^a | 3.7 | 3.1 ^a | 3.1 ^a | 3.8 | 3.5 | 3.9 | 4.3 | 4.4 | 4.1 | 4.1 | 4.0 |
| MTF | 8.0 ^a | 5.3 | 3.3 ^a | 3.4 ^a | 3.6 ^a | 2.8 ^a | 3.8 | 3.5 ^a | 4.7 | 4.4 | 5.2 | 5.3 |
| LSD | | | | | | | | | | | | |
| NSDUH | 1.8 | 1.1 ^a | 1.0 ^a | 1.0 ^a | 1.2 ^a | 1.1 ^a | 1.5 ^a | 1.6 ^a | 1.6 ^a | 1.7 | 1.8 | 2.0 |
| MTF | 2.4 | 1.5 ^a | 1.2 ^a | 1.1 ^a | 1.5 ^a | 1.4 ^a | 1.9 | 2.1 | 1.8 | 2.2 | 1.9 | 2.6 |
| Inhalants | | | | | | | | | | | | |
| NSDUH | 2.2 ^a | 2.1 ^a | 2.1 ^a | 2.1 ^a | 1.8 ^a | 1.6 | 1.6 | 1.9 ^a | 1.8 ^a | 1.5 | 1.4 | 1.4 |
| MTF | 2.2 ^a | 1.5 ^a | 2.3 ^a | 1.6 ^a | 1.8 ^a | 1.1 | 1.7 ^a | 1.2 | 1.7 ^a | 0.9 | 1.5 ^a | 0.7 |
| Alcohol | | | | | | | | | | | | |
| NSDUH | 77.9 | 78.1 ^a | 78.0 ^a | 77.9 | 78.8 ^a | 77.9 | 78.0 ^a | 78.7 ^a | 78.6 ^a | 77.0 | 77.4 | 76.8 |
| MTF | 83.9 ^a | 82.3 ^a | 83.1 ^a | 82.8 ^a | 83.2 ^a | 82.8 ^a | 82.5 ^a | 82.0 ^a | 80.5 | 80.6 | 79.0 | 78.6 |
| Cigarettes | | | | | | | | | | | | |
| NSDUH | 49.0 ^a | 47.6 ^a | 47.5 ^a | 47.2 ^a | 47.0 ^a | 45.2 ^a | 45.1 ^a | 45.3 ^a | 43.2 ^a | 42.3 ^a | 41.0 ^a | 39.5 |
| MTF | 41.8 ^a | 40.8 ^a | 41.4 ^a | 40.2 ^a | 37.1 ^a | 36.2 ^a | 35.4 ^a | 35.0 ^a | 33.0 ^a | 32.6 | 29.3 | 30.4 |
| Pain Relievers ¹ | | | | | | | | | | | | |
| NSDUH | 11.4 ^a | 12.0 ^a | 11.9 ^a | 12.4 ^a | 12.5 ^a | 12.2 ^a | 12.0 ^a | 12.0 ^a | 11.1 ^a | 9.8 ^a | 10.1 ^a | 8.8 |
| MTF | 8.5 | 9.7 ^a | 9.7 ^a | 9.2 ^a | 9.9 ^a | 9.0 ^a | 9.2 ^a | 8.5 ^a | 9.1 ^a | 7.7 | 7.1 | 7.1 |

NSDUH = National Survey on Drug Use and Health; MTF = Monitoring the Future.
 NOTE: NSDUH data are for persons aged 18 to 25. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).
 NOTE: MTF data were calculated for persons aged 19 to 24 using simple averages of modal age groups 19-20, 21-22, and 23-24 (source data at <http://www.monitoringthefuture.org/pubs.html>). Estimates may differ from those published previously due to rounding. For the 19 to 24 age group in the MTF data, significance tests were performed assuming independent samples between years an odd number of years apart because two distinct cohorts a year apart were monitored longitudinally at 2-year intervals. Although appropriate for comparisons of 2002, 2004, 2006, 2008, 2010, and 2012 estimates with 2013 estimates, this assumption results in conservative tests for comparisons of 2003, 2005, 2007, 2009, and 2011 data with 2013 estimates because it does not take into account covariances that are associated with repeated observations from the longitudinal samples. Estimates of covariances were not available.
^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.
¹ MTF data are for "narcotics other than heroin." In 2002, MTF question text was changed in half of the sample by updating the example list of narcotics other than heroin. To be consistent with MTF data for 2003 and later years, MTF data for 2002 past year use of narcotics other than heroin are based on the half sample that received the new question text.
 Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013.

Table 8.6 – Comparison of NSDUH and MTF Past Month Prevalence Estimates among Young Adults: Percentages, 2002-2013

| Substance/Survey | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------|
| Marijuana | | | | | | | | | | | | |
| NSDUH | 17.3 ^a | 17.0 ^a | 16.1 ^a | 16.6 ^a | 16.3 ^a | 16.5 ^a | 16.6 ^a | 18.2 | 18.5 | 19.0 | 18.7 | 19.1 |
| MTF | 19.8 | 19.9 | 18.2 ^a | 17.0 ^a | 17.0 ^a | 17.5 ^a | 17.3 ^a | 18.5 ^a | 17.8 ^a | 20.1 | 19.8 | 21.6 |
| Cocaine | | | | | | | | | | | | |
| NSDUH | 2.0 ^a | 2.2 ^a | 2.1 ^a | 2.6 ^a | 2.2 ^a | 1.7 ^a | 1.6 ^a | 1.4 | 1.5 ^a | 1.4 | 1.1 | 1.1 |
| MTF | 2.5 ^a | 2.6 ^a | 2.4 ^a | 2.1 | 2.4 ^a | 1.9 | 1.9 | 1.8 | 1.5 | 1.5 | 1.3 | 1.5 |
| Ecstasy | | | | | | | | | | | | |
| NSDUH | 1.1 | 0.7 | 0.7 | 0.8 | 1.0 | 0.7 | 0.9 | 1.1 | 1.2 | 0.9 | 1.0 | 0.9 |
| MTF | 1.6 | 1.0 | 0.8 | 0.6 | 0.9 | 0.3 ^a | 0.9 | 0.7 | 1.2 | 0.9 | 1.3 | 1.2 |
| LSD | | | | | | | | | | | | |
| NSDUH | 0.1 ^a | 0.2 | 0.3 | 0.2 | 0.2 ^a | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| MTF | 0.4 | 0.2 ^a | 0.2 ^a | 0.2 ^a | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.5 | 0.4 | 0.5 |
| Inhalants | | | | | | | | | | | | |
| NSDUH | 0.5 ^a | 0.4 | 0.4 | 0.5 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 |
| MTF | 0.8 ^a | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.6 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 |
| Alcohol | | | | | | | | | | | | |
| NSDUH | 60.5 | 61.4 ^a | 60.5 | 60.9 | 62.0 ^a | 61.3 ^a | 61.1 ^a | 61.8 ^a | 61.4 ^a | 60.7 | 60.2 | 59.6 |
| MTF | 67.7 ^a | 66.3 | 67.3 ^a | 66.8 | 67.0 | 67.4 ^a | 67.4 ^a | 68.1 ^a | 65.8 | 65.8 | 66.0 | 64.9 |
| Cigarettes | | | | | | | | | | | | |
| NSDUH | 40.8 ^a | 40.2 ^a | 39.5 ^a | 39.0 ^a | 38.5 ^a | 36.2 ^a | 35.7 ^a | 35.8 ^a | 34.3 ^a | 33.5 ^a | 31.8 | 30.6 |
| MTF | 31.4 ^a | 29.5 ^a | 30.2 ^a | 28.7 ^a | 26.7 ^a | 25.7 ^a | 24.3 ^a | 23.5 ^a | 21.8 | 21.3 | 18.7 | 20.2 |
| Pain Relievers¹ | | | | | | | | | | | | |
| NSDUH | 4.1 ^a | 4.7 ^a | 4.7 ^a | 4.7 ^a | 5.0 ^a | 4.6 ^a | 4.5 ^a | 4.8 ^a | 4.4 ^a | 3.6 | 3.8 ^a | 3.3 |
| MTF | -- | 3.4 | 3.4 | 3.7 ^a | 3.6 ^a | 3.5 | 3.7 ^a | 3.2 | 3.5 | 2.9 | 2.9 | 2.7 |

NSDUH = National Survey on Drug Use and Health; MTF = Monitoring the Future.

-- Not available.

NOTE: NSDUH data are for persons aged 18 to 25. Some 2006 to 2010 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).

NOTE: MTF data were calculated for persons aged 19 to 24 using simple averages of modal age groups 19-20, 21-22, and 23-24 (source data at <http://www.monitoringthefuture.org/pubs.html>). Estimates may differ from those published previously due to rounding. For the 19 to 24 age group in the MTF data, significance tests were performed assuming independent samples between years an odd number of years apart because two distinct cohorts a year apart were monitored longitudinally at 2-year intervals. Although appropriate for comparisons of 2002, 2004, 2006, 2008, 2010, and 2012 estimates with 2013 estimates, this assumption results in conservative tests for comparisons of 2003, 2005, 2007, 2009, and 2011 data with 2013 estimates because it does not take into account covariances that are associated with repeated observations from the longitudinal samples. Estimates of covariances were not available.

^a Difference between this estimate and 2013 estimate is statistically significant at the .05 level.

¹ MTF data are for "narcotics other than heroin."

Sources: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2002-2013.

Appendix A: Description of the Survey

A.1 Sample Design

The sample design for the 2013 National Survey on Drug Use and Health (NSDUH)⁸ was an extension of a coordinated 5-year design providing estimates for all 50 States plus the District of Columbia initially for the years 2005 through 2009, then continuing through 2013. The respondent universe for NSDUH is the civilian, noninstitutionalized population aged 12 years old or older residing within the United States. The survey covers residents of households (persons living in houses/townhouses, apartments, condominiums; civilians living in housing on military bases, etc.) and persons in noninstitutional group quarters (e.g., shelters, rooming/boarded houses, college dormitories, migratory workers' camps, halfway houses). Excluded from the survey are persons with no fixed household address (e.g., homeless and/or transient persons not in shelters), active-duty military personnel, and residents of institutional group quarters, such as correctional facilities, nursing homes, mental institutions, and long-term hospitals.

The coordinated design for 2005 through 2009 included a 50 percent overlap in second-stage units (area segments) within each successive 2-year period from 2005 through 2009. The 2010 through 2013 NSDUHs continued the 50 percent overlap by retaining half of the second-stage units from the previous survey. Because the coordinated design enabled estimates to be developed by State in all 50 States plus the District of Columbia, States may be viewed as the first level of stratification and as a variable for reporting estimates.

For the 50-State design, 8 States were designated as large sample States (California, Florida, Illinois, Michigan, New York, Ohio, Pennsylvania, and Texas) with target sample sizes of 3,600. In 2013, the actual sample sizes in these States ranged from 3,503 to 3,729. For the remaining 42 States and the District of Columbia, the target sample size was 900. Sample sizes in these States ranged from 852 to 953 in 2013. This approach ensured there was sufficient sample in every State to support State estimation by either direct methods or small area estimation (SAE)⁹ while at the same time providing adequate precision for national estimates.

States were first stratified into a total of 900 State sampling regions (SSRs) (48 regions in each large sample State and 12 regions in each small sample State). These regions were contiguous geographic areas designed to yield approximately the same number of interviews.¹⁰ Unlike the 1999 through 2001 NHSDAs and the 2002 through 2004 NSDUHs in which the first-stage sampling units were clusters of census blocks called area segments, the first stage of selection for the 2005 through 2013 NSDUHs was census tracts.¹¹ This stage was included to contain sample segments within a single census tract to the extent possible.¹²

Within each SSR, 48 census tracts were selected with probability proportional to population size. Within sampled census tracts, adjacent census blocks were combined to form the second-stage sampling units or area segments. One area segment was selected within each sampled census tract with probability proportional to population size. Although only 24 segments were needed to support the coordinated 2005 through 2009 5-year sample, an additional 24 segments were selected to support any supplemental studies that the Substance Abuse and Mental Health Services Administration (SAMHSA) may have chosen to field. These 24 segments constituted the

reserve sample and were available for use in 2010, 2011, 2012, and 2013. Eight reserve sample segments per SSR were fielded during the 2013 survey year. Four of these segments were retained from the 2012 survey, and four were selected for use in the 2013 survey.

These sampled segments were allocated equally into four separate samples, one for each 3-month period (calendar quarter) during the year. That is, a sample of addresses was selected from two segments in each calendar quarter so that the survey was relatively continuous in the field. In each of the area segments, a listing of all addresses was made, from which a national sample of 227,075 addresses was selected. Of the selected addresses, 190,067 were determined to be eligible sample units. In these sample units (which can be either households or units within group quarters), sample persons were randomly selected using an automated screening procedure programmed in a handheld computer carried by the interviewers. The number of sample units completing the screening was 160,325. Youths aged 12 to 17 years and young adults aged 18 to 25 years were oversampled at this stage, with 12 to 17 year olds sampled at an actual rate of 87.5 percent and 18 to 25 year olds at a rate of 68.5 percent on average, when they were present in the sampled households or group quarters. Similarly, persons in age groups 26 or older were sampled at rates of 23.4 percent or less, with persons in the eldest age group (50 years or older) sampled at a rate of 8.3 percent on average. The overall population sampling rates were 0.090 percent for 12 to 17 year olds, 0.064 percent for 18 to 25 year olds, 0.017 percent for 26 to 34 year olds, 0.015 percent for 35 to 49 year olds, and 0.007 percent for those 50 or older. Nationwide, 88,742 persons were selected. Consistent with previous surveys in this series, the final respondent sample of 67,838 persons was representative of the U.S. general population (since 1991, the civilian, noninstitutionalized population) aged 12 or older. In addition, State samples were representative of their respective State populations. More detailed information on the disposition of the national screening and interview sample can be found in [Appendix B](#). More information about the sample design can be found in the 2013 NSDUH sample design report (Center for Behavioral Health Statistics and Quality [CBHSQ], 2014b).

A.2 Data Collection Methodology

The data collection method used in NSDUH involves in-person interviews with sample persons, incorporating procedures to increase respondents' cooperation and willingness to report honestly about their illicit drug use behavior. Confidentiality is stressed in all written and oral communications with potential respondents. Respondents' names are not collected with the data, and computer-assisted interviewing (CAI) methods are used to provide a private and confidential setting to complete the interview.

Introductory letters are sent to sampled addresses, followed by an interviewer visit. When contacting a dwelling unit (DU), the field interviewer (FI) asks to speak with an adult resident (aged 18 or older) of the household who can serve as the screening respondent. Using a handheld computer, the FI completes a 5-minute procedure with the screening respondent that involves listing all household members along with their basic demographic data. The computer uses the demographic data in a preprogrammed selection algorithm to select zero to two sample persons, depending on the composition of the household. This selection process is designed to provide the necessary sample sizes for the specified population age groupings. In areas where a third or more of the households contain Spanish-speaking residents, the initial introductory letters written in English are mailed with a Spanish version on the back. All interviewers carry copies of this letter in Spanish. If the interviewer is not certified bilingual, he or she will use preprinted Spanish cards to attempt to find someone in the household who speaks English and who can serve as the screening respondent or who can translate for the screening respondent. If no one is available, the interviewer will schedule a time when a Spanish-speaking interviewer can come to the address. In households where a language other than Spanish is encountered, another language card is used to attempt to find someone who speaks English to complete the screening.

The NSDUH interview can be completed in English or Spanish, and both versions have the same content. If the sample person prefers to complete the interview in Spanish, a certified bilingual interviewer is sent to the address to conduct the interview. Because the interview is not translated into any other language, if a sample person does not speak English or Spanish, the interview is not conducted.

Immediately after the completion of the screener, interviewers attempt to conduct the NSDUH interview with each sample person in the household. The interviewer requests that the sampled respondent identify a private area in the home to conduct the interview away from other household members. The interview averages about an hour and includes a combination of CAPI (computer-assisted personal interviewing, in which the interviewer reads the questions) and ACASI (audio computer-assisted self-interviewing).

The NSDUH interview consists of core and noncore (i.e., supplemental) sections. A core set of questions critical for basic trend measurement of prevalence estimates remains in the survey every year and comprises the first part of the interview. Noncore questions, or modules, that can be revised, dropped, or added from year to year make up the remainder of the interview. The core consists of initial demographic items (which are interviewer-administered) and self-administered questions pertaining to the use of tobacco, alcohol, marijuana, cocaine, crack cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, and sedatives. Topics in the remaining noncore self-administered sections include (but are not limited to) injection drug use, perceived risks of substance use, substance dependence or abuse, arrests, treatment for substance use problems, pregnancy and health care issues, and mental health issues. Noncore demographic questions (which are interviewer-administered and follow the ACASI questions) address such topics as immigration, current school enrollment, employment and workplace issues, health insurance coverage, and income. In practice, some of the noncore portions of the interview have remained in the survey, relatively unchanged, from year to year (e.g., current health insurance coverage, employment).

Thus, the interview begins in CAPI mode with the FI reading the questions from the computer screen and entering the respondent's replies into the computer. The interview then transitions to the ACASI mode for the sensitive questions. In this mode, the respondent can read the questions silently on the computer screen and/or listen to the questions read through headphones and enter his or her responses directly into the computer. At the conclusion of the ACASI section, the interview returns to the CAPI mode with the FI completing the questionnaire. Each respondent who completes a full interview is given a \$30 cash incentive as a token of appreciation for his or her time.

No personal identifying information about the respondent is captured in the CAI record. FIs transmit the completed interview data to RTI in Research Triangle Park, North Carolina. Screening and interview data are encrypted while they reside on laptops and mobile computers. Data are transmitted back to RTI on a regular basis using either a direct dial-up connection or the Internet. All data are encrypted while in transit across dial-up or Internet connections. In addition, the screening and interview data are transmitted back to RTI in separate data streams and are kept physically separate (on different devices) before transmission occurs.

After the data are transmitted to RTI, certain cases are selected for verification. The respondents are contacted by RTI to verify the quality of an FI's work based on information that respondents provide at the end of screening (if no one is selected for an interview at the DU or the entire DU is ineligible for the study) or at the end of the interview. For the screening, the adult DU member who served as the screening respondent provides his or her first name and telephone number to the FI, who enters the information into a handheld computer and transmits the data to RTI. For completed interviews, respondents write their home telephone number and mailing address on a quality control form and seal the form in a preaddressed envelope that FIs mail back to RTI. All contact information is kept completely separate from the answers provided during the screening or interview.

Samples of respondents who completed screenings or interviews are randomly selected for verification. These cases are called by telephone interviewers who ask scripted questions designed to determine the accuracy and quality of the data collected. Any cases discovered to have a problem or discrepancy are flagged and routed to a small specialized team of telephone interviewers who recontact respondents for further investigation of the issue(s). Depending on the amount of an FI's work that cannot be verified through telephone verification, including bad telephone numbers (e.g., incorrect number, disconnected, not in service), a field verification may be conducted. Field verification involves another FI returning to the sampled DU to verify the accuracy and quality of the data in person. If the verification procedures identify situations in which an FI has falsified data, the FI is terminated. All cases completed that quarter by the falsifying FI are verified and reworked by the FI conducting the field verification. Any cases completed by the falsifying FI in earlier quarters of the same year are also verified. All cases from earlier quarters identified as falsified or

unresolvable are removed and not reworked. Examples of unresolvable cases include those for which verifiers were never able to make contact with a resident of the DU, residents who refused to verify their data, previous residents who had moved, or residents who reported accurate roster data for the DU but did not recall speaking to an FI.

A.3 Data Processing

Data that FIs transmit to RTI are processed to create a raw data file in which no logical editing of the data has been done. The raw data file consists of one record for each transmitted interview. Cases are eligible to be treated as final respondents only if they provided data on lifetime use of cigarettes and at least 9 out of 13 of the other substances in the core section of the questionnaire. Even though editing and consistency checks are done by the CAI program during the interview, additional, more complex edits and consistency checks are completed at RTI. Additionally, statistical imputation is used to replace missing or ambiguous values after editing for some key variables. Analysis weights are created so that estimates will be representative of the target population. Details of the editing, imputation, and weighting procedures for 2013 will appear in the *2013 NSDUH Methodological Resource Book*, which is in process. Until that volume becomes available, refer to the *2012 NSDUH Methodological Resource Book* (CBHSQ, 2014a).

A.3.1 Data Coding and Logical Editing

With the exception of industry and occupation data, coding of written answers that respondents or interviewers typed was performed at RTI for the 2013 NSDUH. These written answers include mentions of drugs that respondents had used or other responses that did not fit a previous response option (subsequently referred to as "OTHER, Specify" data). Written responses in "OTHER, Specify" data were assigned numeric codes through computer-assisted survey procedures and the use of a secure Web site that allowed for coding and review of the data. The computer-assisted procedures entailed a database check for a given "OTHER, Specify" variable that contained typed entries and the associated numeric codes. If an exact match was found between the typed response and an entry in the system, the computer-assisted procedures assigned the appropriate numeric code. Typed responses that did not match an existing entry were coded through the Web-based coding system. Data on the industries in which respondents worked and respondents' occupations were assigned numeric industry and occupation codes by staff at the U.S. Census Bureau.

As noted above, the CAI program included checks that alerted respondents or interviewers when an entered answer was inconsistent with a previous answer in a given module. In this way, the inconsistency could be resolved while the interview was in progress. However, not every inconsistency was resolved during the interview, and the CAI program did not include checks for every possible inconsistency that might have occurred in the data.

Therefore, the first step in processing the raw NSDUH data was logical editing of the data. Logical editing involved using data from within a respondent's record to (a) reduce the amount of item nonresponse (i.e., missing data) in interview records, including identification of items that were legitimately skipped; (b) make related data elements consistent with each other; and (c) identify ambiguities or inconsistencies to be resolved through statistical imputation procedures (see [Section A.3.2](#)).

For example, if respondents reported that they never used a given drug, the CAI logic skipped them out of all remaining questions about use of that drug. In the editing procedures, the skipped variables were assigned codes to indicate that the respondents were lifetime nonusers. Similarly, respondents were instructed in the prescription psychotherapeutics modules (i.e., pain relievers, tranquilizers, stimulants, and sedatives) not to report the use of over-the-counter (OTC) drugs. Therefore, if a respondent's only report of lifetime use of a particular type of "prescription" psychotherapeutic drug was for an OTC drug, the respondent was logically inferred never to have been a nonmedical user of the prescription drugs in that psychotherapeutic category.

In addition, respondents could report that they were lifetime users of a drug but not provide specific information on when they last used it. In this situation, a temporary "indefinite" value for the most recent period of use was assigned to the edited recency-of-use variable (e.g., "Used at some point in the lifetime LOGICALLY ASSIGNED"), and a final, specific value was statistically imputed. The editing procedures for key drug use variables also involved identifying inconsistencies between related variables so that these inconsistencies could be resolved through statistical imputation. For example, if a respondent reported last using a drug more than 12 months ago and also reported first using it at his or her current age, both of those responses could not be true. In this example, the inconsistent period of most recent use was replaced with an "indefinite" value, and the inconsistent age at first use was replaced with a missing data code. These indefinite or missing values were subsequently imputed through statistical procedures to yield consistent data for the related measures, as discussed in the next section.

A.3.2 Statistical Imputation

For some key variables that still had missing or ambiguous values after editing, statistical imputation was used to replace these values with appropriate response codes. For example, a response is ambiguous if the editing procedures assigned a respondent's most recent use of a drug to "Used at some point in the lifetime," with no definite period within the lifetime. In this case, the imputation procedure assigns a value for when the respondent last used the drug (e.g., in the past 30 days, more than 30 days ago but within the past 12 months, more than 12 months ago). Similarly, if a response is completely missing, the imputation procedures replace missing values with nonmissing ones.

For most variables, missing or ambiguous values are imputed in NSDUH using a methodology called predictive mean neighborhoods (PMN), which was developed specifically for the 1999 survey and has been used in all subsequent survey years. PMN allows for the following: (1) the ability to use covariates to determine donors is greater than that offered in the hot-deck imputation procedure, (2) the relative importance of covariates can be determined by standard modeling techniques, (3) the correlations across response variables can be accounted for by making the imputation multivariate, and (4) sampling weights can be easily incorporated in the models. The PMN method has some similarity with the predictive mean matching method of Rubin (1986) except that, for the donor records, Rubin used the observed variable value (not the predictive mean) to compute the distance function. Also, the well-known method of nearest neighbor imputation is similar to PMN, except that the distance function is in terms of the original predictor variables and often requires somewhat arbitrary scaling of discrete variables. PMN is a combination of a model-assisted imputation methodology and a random nearest neighbor hot-deck procedure. The hot-deck procedure within the PMN method ensures that missing values are imputed to be consistent with nonmissing values for other variables. Whenever feasible, the imputation of variables using PMN is multivariate, in which imputation is accomplished on several response variables at once. Variables imputed using PMN are the core demographic variables, core drug use variables (recency of use, frequency of use, and age at first use), income, health insurance, and noncore demographic variables for work status, immigrant status, and the household roster. [Table A.1](#) at the end of this appendix summarizes the distribution of weighted statistical imputation rates of these variables by interview section.

In the modeling stage of PMN, the model chosen depends on the nature of the response variable. In the 2013 NSDUH, the models included binomial logistic regression, multinomial logistic regression, Poisson regression, time-to-event (survival) regression, and ordinary linear regression, where the models incorporated the sampling design weights.

In general, hot-deck imputation replaces an item nonresponse (missing or ambiguous value) with a recorded response that is donated from a "similar" respondent who has nonmissing data. For random nearest neighbor hot-deck imputation, the missing or ambiguous value is replaced by a responding value from a donor randomly selected from a set of potential donors. Potential donors are those defined to be "close" to the unit with the missing or ambiguous value according to a predefined function called a distance metric. In the hot-deck procedure of PMN, the set of candidate donors (the "neighborhood") consists of respondents with complete data who have a predicted mean close to that of the item nonrespondent. The predicted means are computed both for respondents with and without missing data, which differs from Rubin's method where predicted means are not computed for the donor respondent (Rubin, 1986). In particular, the neighborhood consists of either the set of the closest 30 respondents or the set of respondents with a predicted mean (or means) within 5 percent of the predicted mean(s) of the item nonrespondent, whichever set is smaller. If no respondents are available who have a predicted mean (or means) within 5 percent of the item nonrespondent, the respondent with the predicted mean(s) closest to that of the item nonrespondent is selected as the donor.

In the univariate case (where only one variable is imputed using PMN), the neighborhood of potential donors is determined by calculating the relative distance between the predicted mean for an item nonrespondent and the predicted mean for each potential donor, then choosing those means defined by the distance metric. The pool of donors is restricted further to satisfy logical constraints whenever necessary (e.g., age at first crack use must not be less than age at first cocaine use).

Whenever possible, missing or ambiguous values for more than one response variable are considered together. In this (multivariate) case, the distance metric is a Mahalanobis distance, which takes into account the correlation between variables (Manly, 1986), rather than a Euclidean distance. The Euclidean distance is the square root of the sum of squared differences between each element of the predictive mean vector for the respondent and the predictive mean vector for the nonrespondent. The Mahalanobis distance standardizes the Euclidean distance by the variance-covariance matrix, which is appropriate for random variables that are correlated or have heterogeneous variances. Whether the imputation is univariate or multivariate, only missing or ambiguous values are replaced, and donors are restricted to be logically consistent with the response variables that are not missing. Furthermore, donors are restricted to satisfy "likeness constraints" whenever possible. That is, donors are required to have the same values for variables highly correlated with the response. For example, donors for the age at first use variable are required to be of the same age as recipients, if at all possible. If no donors are available who meet these conditions, these likeness constraints can be loosened. Further details on the PMN methodology are provided by Singh, Grau, and Folsom (2002).

Although statistical imputation could not proceed separately within each State due to insufficient pools of donors, information about each respondent's State of residence was incorporated in the modeling and hot-deck steps. For most drugs, respondents were separated into three "State usage" categories as follows: respondents from States with high usage of a given drug were placed in one category, respondents from States with medium usage into another, and the remainder into a third category. This categorical "State rank" variable was used as one set of covariates in the imputation models. In addition, eligible donors for each item nonrespondent were restricted to be of the same State usage category (i.e., the same "State rank") as the nonrespondent.

In the 2013 NSDUH, the majority of variables that underwent statistical imputation required less than 5 percent of their records to be logically assigned or statistically imputed. Variables for measures that are highly sensitive or that may not be known to younger respondents (e.g., family income) often have higher rates of item nonresponse. In addition, certain variables that are subject to a greater number of skip patterns and consistency checks (e.g., frequency of use in the past 12 months and past 30 days) often require greater amounts of imputation.

A.3.3 Development of Analysis Weights

The general approach to developing and calibrating analysis weights involved developing design-based weights as the product of the inverse of the selection probabilities at each selection stage. Since 2005, NSDUH has used a four-stage sample selection scheme in which an extra selection stage of census tracts was added before the selection of a segment. Thus, the design-based weights, d_k , incorporate an extra layer of sampling selection to reflect the sample design change. Adjustment factors, $a_k(\lambda)$, then were applied to the design-based weights to adjust for nonresponse, to poststratify to known population control totals, and to control for extreme weights when necessary. In view of the importance of State-level estimates with the 50-State design, it was necessary to control for a much larger number of known population totals. Several other modifications to the general weight adjustment strategy that had been used in past surveys also were implemented for the first time beginning with the 1999 CAI sample.

Weight adjustments were based on a generalization of Deville and Särndal's (1992) logit model. This generalized exponential model (GEM) (Folsom & Singh, 2000) incorporates unit-specific bounds $(\ell_k, u_k), k \in \mathcal{S}$, for the adjustment factor $a_k(\lambda)$ as follows:

$$a_k(\lambda) = \frac{\ell_k(u_k - c_k) + u_k(c_k - \ell_k) \exp(A_k x'_k \lambda)}{(u_k - c_k) + (c_k - \ell_k) \exp(A_k x'_k \lambda)}, \quad \text{D}$$

where c_k are prespecified centering constants, such that $\ell_k < c_k < u_k$ and $A_k = (u_k - \ell_k)/(u_k - c_k)(c_k - \ell_k)$. The variables ℓ_k, c_k , and u_k are user-specified bounds, and λ is the column vector of p model parameters corresponding to the p covariates x . The λ parameters are estimated by solving

$$\sum_{\mathcal{S}} x_k d_k a_k(\lambda) - \tilde{T}_x = 0, \quad \text{D}$$

where \tilde{T}_x denotes control totals that could be either nonrandom, as is generally the case with poststratification, or random, as is generally the case for nonresponse adjustment.

The final weights $w_k = d_k a_k(\lambda)$ minimize the distance function $\Delta(w, d)$ defined as

$$\Delta(w, d) = \sum_{k \in \mathcal{S}} \frac{d_k}{A_k} \left\{ (a_k - \ell_k) \log \frac{a_k - \ell_k}{c_k - \ell_k} + (u_k - a_k) \log \frac{u_k - a_k}{u_k - c_k} \right\}. \quad \text{D}$$

This general approach was used at several stages of the weight adjustment process, including (1) adjustment of household weights for nonresponse at the screener level, (2) poststratification of household weights to meet population controls for various household-level demographics by State, (3) adjustment of household weights for extremes, (4) poststratification of selected person weights, (5) adjustment of responding person weights for nonresponse at the questionnaire level, (6) poststratification of responding person weights, and (7) adjustment of responding person weights for extremes.

Every effort was made to include as many relevant State-specific covariates (typically defined by demographic domains within States) as possible in the multivariate models used to calibrate the weights (nonresponse adjustment and poststratification steps). Because further subdivision of State samples by demographic covariates often produced small cell sample sizes, it was not possible to retain all State-specific covariates (even after meaningful collapsing of covariate categories) and still estimate the necessary model parameters with reasonable precision. Therefore, a hierarchical structure was used in grouping States with covariates defined at the national level, at the census division level within the Nation, at the State group within the census division, and, whenever possible, at the State level. In every case, the controls for the total population within a State and the five age groups (12 to 17, 18 to 25, 26 to 34, 35 to 49, 50 or older) within a State were maintained except that, in the last step of poststratification of person weights, six age groups (12 to 17, 18 to 25, 26 to 34, 35 to 49, 50 to 64, 65 or older) were used. Census control totals by age, race, gender, and Hispanic origin were required for the civilian, noninstitutionalized population of each State. Beginning with the 2002 NSDUH, the Population Estimates Branch of the U.S. Census Bureau has produced the necessary population estimates for the same year as each NSDUH survey in response to a special request.

Census control totals for the 2013 NSDUH weights were based on population estimates from the 2010 decennial census as for the 2011 and 2012 NSDUHs, whereas the control totals for the 2010 NSDUH weights were still based on the 2000 census. This shift to the 2010 census data for the 2011 NSDUH could have affected comparisons between substance use estimates in 2011 and onward and those from prior years. Section B.4.3 in Appendix B of the 2011 NSDUH national findings report (CBHSQ, 2012b) discusses the results of an investigation using data from 2010 and 2011 that assessed the effects of using control totals based on the 2010 census instead of the 2000 census for estimating substance use in 2010.

Consistent with the surveys from 1999 onward, control of extreme weights through separate bounds for adjustment factors was incorporated into the GEM calibration processes for both nonresponse and poststratification. This is unlike the traditional method of winsorization in which extreme weights are truncated at prespecified levels

and the trimmed portions of weights are distributed to the nontruncated cases. In GEM, it is possible to set bounds around the prespecified levels for extreme weights. Then the calibration process provides an objective way of deciding the extent of adjustment (or truncation) within the specified bounds. A step was included to poststratify the household-level weights to obtain census-consistent estimates based on the household rosters from all screened households. An additional step poststratified the selected person sample to conform to the adjusted roster estimates. This additional step takes advantage of the inherent two-phase nature of the NSDUH design. The respondent poststratification step poststratified the respondent person sample to external census data (defined within the State whenever possible, as discussed above).

For certain populations of interest, 2 years of NSDUH data were combined to obtain annual averages. The person-level weights for estimates based on the annual averages were obtained by dividing the analysis weights for the 2 specific years by a factor of 2.

Table A.1 – Weighted Statistical Imputation Rates (Percentages) for the 2013 NSDUH, by Interview Section

| Interview Section | Number of Variables | Mean | Minimum | 25th Percentile | 75th Percentile | Maximum |
|---|---------------------|------|---------|-----------------|-----------------|---------|
| Core Demographics | 14 | 2.19 | 0.03 | 0.53 | 3.27 | 3.36 |
| Core Drug Use ¹ | 98 | 1.69 | 0.01 | 0.18 | 2.17 | 9.50 |
| Income and Health Insurance | 17 | 1.86 | 0.27 | 0.37 | 2.10 | 10.20 |
| Other Noncore Demographics ² | 12 | 0.20 | 0.05 | 0.10 | 0.27 | 0.38 |

¹ Core drug use variables do not include initiation variables beyond age at first use because these additional questions are asked only if respondents first used within 1 year of their current age.
² Other noncore demographic variables include work status, immigrant status, and household roster variables.
Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013.

Appendix B: Statistical Methods and Measurement

B.1 Target Population

The estimates of drug use prevalence from the National Survey on Drug Use and Health (NSDUH) are designed to describe the target population of the survey—the civilian, noninstitutionalized population aged 12 or older living in the United States. This population includes almost 98 percent of the total U.S. population aged 12 or older. However, it excludes some small subpopulations that may have very different drug use patterns. For example, the survey excludes active military personnel, who have been shown to have significantly lower rates of illicit drug use. The survey also excludes two groups that have been shown to have higher rates of illicit drug use: persons living in institutional group quarters, such as prisons and residential drug use treatment centers, and homeless persons not living in a shelter. Readers are reminded to consider the exclusion of these subpopulations when interpreting results. [Appendix C](#) describes other surveys that provide data for some of these populations.

B.2 Sampling Error and Statistical Significance

This report includes national estimates that were drawn from a set of tables referred to as "detailed tables" that are available at <http://www.samhsa.gov/data/>. The national estimates, along with the associated standard errors (SEs, which are the square roots of the variances), were computed for all detailed tables using a multiprocedure package, SUDAAN® Software for Statistical Analysis of Correlated Data. This software accounts for the complex survey design of NSDUH in estimating the SEs (RTI International, 2012). The final, nonresponse-adjusted, and poststratified analysis weights were used in SUDAAN to compute unbiased design-based drug use estimates.

The sampling error of an estimate is the error caused by the selection of a sample instead of conducting a census of the population. The sampling error may be reduced by selecting a large sample and/or by using efficient sample design and estimation strategies, such as stratification, optimal allocation, and ratio estimation. The use of probability sampling methods in NSDUH allows estimation of sampling error from the survey data. SEs have been calculated using SUDAAN for all estimates presented in this report using a Taylor series linearization approach that takes into account the effects of NSDUH's complex design features. The SEs are used to identify unreliable estimates and to test for the statistical significance of differences between estimates.

B.2.1 Variance Estimation for Totals

The variances and SEs of estimates of means and proportions can be calculated reasonably well in SUDAAN using a Taylor series linearization approach. Estimates of means or proportions, \hat{p}_d , such as drug use prevalence estimates for a domain d , can be expressed as a ratio estimate:

$$\hat{p}_d = \frac{\hat{Y}_d}{\hat{N}_d} \quad \text{D}$$

where \hat{Y}_d is a linear statistic estimating the number of substance users in the domain d and \hat{N}_d is a linear statistic estimating the total number of persons in domain d (including both users and nonusers). The SUDAAN software package is used to calculate direct estimates of \hat{Y}_d and \hat{N}_d (and, therefore, \hat{p}_d) and also can be used to estimate their respective SEs. A Taylor series approximation method implemented in SUDAAN provides the estimate for the SE of \hat{p}_d .

When the domain size, \hat{N}_d , is free of sampling error, an estimate of the SE for the total number of substance users is

$$SE(\hat{Y}_d) = \hat{N}_d SE(\hat{p}_d) \quad \text{D}$$

This approach is theoretically correct when the domain size estimates, \hat{N}_d , are among those forced to match their respective U.S. Census Bureau population estimates through the weight calibration process. In these cases, \hat{N}_d is not subject to a sampling error induced by the NSDUH design. [Section A.3.3](#) in [Appendix A](#) contains further information about the weight calibration process. In addition, more detailed information about the weighting procedures for 2013 will appear in the *2013 NSDUH Methodological Resource Book*, which is in process. Until that volume becomes available, refer to the *2012 NSDUH Methodological Resource Book* (Center for Behavioral Health Statistics and Quality [CBHSQ], 2014a).

For estimated domain totals, \hat{Y}_d , where \hat{N}_d is not fixed (i.e., where domain size estimates are not forced to match the U.S. Census Bureau population estimates), this formulation still may provide a good approximation if it can be assumed that the sampling variation in \hat{N}_d is negligible relative to the sampling variation in \hat{p}_d . This is a reasonable assumption for many cases in this study.

For some subsets of domain estimates, the above approach can yield an underestimate of the SE of the total when \hat{N}_d was subject to considerable variation. Because of this underestimation, alternatives for estimating SEs of totals were implemented. Since the 2005 NSDUH report, a "mixed" method approach has been implemented for all detailed tables to improve the accuracy of SEs and to better reflect the effects of poststratification on the variance of total estimates. This approach assigns the methods of SE calculation to domains (i.e., subgroups for which the estimates were calculated) within tables so that all estimates among a select set of domains with fixed \hat{N}_d were calculated using the formula above, and all other estimates were calculated directly in SUDAAN, regardless of what the other estimates are within the same table. The set of domains considered controlled (i.e., those with a fixed \hat{N}_d) was restricted to main effects and two-way interactions in order to maintain continuity between years. Domains consisting of three-way interactions may be controlled in a single year but not necessarily in preceding or subsequent years. The use of such SEs did not affect the SE estimates for the corresponding proportions presented in the same sets of tables because all SEs for means and proportions are calculated directly in SUDAAN. As a result of the use of this mixed-method approach, the SEs for the total estimates within many detailed tables were calculated differently from those in NSDUH reports prior to the 2005 report.

[Table B.1](#) at the end of this appendix contains only a partial list of domains with a fixed \hat{N}_d that were used in the weight calibration process. However, the list does include all of the domains that were used in computing SEs for estimates produced in this report and in the 2013 detailed tables. This table includes both the main effects and two-way interactions and may be used to identify the method of SE calculation employed for estimates of totals. For example, Table 1.23 in the 2013 detailed tables presents estimates of illicit drug use among persons aged 18 or older within the domains of gender, Hispanic origin and race, education, and current employment. Estimates among the total population (age main effect), males and females (age by gender interaction), and Hispanics and non-Hispanics (age by Hispanic origin interaction) were treated as controlled in this table, and the formula above was used to calculate the SEs. The SEs for all other estimates, including white and black or African American (age by Hispanic origin by race interaction) were calculated directly from SUDAAN. Estimates presented in this report for racial groups are for non-Hispanics. Thus, the domain for whites by age group in the weight calibration process in [Table B.1](#) is a two-way interaction. However, published estimates for whites by age group in this report and in the 2013 detailed tables actually represent a three-way interaction: white by Hispanic origin (i.e., not Hispanic) by age group.

B.2.2 Suppression Criteria for Unreliable Estimates

As has been done in past NSDUH reports, direct estimates from NSDUH that are designated as unreliable are not shown in this report and are noted by asterisks (*) in figures containing such estimates. The criteria used to define unreliability of direct estimates from NSDUH are based on the prevalence (for proportion estimates), relative standard error (RSE) (defined as the ratio of the SE over the estimate), nominal (actual) sample size, and effective sample size for each estimate. These suppression criteria for various NSDUH estimates are summarized in [Table B.2](#) at the end of this appendix.

Proportion estimates (\hat{p}), or rates, within the range $[0 < \hat{p} < 1]$, and the corresponding estimated numbers of users were suppressed if

$$RSE[-\ln(\hat{p})] > .175 \text{ when } \hat{p} \leq .5 \quad \underline{D}$$

or

$$RSE[-\ln(1 - \hat{p})] > .175 \text{ when } \hat{p} > .5 \quad \underline{D}$$

Using a first-order Taylor series approximation to estimate $RSE[-\ln(\hat{p})]$ and $RSE[-\ln(1 - \hat{p})]$, the following equation was derived and used for computational purposes when applying a suppression rule dependent on effective sample size:

$$\frac{SE(\hat{p}) / \hat{p}}{-\ln(\hat{p})} > .175 \quad \underline{D}$$

or

$$\frac{SE(\hat{p}) / (1 - \hat{p})}{-\ln(1 - \hat{p})} > .175 \quad \underline{D}$$

The separate formulas for $\hat{p} \leq .5$ and $\hat{p} > .5$ produce a symmetric suppression rule; that is, if \hat{p} is suppressed, $1 - \hat{p}$ will be suppressed as well (see [Figure B.1](#) following [Table B.2](#)). When $.05 < \hat{p} < .95$, the symmetric properties of the rule produce a local minimum effective sample size of 50 at $\hat{p} = .2$ and at $\hat{p} = .8$. Using the minimum effective sample size for the suppression rule would mean that estimates of \hat{p} between .05 and .95 would be suppressed if their corresponding effective sample sizes were less than 50. Within this same interval, a local maximum effective sample size of 68 is found at $\hat{p} = .5$. To simplify requirements and maintain a conservative suppression rule, estimates of \hat{p} between .05 and .95 were suppressed if they had an effective sample size below 68.

In addition, a minimum nominal sample size suppression criterion ($n = 100$) that protects against unreliable estimates caused by small design effects and small nominal sample sizes was employed; [Table B.2](#) shows a formula for calculating design effects. Prevalence estimates also were suppressed if they were close to 0 or 100 percent (i.e., if $\hat{p} < .00005$ or if $\hat{p} \geq .99995$).

Beginning with the 1991 survey, the suppression rule for proportions based on $RSE[-\ln(\hat{p})]$ described previously replaced a rule in which data were suppressed whenever $RSE(\hat{p}) > .5$. This rule was changed because the rule prior to 1991 imposed a very stringent application for suppressing estimates when \hat{p} is small but imposed a very lax application for large \hat{p} . The new rule ensured a more uniformly stringent application across the whole range of \hat{p} (i.e., from 0 to 1). The previous rule also was asymmetric in the sense that suppression only occurred in terms of \hat{p} . That is, there was no complementary rule for $(1 - \hat{p})$, which the current NSDUH suppression criteria for proportions take into account.

Estimates of totals were suppressed if the corresponding prevalence rates were suppressed. Estimates of means that are not bounded between 0 and 1 (e.g., mean of age at first use) were suppressed if the RSEs of the estimates were larger than .5 or if the nominal sample size was smaller than 10 respondents. This rule was based on an empirical examination of the estimates of mean age of first use and their SEs for various empirical sample sizes. Although arbitrary, a sample size of 10 appeared to provide sufficient precision and still allow reporting by year of first use for many substances.

B.2.3 Statistical Significance of Differences

This section describes the methods used to compare prevalence estimates in this report. Customarily, the observed difference between estimates is evaluated in terms of its statistical significance. Statistical significance is based on the p value of the test statistic and refers to the probability that a difference as large as that observed would occur because of random variability in the estimates if there were no difference in the prevalence estimates for the population groups being compared. The significance of observed differences in this report is reported at the .05 level. When comparing prevalence estimates, the null hypothesis (no difference between prevalence estimates) was tested against the alternative hypothesis (there is a difference in prevalence estimates) using the standard difference in proportions test expressed as

$$Z = \frac{\hat{p}_1 - \hat{p}_2}{\sqrt{\text{var}(\hat{p}_1) + \text{var}(\hat{p}_2) - 2\text{cov}(\hat{p}_1, \hat{p}_2)}}, \quad \text{D}$$

where \hat{p}_1 = first prevalence estimate, \hat{p}_2 = second prevalence estimate, $\text{var}(\hat{p}_1)$ = variance of first prevalence estimate, $\text{var}(\hat{p}_2)$ = variance of second prevalence estimate, and $\text{cov}(\hat{p}_1, \hat{p}_2)$ = covariance between \hat{p}_1 and \hat{p}_2 . In cases where significance tests between years were performed, the prevalence estimate from the earlier year becomes the first estimate, and the prevalence estimate from the later year becomes the second estimate (e.g., 2012 is the first estimate and 2013 the second).

Under the null hypothesis, Z is asymptotically distributed as a standard normal random variable. Therefore, calculated values of Z can be referred to the unit normal distribution to determine the corresponding probability level (i.e., p value). Because the covariance term between the two estimates is not necessarily zero, SUDAAN was used to compute estimates of Z along with the associated p values using the analysis weights and accounting for the sample design as described in [Appendix A](#). A similar procedure and formula for Z were used for estimated totals. Whenever it was necessary to calculate the SE outside of SUDAAN (i.e., when domains were forced by the weighting process to match their respective U.S. Census Bureau population estimates), the corresponding test statistics also were computed outside of SUDAAN.

When comparing population subgroups across three or more levels of a categorical variable, log-linear chi-square tests of independence of the subgroups and the prevalence variables were conducted using SUDAAN in order to first control the error level for multiple comparisons. If Shah's Wald F test (transformed from the standard Wald chi-square) indicated overall significant differences, the significance of each particular pairwise comparison of interest was tested using SUDAAN analytic procedures to properly account for the sample design (RTI International, 2012). Using the published estimates and SEs to perform independent t tests for the difference of proportions usually will provide the same results as tests performed in SUDAAN. However, where the significance level is borderline, results may differ for two reasons: (1) the covariance term is included in SUDAAN tests, whereas it is not included in independent t tests; and (2) the reduced number of significant digits shown in the published estimates may cause rounding errors in the independent t tests.

A caution in interpreting trends in totals (e.g., estimated numbers of users) is that respondents with large analysis weights can greatly influence the estimated total in a given year when the number of persons in the population with the characteristic of interest is relatively small. As discussed in [Chapter 2](#), for example, the number of persons aged 12 or older who were past year heroin users in 2013 (681,000) was higher than the numbers in most years from 2002 to 2008, but it was not significantly different from the number in 2006 (580,000). The estimate for 2006 was determined to be affected by large analysis weights for a small number of heroin users and suggests that the estimated numbers of past year and past month heroin users in 2006 were statistical anomalies. This finding also underscores the importance of reviewing trends across a larger range of years especially for outcome measures that correspond to a relatively small proportion of the total population (e.g., 681,000 past year heroin users from a population of more than 260 million people aged 12 or older in 2013).

As part of a comparative analysis discussed in [Chapter 8](#), prevalence estimates from the Monitoring the Future (MTF) study, sponsored by the National Institute on Drug Abuse (NIDA), were presented for recency measures of selected substances (see [Tables 8.1](#) to [8.6](#)). The analyses focused on prevalence estimates for 8th and 10th graders and prevalence estimates for young adults aged 19 to 24 for 2002 through 2013. Estimates for the 8th and 10th grade students were calculated using MTF data as the simple average of the 8th and 10th grade estimates. Estimates for young adults aged 19 to 24 were calculated using MTF data as the simple average of three modal age groups: 19 and 20 years, 21 and 22 years, and 23 and 24 years. Published results were not available from NIDA for significant differences in prevalence estimates between years for these subgroups, so testing was performed using information that was available.

For the 8th and 10th grade average estimates, tests of differences were performed between 2013 and the 11 prior years. Estimates for persons in grade 8 and grade 10 were considered independent, simplifying the calculation of variances for the combined grades. Across years, the estimates for 2013 involved samples independent of those in 2002 to 2011. For 2012 and 2013, however, the sample of schools overlapped 50 percent, creating a covariance in the estimates. Design effects published in Johnston et al. (2013) for adjacent and nonadjacent year testing were used.

For the 19- to 24-year-old age group, tests of differences were done assuming independent samples between years an odd number of years apart because two distinct cohorts a year apart were monitored longitudinally at 2-year intervals. This is appropriate for comparisons of 2002, 2004, 2006, 2008, 2010, and 2012 data with 2013 data. However, this assumption results in conservative tests for comparisons of 2003, 2005, 2007, 2009, and 2011 data with 2013 data because testing did not take into account covariances associated with repeated observations from the longitudinal samples. Estimates of covariances were not available.

Complete details on testing between NSDUH and MTF can be found in Section B.2.3 in Appendix B of the 2010 national findings report (CBHSQ, 2011). This discussion also includes variance estimation in the MTF data for testing between adjacent survey years.

B.3 Other Information on Data Accuracy

The accuracy of survey estimates can be affected by nonresponse, coding errors, computer processing errors, errors in the sampling frame, reporting errors, and other errors not due to sampling. These types of "nonsampling errors" and their impact are reduced through data editing, statistical adjustments for nonresponse, close monitoring and periodic retraining of interviewers, and improvement in quality control procedures.

Although these types of errors often can be much larger than sampling errors, measurement of most of these errors is difficult. However, some indication of the effects of some types of these errors can be obtained through proxy measures, such as response rates, and from other research studies.

B.3.1 Screening and Interview Response Rate Patterns

In 2013, respondents continued to receive a \$30 incentive in an effort to maximize response rates. The weighted screening response rate (SRR) is defined as the weighted number of successfully screened households¹³ divided by the weighted number of eligible households (as defined in [Table B.3](#)), or

$$SRR = \frac{\sum w_{hh} \text{complete}_{hh}}{\sum w_{hh} \text{eligible}_{hh}}, \quad \text{D}$$

where w_{hh} is the inverse of the unconditional probability of selection for the household and excludes all adjustments for nonresponse and poststratification defined in [Section A.3.3](#) of [Appendix A](#). Of the 190,067 eligible households sampled for the 2013 NSDUH, 160,325 were screened successfully, for a weighted screening response rate of 83.9 percent ([Table B.3](#)). At the person level, the weighted interview response rate (IRR) is defined as the weighted number of respondents divided by the weighted number of selected persons (see [Table B.4](#)), or

$$IRR = \frac{\sum w_i \text{complete}_i}{\sum w_i \text{selected}_i}, \quad \text{D}$$

where w_i is the inverse of the probability of selection for the person and includes household-level nonresponse and poststratification adjustments (adjustments 1, 2, and 3 in [Section A.3.3](#) of [Appendix A](#)). To be considered a completed interview, a respondent must provide enough data to pass the usable case rule.¹⁴ In the 160,325 screened households, a total of 88,742 sample persons were selected, and completed interviews were obtained from 67,838 of these sample persons, for a weighted IRR of 71.7 percent ([Table B.4](#)). A total of 15,717 sample persons (20.9 percent) were classified as refusals or parental refusals, 2,622 (3.0 percent) were not available or never at home, and 2,565 (4.4 percent) did not participate for various other reasons, such as physical or mental incompetence or language barrier (see [Table B.4](#), which also shows the distribution of the selected sample by interview code and age group). Among demographic subgroups, the weighted IRR was higher among 12 to 17 year olds (82.0 percent), females (73.3 percent), blacks (78.8 percent), persons in the South (73.3 percent), and residents of small metropolitan areas (73.4 percent) than among other related groups ([Table B.5](#)).

The overall weighted response rate, defined as the product of the weighted screening response rate and weighted interview response rate or

$$ORR = SRR \times IRR \quad D$$

was 60.2 percent in 2013. Nonresponse bias can be expressed as the product of the nonresponse rate ($1 - R$) and the difference between the characteristic of interest between respondents and nonrespondents in the population ($P_r - P_{nr}$). By maximizing NSDUH response rates, it is hoped that the bias due to the difference between the estimates from respondents and nonrespondents is minimized. Drug use surveys are particularly vulnerable to nonresponse because of the difficult nature of accessing heavy drug users. However, in a study that matched 1990 census data to 1990 NHSDA nonrespondents,¹⁵ it was found that populations with low response rates did not always have high drug use rates. For example, although some populations were found to have low response rates and high drug use rates (e.g., residents of large metropolitan areas and males), other populations had low response rates and low drug use rates (e.g., older adults and high-income populations). Therefore, many of the potential sources of bias tend to cancel each other in estimates of overall prevalence (Gfroerer, Lessler, & Parsley, 1997a).

B.3.2 Inconsistent Responses and Item Nonresponse

Among survey participants, item response rates were generally very high for most drug use items. However, respondents could give inconclusive or inconsistent information about whether they ever used a given drug (i.e., "yes" or "no") and, if they had used a drug, when they last used it; the latter information is needed to identify those lifetime users of a drug who used it in the past year or past month. In addition, respondents could give inconsistent responses to items such as when they first used a drug compared with their most recent use of a drug. These missing or inconsistent responses first are resolved where possible through a logical editing process. Additionally, missing or inconsistent responses are imputed using statistical methodology. These imputation procedures in NSDUH are based on responses to multiple questions, so that the maximum amount of information is used in determining whether a respondent is classified as a user or nonuser, and if the respondent is classified as a user, whether the respondent is classified as having used in the past year or the past month. For example, ambiguous data on the most recent use of cocaine are statistically imputed based on a respondent's data for use (or most recent use) of tobacco products, alcohol, inhalants, marijuana, hallucinogens, and nonmedical use of prescription psychotherapeutic drugs. Nevertheless, editing and imputation of missing responses are potential sources of measurement error. For more information on editing and statistical imputation, see [Sections A.3.1](#) and [A.3.2](#) of [Appendix A](#). Details of the editing and imputation procedures for 2013 also will appear in the *2013 NSDUH Methodological Resource Book*, which is in process. Until that volume becomes available, refer to the *2012 NSDUH Methodological Resource Book* (CBHSQ, 2014a).

B.3.3 Data Reliability

A reliability study was conducted as part of the 2006 NSDUH to assess the reliability of responses to the NSDUH questionnaire. An interview/reinterview method was employed in which 3,136 individuals were interviewed on two occasions during 2006 generally 5 to 15 days apart; the initial interviews in the reliability study were a subset of the main study interviews. The reliability of the responses was assessed by comparing the responses of the first interview with the responses from the reinterview. Responses from the first interview and reinterview that were analyzed for response consistency were raw data that had been only minimally edited for ease of analysis and had not been imputed (see [Sections A.3.1](#) and [A.3.2](#) in this report).

This section summarizes the results for the reliability of selected variables related to substance use and demographic characteristics. Reliability is expressed by estimates of Cohen's kappa (κ) (Cohen, 1960), which can be interpreted according to benchmarks proposed by Landis and Koch (1977, p. 165): (a) *poor* agreement for kappas less than 0.00, (b) *slight* agreement for kappas of 0.00 to 0.20, (c) *fair* agreement for kappas of 0.21 to 0.40, (d) *moderate* agreement for kappas of 0.41 to 0.60, (e) *substantial* agreement for kappas of 0.61 to 0.80, and (f) *almost perfect* agreement for kappas of 0.81 to 1.00.

The kappa values for the lifetime and past year substance use variables (marijuana use, alcohol use, and cigarette use) all showed almost perfect response consistency, ranging from 0.82 for past year marijuana use to 0.93 for lifetime marijuana use and past year cigarette use. The value obtained for the substance dependence or abuse measure in the past year showed substantial agreement (0.67), while the substance abuse treatment variable showed almost perfect consistency in both the lifetime (0.89) and past year (0.87). The variables for age at first use of marijuana and perceived great risk of smoking marijuana once a month showed substantial agreement (0.74 and 0.68, respectively). The demographic variables showed almost perfect agreement, ranging from 0.95 for current enrollment in school to 1.00 for gender. For further information on the reliability of a wide range of measures contained in NSDUH, see the complete methodology report (Chromy et al., 2010).

B.3.4 Validity of Self-Reported Substance Use

Most substance use prevalence estimates, including those produced for NSDUH, are based on self-reports of use. Although studies generally have supported the validity of self-report data, it is well documented that these data may be biased (underreported or overreported). The bias varies by several factors, including the mode of administration, the setting, the population under investigation, and the type of drug (Aquilino, 1994; Brener et al., 2006; Harrison & Hughes, 1997; Tourangeau & Smith, 1996; Turner, Lessler, & Gfroerer, 1992). NSDUH utilizes widely accepted methodological practices for increasing the accuracy of self-reports, such as encouraging privacy through audio computer-assisted self-interviewing (ACASI) and providing assurances that individual responses will remain confidential. Comparisons using these methods within NSDUH have shown that they reduce reporting bias (Gfroerer, Eyerman, & Chromy, 2002). Various procedures have been used to validate self-report data, such as biological specimens (e.g., urine, hair, saliva), proxy reports (e.g., family member, peer), and repeated measures (e.g., recanting) (Fendrich, Johnson, Sudman, Wislar, & Spiehler, 1999). However, these procedures often are impractical or too costly for general population epidemiological studies (SRNT Subcommittee on Biochemical Verification, 2002).

A study cosponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA) and the National Institute on Drug Abuse (NIDA) examined the validity of NSDUH self-report data on drug use among persons aged 12 to 25. The study found that it is possible to collect urine and hair specimens with a relatively high response rate in a general population survey, and that most youths and young adults reported their recent drug use accurately in self-reports (Harrison, Martin, Enev, & Harrington, 2007). However, there were some reporting differences in either direction, with some respondents not reporting use but testing positive, and some reporting use but testing negative. Technical and statistical problems related to the hair tests precluded presenting comparisons of self-reports and hair test results, while small sample sizes for self-reports and positive urine test results for opiates and stimulants precluded drawing conclusions about the validity of self-reports of these drugs. Further, inexactness in the window of detection for drugs in biological specimens and biological factors affecting the window of detection could account for some inconsistency between self-reports and urine test results.

B.3.5 Revised Estimates for 2006 to 2010

During regular data collection and processing checks for the 2011 NSDUH, data errors were identified. These errors resulted from fraudulent cases submitted by field interviewers and affected the data for Pennsylvania (2006 to 2010) and Maryland (2008 and 2009). Although all fraudulent interview cases were removed from the data files, the affected screening cases were not removed because they were part of the assigned sample. Instead, these screening cases were assigned a final screening code of 39 ("Fraudulent Case") and treated as incomplete with unknown eligibility. The screening eligibility status for these cases then was imputed. Those cases that were imputed to be eligible were treated as unit nonrespondents for weighting purposes; however, these cases were not treated differently from other unit nonrespondents in the weighting process in 2006 to 2010 (see [Section A.3.3](#) in [Appendix A](#)).

Table B.3 in Appendix B of the 2011 national findings report (CBHSQ, 2012b) presents screening results for 2010, the last year that was affected by these errors. Cases that were imputed to be eligible are classified with a final code of 39 ("Fraudulent Case"; see [Table B.3](#) in this report). The cases that were imputed to be ineligible did not contribute to the weights and were reported as "Other, Ineligible" in the affected years. Because any cases with falsified data were treated either as ineligible or as unit nonrespondents at the screening level, they were excluded from the interview data (see [Table B.4](#)). However, some estimates for 2006 to 2010 in the 2013 national findings report and the 2013 detailed tables, as well as other new reports, may differ from corresponding estimates found in some previous reports or tables.

These errors had minimal impact on the national estimates and no effect on direct estimates for the other 48 States and the District of Columbia. In reports where model-based small area estimation techniques are used, estimates for all States may be affected, even though the errors were concentrated in only two States. In reports that do not use model-based estimates, the only estimates appreciably affected are estimates for Pennsylvania, Maryland, the mid-Atlantic division, and the Northeast region.

The 2013 national findings report and detailed tables do not include State-level or model-based estimates. However, they do include estimates for the mid-Atlantic division and the Northeast region. Single-year estimates based on 2006 to 2010 data and estimates based on pooled data including any of these years may differ from previously published estimates. Tables and estimates based only on data since 2011 are unaffected by these data errors.

Caution is advised when comparing data from older reports with data from more recent reports that are based on corrected data files. As discussed previously, comparisons of estimates for Pennsylvania, Maryland, the mid-Atlantic division, and the Northeast region are of most concern, while comparisons of national data or data for other States and regions are essentially still valid. CBHSQ within SAMHSA has produced a selected set of corrected versions of reports and tables. In particular, CBHSQ has released a set of modified detailed tables that include revised 2006 to 2010 estimates for the mid-Atlantic division and the Northeast region for certain key measures. CBHSQ does not recommend making comparisons between unrevised 2006 to 2010 estimates and estimates based on data for 2011 and subsequent years for the geographic areas of greatest concern.

B.4 Measurement Issues

B.4.1 Incidence

In epidemiological studies, incidence is defined as the number of new cases of a disease occurring within a specific period of time. Similarly, in substance use studies, incidence refers to the first use of a particular substance.

In the 2004 NSDUH national findings report (Office of Applied Studies [OAS], 2005), a new measure related to incidence was introduced and since then has become the primary focus of Chapter 5 in this national findings report series. The incidence measure is termed as "past year initiation" and refers to respondents whose date of first use of a substance was within the 12 months prior to their interview date. This measure is determined by self-reported past year use, age at first use, year and month of recent new use, and the interview date.

Since 1999, the survey questionnaire has allowed for collection of year and month of first use for recent initiates (i.e., persons who used a particular substance for the first time in a given survey year). Month, day, and year of birth also are obtained directly or are imputed for item nonrespondents as part of the data postprocessing. Additionally, the computer-assisted interviewing (CAI) instrument records and provides the date of the interview. By imputing a day of first use within the year and month of first use, a specific date of first use can be used for estimation purposes.

Past year initiation among persons using a substance in the past year can be viewed as an indicator variable defined as follows:

$$I_{(\text{Past Year Initiate})} = \begin{cases} 1 & \text{if } [(MM/DD/YYYY)_{\text{Interview}} - (MM/DD/YYYY)_{\text{First Use of Substance}}] \leq 365 \\ 0 & \text{otherwise} \end{cases}$$

where $(MM/DD/YYYY)_{\text{Interview}}$ denotes the month, day, and year of the interview, and $(MM/DD/YYYY)_{\text{First Use of Substance}}$ denotes the date of first use. The total number of past year initiates can be used in the estimation of different percentages. Denominators for these percentages vary according to whether rates are being estimated for (a) all persons in the population (or all persons in a subgroup of the population, such as persons in a given age group); (b) persons who are at risk for initiation because they have not used the substance of interest prior to the past 12 months; or (c) past year users of the substance. The detailed tables show all three of these percentages. [Chapter 5](#) in this report includes additional information on these percentages that are reported for NSDUH.

Calculation of estimates of past year initiation do not take into account whether a respondent initiated substance use while a resident of the United States. This method of calculation allows for direct comparability with other standard measures of substance use because the populations of interest for the measures will be the same (i.e., both measures examine all possible respondents and are not restricted to those initiating substance use only in the United States).

One important note for incidence estimates is the relationship between main categories and subcategories of substances (e.g., illicit drugs would be a main category, and inhalants and marijuana would be subcategories in relation to illicit drugs). For most measures of substance use, any member of a subcategory is by necessity a member of the main category (e.g., if a respondent is a past month user of a particular drug, then he or she is also a past month user of illicit drugs in general). However, this is not the case with regard to incidence statistics. Because an individual can only be an initiate of a particular substance category (main or sub) a single time, a respondent with lifetime use of multiple substances may not, by necessity, be included as a past year initiate of a main category, even if he or she were a past year initiate for a particular subcategory because his or her first initiation of other substances within the main category could have occurred earlier.

In addition to estimates of the number of persons initiating use of a substance in the past year, estimates of the mean age of past year initiates of these substances are computed. Unless specified otherwise, estimates of the mean age at initiation in the past 12 months have been restricted to persons aged 12 to 49 so that the mean age estimates reported are not influenced by those few respondents who were past year initiates and were aged 50 or older. As a measure of central tendency, means are influenced heavily by the presence of extreme values in the data, and this constraint should increase the utility of these results to health researchers and analysts by providing a better picture of the substance use initiation behaviors among the civilian, noninstitutionalized population in the United States. This constraint was applied only to estimates of mean age at first use and does not affect estimates of the numbers of new users or the incidence rates.

Although past year initiates aged 26 to 49 are assumed not to be as likely as past year initiates aged 50 or older to influence mean ages at first use, caution still is advised in interpreting trends in these means. Sampling error in initiation estimates for persons aged 26 to 49 can affect year-to-year interpretation of trends (see [Section B.2](#)). Consequently, review of substance initiation trends across a larger range of years is especially advised for this age group.

For example, the estimated number of persons aged 26 to 49 who were past year initiates of marijuana increased from 49,000 in 2009 to 210,000 in 2010, or an apparent fourfold increase in the space of a single year ([Table B.6](#)). The estimated number of past year marijuana initiates aged 26 to 49 in 2010 was not significantly different

from the numbers in 2011 to 2013. Except for 2009, the estimated numbers of past year marijuana initiates in this age group since 2004 were not significantly different from the number in 2013.

In addition, the mean age at first use of marijuana among past year marijuana initiates aged 26 to 49 was higher in 2010 than in 2013, but the means in 2011 and 2012 were not significantly different from the mean in 2013 ([Table B.7](#)). Since 2002, only the mean age at first use of marijuana in 2010 (36.3 years) was significantly different from the mean in 2013 (31.2 years) for past year marijuana initiates in this age group. The mean age at first use for any illicit drug among past year initiates aged 26 to 49 in 2013 (35.4 years) was greater than the means in 2004 and 2009 (31.6 and 31.7 years, respectively), but it was not significantly different from the means in other years. Again, these findings indicate the importance of examining substance initiation trends across a larger range of years for this age group. Except for the differences that were indicated, trends in the mean age at initiation for marijuana and any illicit drug among initiates aged 26 to 49 have been fairly stable since 2002.

Similarly, the mean age at first use of inhalants among past year initiates aged 12 to 49 was higher in 2013 than in 2012 (19.2 vs. 16.9 years) (see [Chapter 5](#)). In comparison, the median ages at first use for inhalants, which are less susceptible to the influence of extreme values, were 18 years for past year initiates aged 12 to 49 in 2013 and 16 years for those in 2012. Thus, the higher mean in 2013 could be explained by the effect of extreme values on the age at first use in 2013. This finding also underscores the importance of reviewing mean ages at first use across a larger range of years. Anomalous 1-year shifts in the mean age at first use typically "correct" themselves with 1 or 2 additional years of data.

Because NSDUH is a survey of persons aged 12 years old or older at the time of the interview, younger individuals in the sample dwelling units are not eligible for selection into the NSDUH sample. Some of these younger persons may have initiated substance use during the past year. As a result, past year initiate estimates suffer from undercoverage if a reader assumes that these estimates reflect all initial users instead of reflecting only those above the age of 11. For earlier years, data can be obtained retrospectively based on the age at and date of first use. As an example, persons who were 12 years old on the date of their interview in the 2013 survey may report having initiated use of cigarettes between 1 and 2 years ago; these persons would have been past year initiates reported in the 2012 survey had persons who were 11 years old on the date of the 2012 interview been allowed to participate in the survey. Similarly, estimates of past year use by younger persons (age 10 or younger) can be derived from the current survey, but they apply to initiation in prior years and not the survey year.

To get an impression of the potential undercoverage in the current year, reports of substance use initiation reported by persons aged 12 or older were estimated for the years in which these persons would have been 1 to 11 years younger. These estimates do not necessarily reflect behavior by persons 1 to 11 years younger in the current survey. Instead, the data for the 11 year olds reflect initiation in the year prior to the current survey, the data for the 10 year olds reflect behavior between the 12th and 23rd months prior to this year's survey, and so on. A very rough way to adjust for the difference in the years that the estimate pertains to without considering changes in the population is to apply an adjustment factor to each age-based estimate of past year initiates. This adjustment factor can be based on a ratio of lifetime users aged 12 to 17 in the current survey year to the same estimate for the prior applicable survey year. To illustrate the calculation, consider past year use of alcohol. In the 2013 survey, 101,441 persons who were 12 years old were estimated to have initiated use of alcohol between 1 and 2 years earlier. These persons would have been past year initiates in the 2012 survey conducted on the same dates had the 2012 survey covered younger persons. The estimated number of lifetime users currently aged 12 to 17 was 7,669,220 for 2013 and 8,067,487 for 2012, indicating fewer overall initiates of alcohol use among persons aged 17 or younger in 2013. Thus, an adjusted estimate of initiation of alcohol use by persons who were 11 years old in 2013 is given by

$$(\text{Estimated Past Year Initiates Aged 11})_{2012} \times \frac{(\text{Estimated Lifetime Users Aged 12 to 17})_{2013}}{(\text{Estimated Lifetime Users Aged 12 to 17})_{2012}} \quad \text{D}$$

This yielded an adjusted estimate of 96,433 persons 11 years old on a 2013 survey date and initiating use of alcohol in the past year:

$$101,441 \times \frac{7,669,220}{8,067,487} = 96,433 \quad \text{D}$$

A similar procedure was used to adjust the estimated number of past year initiates among persons who would have been 10 years old on the date of the interview in 2011 and for younger persons in earlier years. The overall adjusted estimate for past year initiates of alcohol use by persons 11 years of age or younger on the date of the interview was 161,183, or about 3.5 percent of the estimate based on past year initiation only by persons aged 12 or older ($161,183 \div 4,558,527 = 0.0354$). Based on similar analyses, the estimated undercoverage of past year initiates was 2.3 percent for cigarettes, 1.1 percent for marijuana, and 13.4 percent for inhalants.

The undercoverage of past year initiates aged 11 or younger also affects the mean age at first use estimate. An adjusted estimate of the mean age at first use was calculated using a weighted estimate of the mean age at first use based on the current survey and the numbers of persons aged 11 or younger in the past year obtained in the aforementioned analysis for estimating undercoverage of past year initiates. Analysis results showed that the mean age at first use was changed from 17.3 to 17.0 for alcohol, from 17.8 to 17.6 for cigarettes, from 18.0 to 17.9 for marijuana, and from 19.2 to 17.7 for inhalants. The decreases reported above are comparable with results generated in prior survey years.

B.4.2 Illicit Drug and Alcohol Dependence and Abuse

The 2013 NSDUH CAI instrumentation included questions that were designed to measure alcohol and illicit drug dependence and abuse. For these substances,¹⁶ dependence and abuse questions were based on the criteria in the *Diagnostic and Statistical Manual of Mental Disorders*, 4th edition (DSM-IV) (American Psychiatric Association [APA], 1994). Specifically, for marijuana, hallucinogens, inhalants, and tranquilizers, a respondent was defined as having dependence if he or she met three or more of the following six dependence criteria:

1. Spent a great deal of time over a period of a month getting, using, or getting over the effects of the substance.
2. Used the substance more often than intended or was unable to keep set limits on the substance use.
3. Needed to use the substance more than before to get desired effects or noticed that the same amount of substance use had less effect than before.
4. Inability to cut down or stop using the substance every time tried or wanted to.
5. Continued to use the substance even though it was causing problems with emotions, nerves, mental health, or physical problems.
6. The substance use reduced or eliminated involvement or participation in important activities.

For alcohol, cocaine, heroin, pain relievers, sedatives, and stimulants, a seventh withdrawal criterion was added. The seventh withdrawal criterion is defined by a respondent reporting having experienced a certain number of withdrawal symptoms that vary by substance (e.g., having trouble sleeping, cramps, hands tremble). A respondent was defined as having dependence if he or she met three or more of seven dependence criteria for these substances.

For each illicit drug and alcohol, a respondent was defined as having abused that substance if he or she met one or more of the following four abuse criteria and was determined not to be dependent on the respective substance in the past year:

1. Serious problems at home, work, or school caused by the substance, such as neglecting your children, missing work or school, doing a poor job at work or school, or losing a job or dropping out of school.
2. Used the substance regularly and then did something that might have put you in physical danger.
3. Use of the substance caused you to do things that repeatedly got you in trouble with the law.
4. Had problems with family or friends that were probably caused by using the substance and continued to use the substance even though you thought the substance use caused these problems.

Criteria used to determine whether a respondent was asked about the dependence and abuse questions during the interview included the core substance use questions, the frequency of substance use questions (for alcohol and marijuana only), and the noncore substance use questions (for cocaine, heroin, and stimulants, including methamphetamine). Missing or incomplete responses in the core substance use and frequency of substance use questions were imputed. However, the imputation process did not take into account reported data in the noncore (i.e., substance dependence and abuse) CAI modules because of the complexity of doing this and to avoid disrupting trends for imputed variables as a result of any changes to the noncore questions. Very infrequently, this may result in responses to the dependence and abuse questions that are inconsistent with the imputed substance use or frequency of substance use.

For alcohol and marijuana, respondents were asked the dependence and abuse questions if they reported substance use on more than 5 days in the past year, or if they reported any substance use in the past year but did not report their frequency of past year use (i.e., they had missing frequency data). These missing frequency data were subsequently imputed after data collection processing. Therefore, inconsistencies could have occurred where the imputed frequency of use response indicated less frequent use than required for respondents to be asked the dependence and abuse questions originally (i.e., the imputed frequency value was 5 or fewer days). For alcohol, for example, about 40,000 respondents were past year alcohol users in 2013. Of these, fewer than 100 respondents were missing their frequency data, but were still asked the alcohol dependence and abuse questions; however, their final imputed frequency of use indicated that they used alcohol on 5 or fewer days in the past year.

For cocaine, heroin, and stimulants, respondents were asked the dependence and abuse questions if they reported past year use in a core drug module or past year use in the noncore special drugs module. Thus, the CAI logic allowed some respondents to be asked the dependence and abuse questions for these drugs even if they did not report past year use in the corresponding core module. For cocaine, for example, fewer than 1,400 respondents in 2013 were asked the questions about cocaine dependence and abuse because they reported past year use of cocaine or crack in the core section of the interview. Fewer than 10 additional respondents were asked these questions because they reported past year use of cocaine with a needle in the special drugs module despite not having previously reported past year use of cocaine or crack.

In 2005, two new questions were added to the noncore special drugs module about past year methamphetamine use: "Have you ever, even once, used methamphetamine?" and "Have you ever, even once, used a needle to inject methamphetamine?" In 2006, an additional follow-up question was added to the noncore special drugs module confirming prior responses about methamphetamine use: "Earlier, the computer recorded that you have never used methamphetamine. Which answer is correct?" The responses to these new questions were used in the skip logic for the stimulant dependence and abuse questions. Based on the decisions made during the methamphetamine analysis,¹⁷ respondents who indicated past year methamphetamine use solely from these new special drug use questions (i.e., did not indicate methamphetamine use from the core drug module or other questions in the special drugs module) were categorized as NOT having past year stimulant dependence or abuse regardless of how they answered the dependence and abuse questions. Furthermore, if these same respondents were categorized as not having past year dependence or abuse of any other psychotherapeutic drug (e.g., pain relievers, tranquilizers, or sedatives), then they were categorized as NOT having past year dependence or abuse of psychotherapeutics. Also, if these respondents were not classified as having dependence or abuse for other substances (e.g., alcohol, marijuana, other illicit drugs), then they were categorized as not having dependence or abuse for illicit drugs, illicit drugs or alcohol, or illicit drugs and alcohol.

In 2008, questionnaire logic for determining hallucinogen, stimulant, and sedative dependence or abuse was modified. The revised skip logic used information collected in the noncore special drugs module in addition to that collected in questions from the core drug modules. Respondents were asked about hallucinogen dependence and abuse if they additionally reported in the special drugs module using ketamine, dimethyltryptamine (DMT), alpha-methyltryptamine (AMT), Foxy, or *Salvia divinorum*; stimulant dependence and abuse if they additionally reported nonmedical use of Adderall[®]; and sedative dependence and abuse if they additionally reported nonmedical use of Ambien[®]. Complying with the previous decision to exclude respondents whose methamphetamine use was based solely on responses to noncore questions from being classified as having stimulant dependence or abuse, respondents who indicated past year use or nonmedical use of hallucinogens, stimulants, or sedatives based solely on these special drug questions were categorized as NOT having past year dependence or abuse of the relevant substance regardless of how they answered the dependence and abuse questions.

Respondents might have provided ambiguous information about past year use of any individual substance, in which case these respondents were not asked the dependence and abuse questions for that substance. Subsequently, these respondents could have been imputed to be past year users of the respective substance. In this situation, the dependence and abuse data were unknown; thus, these respondents were classified as not having dependence or abuse of the respective substance. However, such a respondent never actually was asked the dependence and abuse questions.

Table B.1 – Demographic and Geographic Domains Forced to Match Their Respective U.S. Census Bureau Population Estimates through the Weight Calibration Process, 2013

| Main Effects | Two-Way Interactions |
|---|-----------------------------|
| Age Group | |
| 12-17 | |
| 18-25 | |
| 26-34 | |
| 35-49 | |
| 50-64 | |
| 65 or Older | |
| All Combinations of Groups Listed Above ¹ | |
| | Age Group × Gender |
| Gender | (e.g., Males Aged 12 to 17) |
| Male | |
| Female | |
| | Age Group × Hispanic Origin |
| | |
| ¹ Combinations of the age groups (including but not limited to 12 or older, 18 or older, 26 or older, 35 or older, and 50 or older) also were forced to match their respective U.S. Census Bureau population estimates through the weight calibration process. | |
| ² Unlike racial/ethnic groups discussed elsewhere in this report, race domains in this table include Hispanics in addition to persons who were not Hispanic. | |
| Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013. | |

| Main Effects | Two-Way Interactions |
|----------------------------|---|
| Hispanic Origin | (e.g., Hispanics or Latinos Aged 18 to 25) |
| Hispanic or Latino | |
| Not Hispanic or Latino | |
| | Age Group × Race |
| Race² | (e.g., Whites Aged 26 or Older) |
| White | |
| Black or African American | |
| | Age Group × Geographic Region |
| Geographic Region | (e.g., Persons Aged 12 to 25 in the Northeast) |
| Northeast | |
| Midwest | |
| South | Age Group × Geographic Division |
| West | (e.g., Persons Aged 65 or Older in New England) |
| | |
| Geographic Division | |
| New England | Gender × Hispanic Origin |
| Middle Atlantic | (e.g., Not Hispanic or Latino Males) |
| East North Central | |
| West North Central | |
| South Atlantic | Hispanic Origin × Race |
| East South Central | (e.g., Not Hispanic or Latino Whites) |
| West South Central | |
| Mountain | |
| Pacific | |

¹ Combinations of the age groups (including but not limited to 12 or older, 18 or older, 26 or older, 35 or older, and 50 or older) also were forced to match their respective U.S. Census Bureau population estimates through the weight calibration process.

² Unlike racial/ethnic groups discussed elsewhere in this report, race domains in this table include Hispanics in addition to persons who were not Hispanic.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013.

Table B.2 – Summary of 2013 NSDUH Suppression Rules

| Estimate | Suppress if: |
|--|---|
| Prevalence Rate, \hat{p} , with Nominal Sample Size, n , and Design Effect, $deff$ $\left(deff = \frac{n [SE(\hat{p})]^2}{\hat{p}(1-\hat{p})} \right)$ | <p>(1) The estimated prevalence rate, \hat{p}, is $< .00005$ or $\geq .99995$, or</p> <p>(2) $\frac{SE(\hat{p}) / \hat{p}}{-\ln(\hat{p})} > .175$ when $\hat{p} \leq .5$, or</p> <p>$\frac{SE(\hat{p}) / (1-\hat{p})}{-\ln(1-\hat{p})} > .175$ when $\hat{p} > .5$, or</p> <p>(3) <i>Effective</i> $n < 68$, where $Effective\ n = \frac{n}{deff} = \frac{\hat{p}(1-\hat{p})}{[SE(\hat{p})]^2}$, or</p> <p>(4) $n < 100$.</p> <p>Note: The rounding portion of this suppression rule for prevalence rates will produce some estimates that round at one decimal place to 0.0 or 100.0 percent but are not suppressed from the tables.</p> |
| Estimated Number (Numerator of \hat{p}) | <p>The estimated prevalence rate, \hat{p}, is suppressed.</p> <p>Note: In some instances when \hat{p} is not suppressed, the estimated number may appear as a 0 in the tables. This means that the estimate is greater than 0 but less than 500 (estimated numbers are shown in thousands).</p> |
| Mean Age at First Use, \bar{x} , with Nominal Sample Size, n | <p>(1) $RSE(\bar{x}) > .5$, or</p> <p>(2) $n < 10$.</p> |

$deff$ = design effect; RSE = relative standard error; SE = standard error.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2013.

Below is a graph. [Click here](#) for the text describing this graph.

Figure B.1 Required Effective Sample in the 2013 NSDUH as a Function of the Proportion Estimated

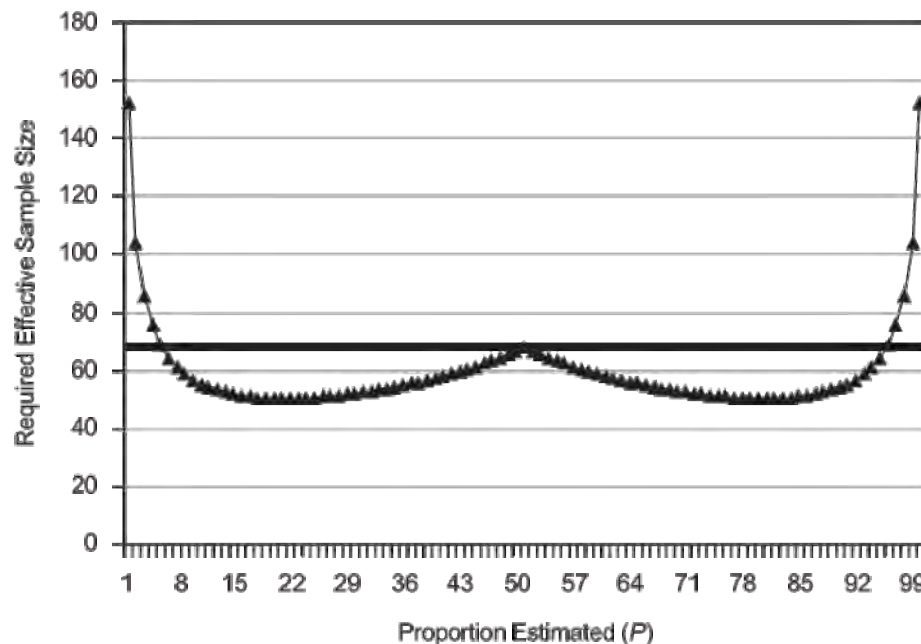


Table B.3 – Weighted Percentages and Sample Sizes for 2012 and 2013 NSDUHs, by Final Screening Result Code

| Final Screening Result Code | Sample Size 2012 | Sample Size 2013 | Weighted Percentage 2012 | Weighted Percentage 2013 |
|---|------------------|------------------|--------------------------|--------------------------|
| TOTAL SAMPLE | 214,274 | 227,075 | 100.00 | 100.00 |
| Ineligible Cases | 35,688 | 37,008 | 16.57 | 15.96 |
| Eligible Cases | 178,586 | 190,067 | 83.43 | 84.04 |
| INELIGIBLES | 35,688 | 37,008 | 16.57 | 15.96 |
| 10 - Vacant | 19,257 | 19,839 | 51.50 | 51.74 |
| 13 - Not a Primary Residence | 8,520 | 8,220 | 27.46 | 24.52 |
| 18 - Not a Dwelling Unit | 2,496 | 2,617 | 6.52 | 6.70 |
| 22 - All Military Personnel | 352 | 374 | 0.97 | 0.90 |
| Other, Ineligible ¹ | 5,063 | 5,958 | 13.55 | 16.13 |
| ELIGIBLE CASES | 178,586 | 190,067 | 83.43 | 84.04 |
| Screening Complete | 153,873 | 160,325 | 86.07 | 83.93 |
| 30 - No One Selected | 92,991 | 98,431 | 50.99 | 50.51 |
| 31 - One Selected | 33,455 | 34,424 | 19.12 | 18.38 |
| 32 - Two Selected | 27,427 | 27,470 | 15.96 | 15.04 |
| Screening Not Complete | 24,713 | 29,742 | 13.93 | 16.07 |
| 11 - No One Home | 3,029 | 3,244 | 1.62 | 1.56 |
| 12 - Respondent Unavailable | 457 | 473 | 0.26 | 0.27 |
| 14 - Physically or Mentally Incompetent | 597 | 598 | 0.32 | 0.30 |
| 15 - Language Barrier - Hispanic | 48 | 96 | 0.03 | 0.06 |
| 16 - Language Barrier - Other | 748 | 821 | 0.50 | 0.52 |
| 17 - Refusal | 16,807 | 21,086 | 9.39 | 11.39 |
| 21 - Other, Access Denied ² | 2,359 | 2,549 | 1.37 | 1.40 |
| 24 - Other, Eligible | 14 | 24 | 0.01 | 0.01 |
| 27 - Segment Not Accessible | 0 | 0 | 0.00 | 0.00 |
| 33 - Screener Not Returned | 90 | 73 | 0.05 | 0.04 |
| 39 - Fraudulent Case | 563 | 776 | 0.37 | 0.50 |
| 44 - Electronic Screening Problem | 1 | 2 | 0.00 | 0.00 |

¹ Examples of "Other, Ineligible" cases are those in which all residents lived in the dwelling unit for less than half of the calendar quarter and dwelling units that were listed in error.

² "Other, Access Denied" includes all dwelling units to which the field interviewer was denied access, including locked or guarded buildings, gated communities, and other controlled access situations.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013.

Table B.4 – Weighted Percentages and Sample Sizes for 2012 and 2013 NSDUHs, by Final Interview Code

| Final Interview Code | 12+ Sample Size 2012 | 12+ Sample Size 2013 | 12+ Weighted Percentage 2012 | 12+ Weighted Percentage 2013 | 12-17 Sample Size 2012 | 12-17 Sample Size 2013 | 12-17 Weighted Percentage 2012 | 12-17 Weighted Percentage 2013 | 18+ Sample Size 2012 | 18+ Sample Size 2013 | 18+ Weighted Percentage 2012 | 18+ Weighted Percentage 2013 |
|-------------------------|----------------------|----------------------|------------------------------|------------------------------|------------------------|------------------------|--------------------------------|--------------------------------|----------------------|----------------------|------------------------------|------------------------------|
| TOTAL | 87,656 | 88,742 | 100.00 | 100.00 | 27,147 | 27,630 | 100.00 | 100.00 | 60,509 | 61,112 | 100.00 | 100.00 |
| 70 - Interview Complete | 68,309 | 67,838 | 73.04 | 71.69 | 22,492 | 22,532 | 82.84 | 81.95 | 45,817 | 45,306 | 72.00 | 70.61 |

¹ "Other" includes eligible person moved, data not received from field, too dangerous to interview, access to building denied, computer problem, and interviewed wrong household member.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013.

| Final Interview Code | 12+ Sample Size 2012 | 12+ Sample Size 2013 | 12+ Weighted Percentage 2012 | 12+ Weighted Percentage 2013 | 12-17 Sample Size 2012 | 12-17 Sample Size 2013 | 12-17 Weighted Percentage 2012 | 12-17 Weighted Percentage 2013 | 18+ Sample Size 2012 | 18+ Sample Size 2013 | 18+ Weighted Percentage 2012 | 18+ Weighted Percentage 2013 |
|--|----------------------|----------------------|------------------------------|------------------------------|------------------------|------------------------|--------------------------------|--------------------------------|----------------------|----------------------|------------------------------|------------------------------|
| 71 - No One at Dwelling Unit | 1,147 | 1,101 | 1.26 | 1.15 | 192 | 172 | 0.67 | 0.53 | 955 | 929 | 1.33 | 1.22 |
| 72 - Respondent Unavailable | 1,445 | 1,521 | 1.75 | 1.81 | 276 | 314 | 1.00 | 1.15 | 1,169 | 1,207 | 1.83 | 1.88 |
| 73 - Break-Off | 21 | 23 | 0.05 | 0.03 | 0 | 4 | 0.00 | 0.01 | 21 | 19 | 0.06 | 0.04 |
| 74 - Physically/ Mentally Incompetent | 1,023 | 1,012 | 1.95 | 1.95 | 274 | 284 | 1.16 | 1.03 | 749 | 728 | 2.04 | 2.04 |
| 75 - Language Barrier - Hispanic | 116 | 105 | 0.17 | 0.16 | 9 | 5 | 0.02 | 0.02 | 107 | 100 | 0.18 | 0.17 |
| 76 - Language Barrier - Other | 419 | 409 | 1.24 | 1.12 | 30 | 29 | 0.15 | 0.13 | 389 | 380 | 1.36 | 1.22 |
| 77 - Refusal | 11,488 | 12,606 | 18.63 | 19.90 | 900 | 1,016 | 3.37 | 3.62 | 10,588 | 11,590 | 20.25 | 21.62 |
| 78 - Parental Refusal | 2,787 | 3,111 | 0.97 | 1.04 | 2,787 | 3,111 | 10.06 | 10.95 | 0 | 0 | 0.00 | 0.00 |
| 91 - Fraudulent Case | 158 | 93 | 0.22 | 0.17 | 44 | 18 | 0.17 | 0.10 | 114 | 75 | 0.22 | 0.18 |
| Other ¹ | 743 | 923 | 0.73 | 0.96 | 143 | 145 | 0.56 | 0.52 | 600 | 778 | 0.75 | 1.01 |
| ¹ "Other" includes eligible person moved, data not received from field, too dangerous to interview, access to building denied, computer problem, and interviewed wrong household member. Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013. | | | | | | | | | | | | |

Table B.5 – Response Rates and Sample Sizes for 2012 and 2013 NSDUHs, by Demographic Characteristics

| Demographic Characteristic | Selected Persons 2012 | Selected Persons 2013 | Completed Interviews 2012 | Completed Interviews 2013 | Weighted Response Rate 2012 | Weighted Response Rate 2013 |
|--|-----------------------|-----------------------|---------------------------|---------------------------|-----------------------------|-----------------------------|
| TOTAL | 87,656 | 88,742 | 68,309 | 67,838 | 73.04% | 71.69% |
| AGE IN YEARS | | | | | | |
| 12-17 | 27,147 | 27,630 | 22,492 | 22,532 | 82.84% | 81.95% |
| 18-25 | 28,639 | 28,921 | 22,762 | 22,458 | 79.26% | 77.34% |
| 26 or Older | 31,870 | 32,191 | 23,055 | 22,848 | 70.76% | 69.45% |
| GENDER | | | | | | |
| Male | 42,942 | 43,823 | 32,869 | 32,840 | 71.24% | 69.97% |
| Female | 44,714 | 44,919 | 35,440 | 34,998 | 74.71% | 73.30% |
| RACE/ETHNICITY | | | | | | |
| Hispanic | 13,906 | 14,369 | 11,168 | 11,278 | 74.95% | 74.03% |
| White | 56,374 | 56,577 | 43,165 | 42,305 | 72.19% | 70.47% |
| Black | 10,074 | 10,304 | 8,433 | 8,561 | 79.06% | 78.76% |
| All Other Races | 7,302 | 7,492 | 5,543 | 5,694 | 67.06% | 66.23% |
| REGION | | | | | | |
| Northeast | 18,301 | 18,334 | 13,773 | 13,661 | 69.59% | 68.75% |
| Midwest | 24,499 | 24,842 | 19,142 | 18,822 | 74.27% | 71.54% |
| South | 26,279 | 26,758 | 20,886 | 20,782 | 74.22% | 73.32% |
| West | 18,577 | 18,808 | 14,508 | 14,573 | 72.75% | 71.48% |
| COUNTY TYPE | | | | | | |
| Large Metropolitan | 39,096 | 40,266 | 29,918 | 30,126 | 71.21% | 70.40% |
| Small Metropolitan | 30,250 | 30,100 | 23,859 | 23,290 | 75.23% | 73.38% |
| Nonmetropolitan | 18,310 | 18,376 | 14,532 | 14,422 | 75.05% | 72.82% |
| NOTE: Estimates are based on demographic information obtained from screener data and are not consistent with estimates on demographic characteristics presented in the 2012 and 2013 sets of detailed tables. Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013. | | | | | | |

Table B.6 – Past Year Initiates of Marijuana and Any Illicit Drug among Persons Aged 12 or Older, Aged 26 or Older, or Aged 26 to 49: Numbers in Thousands, 2002-2013

| Drug/Age Group | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|-------|-----------------|-------|-------|-------|-------|
| Marijuana, Aged 12 or Older | 2,196 ^a | 1,973 ^b | 2,142 ^a | 2,114 ^a | 2,061 ^b | 2,089 ^b | 2,224 | 2,379 | 2,439 | 2,617 | 2,398 | 2,427 |
| Marijuana, Aged 26 or Older | 90 ^a | 88 ^a | 176 | 252 | 126 | 134 | 159 | 49 ^b | 247 | 182 | 177 | 210 |
| Marijuana, Aged 26 to 49 | 90 | 56 ^b | 127 | 122 | 126 | 121 | 155 | 49 ^b | 210 | 138 | 139 | 178 |
| Any Illicit Drug, Aged 12 or Older | 2,656 | 2,627 | 2,784 | 2,908 | 2,785 | 2,672 | 2,905 | 3,136 | 2,982 | 3,083 | 2,883 | 2,848 |
| Any Illicit Drug, Aged 26 or Older | 268 | 324 | 479 | 579 | 415 | 326 | 419 | 433 | 457 | 368 | 339 | 389 |
| Any Illicit Drug, Aged 26 to 49 | 251 | 209 | 333 | 379 | 405 | 250 | 350 | 205 | 366 | 270 | 280 | 325 |
| *Low precision; no estimate reported. ^a Difference between estimate and 2013 estimate is statistically significant at the .05 level. ^b Difference between estimate and 2013 estimate is statistically significant at the .01 level. Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. | | | | | | | | | | | | |

Table B.7 – Mean Age at First Use of Marijuana and Any Illicit Drug among Past Year Initiates Aged 26 to 49, 2002-2013

| Drug | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--|------|------|------|------|------|------|------|------|------|------|------|------|
| | | | | | | | | | | | | |
| *Low precision; no estimate reported. ^a Difference between estimate and 2013 estimate is statistically significant at the .05 level. ^b Difference between estimate and 2013 estimate is statistically significant at the .01 level. Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013. | | | | | | | | | | | | |

| Drug | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|------------------|------|------|-------------------|------|------|------|------|-------------------|-------------------|------|------|------|
| Marijuana | 31.2 | 29.6 | 29.5 | 30.4 | 29.1 | 32.4 | 32.6 | 32.2 | 36.3 ^a | 29.5 | 33.1 | 31.2 |
| Any Illicit Drug | 34.8 | 32.8 | 31.6 ^a | 34.0 | 33.9 | 32.9 | 35.1 | 31.7 ^a | 37.2 | 33.0 | 35.0 | 35.4 |

^aLow precision; no estimate reported.

^a Difference between estimate and 2013 estimate is statistically significant at the .05 level.

^b Difference between estimate and 2013 estimate is statistically significant at the .01 level.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2002-2013.

Appendix C: Other Sources of Data

There are sources of substance use data other than the National Survey on Drug Use and Health (NSDUH). It is useful to consider the results of these other studies when discussing NSDUH data because no single source of data can fully cover all issues associated with substance use in the United States. Each data source can contribute to a broader understanding of substance use and the relationships of substance use to other issues of interest. This appendix briefly describes several of these other data systems and presents selected comparisons with NSDUH results. In addition, this appendix describes other sources of data specifically for receipt of substance abuse treatment services. Populations covered by other sources of data for substance abuse treatment may overlap with the population covered by NSDUH, but also may include populations not covered by NSDUH (e.g., persons receiving treatment in facilities as an inpatient or resident for an extended period, persons entering treatment as an inpatient after having been incarcerated). Some of the surveys on substance use included in this appendix also include populations not covered by NSDUH.

When evaluating the information presented here, it is important to consider and understand the methodological differences between the different surveys and the impact that these differences could have on estimates of the presence of substance use. Several studies have compared NSDUH estimates with estimates from other studies and have evaluated how differences may have been affected by differences in survey methodology (Batts et al., 2014; Center for Behavioral Health Statistics and Quality [CBHSQ], 2012a; Gfroerer, Wright, & Kopstein, 1997b; Grucza, Abbacchi, Przybeck, & Gfroerer, 2007; Hennessy & Ginsberg, 2001; Miller et al., 2004; Pemberton et al., 2013). These comparisons suggest that the goals and approaches of surveys are often different, making comparisons between them difficult. Some methodological differences that have been identified as affecting comparisons include populations covered, sampling methods, modes of data collection, questionnaires, and estimation methods.

C.1 Other National Surveys of Substance Use

Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS)—a State-based system of health surveys—collects information on health risk behaviors, preventive health practices, and health care access primarily related to chronic disease and injury. The BRFSS surveys are cross-sectional telephone surveys conducted by State health departments with technical and methodological assistance from the Centers for Disease Control and Prevention (CDC). Every year, States conduct monthly telephone surveys of adults (aged 18 or older) in households using random-digit-dialing (RDD) methods; unlike NSDUH, BRFSS excludes persons living in group quarters (e.g., dormitories).

Currently, the questionnaire has three parts: (1) a core questionnaire, (2) optional modules, and (3) State-added questions. The core questionnaire consists of a standard set of questions asked by all States every year and includes questions on demographic characteristics, alcohol use, and tobacco use. Questions about lifetime depression have been included in the core since 2011. Optional modules consist of questions on specific topics that States can elect to include. Although the modules are optional, CDC standards require that States use them without modification. Optional modules include mental health topics, such as anxiety, depression, or psychological distress. However, the number of States administering optional modules can vary from year to year, and the content of these modules can vary over time. For example, 12 States and Puerto Rico administered the anxiety and depression module in 2010, but only 2 States did so in 2011. States also may include State-added questions at their own expense. However, these questions are not part of the official BRFSS questionnaire. Development of these questions and analysis of data from them are not supported by the CDC.

Since 1994, BRFSS has collected data from all 50 States, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands using a computer-assisted telephone interviewing (CATI) design. More than 400,000 adults are interviewed each year. Prior to 2011, the sample included only households with landline telephones, and the weighting methodology included a poststratification step. Beginning with the 2011 BRFSS, the sample was expanded to include households with only cellular telephones in addition to those that were covered by landline phones, and the weighting methodology replaced the poststratification step with raking in order to incorporate more demographic variables (e.g., education level, home ownership) as well as telephone source (landline or cellular telephone). These changes were recognized as having the potential to produce shifts in prevalence estimates in 2011 and subsequent years relative to estimates in prior years that were based on the previous methodology (CDC, 2012). The CDC has since concluded that the BRFSS 2011 prevalence data should be considered a baseline year because of these methodological changes.

National estimates obtained through the BRFSS online analysis tool or in publications that cite BRFSS data typically are presented as medians.¹⁸ BRFSS includes questions on alcohol consumption and tobacco use. However, definitions of binge alcohol use and current cigarette use differ between NSDUH and BRFSS. Since 2006, BRFSS has used a lower threshold for binge alcohol use for females (four or more drinks on an occasion) than for males (five or more drinks on an occasion), whereas NSDUH uses the same criterion for males and females (i.e., consumption of five or more drinks on an occasion). Current cigarette users in BRFSS are defined as adults who have smoked 100 or more cigarettes in their lifetime and who report that they currently smoke cigarettes. In NSDUH, current cigarette use is defined as any cigarette use in the 30 days prior to the interview.

These differences in definitions and methodological differences can affect the comparability of estimates between BRFSS and NSDUH. For example, the prevalence of current cigarette use among adults in NSDUH in 2012 was 23.8 percent, and the median BRFSS prevalence for the 50 States and the District of Columbia was 19.6 percent. Although BRFSS data are presented as medians and NSDUH estimates are not, BRFSS rates of binge drinking were somewhat lower than the NSDUH estimates among adults aged 18 or older in 2012, despite the lower threshold for women (e.g., for females: 11.4 percent for BRFSS and 16.8 percent for NSDUH). The use of audio computer-assisted self-interviewing (ACASI) in NSDUH, which is considered to be more anonymous than CATI in BRFSS and yields higher reporting of sensitive behaviors, may explain lower binge alcohol use rates in combined 1999 and 2000 BRFSS data than in corresponding NSDUH data (Miller et al., 2004).¹⁹ Response rates also have been higher in NSDUH than BRFSS, which could result in differential nonresponse bias patterns in the two surveys.

For further details, see the CDC Web site at <http://www.cdc.gov/brfss/>.

Monitoring the Future (MTF)

The Monitoring the Future (MTF) study is an ongoing study of substance use trends and related attitudes among America's secondary school students, college students, and adults through age 50. The MTF provides information on the use of alcohol, illicit drugs, and tobacco. The study is conducted annually by the Institute for Social Research at the University of Michigan through grants awarded by the National Institute on Drug Abuse (NIDA). The MTF and NSDUH are the Federal Government's largest and primary tools for tracking youth substance use. The MTF is composed of three substudies: (a) an annual survey of high school seniors that was initiated in

1975; (b) ongoing panel studies of representative samples from each graduating class (i.e., 12th graders) that have been conducted by mail since 1976; and (c) annual surveys of 8th and 10th graders that were initiated in 1991. Each spring, students in the 8th, 10th, and 12th grades complete a self-administered, machine-readable questionnaire during a regular class period. Approximately 50,000 students in about 420 public and private secondary schools are surveyed annually for the cross-sectional study, and approximately 2,400 persons who participated in the survey of 12th graders are followed longitudinally. The latest MTF was conducted in 2013.

Comparisons between the MTF estimates and estimates based on students sampled in NSDUH generally have shown NSDUH substance use prevalence levels to be lower than MTF estimates (see [Table C.1](#) at the end of this appendix and CBHSQ, 2012a).²⁰ The lower prevalences in NSDUH may be due to more underreporting in the household setting as compared with the MTF school setting and some overreporting in the school settings. However, findings presented in [Chapter 8](#) of this report generally show parallel trends in the prevalence of substance use in NSDUH and MTF for both the annual cross-sectional data for youths and the longitudinal data for young adults.

The population of inference for the MTF school-based data collection is adolescents who were in the 8th, 10th, and 12th grades; therefore, the MTF does not survey dropouts. The MTF also does not include students who were absent from school on the day of the survey, although they are part of the population of inference. NSDUH has shown that dropouts and adolescents who frequently were absent from school have higher rates of illicit drug use (CBHSQ, 2012a; Gfroerer et al., 1997b). In October 2012, the percentages of persons who were not currently enrolled in school and had not graduated from high school were 1.7 percent for adolescents aged 14 or 15, 2.9 percent for those aged 16 or 17, 7.1 percent for persons aged 18 or 19, and 6.6 percent for those aged 20 or 21.²¹ Depending on the effects of the exclusion of dropouts and frequent absentees, data from MTF may not generalize to the population of adolescents as a whole, especially for older adolescents.

For further details, see the MTF Web site at <http://www.monitoringthefuture.org/>.

National Comorbidity Survey (NCS)

The National Comorbidity Survey (NCS) was sponsored by the National Institute of Mental Health (NIMH), NIDA, and the W.T. Grant Foundation. It was designed to measure in the general population the prevalence of the illnesses described in the *Diagnostic and Statistical Manual of Mental Disorders*, 3rd edition revised (DSM-III-R) (American Psychiatric Association [APA], 1987). The first wave of the NCS, conducted from 1990 to 1992, was a household survey of persons in the continental United States (i.e., excluding Alaska and Hawaii) that collected data from 8,098 respondents aged 15 to 54 in a face-to-face interview using paper-and-pencil interviewing (PAPI). These responses were weighted to produce nationally representative estimates. A random sample of 4,414 respondents also was administered an additional module that captured information on nicotine dependence. The interviews took place between 1990 and 1992. The NCS used a modified version of the Composite International Diagnostic Interview (the University of Michigan-CIDI) to generate DSM-III-R diagnoses.

There have been several follow-ups to and replications of the original NCS, including a 10-year follow-up of the baseline sample (NCS-2), a replication study conducted in 2001 to 2003 with a newly recruited nationally representative sample of 9,282 respondents aged 18 or older (NCS-R) (Kessler et al., 2004), and an adolescent sample of adolescents aged 13 to 17 (NCS-A) in 2001 to 2004 that included 904 adolescents from households that participated in the NCS-R and 9,244 respondents from a nationally representative sample of 320 schools (Kessler et al., 2009). As for the NCS, the samples for the NCS-2, NCS-R, and NCS-A excluded Alaska and Hawaii.

The NCS provides information on the use of alcohol, illicit drugs, and tobacco and on substance dependence or abuse. The NCS-R used an updated version of the CIDI that was designed to capture diagnoses of substance abuse or dependence using DSM-IV criteria (APA, 1994). Interviews were conducted using computer-assisted personal interviewing (CAPI). It should be noted that in several NCS-R studies (e.g., Kessler, Chiu, Demler, Merikangas, & Walters, 2005), the diagnosis for abuse also includes those who meet the diagnosis for dependence. In contrast, NSDUH follows DSM-IV guidelines and limits the definition of abuse to persons who do not meet the criteria for dependence. To make the NCS definition of abuse comparable with that of NSDUH, the rate for dependence must be subtracted from the rate for abuse. Rates of alcohol dependence or abuse and rates of illicit drug dependence or abuse were generally lower in NCS-R than in NSDUH (Kessler et al., 2005).

For further details, see the NCS Web site at <http://www.hcp.med.harvard.edu/ncs/>.

National Health and Nutrition Examination Survey (NHANES)

The National Health and Nutrition Examination Survey (NHANES) has assessed the health and nutritional status of children and adults in the United States since the 1960s through the use of both survey and physical examination components. It is sponsored by the National Center for Health Statistics (NCHS) and began as a series of periodic surveys in which several years of data were combined into a single data release. Since 1999, it has been a continuous survey, with interview data collected each year for approximately 5,000 persons of all ages. The target population for NHANES is the civilian, noninstitutionalized population from birth onward. Data for 2011-2012 are the most currently available for public use; 2 years of data are combined to protect respondent confidentiality.

NHANES interviews are conducted in respondents' homes. NHANES also collects physical health measurements and data on sensitive topics through ACASI in mobile examination centers (MECs), which travel to locations throughout the United States. The NHANES MEC interview includes questions on alcohol, illicit drug, and tobacco use.

Both NSDUH and NHANES use complex cluster sample designs that affect the precision of estimates. In addition, the smaller sample sizes for NHANES (i.e., 5,000 per year vs. 67,500 per year for NSDUH) are likely to yield estimates that are less precise than those in NSDUH. The sources of nonresponse and coverage bias also differ for the two surveys. For example, NHANES respondents have to travel to a MEC to respond to the substance use items, which may eliminate homebound respondents or affect the participation of respondents with limited access to transportation.

The most recently available substance use estimates from NHANES were based on combined data from 1999 to 2004 and indicated that 13.0 percent of youths aged 12 to 17 had smoked cigarettes in the past 30 days, 21.1 percent had used alcohol in the past 30 days, and 10.4 percent were past month binge alcohol users. An estimated 21.1 percent of youths had ever tried marijuana, and 2.4 percent had ever used cocaine (Fryar, Merino, Hirsch, & Porter, 2009). NSDUH estimates for youths aged 12 to 17 in 2002 to 2004 ranged from 11.9 to 13.0 percent for past month use of cigarettes, from 17.6 to 17.7 percent for past month alcohol use, and from 10.6 to 11.1 percent for past month binge alcohol use. Lifetime use of marijuana in 2002 to 2004 among youths ranged from 19.0 to 20.6 percent, and lifetime use of cocaine ranged from 2.4 to 2.7 percent.

For further details, see the NHANES Web site at <http://www.cdc.gov/nchs/nhanes.htm>.

National Health Interview Survey (NHIS)

The National Health Interview Survey (NHIS) is a continuous, nationally representative sample survey that collects data using personal household interviews through CAPI. The survey is sponsored by the NCHS and provides national estimates of the health status, access to care and insurance, health service utilization, and health behaviors of the civilian, noninstitutionalized population, including cigarette smoking and alcohol use among persons aged 18 or older. NHIS data have been collected since 1957. In 2012, there were three core components of the survey: the Family Core, which collects information from all family members aged 18 or older in each household; the Sample Adult Core, which collects information from one adult aged 18 or older in each family; and the Sample Child Core, which collects information on youths under age 18 from a knowledgeable family member, usually a parent, in households with a child. In 2012, NHIS sample sizes were 108,131 persons for the Family Core, 34,525 adults for the Sample Adult Core, and 13,275 children for the Sample Child Core (NCHS, Office of Information Services, 2013).

The NHIS estimates of substance use for adults are not strictly comparable with NSDUH estimates. For example, in the NHIS, consumption of five or more drinks on at least 1 day is measured for the past year, whereas the reference period for NSDUH is the past 30 days. As for BRFSS, adults in the NHIS are defined as current cigarette users if they smoked at least 100 cigarettes in their lifetime and also reported that they currently smoke (Schoenborn, Adams, & Peregoy, 2013).

For further details, see the NCHS Web site at <http://www.cdc.gov/nchs/nhis.htm>.

National Longitudinal Alcohol Epidemiologic Survey (NLAES) and National Epidemiologic Survey on Alcohol and Related Conditions (NESARC)

The National Longitudinal Alcohol Epidemiologic Survey (NLAES) was conducted in 1991 and 1992 by the U.S. Bureau of the Census for the National Institute on Alcohol Abuse and Alcoholism (NIAAA). Face-to-face, interviewer-administered interviews using paper-and-pencil questionnaires were conducted with 42,862 respondents aged 18 or older in households in the contiguous United States. Despite the survey name, the design was cross-sectional.

The National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) was a longitudinal study conducted in 2001 and 2002, also by the U.S. Bureau of the Census for NIAAA, using CAPI. The NESARC sample was designed to make inferences for persons aged 18 or older in the civilian, noninstitutionalized population of the United States, including Alaska, Hawaii, and the District of Columbia, and including persons living in noninstitutional group quarters. The first wave was conducted in 2001 and 2002, with a final sample size of 43,093 respondents aged 18 or older. The second wave was conducted in 2004 and 2005, in which 34,653 Wave 1 respondents were reinterviewed (Grant & Dawson, 2006; NIAAA, 2010). A 1-year data collection period for NESARC-III began in 2012 with a new cohort of approximately 46,500 adults.

NESARC contains assessments of drug use, dependence, and abuse and associated mental disorders. NESARC included an extensive set of questions, based on DSM-IV criteria (APA, 1994), designed to assess the presence of symptoms of alcohol and drug dependence and abuse in persons' lifetimes and during the prior 12 months. In addition, DSM-IV diagnoses of major mental disorders were generated using the Alcohol Use Disorder and Associated Disabilities Interview Schedule-version 4 (AUDADIS-IV), which is a structured diagnostic interview that captures major DSM-IV axis I and axis II disorders.

Research indicates that (a) prevalence estimates for substance use were generally higher in NSDUH than in NESARC; (b) rates of past year substance use disorder (SUD) for cocaine and heroin use were higher in NSDUH than in NESARC; (c) rates of past year SUD for use of alcohol, marijuana, and hallucinogens were similar between NSDUH and NESARC; and (d) prevalence estimates for past year SUD conditional on past year use were substantially lower in NSDUH for the use of marijuana, hallucinogens, and cocaine (Gruca et al., 2007). A number of methodological factors might have contributed to such discrepancies, including privacy and anonymity. Questions about sensitive topics in NSDUH are self-administered, while similar questions are interviewer administered in NESARC, which may have resulted in higher use estimates in NSDUH. In addition, differences in SUD diagnostic instrumentation may have resulted in higher SUD prevalence among past year substance users in NESARC.

For further details about NLAES, see Stinson et al. (1998). For an overview of NESARC findings, see Caetano (2006).

National Longitudinal Study of Adolescent Health (Add Health)

The National Longitudinal Study of Adolescent Health (Add Health) was conducted to measure the effects of family, peer group, school, neighborhood, religious institution, and community influences on health risks, such as tobacco, drug, and alcohol use. Add Health was initiated in 1994 and supported by grants from the Eunice Kennedy Shriver National Institute of Child Health and Human Development (NICHD) with cofunding from 23 other Federal agencies and foundations.

The study began in 1994-1995 (Wave I) with an in-school questionnaire administered to a nationally representative sample of 90,000 students in grades 7 to 12 in 144 schools and followed up with an in-home interview. In Wave I, the students were administered brief, machine-readable questionnaires during a regular class period. Interviews also were conducted with about 20,000 students and their parents in the students' homes using a combined CAPI and ACASI design. In Wave II, conducted in 1996, about 15,000 students in grades 8 to 12 were interviewed a second time in their homes. In Wave III in 2001-2002, about 15,000 of the original Add Health respondents, then aged 18 to 26, were reinterviewed to investigate how adolescent experiences and behaviors are related to outcomes during the transition to adulthood. Wave IV was conducted in 2007-2008 when the approximately 15,000 respondents were aged 24 to 32. The study provides information on the use of alcohol, illicit drugs, and tobacco.

For further details, see the Add Health Web site at <http://www.cpc.unc.edu/projects/addhealth>.

Partnership Attitude Tracking Study (PATS)

The Partnership Attitude Tracking Study (PATS), an annual national research study that tracks attitudes about illegal drugs, is sponsored by the Partnership at Drugfree.org and the MetLife Foundation. PATS consists of two nationally representative samples—a teenage sample for students in grades 9 through 12 and a parent sample. Adolescents complete self-administered, machine-readable questionnaires during a regular class period. The latest PATS surveys of teenagers and parents were conducted in 2012. The 2012 survey of adolescents included questions about use of cigarettes, alcohol, and illicit drugs. In 2012, 3,884 teenagers were surveyed nationwide in the 24th wave of the survey conducted since 1987, and 817 parents or caregivers of children in grades 9 to 12 were surveyed (Partnership at Drugfree.org & MetLife Foundation, 2013).

In general, NSDUH estimates of substance use prevalence for adolescents are lower than PATS estimates for youths in that age group. In 2012, for example, PATS estimates of marijuana use among adolescents in grades 9 through 12 were 45 percent for lifetime use and 24 percent for use in the past month (Partnership at Drugfree.org & MetLife Foundation, 2013). In 2012, corresponding estimates of lifetime marijuana use in NSDUH were 23.8 percent for 10th graders and 38.5 percent for 12th graders ([Table C.1](#)). Rates of past month marijuana use in NSDUH were 10.9 percent for 10th graders and 15.5 percent for 12th graders. The differences in prevalence estimates may be due to the different study designs. The youth portion of PATS is a school-based survey, which, similar to other school-based surveys (e.g., MTF), may elicit more reporting of illicit drug use than the home-based NSDUH.

For further details, see the Partnership at Drugfree.org Web site at <http://www.drugfree.org/>.

Youth Risk Behavior Survey (YRBS)

Since 1991, the Youth Risk Behavior Survey (YRBS) has been a component of the CDC's Youth Risk Behavior Surveillance System (YRBSS), which measures the prevalence of six priority health risk behavior categories: (a) behaviors that contribute to unintentional injuries and violence; (b) tobacco use; (c) alcohol and other drug use; (d) sexual behaviors that contribute to unintended pregnancy and sexually transmitted diseases, including human immunodeficiency virus infection; (e) unhealthy dietary behaviors; and (f) physical inactivity. The YRBSS includes national, State, territorial, tribal, and local school-based surveys of high school students conducted every 2 years. The national school-based survey uses a three-stage cluster sample design to produce a nationally representative sample of students in grades 9 through 12 who attend public and private schools. The State and local surveys use a two-stage cluster sample design to produce representative samples of public school students in grades 9 through 12 in their jurisdictions. The YRBS is conducted during the spring, with students completing a self-administered, machine-readable questionnaire during a regular class period. For the 2013 national YRBS (the latest that has been conducted), 13,583 usable questionnaires were obtained in 148 schools.

In general, the YRBS school-based survey has found higher rates of substance use for youths than those found in NSDUH ([Table C.2](#)).²² The lower prevalence rates in NSDUH are likely due to the differences in study design. As in the case of comparisons with estimates from the MTF, the lower prevalences in NSDUH may be due to more underreporting in the household setting, as compared with the YRBS school setting, and some overreporting in the school settings.

Similar to other school-based surveys, the population of inference for the YRBS is the population of adolescents who are in school, specifically those in the 9th through 12th grades. Consequently, the YRBS does not include data from dropouts. The YRBS makes follow-up attempts to obtain data from youths who were absent on the day of survey administration, but nevertheless does not obtain complete coverage of these youths. For these reasons, YRBS data are not intended to be used for making inferences about the adolescent population of the United States as a whole.

For further details, see the CDC Web site at <http://www.cdc.gov/HealthyYouth/yrebs/>.

C.2 Substance Abuse Treatment Data Sources

The Substance Abuse and Mental Health Services Administration's (SAMHSA's) Behavioral Health Services Information System (BHSIS, formerly the Drug and Alcohol Services Information System, or DASIS) includes three components that provide national- and State-level information on the numbers and characteristics of individuals admitted to substance abuse treatment programs and that describe the facilities that deliver care to those individuals. The core of BHSIS is the Inventory of Behavioral Health Services (I-BHS), a continually updated, comprehensive listing of all known substance abuse and mental health treatment facilities; further details about I-BHS are not included in this section. The two other components of BHSIS are described in this section: the National Survey of Substance Abuse Treatment Services (N-SSATS) and the Treatment Episode Data Set (TEDS).

National Survey of Substance Abuse Treatment Services (N-SSATS)

The National Survey of Substance Abuse Treatment Services (N-SSATS) started in 2000 and is an annual survey of all known drug and alcohol abuse treatment facilities in the United States and U.S. jurisdictions. The 2012 N-SSATS facility universe totaled 19,316 facilities. About 17 percent of the facilities in 2012 were found to be ineligible because they had closed or did not provide substance abuse treatment or detoxification. Of the remaining eligible facilities, more than 14,000 (93 percent) completed the survey. The 2012 N-SSATS employed three sequential data collection modes: a secure Web-based questionnaire, a paper questionnaire sent by mail upon request to facilities that had not responded to the Web-based questionnaire, and a telephone interview for facilities that had not responded to the Web or paper questionnaire. The percentage of facilities responding via the Web increased from 44 percent in 2007 to 81 percent in 2012 (CBHSQ, 2013).

In N-SSATS, facilities provide information on the characteristics of the treatment facility, including (but not limited to) client payment sources, services provided, and hospital and residential capacity. N-SSATS also collects data from facilities on the number of clients in treatment on the survey reference date (i.e., the last working day of March in the survey year, such as March 30, 2012) and the percentages of clients in treatment on the reference date for abuse of alcohol and other drugs, alcohol abuse only, other drug abuse only, and co-occurring substance abuse and mental health disorders. Average counts of the number of persons in treatment for alcohol or illicit drug abuse on a single day were about 1.2 million based on N-SSATS data from 2007 to 2009. Corresponding average single-day counts from NSDUH were about 1.4 million based on the questionnaire item asking about treatment on October 1st and 1.2 million based on the item about currently being in treatment at the time of the interview.²³ Compared with data reported by facilities in N-SSATS, NSDUH respondents were more likely to report treatment only for alcohol and were less likely to report treatment only for illicit drugs (Batts et al., 2014).

As noted previously, N-SSATS collects data on substance abuse treatment utilization from facilities. In contrast, NSDUH estimates of treatment utilization are based on self-reports of treatment from respondents in the general population. The validity of N-SSATS data on treatment utilization depends on the accuracy of the reports provided by the person(s) responding on behalf of the facility just as the validity of NSDUH estimates on the receipt of substance abuse treatment depends on accurate respondent self-reports. Also, N-SSATS counts of clients who received treatment cover clients who may be outside of the NSDUH target population (e.g., homeless persons not living in shelters, active-duty military personnel). In addition, N-SSATS percentages of clients receiving treatment both for alcohol and other drugs, only alcohol, and only other drugs are based on responses to a single question that asks a facility staff member to assign these percentages to each category. In contrast, NSDUH respondents who reported receiving treatment at a specialty facility are asked about the substances for which they received treatment.

For further details, see the SAMHSA Web site at <http://www.samhsa.gov/data/>.

Treatment Episode Data Set (TEDS)

The Treatment Episode Data Set (TEDS) is a compilation of data on the demographic characteristics and substance abuse problems of those aged 12 or older who are admitted for substance abuse treatment, based on administrative data that are routinely collected by State substance abuse agencies (SSAs) for substance abuse treatment. SSAs report data to TEDS for approximately 2 million annual admissions to treatment in the United States and Puerto Rico primarily from facilities that receive some public funding. The TEDS system consists of two major components—the Admissions Data Set and the Discharge Data Set. The TEDS Admissions Data Set includes annual client-level data on substance abuse treatment admissions since 1992. The TEDS Discharge Data Set can be linked at the record level to admissions and includes information from clients discharged in 2000 and later. The most current TEDS data at the time this report was written were the 2012 admissions data and the 2011 discharge data.

The TEDS Admissions Data Set consists of a Minimum Data Set collected by all States and a Supplemental Data Set collected by some States. The Minimum Data Set consists of 19 items that include demographic information; primary, secondary, and tertiary substance problems at admission; source of referral; number of prior treatment episodes; and service type at admission. Supplemental Data Set items consist of 17 items that include psychiatric, social, and economic measures. The TEDS Discharge Data Set consists of items on service type at discharge, reason for discharge (e.g., completed treatment, transferred to another program or facility, dropped out), and length of stay (LOS). LOS is calculated by subtracting the admission date from the discharge date (or date of last contact). Based on linked admissions and discharge data, the average number of persons who received treatment in the past year based on TEDS data from 2007 to 2009 was about 22 percent lower than the average from 2005 to 2010 in NSDUH for treatment in a specialty facility (1.9 million vs. 2.4 million). The single-day count of persons in treatment from TEDS was about 0.5 million, which was lower than the single-day counts for N-SSATS (1.2 million) and NSDUH (1.2 million to 1.4 million, depending on the questions that were used; see the N-SSATS section in this appendix).²⁴ Thus, TEDS may underestimate the number of persons in treatment on a single day (Batts et al., 2014).

Although TEDS includes data for a sizable proportion of admissions to substance abuse treatment, it does not include all admissions. Because TEDS is a compilation of data from State administrative systems, the scope of facilities included in TEDS is affected by differences in State reporting requirements, licensure, certification, and accreditation practices, as well as disbursement of public funds. Many SSAs require facilities that receive public funding (including Federal block grant funds) for substance abuse treatment services to report data to the SSA, whereas others require all facilities that are licensed or certified by the State to report TEDS data. States also vary in terms of the specific admissions that are reported to TEDS (e.g., all admissions to eligible facilities that report to TEDS versus admissions financed by public funds).

For further details, see the SAMHSA Web site at <http://www.samhsa.gov/data/>.

C.3 Surveys of Populations Not Covered by NSDUH

Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel

The 2011 Department of Defense Health Related Behaviors Survey of Active Duty Military Personnel (HRB survey) was updated extensively since the last iteration of the survey in 2008. For the first time, the survey was administered using a Web-based individual self-administered questionnaire rather than through an onsite group administration of paper-and-pencil questionnaires. Because of this change in survey administration, the 2011 sample was no longer clustered geographically. The questionnaire also was revised to allow use of skip logic to reduce respondent burden and additional alignment with questions in national surveys of civilian populations, such as the NHIS. For example, current cigarette use was defined in the 2011 HRB survey based on the NHIS definition of persons having smoked 100 or more cigarettes in their lifetime and now smoking on some days or every day; the NSDUH definition of current cigarette use is any use of cigarettes in the past 30 days. The 2011 HRB survey sample consisted of 39,877 active-duty, nondeployed service members in the Army, Navy, Marine Corps, Air Force, and Coast Guard (Barlas, Higgins, Pflieger, & Diecker, 2013). The survey provides information about the use of alcohol, illicit drugs, and tobacco. Because of changes to procedures for sampling, data collection (including questionnaire changes), weighting, data processing, and analysis, estimates from the 2011 HRB survey are not directly comparable with estimates from prior HRB survey administrations. Consequently, the 2011 HRB survey represents a new baseline.

In administrations of this survey prior to 2011, comparisons with NSDUH data have consistently shown that, even after accounting for demographic differences between the military and civilian populations, the military personnel had higher rates of heavy alcohol use than their civilian counterparts, similar rates of cigarette use, and lower rates of illicit drug use (Bray et al., 2009). Published comparisons of rates of heavy alcohol use, binge alcohol use, and cigarette use between military personnel and civilians based on 2011 HRB survey data were not adjusted for demographic differences between the populations other than to limit the civilian data to persons aged 18 to 65, thus affecting the conclusions that can be drawn from comparisons between the HRB and civilian data sources.

National Inmate Survey (NIS)

The National Inmate Surveys were conducted in 2007 (NIS-1) and in 2008-2009 (NIS-2). They fulfill the requirements of the Prison Rape Elimination Act of 2003 (P.L. 108-79) for the Bureau of Justice Statistics (BJS) to provide a list of prisons and jails according to the prevalence of sexual victimization. BJS added a companion survey on drug and alcohol use and treatment to both the NIS-1 and NIS-2. Inclusion of the companion survey on substance use and treatment was designed to prevent facility staff from knowing whether inmates were selected to receive the survey on sexual victimization or the companion survey and also was intended to provide more recent information on substance use and related issues among correctional populations in the United States compared with the Surveys of Inmates in State and Federal Correctional Facilities (see below).

The NIS used a two-stage probability sample design first to select State and Federal correctional facilities, then to select inmates within sampled facilities. This resulted in a sample representing approximately 10 percent of the 1,260 State and 192 Federal adult confinement facilities identified in the 2005 Census of State and Federal Adult Correctional Facilities. At least one facility in every State was selected; Federal facilities were grouped together and treated like a State for sampling purposes. The sample design also ensured a sufficient number of women in the sample. Samples were restricted to confinement facilities (i.e., institutions in which fewer than 50 percent of the inmates were regularly permitted to leave for work, study, or treatment without being accompanied by facility staff). The NIS samples also excluded community-based facilities, such as halfway houses, group homes, and work release centers. Inmates aged 18 or older within sampled facilities were randomly selected for the interview.

The NIS-1 was conducted in 146 State and Federal prisons and in 282 local jails between April and August 2007. Overall NIS-1 response rates for both survey forms were 72 percent for prison inmates and 67 percent for jail inmates. A total of 7,754 prison or jail inmates completed the drug and alcohol survey for the NIS-1. The NIS-2 was conducted in 167 State and Federal prisons and 286 jails between October 2008 and August 2009. NIS-2 response rates were 71 percent for prison inmates and 68 percent for jail inmates. A total of 5,015 prison or jail inmates completed the drug and alcohol survey for the NIS-2.

The interviews used CAPI for general background information at the beginning of the interview and ACASI for the remainder. Respondents completed the ACASI portion of the interview in private, with the interviewer either leaving the room or moving away from the computer. Sampled inmates were randomly assigned to receive the sexual victimization survey or the companion survey on substance use and treatment. Substance use questions were based on items from past inmate surveys conducted by BJS, such as the 2004 Survey of Inmates in State Correctional Facilities (SISCF), and included questions about lifetime and first use of drugs or alcohol, being under the influence of drugs or alcohol at the time of their current offense, substance use prior to being admitted to the facility, problems associated with substance use, and treatment for use of drugs or alcohol.

For further details about the NIS, see BJS's "All Data Collections" Web page at <http://bjs.ojp.usdoj.gov/index.cfm?ty=dca>. Results from the drug and alcohol use and treatment surveys are expected in 2015. Upon release of the findings, data will be made available at the National Archive of Criminal Justice Data (<http://www.icpsr.umich.edu/NACJD/>).

Surveys of Inmates in State and Federal Correctional Facilities (SISCF, SIFCF)

The Survey of Inmates in State Correctional Facilities (SISCF) and the Survey of Inmates in Federal Correctional Facilities (SIFCF) have provided nationally representative data on State prison inmates and sentenced Federal inmates held in federally owned and operated facilities. The Survey of State Inmates was conducted in 1974, 1979, 1986, 1991, 1997, and 2004, and the Survey of Federal Inmates in 1991, 1997, and 2004. The U.S. Census Bureau conducted the 2004 SISCF for the BJS and the SIFCF for BJS and the Federal Bureau of Prisons. Both surveys provide information about current offense and criminal history; family background and personal characteristics; prior drug and alcohol use and treatment; gun possession; and prison treatment, programs, and services. The surveys are the only national source of detailed information on criminal offenders, particularly special populations such as drug and alcohol users and offenders who have mental health problems. Systematic random sampling was used to select the inmates, and the SISCF and SIFCF in 2004 were administered through CAPI. In 2004, 14,499 State prisoners in 287 State prisons and 3,686 Federal prisoners in 39 Federal prisons were interviewed.

Prior drug use among State prisoners remained stable on all measures between 1997 and 2004, while the percentage of Federal inmates who reported prior drug use rose on most measures (Mumola & Karberg, 2006). For the first time, half of Federal inmates reported drug use in the month before their offense. In 2004, measures of drug dependence and abuse based on criteria in DSM-IV (APA, 1994) were introduced, and 53 percent of the State and 45 percent of Federal prisoners met the DSM-IV criteria for drug abuse or dependence. The survey results indicate substantially higher rates of drug use among State and Federal prisoners as compared with NSDUH's rates for the general household population.

For further details, see BJS's "All Data Collections" Web page at <http://bjs.ojp.usdoj.gov/index.cfm?ty=dca>.

Table C.1 – Use of Specific Substances in Lifetime, Past Year, and Past Month among 8th, 10th, and 12th Graders in MTF and NSDUH: Percentages, 2012 and 2013

| Drug/Current Grade Level | MTF Lifetime (2012) | MTF Lifetime (2013) | NSDUH Lifetime (2012) | NSDUH Lifetime (2013) | MTF Past Year (2012) | MTF Past Year (2013) | NSDUH Past Year (2012) | NSDUH Past Year (2013) | MTF Past Month (2012) | MTF Past Month (2013) | NSDUH Past Month (2012) | NSDUH Past Month (2013) |
|--------------------------|---------------------------|---------------------------|-----------------------------|-----------------------------|-------------------------------|-------------------------------|---------------------------------|---------------------------------|--------------------------------|--------------------------------|----------------------------------|----------------------------------|
| Marijuana | | | | | | | | | | | | |
| 8th Grade | 15.2 | 16.5 | 7.8 | 6.8 | 11.4 | 12.7 | 5.9 | 5.6 | 6.5 | 7.0 | 3.0 | 2.5 |
| 10th Grade | 33.8 | 35.8 | 23.8 | 24.5 | 28.0 | 29.8 | 19.6 | 19.7 | 17.0 | 18.0 | 10.9 | 11.4 |
| 12th Grade | 45.2 | 45.5 | 38.5 | 38.1 | 36.4 | 36.4 | 29.1 | 31.1 | 22.9 | 22.7 | 15.5 | 17.4 |
| Cocaine | | | | | | | | | | | | |
| 8th Grade | 1.9 | 1.7 | 0.3 | 0.2 | 1.2 | 1.0 | 0.2 | 0.1 | 0.5 | 0.5 | 0.0 | 0.1 |
| 10th Grade | 3.3 | 3.3 | 1.2 | 1.0 | 2.0 | 1.9 | 0.9 | 0.6 | 0.8 | 0.8 | 0.2 | 0.0 |
| 12th Grade | 4.9 | 4.5 | 3.9 | 3.1 | 2.7 | 2.6 | 2.1 | 1.7 | 1.1 | 1.1 | 0.3 | 0.2 |
| Inhalants | | | | | | | | | | | | |
| 8th Grade | 11.8 | 10.8 | 7.8 | 6.4 | 6.2 ^a | 5.2 | 3.5 | 2.5 | 2.7 | 2.3 | 1.1 | 0.9 |
| 10th Grade | 9.9 | 8.7 | 8.6 | 6.5 | 4.1 | 3.5 | 3.7 ^a | 1.8 | 1.4 | 1.3 | 1.1 | 0.6 |
| 12th Grade | 7.9 | 6.9 | 6.8 | 5.3 | 2.9 | 2.5 | 2.5 ^a | 1.1 | 0.9 | 1.0 | 0.4 | 0.1 |
| Cigarettes | | | | | | | | | | | | |
| 8th Grade | 15.5 | 14.8 | 10.3 | 9.0 | -- | -- | 7.0 | 5.6 | 4.9 | 4.5 | 3.1 | 2.1 |
| 10th Grade | 27.7 ^a | 25.7 | 24.8 | 22.5 | -- | -- | 16.7 | 15.4 | 10.8 ^a | 9.1 | 8.5 | 8.8 |
| 12th Grade | 39.5 | 38.1 | 37.1 | 35.0 | -- | -- | 26.5 | 24.9 | 17.1 | 16.3 | 17.8 | 16.9 |
| Alcohol | | | | | | | | | | | | |
| 8th Grade | 29.5 | 27.8 | 20.4 | 18.9 | 23.6 | 22.1 | 15.7 | 13.8 | 11.0 | 10.2 | 7.1 | 5.4 |
| 10th Grade | 54.0 | 52.1 | 44.7 | 44.3 | 48.5 | 47.1 | 38.8 | 36.8 | 27.6 | 25.7 | 17.8 | 17.7 |
| 12th Grade | 69.4 | 68.2 | 62.2 | 61.7 | 63.5 | 62.0 | 53.5 | 52.6 | 41.5 ^a | 39.2 | 32.7 | 30.7 |

MTF = Monitoring the Future; NSDUH = National Survey on Drug Use and Health.
-- Not available.
NOTE: NSDUH data have been drawn from January to June of each survey year and subset to persons aged 12 to 20 to be more comparable with MTF data.
^a Difference between this estimate and the 2013 estimate within the same survey is statistically significant at the .05 level.
^b Difference between this estimate and the 2013 estimate within the same survey is statistically significant at the .01 level.
Sources: National Institute on Drug Abuse, Monitoring the Future Study, University of Michigan, 2012 and 2013. SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013 (January-June).

Table C.2 – Lifetime and Past Month Substance Use among Students in Grades 9 to 12 in YRBS and NSDUH: Percentages, 2005, 2007, 2009, 2011, and 2013

| Substance/Period of Use | YRBS (2005) | YRBS (2007) | YRBS (2009) | YRBS (2011) | YRBS (2013) | NSDUH (2005) | NSDUH (2007) | NSDUH (2009) | NSDUH (2011) | NSDUH (2013) |
|-------------------------|-------------------|-------------------|-------------------|-------------------|----------------|-------------------|-------------------|-------------------|-------------------|-----------------|
| Marijuana | | | | | | | | | | |
| Lifetime Use | 38.4 | 38.1 | 36.8 ^a | 39.9 | 40.7 | 28.1 | 26.4 | 27.8 | 29.3 ^a | 27.1 |
| Past Month Use | 20.2 ^a | 19.7 ^b | 20.8 ^a | 23.1 | 23.4 | 11.2 | 10.9 | 12.0 | 13.3 | 12.1 |
| Cocaine | | | | | | | | | | |
| Lifetime Use | 7.6 ^b | 7.2 ^a | 6.4 | 6.8 ^a | 5.5 | 3.8 ^b | 3.8 ^b | 2.9 ^b | 2.3 ^a | 1.6 |
| Past Month Use | 3.4 | 3.3 | 2.8 | 3.0 | -- | 0.8 ^b | 0.6 ^b | 0.4 | 0.5 ^a | 0.2 |
| Ecstasy | | | | | | | | | | |
| Lifetime Use | 6.3 | 5.8 | 6.7 | 8.2 ^a | 6.6 | 2.8 | 2.9 | 3.3 | 4.3 ^b | 3.1 |
| Past Month Use | -- | -- | -- | -- | -- | 0.4 | 0.4 | 0.8 ^b | 0.7 ^a | 0.3 |
| Inhalants | | | | | | | | | | |
| Lifetime Use | 12.4 ^b | 13.3 ^b | 11.7 ^b | 11.4 ^b | 8.9 | 12.0 ^b | 10.7 ^b | 10.1 ^b | 8.1 ^b | 6.0 |
| Past Month Use | -- | -- | -- | -- | -- | 1.1 ^b | 1.1 ^b | 0.6 | 0.6 | 0.4 |
| Cigarettes | | | | | | | | | | |
| Lifetime Use | 54.3 ^b | 50.3 ^b | 46.3 ^b | 44.7 ^a | 41.1 | 39.0 ^b | 35.2 ^b | 33.7 ^b | 31.3 ^b | 25.3 |
| Past Month Use | 23.0 ^b | 20.0 ^b | 19.5 ^b | 18.1 | 15.7 | 17.0 ^b | 15.5 ^b | 14.9 ^b | 14.5 ^b | 10.4 |
| Alcohol | | | | | | | | | | |
| Lifetime Use | 74.3 ^b | 75.0 ^b | 72.5 ^b | 70.8 ^b | 66.2 | 57.5 ^b | 57.6 ^b | 56.5 ^b | 52.4 ^b | 47.8 |
| Past Month Use | 43.3 ^b | 44.7 ^b | 41.8 ^b | 38.7 ^b | 34.9 | 26.0 ^b | 26.3 ^b | 25.8 ^b | 23.7 ^b | 20.1 |

NSDUH = National Survey on Drug Use and Health; YRBS = Youth Risk Behavior Survey.
-- Not available.
NOTE: NSDUH data have been drawn from January to June of each survey year and subset to persons aged 12 to 20 to be more comparable with YRBS data. Some 2007 and 2009 NSDUH estimates may differ from previously published estimates due to updates (see [Section B.3](#) in [Appendix B](#) of this report).
NOTE: Statistical tests for the YRBS were conducted using the "Youth Online" tool at <http://www.cdc.gov/HealthyYouth/yrbs/>. Results of testing for statistical significance in this table may differ from published YRBS reports of change.
^a Difference between this estimate and the 2013 estimate within the same survey is statistically significant at the .05 level.
^b Difference between this estimate and the 2013 estimate within the same survey is statistically significant at the .01 level.
Sources: Centers for Disease Control and Prevention, Youth Risk Behavior Survey, 2005, 2007, 2009, 2011, and 2013. SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, January-June for 2005, 2007, 2009, 2011, and 2013.

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Appendix E: List of Contributors

This National Survey on Drug Use and Health (NSDUH) report was prepared by the Center for Behavioral Health Statistics and Quality (CBHSQ), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (HHS), and by RTI International (a trade name of Research Triangle Institute), Research Triangle Park, North Carolina. Work by RTI was performed under Contract No. HHSS283201000003C.

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End Notes

¹ RTI International is a trade name of Research Triangle Institute.

² Since 2013, the question about race has included categories for Guamanian or Chamorro and for Samoan. Prior to 2013, these groups were reported in the interview as Other Pacific Islander.

³ Definitions for binge alcohol use and heavy alcohol use are given in the introduction to [Chapter 3](#) in this report.

⁴ Initiation for pain relievers, tranquilizers, stimulants, or sedatives refers to first nonmedical use.

⁵ Due to rounding, percentages of past year initiates who initiated prior to age 18 that are calculated from the estimated numbers in [Figure 5.8](#) may differ from the actual percentages.

⁶ Unlike other sections that present estimates among adults aged 18 or older, this section focuses on the associations between educational attainment and substance use disorders among adults aged 26 or older. Age is associated with both educational attainment and substance use disorders among adults aged 18 to 25. Many 18 year olds are still in high school. Many 18 to 22 year olds have some college education but have not yet received a college degree. College graduates generally are aged 22 or older. Moreover, in the United States, it is illegal to drink alcohol before age 21. The prevalence of alcohol use disorders among adults under the age of 21 often is lower than that among adults aged 21 to 25. Focusing on adults aged 26 or older minimizes the potential confounding effect of age on the associations between educational attainment and substance use disorders.

⁷ Estimates for the 2001 YRBS are not shown in [Tables 8.1](#) and [8.3](#) for consistency with the new NSDUH baseline in 2002.

⁸ Prior to 2002, the survey was known as the National Household Survey on Drug Abuse (NHSDA).

⁹ SAE is a hierarchical Bayes modeling technique used to make State-level estimates for 25 measures related to substance use and mental health. For more details, see "2011-2012 NSDUH: Model-Based Prevalence Estimates (50 States and the District of Columbia)" (Tables 1 to 26, by Age Group) at <http://www.samhsa.gov/data/NSDUH/2k12State/NSDUHsae2012/Index.aspx>.

¹⁰ Sampling areas were defined using 2000 census geography. Counts of dwelling units (DUs) and population totals were obtained from the 2000 decennial census data supplemented with revised population projections from Nielsen Claritas.

¹¹ Census tracts are relatively permanent statistical subdivisions of counties and parishes and provide a stable set of geographic units across decennial census periods.

¹² Some census tracts had to be aggregated in order to meet the minimum DU requirement of 150 DUs in urban areas and 100 DUs in rural areas.

¹³ A successfully screened household is one in which all screening questionnaire items were answered by an adult resident of the household and either zero, one, or two household members were selected for the NSDUH interview.

¹⁴ The usable case rule requires that a respondent answer "yes" or "no" to the question on lifetime use of cigarettes and "yes" or "no" to at least nine additional lifetime use questions.

¹⁵ Prior to 2002, NSDUH was known as the National Household Survey on Drug Abuse (NHSDA).

¹⁶ Substances include alcohol, marijuana, cocaine, heroin, hallucinogens, inhalants, pain relievers, tranquilizers, stimulants, and sedatives.

¹⁷ See Section B.4.8 in the *Results from the 2008 National Survey on Drug Use and Health: National Findings* (OAS, 2009) for the methamphetamine analysis decisions.

¹⁸ The BRFSS online analysis tool is available by clicking on the "Prevalence Data and Data Analysis Tools" link at <http://www.cdc.gov/brfss/>.

¹⁹ NSDUH and BRFSS in 1999 and 2000 used a threshold of five or more drinks for both males and females; see the BRFSS online analysis tool at <http://www.cdc.gov/brfss/>.

²⁰ To examine estimates that are comparable with MTF data, NSDUH estimates presented in [Table C.1](#) are based on data collected in the first 6 months of the survey year and are subset to ages 12 to 20.

²¹ These data were taken from the U.S. Census Bureau's Current Population Survey (CPS) and were available (at the time of publication) at <http://www.census.gov/> by clicking on the "People" heading, selecting "School Enrollment," then selecting the detailed tables for "School Enrollment in the United States: 2012." Rates cited in this appendix are from the Census Bureau's Table 1 for all races and for both males and females.

²² To examine estimates that are comparable with YRBS data, NSDUH estimates presented in [Table C.2](#) are based on data collected in the first 6 months of the survey year and are subset to ages 12 to 20.

²³ Counts of the number of persons in treatment on a single day in N-SSATS were based on reports of the number of persons in treatment on the last working day of March. Corresponding NSDUH estimates were based on data from respondents from the 2008 to 2010 NSDUHs who reported that they were enrolled in a specialty substance use treatment program on October 1st of the year prior to the interview or those from the 2007 to 2009 NSDUHs who were in specialty substance use treatment at the time of the interview (Batts et al., 2014).

²⁴ The numbers of persons in TEDS who received treatment were derived from linked admissions and discharge data or from adjusted admissions data for States that did not submit discharge data. Multiple admissions that were linked by a single unique identifier represented one person. Three States (Alabama, Alaska, and Georgia) and the District of Columbia were not included in the TEDS data because they did not report TEDS data or reported incomplete data. For comparison purposes, data from these States were excluded from NSDUH data on average numbers who received treatment in the past year. However, single-day counts for persons in treatment from N-SSATS and NSDUH included data from these States (Batts et al., 2014).

EXHIBIT 9

MARYLAND

Table 52 Selected Drug Use, Perceptions of Great Risk, Average Annual Incidence Estimates of First Use of Marijuana, Past Year Substance Dependence or Abuse, Needing But Not Receiving Treatment, and Past Year Mental Health Measures in Maryland, by Age Group: Percentages, Annual Averages Based on 2012-2013 NSDUHs

| Measure | 12+ | 12-17 | 18-25 | 26+ | 18+ |
|---|--------------------|-------|-------|-------|-------|
| ILLICIT DRUGS | | | | | |
| Past Month Illicit Drug Use ¹ | 8.93 | 9.58 | 22.36 | 6.65 | 8.87 |
| Past Year Marijuana Use | 11.47 | 14.51 | 34.27 | 7.36 | 11.16 |
| Past Month Marijuana Use | 6.94 | 7.50 | 19.99 | 4.73 | 6.89 |
| Past Month Use of Illicit Drugs Other Than Marijuana ¹ | 3.12 | 3.28 | 6.64 | 2.52 | 3.10 |
| Past Year Cocaine Use | 1.46 | 0.52 | 3.80 | 1.19 | 1.56 |
| Past Year Nonmedical Pain Reliever Use | 4.18 | 4.46 | 8.49 | 3.44 | 4.16 |
| Perception of Great Risk of Smoking Marijuana Once a Month | 29.97 | 23.57 | 15.00 | 33.23 | 30.62 |
| Average Annual Incidence Estimates of First Use of Marijuana ² | 2.17 | 6.83 | 8.65 | 0.21 | 1.35 |
| ALCOHOL | | | | | |
| Past Month Alcohol Use | 58.37 | 13.36 | 64.85 | 62.67 | 62.98 |
| Past Month Binge Alcohol Use ³ | 23.09 | 6.76 | 39.38 | 22.36 | 24.77 |
| Perception of Great Risk of Drinking Five or More Drinks Once or Twice a Week | 42.02 | 41.61 | 35.13 | 43.21 | 42.06 |
| Past Month Alcohol Use (Individuals Aged 12 to 20) | 22.89 ⁴ | -- | -- | -- | -- |
| Past Month Binge Alcohol Use (Individuals Aged 12 to 20) ³ | 13.24 ⁴ | -- | -- | -- | -- |
| TOBACCO PRODUCTS | | | | | |
| Past Month Tobacco Product Use ⁵ | 22.07 | 6.64 | 35.13 | 21.76 | 23.65 |
| Past Month Cigarette Use | 18.24 | 5.05 | 27.96 | 18.21 | 19.59 |
| Perception of Great Risk of Smoking One or More Packs of Cigarettes per Day | 74.30 | 66.03 | 67.10 | 76.47 | 75.14 |
| PAST YEAR DEPENDENCE, ABUSE, AND TREATMENT⁶ | | | | | |
| Illicit Drug Dependence ¹ | 2.05 | 2.06 | 6.02 | 1.40 | 2.05 |
| Illicit Drug Dependence or Abuse ¹ | 2.62 | 3.39 | 8.11 | 1.62 | 2.54 |
| Alcohol Dependence | 2.99 | 1.05 | 5.93 | 2.73 | 3.19 |
| Alcohol Dependence or Abuse | 6.49 | 2.77 | 13.11 | 5.85 | 6.87 |
| Alcohol or Illicit Drug Dependence or Abuse ¹ | 8.02 | 5.18 | 18.27 | 6.67 | 8.31 |
| Needing But Not Receiving Treatment for Illicit Drug Use ^{1,7} | 2.34 | 3.08 | 7.10 | 1.46 | 2.26 |
| Needing But Not Receiving Treatment for Alcohol Use ⁷ | 6.36 | 2.69 | 13.18 | 5.67 | 6.74 |
| PAST YEAR MENTAL HEALTH ISSUES | | | | | |
| Had at Least One Major Depressive Episode ^{8,9} | -- | 10.28 | 8.68 | 5.96 | 6.34 |
| Serious Mental Illness ^{9,10} | -- | -- | 3.89 | 3.16 | 3.26 |
| Any Mental Illness ^{9,10} | -- | -- | 18.51 | 16.23 | 16.55 |
| Had Serious Thoughts of Suicide | -- | -- | 7.51 | 2.86 | 3.51 |

-- Not available.

NOTE: Estimates are based on a survey-weighted hierarchical Bayes estimation approach.

¹ Illicit Drugs include marijuana/hashish, cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically. Illicit Drugs Other Than Marijuana include cocaine (including crack), heroin, hallucinogens, inhalants, or prescription-type psychotherapeutics used nonmedically. These estimates include data from original methamphetamine questions but do not include new methamphetamine items added in 2005 and 2006.

² Average annual initiation of marijuana (%) = $100 * \{[X_1 \div (0.5 * X_1 + X_2)] \div 2\}$, where X_1 is the number of marijuana initiates in the past 24 months and X_2 is the number of individuals who never used marijuana. Both of the computation components, X_1 and X_2 , are based on a survey-weighted hierarchical Bayes estimation approach. Note that the age group is based on a respondent's age at the time of the interview, not his or her age at first use.

³ Binge Alcohol Use is defined as drinking five or more drinks on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least 1 day in the past 30 days.

⁴ Underage drinking is defined for individuals aged 12 to 20; therefore, the "12+" estimate reflects that age group and not individuals aged 12 or older.

⁵ Tobacco Products include cigarettes, smokeless tobacco (i.e., chewing tobacco or snuff), cigars, or pipe tobacco.

⁶ Dependence or abuse is based on definitions found in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV).

⁷ Needing But Not Receiving Treatment refers to respondents classified as needing treatment for illicit drugs (or alcohol), but not receiving treatment for an illicit drug (or alcohol) problem at a specialty facility (i.e., drug and alcohol rehabilitation facilities [inpatient or outpatient], hospitals [inpatient only], and mental health centers).

⁸ Major depressive episode (MDE) is defined as in the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), which specifies a period of at least 2 weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of specified depression symptoms. There are minor wording differences in the questions in the adult and adolescent MDE modules. Therefore, data from youths aged 12 to 17 were not combined with data from adults aged 18 or older to produce an estimate for those aged 12 or older.

⁹ For details, see Section B of the "2011-2012 NSDUH: Guide to State Tables and Summary of Small Area Estimation Methodology" at <http://www.samhsa.gov/data/population-data-nsduh/reports?tab=33>.

¹⁰ Mental Illness is defined as having a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, assessed by the Mental Health Surveillance Study (MHSS) *Structured Clinical Interview for the Diagnostic and Statistical Manual of Mental Disorders—Fourth Edition—Research Version—Axis I Disorders* (MHSS-SCID), which is based on the 4th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV). Three categories of mental illness severity are defined based on the level of functional impairment: mild mental illness, moderate mental illness, and serious mental illness (SMI). Any mental illness (AMI) includes individuals in any of the three categories.

Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2012 and 2013.

EXHIBIT 10

Go Back >> [DSS](#) > [Eligibility & Enrollment](#)

CY '14 TOTAL ELIGIBLES BY AGE GROUP FOR EACH MONTH

| AGEGRP | JAN14 | FEB14 | MAR14 | APR14 | MAY14 | JUN14 | JUL14 | AUG14 | SEP14 | OCT14 | NOV14 | DEC14 |
|---------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 0-<1 | 39,213 | 38,886 | 39,452 | 39,332 | 39,434 | 39,262 | 39,636 | 39,644 | 39,770 | 39,853 | 39,889 | 40,434 |
| 1-5 | 178,568 | 179,736 | 181,793 | 182,977 | 183,602 | 184,267 | 181,312 | 180,987 | 181,977 | 171,426 | 171,819 | 173,934 |
| 6-14 | 269,682 | 272,817 | 277,500 | 280,390 | 282,304 | 284,523 | 281,807 | 282,163 | 284,879 | 271,580 | 273,451 | 277,644 |
| 15-18 | 95,016 | 96,242 | 98,490 | 99,783 | 100,533 | 101,189 | 99,937 | 99,989 | 100,969 | 96,134 | 96,767 | 98,709 |
| 19-20 | 36,820 | 37,492 | 39,578 | 40,132 | 40,472 | 40,827 | 40,291 | 40,055 | 40,327 | 38,214 | 38,301 | 39,133 |
| 21-44 | 314,079 | 324,797 | 350,294 | 359,456 | 365,678 | 371,972 | 373,039 | 370,930 | 373,699 | 365,515 | 367,875 | 378,896 |
| 45-64 | 177,060 | 184,738 | 203,072 | 209,836 | 213,008 | 215,967 | 216,633 | 214,611 | 215,948 | 214,493 | 216,747 | 224,632 |
| 65-74 | 35,055 | 35,296 | 35,617 | 35,931 | 36,299 | 36,623 | 36,977 | 37,103 | 37,454 | 37,648 | 37,750 | 38,042 |
| 75-84 | 25,007 | 25,045 | 25,113 | 25,137 | 25,237 | 25,305 | 25,398 | 25,415 | 25,611 | 25,650 | 25,698 | 25,723 |
| 85-high | 14,461 | 14,482 | 14,448 | 14,467 | 14,501 | 14,565 | 14,574 | 14,639 | 14,715 | 14,748 | 14,838 | 14,806 |
| TOTALS | 1,184,961 | 1,209,531 | 1,265,357 | 1,287,441 | 1,301,068 | 1,314,500 | 1,309,604 | 1,305,536 | 1,315,349 | 1,275,261 | 1,283,135 | 1,311,953 |

As of end October 2015.

EXHIBIT 1 1



MARYLAND HEALTH CARE COMMISSION

4160 PATTERSON AVENUE – BALTIMORE, MARYLAND 21215
TELEPHONE: 410-764-3460 FAX: 410-358-1236

Memorandum

To: Commissioners

From: Joel Riklin, Acting Chief
Certificate of Need *JR*

Date: September 19, 2013

Re: Ashley, Inc. d/b/s Father Martin's Ashley
Docket No. 13-12-2340

Ashley, Inc. operates Father Martin's Ashley ("FMA"), an 85-bed intermediate care facility ("ICF") for the care and treatment of patients with alcoholism and drug addiction, in Havre de Grace in Harford County. FMA proposes the construction of a new two-story building, encompassing 41,824 gross square feet to address deficiencies in the existing physical facilities and add 15 beds increasing the facility's capacity to 100 beds. The proposed project will eliminate nine rooms designed to accommodate three or four patients and eliminate four patient rooms that are currently located in attics that FMA does not consider suitable for patient occupancy. The project will increase the number of private patient rooms from eleven to twenty, consolidate and relocate the Admissions Department and Patient Intake into the new building, establish a permanent location for the Wellness/Fitness Center in the new building, and expand and consolidate other administrative and support spaces.

The total estimated cost of the project is \$18,653,000. The initial funding of the project is projected to come from \$6 million in cash from the applicant, pledged funds of \$4 million, and \$1,653,000 in gifts and bequests that have already been received, with the balance of needed funds (\$7 million) being borrowed. FMA expects that future fund raising will provide the necessary funds to replace or pay off the bond or letter of credit that will be used for borrowing.

Staff recommends approval of this project with three conditions. The project meets an institutional need for facility modernization, it is a cost-effective alternative for meeting this need, it is viable, and will have no substantive impact on other facilities. The additional beds are likely to be needed based on the demand for FMA's services that is generated by a service area population that extends well beyond the borders of Maryland. The first recommended condition

requires reporting to insure FMA compliance with its commitment to provide charity care to the indigent and gray area populations. The second condition requires that FMA report data to the Alcohol and Drug Abuse Administration's Substance Abuse Management Information System (SAMIS) and the third condition requires FMA to report to MHCC, detailing its efforts to systematically evaluate its effectiveness in alcohol and substance abuse treatment.

IN THE MATTER OF

ASHLEY, INC., d/b/a

FATHER MARTIN'S ASHLEY

Docket No. 13-12-2340

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BEFORE THE

MARYLAND

HEALTH CARE

COMMISSION

Staff Report and Recommendation

September 19, 2013

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STAFF REPORT AND RECOMMENDATION

I. INTRODUCTION

A. The Applicant

Ashley, Inc. operates Father Martin's Ashley ("FMA"), an 85-bed intermediate care facility ("ICF") for the care and treatment of patients with alcoholism and drug addiction, also known as an ICF-Chemical Dependency or ICF-CD. Located in Havre de Grace in Harford County, the facility is private, not-for-profit, and non-denominational. It is licensed by the Department of Health and Mental Hygiene to provide three levels of care: clinically managed high-intensity residential treatment, medically monitored intensive inpatient treatment, and medically monitored intensive inpatient treatment-detoxification.

FMH opened in 1983 and operates on a 147-acre campus. The facility is named after Father Joseph Martin, a priest who received treatment for his alcoholism, and who later helped to establish this chemical addiction treatment center.

The applicant offers all patients an inpatient treatment program, based on a 28-day model, and also provides medically supervised detoxification on site. FMA embraces the "twelve-step program" approach, a set of principles outlining a course of action for recovery from addiction originally developed by Alcoholics Anonymous over 70 years ago. It reports specialized programs that address patient relapse into addiction, the treatment of women, the treatment of young adults, the needs of families, and the needs of children living in homes affected by addiction. It operates an outpatient intervention program for persons convicted of driving under the influence of alcohol or drugs and driving while intoxicated. FMA employs a medical and clinical care staff that is addiction-certified.

FMA is a unique health care facility Certificate of Need ("CON") applicant in that it does not participate in and does not propose to participate in the Medicare or Maryland Medical Assistance (Medicaid) program.

B. The Project

The applicant proposes to construct a new two-story building, encompassing 41,824 gross square feet ("SF") of new construction on its campus. The applicant's 85 ICF beds are currently distributed over three existing buildings – Noble Hall, Carpenter Hall, and Bantle Hall. The proposed project is planned to address deficiencies in the existing physical facilities of FMA and the need for additional beds. The proposed project will add 15 "Track One" beds, increasing total bed capacity to 100.

"Track One" or "private" beds are non-governmental ICF beds without significant funding by state or local government. The State Health Plan ("SHP") defines a "Track One" facility as one that provides "no less than 30 percent of its annual patient days to the indigent and gray area population for an adolescent intermediate care facility and (as applicable to FMA) no less than 15 percent of the facility's annual patient days for an adult ICF." The SHP defines the

“indigent population” as “those persons who qualify for services under the Maryland Medical Assistance Program, regardless of whether Medical Assistance will reimburse for alcohol and drug abuse treatment” and it defines the “gray area population” as “those persons who do not qualify for services under the Maryland Medical Assistance Program but whose annual income from any source is no more than 180 percent of the most current Federal Poverty Index, and who have no insurance for alcohol and drug abuse treatment services.”

Through the proposed project, FMA plans to eliminate nine rooms designed to accommodate three or four patients and eliminate four patient rooms that are currently located in attics that it does not consider suitable for patient occupancy. The project will increase the number of private patient rooms from eleven to twenty, consolidate and relocate the Admissions Department and Patient Intake into the new building, establish a permanent location for the Wellness/Fitness Center in the new building, and expand and consolidate other administrative and support spaces. The project will also include infrastructure improvements. FMA views the project as a means for upgrading and improving the level of its programs and allowing it to more effectively market its program to prospective patients.

The total estimated cost of the project is \$18,653,000, which includes \$18,361,000 in total capital costs, and \$292,000 in loan placement, legal, and consultant fees. The initial funding of the project is projected to come from \$6 million in cash from the applicant, pledged funds of \$4 million, and \$1,653,000 in gifts and bequests that have already been received, with the balance of needed funds (\$7 million) being borrowed. FMA expects that future fund raising will provide the necessary funds to replace or pay off the bond or letter of credit used for borrowing.

C. Background

In 2012, FMA petitioned MHCC to amend the docketing requirements of COMAR 10.24.14.04A and B, the State Health Plan chapter containing policies and standards for Certificate of Need (“CON”) review of projects by ICF for the treatment of alcohol and drug addiction. Those docketing rules addressed the occupancy rate to be attained by an ICF in order to docket an application for expansion, the percentage of total proposed bed days that a “Track One” ICF applicant must propose for indigent and “gray area” patients to obtain docketing of an application to establish or expand a “Track One” ICF, and the percentage of total existing bed days that an existing “Track One” ICF must demonstrate were generated by charity care, indigent, or the “gray area” population, including publicly-funded patients, in the preceding 12 months to obtain docketing of an application to increase the number of beds in an existing “Track One” ICF.

FMA did not meet the licensed bed occupancy docketing requirement because it did not operate all of its licensed beds, excluding some patient rooms (located in the attic floor of Noble Hall) from use because of their lack of privacy. More importantly, FMA did not meet the docketing requirements associated with service to indigent and gray area patients and claimed that it could not meet these requirements and viably operate. It proposed that the SHP be amended to allow a Track One ICF applicant to “show evidence as to why the standards in this § .04 (the docketing requirements) should not be applied to the applicant.”

Alternatively, MHCC staff proposed specific amendment of the occupancy rate docketing rule to address FMA's concern with respect to how bed occupancy will be considered. Essentially, the amended docketing rule allowed for consideration of the occupancy rate for operating bed capacity when some portion of licensed bed capacity is not usable. Additionally, staff proposed eliminating the docketing rule that incorporated a charity care and service to the indigent and gray area population standard as a requirement for docketing. Consistent with the approach taken in most SHP chapters, it was proposed that the financial access requirements of those docketing rules be placed in the project review standards section of the Chapter, Section .05, and that project review standard allow an applicant like FMA to address its historic and proposed commitment to serving the indigent and gray area population in a CON application that could be docketed for review and given appropriate consideration by the Commission in acting on the CON application.

Those amendments to the SHP were adopted as final regulatory amendments that became effective in February of this year.

D. Summary of Staff Recommendation

Staff finds that the proposed project complies with the applicable State Health Plan standards and that consideration of the project in the light of the required review criteria support approval of the project. Staff finds that the proposed project will provide a needed modernization of the FMA campus including the elimination of three and four bed rooms. The addition of 15 beds will have little or no impact on other providers in the Central Maryland region. A summary of the Commission Staff's analysis of the proposed project is provided below.

State Health Plan Standards

- While staff has found FMA to be consistent with all of the State Health Plan standards, FMA's commitment to provide charity care to the indigent and gray area population of the State is significantly less than the amount targeted in the SHP. Therefore, staff recommends that this approval be conditioned on FMA submitting audited reports of its compliance with its commitment to provide at least 6.3% of its patient days to this indigent and near indigent population. The audit report should commence with the first full year following completion of the project and continue for five years.
- Staff also finds that FMA's failure to report data to the Alcohol and Drug Abuse Administration's Substance Abuse Management Information System (SAMIS) is unacceptable. While FMA has not been required to report because it receives no public funds and standard O, Program Reporting, only requires that FMA agree to report, FMA has been familiar with the SHP standards and in the process of developing the proposed project for a sufficient period of time to have commenced reporting. Therefore, staff recommends that this approval be conditioned on FMA commencing reporting within six months of CON approval.

Need

- Staff finds that there is a need to modernize FMA's current facilities especially to eliminate all patient rooms with more than two beds. Staff finds that the need for additional private beds to serve the residents of the Central Maryland regions. Staff also finds that the proposed addition of beds is likely to be needed based on the demand for FMA's services.

Costs and Effectiveness of Alternatives

- The proposed project is primarily a replacement of existing facilities to modernize FMA's physical plant. It is secondarily an addition of beds. Both the modernization and additional beds are needed and FMA has demonstrated selection of the most cost-effective alternative to accomplish its objectives to modernize and add beds.
- FMA takes a single approach to treatment and has not demonstrated that it has made efforts to systematically evaluate the effectiveness of its approach or its level of performance compared to peer facilities, despite 30 years of operation. For this reason, conditioning approval on a requirement that FMA report back to MHCC in this regard is recommended.

Viability

- The applicant has demonstrated that FMA has the resources available to implement this project and, based on the financial data reviewed, the proposed project is financially feasible and viable, on a long-term basis.

Impact

- The applicant is a private Track One provider serving patients with substance abuse and chemical dependency issues that serves individuals throughout the east coast. Therefore, the modest increase in bed capacity should have little or no impact on the costs or utilization of existing substance abuse treatment programs in this region. The fact that it does not receive public funds (i.e., Medicare, Medicaid, or public grants) for treating this patient population means that its expansion will have no impact on these payers.

II. PROCEDURAL HISTORY

A. Review of the Record

On September 24, 2012, Jack Eller, Esquire, from Ober, Kaler, Grimes & Shriver, PC, filed on behalf of FMA a letter of intent for the project. MHCC acknowledged receipt of this letter on October 31, 2012. (Docket Item [DI] #1)

On January 25, 2013, Richard J. Coughlan, from Cohen, Rutherford & Knight, filed on behalf of FMA the CON application. (DI #2)

On January 28, 2013, Commission staff acknowledged receipt of the application on January 25, 2013 and assigned Docket No. 13-12-2340. Staff informed the applicant regarding publication of notice of receipt of the application in the next *Maryland Register*. (DI #3)

On January 28, 2013, staff requested publication of legal notice on receipt of the CON in the next edition of the *Harford Democrat Record* and *The Aegis*. (DI #4)

On January 28, 2013, staff submitted a request for publication on the receipt of application in the *Maryland Register* on February 22, 2013. (DI #5)

On February 8, 2013, Richard J. Coughlan submitted on behalf of FMA the copies of the affirmations from persons who assisted in the preparation of the CON application for the proposed modernization and expansion project. (DI #6)

On February 11, 2013, staff sent completeness questions Father Mark Hushen of FMA. (DI #7)

On February 15, 2013, the *Harford Democrat Record* and *The Aegis* provided proof of publication regarding notice of receipt of the application (DI #8).

On February 26, 2013, FMA submitted a request for an extension of time to respond to the staff's February 11, 2013 completeness questions. On February 28, 2013, staff granted an extension from February 26th to March 19, 2013 to respond to the questions. (DI #9)

On March 11, 2013 copy of draft first completeness letter sent to applicant prior to application review conference is entered into the record. (DI #10)

On March 19, 2013, Richard J. Coughlan submitted on behalf of FMA the responses to the first completeness letter. (DI #11)

On March 26, 2013, Richard J. Coughlan submitted on behalf of FMA a replacement to the responses for Questions #22 A and B of the March 19th response to completeness questions. (DI #12)

On April 5, 2013, staff sent FMA by email a second completeness letter. (DI #13)

On April 14, 2013, Richard J. Coughlan submitted on behalf of FMA the responses to the second completeness letter. (DI #14)

On May 2, 2013, staff requested publication of the notice of docketing of the CON in the next edition of the *Harford Democrat Record* and *The Aegis*. (DI #15)

On May 2, 2013, staff submitted a request for publication of the notice of docketing in the *Maryland Register* on May 17, 2013. (DI #16)

On May 10, 2013, the *Harford Democrat Record* and *The Aegis* provided proof of publication regarding notice of docketing of the application. (DI #17)

On May 22, 2013, staff notified the applicant of docketing and sent additional information questions. (DI #18)

On May 23, 2013, Richard J. Coughlan submitted the response to the additional information questions. (DI #19)

On June 20, 2013, staff submitted request to the Harford County Department of Health for review and comment on the Father Martin's Ashley CON application. (DI #20)

On July 9, 2013, Susan Kelly, Harford County Health Officer, submitted a response stating the Harford County Department of Health "choose(s) not to comment on this proposed project". (DI #21)

On August 9, 2013, staff submitted a request in the form of questions seeking additional information to clarify information previously provided. (DI #22)

On August 23, 2013, Richard J. Coughlan submitted the responses to the August 9th request for additional information. (DI #23)

On September 6, 2013, staff requested additional information by email and Steven Kendrick of Father Martin's Ashley responded by email on September 7, 2013. (DI #24)

B. Local Government Review and Comment

No comments on this application were received from the Harford County Health Department.

C. Interested Parties in Review

There are no interested parties in this review.

III. STAFF REVIEW AND ANALYSIS

A. STATE HEALTH PLAN

COMAR 10.24.01.08G(3)(a) State Health Plan. An application for a Certificate of Need shall be evaluated according to all relevant State Health Plan standards, policies, and criteria.

The relevant State Health Plan chapter is COMAR 10.24.14, *State Health Plan for Facilities and Services: Alcoholism and Drug Abuse Intermediate Care Facility Treatment Services*. This regulation, at Section .05, includes the following sixteen "Certificate of Need Approval Rules and Review Standards for New Substance Abuse Treatment Facilities and for Expansions of Existing Facilities."

.05A. Approval Rules Related To Facility Size. Unless the applicant demonstrates why a relevant standard should not apply, the following standards apply to applicants seeking to establish or to expand either a Track One or a Track Two intermediate care facility.

- (1) The Commission will approve a Certificate of Need application for an intermediate care facility having less than 15 beds only if the applicant dedicates a special population as defined in Regulation .08.**
- (2) The Commission will approve a Certificate of Need application for a new intermediate care facility only if the facility will have no more than 40 adolescent or 50 adult intermediate care facility beds, or a total of 90 beds, if the applicant is applying to serve both age groups.**
- (3) The Commission will not approve a Certificate of Need application for expansion of an existing alcohol and drug abuse intermediate care facility if its approval would result in the facility exceeding a total of 40 adolescent or 100 adult intermediate care facility beds, or a total of 140 beds, if the applicant is applying to serve both age groups.**

FMA seeks to expand the size of the facility from 85 to 100 intermediate care beds serving only adults. Therefore, this CON application is consistent with subpart (3) of this approval rule.

.05B. Identification of Intermediate Care Facility Alcohol and Drug Abuse Bed Need.

- (1) An applicant seeking Certificate of Need approval to establish or expand an intermediate care facility for substance abuse treatment services must apply under one of the two categories of bed need under this Chapter:**
 - (a) For Track One, the Commission projects maximum need for alcohol and drug abuse intermediate care beds in a region using the need projection methodology in Regulation .07 of this Chapter and updates published in the *Maryland Register*.**
 - (b) For Track Two, as defined at Regulation .08, an applicant who proposes to provide 50 percent or more of its patient days annually to indigent and gray area patients may apply for:**
 - (i) Publicly-funded beds, as defined in Regulation .08 of this Chapter, consistent with the level of funding provided by the Maryland Medical Assistance Programs (MMAP), Alcohol and Drug Abuse Administration, or a local jurisdiction or jurisdictions; and**
 - (ii) A number of beds to be used for private-pay patients in accordance with Regulation .08, in addition to the number of beds projected to be needed in Regulation .07 of this Chapter.**
- (2) An applicant seeking Certificate of Need approval to establish or expand an intermediate care facility for substance abuse treatment services must apply under one of the two categories of bed need under this Chapter:**
 - (c) For Track One, the Commission projects maximum need for alcohol and drug abuse intermediate care beds in a region using the need projection methodology in Regulation .07 of this Chapter and updates published in the *Maryland Register*.**

(d) For Track Two, as defined at Regulation .08, an applicant who proposes to provide 50 percent or more of its patient days annually to indigent and gray area patients may apply for:

(iii) Publicly-funded beds, as defined in Regulation .08 of this Chapter, consistent with the level of funding provided by the Maryland Medical Assistance Programs (MMAP), Alcohol and Drug Abuse Administration, or a local jurisdiction or jurisdictions; and

(iv) A number of beds to be used for private-pay patients in accordance with Regulation .08, in addition to the number of beds projected to be needed in Regulation .07 of this Chapter.

At the time this application was filed, the Commission had not updated the private intermediate care bed need projection since the plan chapter became effective in January, 2002. No project requiring an evaluation of this standard was filed with MHCC since that time, until this project. At the request of Commission staff, FMA updated the projections for Central Maryland following the methodology set forth in COMAR 10.24.14.07B(7). Commission staff prepared its own update for Central Maryland as well. Both the FMA and the staff projections are for a target year of 2018, as presented in the Table below. For comparison, the table also presents the last set of projections developed for a target year of 2005 with a base year of 2000.

**Table 1: Projected Bed Need for Alcoholism and Drug Abuse ICF Beds in Central Maryland
Serving Adults (18 years and older)**

| | SHP Projected 2005 | FMA Projected 2018 | MHCC Projected 2018 |
|---|-----------------------------------|-----------------------------------|------------------------------------|
| Projected Population for 18 years and older – Projected 2018 | 2,308,229 | 2,057,322 | 2,033,895 |
| Indigent Population- Central Maryland | 129,424 | 187,906 | 270,326 |
| (a) Non-Indigent Population | 2,178,805 | 1,869,416 | 1,763,569 |
| (b) Estimated Number of Substance Abusers (a*8.64%) | 188,249 | 161,906 | 152,372 |
| (c1) Estimated Annual Target Population (b*25%) | 47,062 | 40,379 | 38,093 |
| (c2) Estimated Number Requiring Treatment (c1*95%) | 44,709 | 38,360 | 36,188 |
| (d) Estimated Population requiring ICF/CD (12.5%-15%) | | | |
| (d1) Minimum (c2*0.125) | 5,589 | 4,795 | 4,524 |
| (d2) Maximum (c2*0.15) | 6,709 | 5,754 | 5,428 |
| (e) Estimated Range requiring Readmission (10%) | | | |
| (e1) Minimum (d1*0.1) | 559 | 479 | 452 |
| (e2) Maximum (d2*0.1) | 671 | 575 | 543 |
| Total Discharges from out-of-state | 204 | 275 | 593 |
| (f) Range of Adults Requiring ICF/CD Care | | | |
| Minimum (d1+e1+out of state) | 6,352 | 5,549 | 5,569 |
| Maximum (d2+e2+out of state) | 7,581 | 6,604 | 6,564 |
| (g) Gross Number of Adult ICF Beds Needed | | | |
| (g1) Minimum = ((f*14 ALOS)/365)/0.85 | 287 | 250 | 251 |
| (g2) Maximum = ((f*14 ALOS)/365)/0.85 | 342 | 298 | 296 |
| (h) Existing Track One Inventory ICF/CD beds | 80 | 78 | 144 |
| (i) Net Private ICF/CD Bed Need | | | |
| Minimum (g1-h) | 207 | 172 | 107 |
| Maximum (g2-h) | 262 | 220 | 152 |

Source: SHP Projected 2005 from the SHP chapter for Alcoholism and Drug Abuse Intermediate Care Facility Treatment Services; FMA projections from response to first completeness letter (DI #11, pp. 54-55); MHCC projections –population interpolation from Maryland Department of Planning Total Population Projections by Age, Sex, and Race March 27, 2012, Indigent Population - From request for data received on August 15, 2013 from Maryland Medicaid for number of Medicaid enrollees age 18 years and older for period July 2012 to June 2013, Total Discharges from out of state are for FMA for FY 2013 from September 6, 2013 additional information question (DI #24)

The 80 Track One ICF/CD beds identified in the 2005 SHP projection column were the beds identified for FMA at that time. The inventory of 78 Track One ICF/CD beds identified in FMA's projections is based on the applicant's understanding that it is the only Track One facility in Central Maryland serving the adult population. The 78 beds only include the beds currently in use at the facility, which *excludes* the 7 beds taken out of service in the attic of Noble Hall. Commission staff identified 59 additional beds at facilities that provide care for less than 50% publicly budgeted patients; Serenity Acres with 27 beds and Anne Arundel Medical Center Pathways with 32 adult beds, both in Anne Arundel County.

Each of the projections indicate greater need for additional private (Track One) beds to serve adults in the Central Maryland Region than the number of additional beds proposed by FMA. The proposed addition of 15 beds at FMA, which involves an effective addition of 22 beds, given that the project will enable FMA to use all 100 of the beds, is consistent with this standard.

.05C. Sliding Fee Scale. An applicant must establish a sliding fee scale for gray area patients consistent with the client's ability to pay.

The applicant has a sliding fee scale for those unable to pay in full for services including gray area patients. The sliding fee schedule is determined by a point system that takes into account family income, equity in primary residence, net worth, and debt to income ratio all as detailed in the following table.

Table 2: FMA's Means Testing Scoring Model

| Means | | | Means Test |
|----------|---|----------|---|
| Factor 1 | Family Income | Points | This is the total annual gross income for the household. |
| | \$150,000 | 5 points | |
| | \$90,000 – 149,999 | 4 points | |
| | \$80,000 – 89,999 | 3 points | |
| | \$70,000 – 79,999 | 2 points | |
| | \$60,000 – 69,999 | 1 point | |
| Factor 2 | <\$59,000 | 0 points | This is the current market value, less any mortgage debt due, for the home in which the financial guarantor resides. No points are available for renters. |
| | Equity (Primary Residence) | Points | |
| | >\$150,000 | 5 points | |
| | \$90,000 – 149,999 | 4 points | |
| | \$80,000 – 89,999 | 3 points | |
| | \$70,000 – 79,999 | 2 points | |
| Factor 3 | \$60,000 – 69,999 | 1 point | The sum value of all assets minus liabilities (including all secured or unsecured debt) minus the equity in the <u>primary</u> residence. |
| | <\$59,999 | 0 points | |
| | Net Worth (=amount in value column – amount in loan column – primary home equity) | Points | |
| | >\$25,000 | 5 points | |
| | \$20,000 – 24,999 | 4 points | |
| | \$15,000 – 19,999 | 3 points | |
| Factor 4 | \$10,000 – 14,999 | 2 points | Household monthly expenses divided by household monthly gross income. |
| | \$5,000 – 9,999 | 1 point | |
| | <\$5,000 | 0 points | |
| | Debt to Income Ratio | Points | |
| | <35% | 5 points | |
| | 36 – 40% | 4 points | |
| | 41 – 45% | 3 points | |
| | 46 – 50% | 2 points | |
| | 51 – 55% | 1 point | |
| | >56% | 0 points | |

Source: Father Martin's Ashley response to the first completeness letter (DI #11, pp. 33-34)

The points for each factor are summed and the prospective patient is assigned a tier that coincides with a percentage discount, as shown in the following table.

Table 3

| Tier | Discount | Scoring |
|---------------|-----------------|-------------------|
| Tier 8 | 75% & higher | 0 points |
| Tier 7 | 70% | 1 to 2 points |
| Tier 6 | 60% | 3 to 5 points |
| Tier 5 | 50% | 6 to 8 points |
| Tier 4 | 40% | 9 to 11 points |
| Tier 3 | 30% | 12 to 14 points |
| Tier 2 | 20% | 15 to 17 points |
| Tier 1 | 10% | 18 points |
| Tier 0 | 0% | 19 or more points |

Source: Father Martin's Ashley response to the second completeness letter (DI #14, pp. 11)

The applicant states that gray area patients generally fall into Tiers 7 and 8 with the indigent generally falling into Tier 8. The applicant also states that patients with zero points receive a 100% discount unless there is financial support from a guarantor in which case the guarantor's financial condition is evaluated to determine whether a smaller discount is appropriate.

FMA has documented that it has a sliding fee scale for all prospective patients consistent with each patient's ability to pay including gray area patients. Therefore, the applicant complies with this standard.

.05D. Provision of Service to Indigent and Gray Area Patients.

- (1) Unless an applicant demonstrates why one or more of the following standards should not apply or should be modified, an applicant seeking to establish or to expand a Track One intermediate care facility must:**
 - (a) Establish a sliding fee scale for gray area patients consistent with a client's ability to pay;**
 - (b) Commit that it will provide 30 percent or more of its proposed annual adolescent intermediate care facility bed days to indigent and gray area patients; and**
 - (c) Commit that it will provide 15 percent or more of its proposed annual adult intermediate care facility bed days to indigent or gray area patients.**
- (2) An existing Track One intermediate care facility may propose an alternative to the standards in Regulation D(1) that would increase the availability of alcoholism and drug abuse treatment to indigent or gray area patients in its health planning region.**
- (3) In evaluating an existing Track One intermediate care facility's proposal to provide a lower required minimum percentage of bed days committed to indigent or gray area**

patients in Regulation D(1) or an alternative proposal under Regulation D(2), the Commission shall consider:

- (a) The needs of the population in the health planning region; and
 - (b) The financial feasibility of the applicant's meeting the requirements of Regulation D(1).
- (4) An existing Track One intermediate care facility that seeks to increase beds shall provide information regarding the percentage of its annual patient days in the preceding 12 months that were generated by charity care, indigent, or gray area patients, including publicly-funded patients.

The purpose of this standard is to require applicants for new or expanded Track One ICF-CDs to serve a minimum percentage of indigent and gray area patients. The standard does this by requiring applicants to establish a sliding fee scale for gray area patients consistent with a client's ability to pay and by requiring that applicants commit to providing a specific percentage of its bed days to indigent and gray area patients. The standard permits an applicant to demonstrate why one or more of the requirements should not apply. The standard also offers applicants the opportunity to propose an alternative to providing the minimum required indigent and gray area patient days that would increase the availability of alcoholism and drug abuse treatment to indigent or gray area patients in its health planning region.

As discussed under standard C above, FMA does have a sliding fee scale consistent with a client's ability to pay that is applied to gray area patients as well as others. With respect to the requirement that the applicant provide a minimum percent of bed days to indigent and gray area patients, FMA, which exclusively serves an adult population, is required to commit to provide a minimum of 15 percent of its bed days to those populations or demonstrate why the standard should not apply. FMA states that it is not financially feasible for it to provide that many bed days of care to indigent and gray area patients. (DI #11, p. 19) and provided substantial documentation in support of this position. While FMA is proposing to commit to provide the minimum number of bed days to indigent and gray patients, it is proposing an increase its bed days for these populations as a percent of total days as well as in absolute terms from 901 days in FY 2012 to 2,190 days in FY 2017 as detailed in the following table.

Table 4: Historic and Projected Charity Care Patient Days

| | Actual FY 2012 | | Projected FY 2017 | |
|--------------------------------|----------------|-----------------------|-------------------|-----------------------|
| | Patient Days | Percent of Total Days | Patient Days | Percent of Total Days |
| Indigent and Gray Area | 901 | 3.4% | 2,190 | 6.3% |
| Non-Indigent | 1,483 | 5.6% | 1,825 | 5.3% |
| Total Charity Care Days | 2,384 | 9.0% | 4,015 | 11.6% |
| Total Patient Days | 26,489 | | 34,660 | |

Source: Father Martin's Ashley CON Application (DI #2, pp. 20 & 45) and March 19, 2013 responses to first completeness letter (DI #11, p. 37)

In evaluating a Track One facility proposal to provide a lower required minimum percentage of days committed to indigent and gray area patients the Commission is required to consider the needs of the population of the applicant's health planning region, and the ability of the applicant to feasibly meet the requirements of the standard. With respect to the needs of the population of the health planning region, the updated projections using the SHP methodology detailed under standard A indicates a need for more beds to serve the non-indigent population of Central Maryland. Staff also sought information on the needs of the indigent and gray area population for intermediate care facility beds. While no specific analysis of the needs of the indigent and gray area population was found, a recent report of the Maryland Alcohol and Drug Abuse Administration, Outlook and Outcomes, FY 2012 reveals that waiting time for admission to State-supported alcoholism and drug abuse treatment programs has declined from 7.6 days in FY 2008 to 4.7 days in FY 2012. More to the point, in FY 2012, the average and median wait for the program levels offered by FMA were reported to be as shown in the following table. Note that a median of zero means that more than half the admissions to the level III.5 programs involved same day admission.

Table 5: Mean and Median Wait Times for Admission to State Supported Alcohol And Drug Abuse Treatment Programs in FY 2012

| Program Level | Mean (days) | Median (days) |
|--|--------------------|----------------------|
| III.5 – High Intensity Residential | 3.26 | 0.0 |
| III.7 – Monitored Intensive Inpatient | 4.96 | 2.0 |
| III.7D – Detoxification | 3.55 | 1.0 |

Source: FY 2012, Outlook and Outcomes report of the Maryland Alcohol and Drug Abuse Administration

As for the financial feasibility of FMA meeting the required 15 percent of bed days for the indigent and gray area population, the applicant indicated that reaching such a level would result in operating losses of over one million dollars and that this level of charity care would require that operating losses be subsidized from non-operating income. (DI #2, p. 20) While the CON standard in subparagraph (D)(1)(c) only identifies indigent or gray area patients in the 15% of annual adult bed days offered for charity care, FMA includes a third category called non-indigent patients who will receive discounted service. The applicant states that this non-indigent category includes patients who have private health insurance policies that do not provide sufficient payment for the services offered at FMA.

In response to staff questions, FMA submitted a number of alternative financial projections at various levels and mixes of charity care to show the impact on operating profits. However, FMA is not willing to take the approach of providing charity care for the indigent and gray area population at 15% of patient days by reducing the uncompensated care it provides for the non-indigent population described above, that includes patients who have private health insurance policies that do not provide sufficient payment for the services offered. The applicant states that it is committed to continue to meet the financial needs of these non-indigent patients in the future, and is not willing to increase the financial commitment to fund indigent and gray patients at the prescribed 15% level by denying care to those patients with inadequate health insurance who need its services. (DI #11, #16, pp. 36-39 and DI #14-20)

Table 6 outlines the applicant's projection scenarios. All assume achieving a 95% average annual occupancy rate after the proposed 100 beds are put into operation. Only Scenario 2 satisfies the target requirement of Subpart (1)(c) of the standard for a minimum of 15%

indigent and gray area patient days, or “qualifying charity care,” under the definitions of the SHP.

**Table 6: Three Scenarios Comparing Financial Feasibility
Based on Variations in Qualifying Charity Care and Non-Indigent Discounted Care*
Provided at FMA**

| | Proposed Level and Mix of Charity Care/Non- Indigent Discounting | Scenario #1 More Than 15% Total Charity Care/Non- Indigent Discounting | Scenario #2 More than 15% Indigent & Gray Area/Non- Indigent Discounting |
|---|---|---|---|
| | FY 2017 | FY 2017 | FY 2017 |
| Total Projected Beds Days | 34,660 | 34,660 | 34,660 |
| Indigent Bed Days | 1,453 | 2,190 | 3,285 |
| Gray Area Bed Days | 737 | 1,460 | 2,190 |
| Total Qualifying Charity Days | 2,190 | 3,650 | 5,475 |
| Percentage of Total Bed Days Qualifying as Charity | 6.3% | 10.5% | 15.8% |
| Non-Indigent Discounting Bed Days | 1,825 | 1,825 | 1,825 |
| Total Qualifying Charity/Non-indigent Discounting Bed Days | 4,015 | 5,475 | 7,300 |
| Percentage of Total Bed Days Qualifying as Charity/Non-Indigent Discounting | 11.6% | 15.8% | 21.1% |
| <i>Gross Patient Service Revenue</i> | \$31,119,186 | \$31,119,186 | \$31,119,186 |
| Allowance for Bad Debt | 102,991 | 98,298 | 92,432 |
| Contractual Allowance | 7,127,366 | 6,787,806 | 6,363,356 |
| Qualifying Charity Care/Non-Indigent Discounts | 3,584,821 | 4,888,393 | 6,517,857 |
| <i>Net Patient Services Revenue</i> | \$20,304,008 | \$19,344,689 | \$18,145,541 |
| Other Operating Revenues | 563,529 | 563,529 | 563,529 |
| <i>Net Operating Revenue</i> | \$20,867,537 | \$19,908,218 | \$18,709,070 |
| | | | |
| <i>Total Operating Expenses</i> | \$20,846,324 | \$20,846,324 | \$20,846,324 |
| | | | |
| <i>Operating Income (Loss)</i> | \$21,213 | (\$938,106) | (\$2,137,254) |

Source: Father Martin's Ashley April 19, 2013 responses to second completeness letter (DI #14, pp. 14-16)

* Non-Indigent are patients with inadequate health insurance who receive FMA services

As shown, FMA projects a small level of income net of operating expenses in FY 2017 under the applicant's proposed levels of qualifying charity care and non-qualifying discounted care to non-indigent persons. Under the other scenarios, it projects operating losses with a projected loss from operations of over \$2.1 million if it meets the standard target for qualifying charity care.

Given these projections and FMA's investments of over \$50 million reported in the applicant's audited financial statement (DI #2, Attachment 13), the applicant was asked to explore the potential for using non-operating income to provide more charity care to the indigent and gray area population, especially given the fact that FMA has no short or long term debt at this time and projects modest amounts of debt related to this project that it anticipates can be retired within a short period of time. FMA responded that it requires a minimum level of operating income for predictable returns to satisfy future investment needs of the organization as well as to offset potential future underperformance. FMA also stated that non-operating income cannot be relied upon to fund on-going operating needs of the organization because it is not sufficiently predictable to fund charity care that is a year-over-year requirement. (DI #11, p. 39). The applicant presented an investment strategy that it felt would be necessary to produce the predictability necessary to fund a higher level of qualifying charity care. FMA estimates that this investment strategy would return less than 2% per year and at that rate of return an investment of \$81.2 million would be required to fund the \$1.6 million necessary to increase qualifying charity care days by five percent. (DI #23, p. 4)

FMA complies with subpart (1)(a) of this standard. FMA has also complied with subpart (4) of the standard by providing information regarding the percentage of its annual patient days in the preceding 12 months that were generated by charity care, indigent, and gray area patients. FMA has submitted reasonable information to demonstrate that it is not financially feasible for it to commit to provide 15 percent of its projected bed days to indigent and gray area patients, but has committed to increase the number of bed days provided to these populations. Commission staff has considered the needs of the population in the health planning region as required by the standard when an applicant is proposing to provide a lower percentage of bed days to indigent and gray area populations than the minimum required by the standard. In this regard the State Health Plan methodology indicates a need for additional private ICF beds for alcoholism and drug abuse treatment. Commission staff also considered the financial feasibility of the applicant meeting the 15% target of qualifying charity care and has concluded that it is not financially feasible for FMA to achieve this minimum level given its current financial condition and its operation as an exclusively private facility with no Medicaid participation and no public grant support. Therefore, staff recommends a finding of compliance with this standard. However, to ensure that FMA achieves the levels of service to the indigent and gray area population, staff recommends that this approval be conditioned on FMA submitting audited reports of its compliance with its commitment to provide 6.3% of its patient days as qualified charity care. The filing of the audited report should commence with the first full year following completion of the project and continue for five years.

.05E. Information Regarding Charges. An applicant must agree to post information concerning charges for services, and the range and types of services provided, in a conspicuous place, and must document that this information is available to the public upon request.

The applicant provided a copy of its list of charges with the CON application. (DI #3, Attachment 14). A list of the charges is posted in the admissions office and the financial coordinator's offices. FMA agrees to make information regarding its charges available to the public upon request. The applicant is consistent with this standard.

.05F. Location. An applicant seeking to establish a new intermediate care facility must propose a location within a 30-minute one-way travel time by automobile to an acute care hospital.

Since FMA is an existing 85-bed intermediate care facility seeking to increase the number of beds operating in Harford County, this standard does not apply.

.05G. Age Groups.

- (1) An applicant must identify the number of adolescent and adult beds for which it is applying, and document age-specific treatment protocols for adolescents ages 12-17 and adults ages 18 and older.**
- (2) If the applicant is proposing both adolescent and adult beds, it must document that it will provide a separate physical, therapeutic, and educational environment consistent with the treatment needs of each age group including, for adolescents, providing for continuation of formal education.**
- (3) A facility proposing to convert existing adolescent intermediate care substance abuse treatment beds to adult beds, or to convert existing adult beds to adolescent beds, must obtain a Certificate of Need.**

Consistent with this standard FMA has specified that it is applying for an increase of 15 ICF beds for the treatment of adults only. FMA does not provide substance abuse treatment care to adolescents.

.05H. Quality Assurance.

- (1) An applicant must seek accreditation by an appropriate entity, either the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), in accordance with CFR, Title 42, Part 440, Section 160, the CARE...The Rehabilitation Accreditation Commission, or any other accrediting body approved by the Department of Health and Mental Hygiene. The appropriate accreditation must be obtained before a Certificate of Need-approved ICF begins operation, and must be maintained as a condition of continuing authority to operate an ICF for substance abuse treatment in Maryland.**
 - (a) An applicant seeking to expand an existing ICF must document that its accreditation continues in good standing, and an applicant seeking to establish an ICF must agree to apply for, and obtain, accreditation prior to the first use review required under COMAR 10.24.01.18; and**
 - (b) An ICF that loses its accreditation must notify the Commission and the Office of Health Care Quality in writing within fifteen days after it receives notice that its accreditation has been revoked or suspended.**

- (c) An ICF that loses its accreditation may be permitted to continue operation on a provisional basis, pending remediation of any deficiency that caused its accreditation to be revoked, if the Office of Health Care Quality advises the Commission that its continued operation is in the public interest.
- (2) A Certificate of Need-approved ICF must be certified by the Office of Health Care Quality before it begins operation, and must maintain that certification as a condition of continuing authority to operate an ICF for substance abuse treatment in Maryland.
- (a) An applicant seeking to expand an existing ICF must document that its certification continues in good standing, and an applicant seeking to establish an ICF must agree to apply for certification by the time it requests that Commission staff perform the first use review required under COMAR 10.24.01.18.
 - (b) An ICF that loses its State certification must notify the Commission in writing within fifteen days after it receives notice that its accreditation has been revoked or suspended, and must cease operation until the Office of Health Care Quality notifies the Commission that deficiencies have been corrected.
 - (c) Effective on the date that the Office of Health Care Quality revokes State certification from an ICF, the regulations at COMAR 10.24.01.03C governing temporary delicensure of a health care facility apply to the affected ICF bed capacity.

FMA submitted documentation of its Joint Commission accreditation under its Behavioral Health Care Program effective January 29, 2011. This accreditation is customarily valid for up to 36 months. The applicant also submitted documentation of the general certificate of approval granted by the Department of Health and Mental Hygiene's Alcohol and Drug Abuse Administration to FMA on March 29, 2012 to for the following three programs: *Level III.5 – Clinically Managed High-Intensity Residential Treatment*; *Level III.7 – Medically Monitored Intensive Inpatient Treatment*; and *Level III.7D – Medically Monitored Intensive Inpatient Treatment – Detoxification*. The state certificate of approval for the three programs will expire on March 29, 2014. Therefore, staff finds that FMA complies with this standard.

.05I. Utilization Review and Control Programs.

- (1) An applicant must document the commitment to participate in utilization review and control programs, and have treatment protocols, including written policies governing admission, length of stay, discharge planning, and referral.
- (2) An applicant must document that each patient's treatment plan includes, or will include, at least one year of aftercare following discharge from the facility.

FMA provided documentation of all required policies. Details regarding the Admission policy are included under the section "Orientation/Clinical Assessment, Treatment Planning and under Bio-Psycho-Social Assessment." (DI #2, Attachment 7). The applicant's length of stay

policy is found in its policies and procedures for “Treatment Services/Case Management/Clinical Protocols,” which was submitted as Attachment 4 of the applicant’s response to the first completeness letter (DI #11, p. 43 and Attachment 4) The policy states that, “it is the philosophy of Father Martin’s Ashley that our clinical program is a recommended 28 day length of stay. Any variance to this will be approved, or not approved, by members of the clinical staff.”¹ (DI #12, Question #17, p. 43). The discharge policy is located under the section “Treatment Services/Case Management/Clinical Protocols.” (DI #11, Attachment 4). The policies regarding referrals were included in Attachment 6 of FMA’s application. (DI #2, Attachment 6).

Regarding subpart (2) of this standard, FMA policies have included the development of a continuing care plan specific to the needs of each patient prior to discharge. (DI #2, p. 25 and DI # 11, Attachment 4) FMA states that, “each patient’s continuing care/aftercare plan will address a minimum one-year time period following each patient’s discharge.”²

Given the documentation cited above, FMA complies with this standard.

.05J. Transfer and Referral Agreements.

- (1) An applicant must have written transfer and referral agreements with facilities capable of managing cases which exceed, extend, or complement its own capabilities, including facilities which provide inpatient, intensive and general outpatient programs, halfway house placement, long-term care, aftercare, and other types of appropriate follow-up treatment.**
- (2) The applicant must provide documentation of its transfer and referral agreements, in the form of letters of agreement or acknowledgement from the following types of facilities:**
 - (a) Acute care hospitals;**
 - (b) Halfway houses, therapeutic communities, long-term care facilities, and local alcohol and drug abuse intensive and other outpatient programs;**
 - (c) Local community mental health center or center(s);**
 - (d) The jurisdiction’s mental health and alcohol and drug abuse authorities;**
 - (e) The Alcohol and Drug Abuse Administration and the Mental Hygiene Administration;**
 - (f) The jurisdiction’s agencies that provide prevention, education, driving-while-intoxicated programs, family counseling, and other services; and,**

¹ Father Martin’s Ashley’s March 19, 2013 response to completeness questions (DI #11, p. 43)

² Father Martin’s Ashley’s CON application ((DI #2, p. 25)

(g) The Department of Juvenile Justice and local juvenile justice authorities, if applying for beds to serve adolescents.

FMA currently operates two outpatient programs that provide intervention services for DUI and DWI patients. The applicant submitted copies of a number of referral agreements with local providers of inpatient and outpatient substance abuse treatment programs. (DI #3, Attachment 6). FMA submitted a copy of a referral agreement with Upper Chesapeake Health, Inc., which includes arrangements with Harford Memorial Hospital. The applicant also included copies of agreements with New Life Addiction Counseling Services and with Colonial House who both provide outpatient treatment services and family counseling, and 15 providers that are halfway houses/transitional living programs. Beyond the formal referral agreements that were submitted, FMA maintains a database with over 1,000 providers that staff uses for continuing care services such as living arrangements, intensive outpatient or outpatient substance abuse treatment, and mental health/psychiatric treatment. (DI #14, p. 21). Included in this database are local Maryland community mental health centers, and mental health and alcohol and drug abuse authorities. Referrals to the providers in this database are made based on the discharged patient's needs, resources and/or insurance plan. If a patient is uninsured and private financial resources are not available for services post-treatment, a state-funded program is located using the Substance Abuse and Mental Health Services Administration's ("SAMHSA") treatment locator website. FMA also refers uninsured Maryland residents to the respective jurisdiction's county substance abuse/addiction program, and an initial appointment is made for the discharged patient and medical records sent when appropriate.

FMA complies with this standard.

.05K. Sources of Referral.

- (1) An applicant proposing to establish a new Track Two facility must document to demonstrate that 50 percent of the facility's annual patient days, consistent with Regulation .08 of this Chapter, will be generated by the indigent or gray area population, including days paid under a contract with the Alcohol and Drug Abuse Administration or a jurisdictional alcohol or drug abuse authority.**
- (2) An applicant proposing to establish a new Track One facility must document referral agreements to demonstrate that 15 percent of the facility's annual patient days required by Regulation .08 of this Chapter will be incurred by the indigent or gray area populations, including days paid under a contract with the Alcohol or Drug Abuse Administration or a jurisdictional alcohol or drug abuse authority, or the Medical Assistance program.**

Since FMA is not proposing to establish a new facility, this standard does not apply.

.05L. In-Service Education. An applicant must document that it will institute or, if an existing facility, maintain a standardized in-service orientation and continuing education program for all categories of direct service personnel, whether paid or volunteer.

The applicant has complied with this standard by providing documentation of its in-service orientation and continuing education program for all administrative, professional and

support personnel at FMA. The Clinical Program Director is responsible for supervising and directing the staff development activities of the clinical staff, and the Human Resources Director, Safety Officer and Infection Control Nurse for the non-clinical staff. The facility provides in-house training courses, and encourages participation in outside workshops/seminars, and continuing education programs. (DI #2, Attachment 7)

.05M. Sub-Acute Detoxification. An applicant must demonstrate its capacity to admit and treat alcohol or drug abusers requiring sub-acute detoxification by documenting appropriate admission standards, treatment protocols, staffing standards, and physical plant configuration.

The applicant provided a copy of the admission standards, treatment protocols, staffing standards, and physical configuration of the space used for sub-acute detoxification. (DI #3, Attachment 8 and DI #11, Question #19, p. 45). These treatment protocols include the use of certain medications and the use of acupuncture to help patients manage withdrawal symptoms, as well as the use of the Clinical Institute Withdrawal Assessment for Alcohol for alcohol addiction.

The design and location of the detoxification unit on the first floor of the proposed new building will place the patients in close proximity to the nurse's station and medical services. Staff will be able to observe, and the patients will be closer to exam rooms, medical provider spaces, medication administration space, and treatment and therapy locations.

The applicant, with this project, has demonstrated consistency with this standard.

.05N. Voluntary Counseling, Testing, and Treatment Protocols for Human Immunodeficiency Virus (HIV). An applicant must demonstrate that it has procedures to train staff in appropriate methods of infection control and specialized counseling for HIV-positive persons and active AIDS patients.

The applicant demonstrated compliance with this standard by submitting a copy of its policies and procedures that address how the staff conducts testing for HIV and counseling and treatment of HIV-positive patients. (DI #2, Attachment 9).

.05O. Outpatient Alcohol & Drug Abuse Programs.

- (1) An applicant must develop and document an outpatient program to provide, at a minimum: individual needs assessment and evaluation; individual, family, and group counseling; aftercare; and information and referral for at least one year after each patient's discharge from the intermediate care facility.**
- (2) An applicant must document continuity of care and appropriate staffing at off-site outpatient programs.**
- (3) Outpatient programs must identify special populations as defined in Regulation .08, in their service areas and provide outreach and outpatient services to meet their needs.**

- (4) Outpatient programs must demonstrate the ability to provide services in the evening and on weekends.**
- (5) An applicant may demonstrate that outpatient programs are available to its patients, or proposed patient population, through written referral agreements that meet the requirements of (1) through (4) of this standard with existing outpatient programs.**

The applicant operates two ADAA certified outpatient programs for DUI and DWI patients; one is a Level I – Outpatient Treatment program and the other is a Level 0.5 – Early Intervention – DWI Education program. (DI #12, Question #20, p. 49). It does not operate any other outpatient programs

The applicant states that FMA’s inpatient program operates within an informal network of both inpatient and outpatient treatment service providers both within the State of Maryland and in other States and the outpatient programs in the network are organized to meet the requirements of Parts (1) through (4) of the standard. (DI #2, p. 31) FMA pointed to the written referral agreement it has with New Life Addiction Counseling Services, Inc., located in Pasadena, Maryland, stating that New Life provides individual needs assessment and evaluation; individual, family and group counseling; aftercare; and information and referral.

With the inclusion of signed referral agreement with an outpatient treatment program in the Central Maryland region, staff finds that the applicant complies with this standard.

.05P. Program Reporting. Applicants must agree to report, on a monthly basis, utilization data and other required information to the Alcohol and Drug Abuse Administration’s Substance Abuse Management Information System (SAMIS) program, and participate in any comparable data collection program specified by the Department of Health and Mental Hygiene.

Currently, only providers who receive public funding (i.e., Medicare, Medicaid, or public grants) are required by ADAA to participate in the monthly data reporting through the SAMIS program. FMA stated that it will comply with this standard by agreeing to submit data to ADAA’s SAMIS program, and will commence reporting of the data immediately following Commission approval of this CON. The applicant indicated that it will obtain technical assistance and training from ADAA staff and others responsible for SAMIS such as the University of Maryland’s Institute for Governmental Service and Research.

Because FMA does not currently participate in the SAMIS program, staff recommends that the approval of this project be conditioned on FMA’s participation in this information system within six months of CON approval.

B. NEED

COMAR 10.24.01.08G(3)(b) Need. The Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs.

FMA is a private, non-denominational, Joint Commission-accredited facility that provides alcoholism and drug addiction treatment on its campus located in Harford County, Maryland. The proposed project involves modernizing its' existing facilities by replacing or converting nine rooms used for three and four patient occupancy, by replacing four patient rooms that are currently located in attic space that are not suitable for patient occupancy, and by increasing the number of private patient rooms from eleven to twenty. The proposed modernization is to be accomplished by constructing a new two-story building with approximately 42,000 gross square feet of space. The new building is designed for 36 beds, which will increase FMA's licensed capacity by 15 beds from 85 to 100 and effective bed capacity from 78 to 100. The proposed project would also consolidate and relocate the Admissions and Intake areas into the new building space, establish a permanent location for the Wellness/Fitness Center in the new space, and expand and consolidate other administrative and support spaces.

The need criterion requires the Commission to consider the applicable need analysis in the State Health Plan ("SHP"). Where there is no need analysis, the Commission is required to consider whether the applicant has demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs. The SHP chapter for ICF-CD services includes a need projection method. This methodology, applied to the Central Maryland region established in the SHP for use with this methodology, supports the bed addition proposed, as previously outlined in this report.

In considering the need for the additional beds it is important to note that FMA services a multi-state area that extends well beyond the State of Maryland. For the fiscal year ending June 30, 2013 approximately 48 percent of FMA's patients originated in Maryland. (DI #24) The proportion of patients from the Central Maryland region was only 26% in FY 2012. (DI #12, replacement page 53) Assuming the this patient origin pattern, it can be anticipated that, on average, seven of the 15 additional beds will serve Maryland residents, of which approximately four will serve residents of Central Maryland.

FMA states that the need for FMA's services is reflected in the actual utilization and the number of inquiries received. While its occupancy rate has been about 85 percent of licensed beds, for the past two years it has been between 93% and 95% of the 78 beds that have been used in recent years due to physical plant issues with the other seven beds. FMA pointed to the level of interest in its program as evidenced by an average of 55 inquiries per week over the 30 months prior to submission of the CON application. During this period, FMA admitted 20 patients per week, 14 from immediate telephone calls, and six related to previous calls. The facility does not maintain a waiting list. (DI #2, p. 37)

It is reasonable to interpret the need criterion more broadly than applying to the need for additional bed capacity to include the need to modernize this facility. The proposed project will modernize the facility by eliminating rooms with more than two beds. While the applicable SHP chapter does not address this specific aspect of the physical plant, other SHP chapters for institutional services, such as the chapter covering nursing homes, limits new construction to resident rooms with a maximum capacity of two beds and requires renovation projects to reduce the number of patient rooms with more than two beds.

The proposed project will also include additional treatment and support space within the new building by establishing a state of the art wellness program that would allow FMA to offer fitness programs, yoga, meditation, relaxation, massage, acupuncture and art and music therapies. Finally, FMA will consolidate and locate the admissions process in one location, eliminating the need of having patients move from one floor to the next and between two buildings to complete the admissions.

In summary, the SHP bed need analysis indicates a need for more private ICF beds for alcoholism and drug abuse treatment as proposed by the applicant, and FMA has reasonably demonstrated its need for additional bed capacity. More importantly the proposed modernization will bring patient services, especially patient rooms, up to modern standards by improving patient comfort and facilitating treatment. Staff finds that the proposed addition of beds is likely to be needed, based on the demand for FMA's services. More importantly, the proposed modernization of the facility is needed.

C. AVAILABILITY OF MORE COST-EFFECTIVE ALTERNATIVES

COMAR 10.24.01.08G(3)(c)Availability of More Cost-Effective Alternatives. The Commission shall compare the cost effectiveness of the proposed project with the cost effectiveness of providing the service through alternative existing facilities, or through an alternative facility that has submitted a competitive application as part of a comparative review.

This review criterion requires the Commission to compare the cost effectiveness of the proposed project with the cost effectiveness of providing the services through alternative existing service providers or through an alternative facility that has submitted a competitive application as part of a comparative review. The proposed project involves modernizing an existing facility by replacing or converting nine rooms with occupancies of three or four patients, by replacing four patient rooms that are currently located in attic space that are not suitable for patient occupancy, and by increasing the number of private patient rooms from eleven to twenty, all as detailed in the following tables.

**Table 7: Father Martin's Ashley
Before Project Completion**

| Building | Room Count | | | | | Bed Count |
|----------------|---------------|----------------|--------------|-----------|---------------------|-------------------|
| | Four Bed Room | Three Bed Room | Semi-Private | Private | Total Patient Rooms | Physical Capacity |
| Noble Hall | 1 | 3 | 6 | 4 | 14 | 29 |
| Carpenter Hall | 0 | 0 | 8 | 6 | 14 | 22 |
| Bantle Hall | 2 | 3 | 8 | 1 | 14 | 34 |
| Total | 3 | 6 | 22 | 11 | 42 | 85 |

Source: CON Application

**Table 8: Father Martin's Ashley
After Project Completion**

| Building | Room Count | | | | | Bed Count |
|-----------------------|---------------|----------------|--------------|-----------|---------------------|-------------------|
| | Four Bed Room | Three Bed Room | Semi-Private | Private | Total Patient Rooms | Physical Capacity |
| Noble Hall | 0 | 0 | 8 | 1 | 9 | 17 |
| Carpenter Hall | 0 | 0 | 6 | 8 | 14 | 20 |
| Bantle Hall | 0 | 0 | 13 | 1 | 14 | 27 |
| New Building | 0 | 0 | 13 | 10 | 23 | 36 |
| Total | 0 | 0 | 40 | 20 | 60 | 100 |

Source: CON Application

While the campus operations date from the early 1980's, some of the buildings used by FMA are much older and were retrofitted to create the ICF. The proposed project would consolidate and relocate the Admissions and Patient Intake into the new building space, establish a permanent location for the Wellness/Fitness Center in the new building, and expand and consolidate other administrative and support spaces. The changes proposed and the services affected are an integral part of FMA's program of service. Therefore, modernizing an alternative facility and providing the additional private patient rooms at such a facility would not meet any objectives that FMA has for improving its patient care. While the 15 additional beds proposed could be added to another facility, no alternative facility has submitted a competitive application and, as noted in this report, FMA is a unique facility in Maryland with respect to its program emphasis, total absence of public funding or participation in governmental third-party payment programs, and multi-state patient origin.

The location for the proposed new construction, west of Bantle Hall, is on a relatively flat site with no trees. The applicant considered renovating Noble Hall, but rejected this alternative for a number of reasons including the fact that the building has multiple levels of stairs and no elevator, limiting access for patients with mobility impairments.

The applicant also considered constructing a new building south of the existing buildings before selecting the proposed alternative. The advantage of locating a new building on the site south of the existing buildings would be the opportunity to increase the number of views of the Chesapeake Bay for the staff and patients. While this alternative would provide benefits to both patient and staff from a therapeutic and marketing/aesthetic perspective, there are a number of drawbacks. The location of this site would require FMA to meet Chesapeake Bay protection and storm water management requirements. FMA estimated addressing these and other site issues would potentially add months to the project, and an estimated \$750,000 to the overall cost. The applicant also considered the impact that the location south of the existing buildings would have on the patients and staff since the site would be further away from the current buildings and infrastructure of the campus.

FMA selected the proposed site location west of Bantle Hall because it determined it would be less costly to construct and less costly to operate than the other campus alternatives to the south that would achieve similar space and facility objectives, due to the proximity of the new facility to the existing buildings. Another factor in the selection was the expectation that the selected alternative will allow the applicant to reasonably meet its project implementation timetable by employing a less complicated site approval process involving less developmental requirements.

Beyond the limited perspective of the project itself and the costs and effectiveness of various approaches to modernizing FMA's facilities for the purposes to which they are used, the review required for this project does present the Commission with an opportunity to examine the larger question of costs and effectiveness in substance abuse treatment. FMA is philosophically wedded to a single basic treatment modality, involving admission of patients for a 28-day stay on its campus. The applicant was not able to provide and staff was unable to find, in the literature, support for the idea that this approach to treatment is the most cost effective approach to treating alcohol or drug dependency or an approach that is the most cost-effective for a majority of persons in need of such treatment. This is not a treatment modality that third-party payors are universally willing to fund, at full cost, under most plans with benefit coverage for addictions treatment and this fact has shaped the way in which FMA operates and markets its program. It appears to be a major factor in the limited number of such programs in operation. In fairness, FMA is not claiming that its program is the best option for all patients in need of addictions treatment but believes it is the most effective approach for some types of patient. It has not attempted to systematically evaluate its level of effectiveness in comparison with similar 28-day programs in other states.

The most recent research identified by staff comparing treatment modalities was published in 2003.³ This research compared the cost and effectiveness of four modes: inpatient, residential, outpatient detox/methadone, and outpatient drug-free. It found cost-effectiveness, when compared to other health interventions, for all four modes and found that outpatient drug-free settings were the most cost-effective, in terms of cost per successfully treated abstinent case.⁴ It noted that, although variations in settings, modalities, and outcomes makes comparisons of cost-effectiveness estimates across studies difficult, its findings were, in general, consistent with the results of most prior cost-effectiveness studies of alcohol and substance abuse treatment.⁵ While this study did not conclude that different modalities might not be more cost-

³ Mojtabai, R and Zivin, JG, "Effectiveness and Cost-effectiveness of Four Treatment Modalities for Substance Abuse Disorders: A Propensity Score Analysis." *Health Services Research*, 2003, Feb; 38(1 Pt 1):233-259

⁴ Two nonmutually exclusive measures were "operationalized;" (1) abstinence during a five-year follow-up after discharge from index discharge (i.e., no use of any substances), and (2) any reduction in the use of substances from the five-year period before index treatment and the five-year period following treatment.

⁵ Longabaugh R, McCrady B, Fink E, Stout R, McAuley T, Doyle C, McNeill D. "Cost-effectiveness of Alcoholism Treatment in Partial vs. Inpatient Settings; Six-Month Outcomes." *Journal of Studies of Alcohol*. 1983;44(6):1049-71.
Pettinati HM, Meyers K, Evan BD, Ruetsch CR, Kaplan FN, Jensen JM, Hadley TR. "Inpatient Alcohol Treatment in a Private Healthcare Setting: Which Patients Benefit and at What Cost?" *American Journal on Addiction*. 1999; 8(3):220-33.
Annis HM, "Is Inpatient Rehabilitation of Alcoholics Cost-effective? Con Position." In: Stimmel B, editor. *Controversies in Alcoholism and Substance Abuse*. New York: Haworth Press.; 1986. pp. 175-90.
French MT, "Economic Evaluation of Drug Abuse Treatment Programs: Methodology and Findings." *American Journal of Drug and Alcohol Abuse*. 1995;21(1): 111-35.

effective for particular types of patients, it noted that no evidence was found in its study that patients could be “selected” into programs for improved effectiveness and cited the “mixed” evidence in the literature that matching clients and client-problems to the “right kinds” of programs to maximize or optimize effectiveness can be successfully implemented.

The State Health Plan and the Cost and Effectiveness of Alternatives criterion do not provide a clear basis for denying a project such as that proposed by FMA based on questions concerning the effectiveness of the singular treatment approach it employs or the lack of evidence developed by FMA itself with respect to effectiveness or cost effectiveness when compared with comparable facilities. Denying the ability of a program such as this, that has viably operated for thirty years and can point to success in assisting many patient over that time, to modernize its facilities on the basis of these questions is obviously problematic. FMA has agreed and staff has recommended conditioning CON approval on participation in the program data reporting system of ADAA. In addition, staff is proposing conditioning approval on agreement by FMA to document that it is meeting its promised increase in qualifying charity care provision over a five-year period. Given these conditions, it is also appropriate that FMA also be conditioned on reporting back to MHCC, at the end of that five-year period, on its efforts to systematically evaluate its effectiveness in alcohol and substance abuse treatment, through more rigorous follow-up evaluation of treatment success and collaborative efforts with similar programs in other states to institute standardized peer review to study and improve program effectiveness.

Staff finds that the proposed project has been demonstrated to be the most cost-effective alternative for modernizing FMA and better meeting the demand for its services.

D. VIABILITY OF THE PROPOSAL

COMAR 10.24.01.08G(3)(d) Viability of the Proposal. The Commission shall consider the availability of financial and nonfinancial resources, including community support, necessary to implement the project within the time frames set forth in the Commission’s performance requirements, as well as the availability of resources necessary to sustain the project.

Availability of Financial Resources

FMA presents the following budget estimate for the project:

**Table 9: Project Budget
Father Martin's Ashley**

| USES OF FUNDS | |
|--|---------------------|
| New Construction | |
| Building | \$10,750,000 |
| Site Preparation | 3,900,000 |
| Architect/Engineering Fees | 1,042,000 |
| Permits | 95,000 |
| Subtotal New Construction | \$15,787,000 |
| Other Capital Costs | |
| Minor Movable Equipment | \$525,000 |
| Other Equipment | |
| Wellness/Fitness Center Equipment | 200,000 |
| Telecommunications Equipment | 60,000 |
| Information Technology* | 100,000 |
| Miscellaneous, e.g., Security System | 350,000 |
| Subtotal Other Capital Costs | \$17,022,000 |
| Contingencies | \$962,000 |
| Total Current Capital Costs | \$17,984,000 |
| Inflation (based on 3.45% construction cost increase over 12 month period) | \$377,000 |
| TOTAL PROPOSED CAPITAL COSTS | \$18,361,000 |
| Financing Cost and Other Cash Requirements | |
| Loan Placement Fees | \$237,000 |
| Legal Fees, (CON Related). | 35,000 |
| CON Application Assistance | 20,000 |
| SUBTOTAL | \$292,000 |
| TOTAL USES OF FUNDS | \$18,653,000 |
| SOURCES OF FUNDS | |
| Cash | \$6,000,000 |
| Pledges | 4,000,000 |
| Gifts, bequests | 1,653,000 |
| Bond or Letter of Credit | 7,000,000 |
| TOTAL SOURCES OF FUNDS | \$18,653,000 |

Sources: Father Martin's Ashley CON application (DI #2, p. 8) and March 19, 2013 Response to first completeness questions (DI #11, p. 14)

FMA expects that future development fundraising will provide the necessary funds to replace or pay off the bond or letter of credit. (DI #14, p. 7) FMA reports that it already has pledges of \$5.4 million of which \$4.2 million has been collected. (DI #11, p. 13) The audited financial statement ending June 30, 2012 indicates FMA had \$851,385 in cash and cash equivalents and \$50.1 million in investments. The investments primarily consisted of mutual funds and limited partnerships. (DI #2, Attachment 13) The audited financial statements indicate a sufficient balance of cash and cash equivalents as well as investments to fund FMA estimated \$6.0 million equity contribution. As for the \$4 million in pledges and the \$1,653,000 in gifts and

bequests, FMA's Capital Campaign for the Certificate of Need has already received pledges in advance of the official kick-off for this campaign almost equal to the amounts budgeted.

The remaining \$7 million will be financed either through a bond or a letter of credit through a bank. FMA assumes that it will issue a five year bond, at an expected rate of 3.44% with the issuance cost of \$235,000 amortized over the five years. The applicant states that the assumed payback period will provide time for FMA to raise and collect developmental fundraising dollars for the bonds. The Board of Trustees will review the prevailing rate and fees for this bond, and determine the best terms for either issuing a bond or seeking a line of credit from a bank. The applicant has provides sufficient evidence on the availability of funds for this project.

Projected Financial Performance

The applicant provided the following projected financial results through 2017:

**Table 10: Projected Financial Performance
Father Martin's Ashley (\$000s)**

| | Actual | | Current Year Projected | Projected | | | |
|------------------------------------|------------------|------------------|------------------------------|------------------|-------------------|------------------|------------------|
| Projected Years | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 |
| Inpatient Revenue | \$ 22,428 | \$ 23,777 | \$ 23,986 | \$ 24,403 | \$ 25,756 | \$ 30,016 | \$ 30,947 |
| Outpatient Revenue | 57 | 75 | 137 | 172 | 172 | 172 | 172 |
| Gross Pt. Revenue | 22,485 | 23,852 | 24,123 | 24,575 | 25,928 | 30,188 | 31,119 |
| Allowance For Bad Debt | 59 | 24 | 15 | 15 | 54 | 96 | 103 |
| Contractual Allowance | 4,498 | 5,510 | 5,736 | 5,980 | 6,199 | 7,091 | 7,127 |
| Charity Care | 2,069 | 2,117 | 2,300 | 2,294 | 2,836 | 3,305 | 3,585 |
| Net Pt. Service Revenue | 15,859 | 16,201 | 16,072 | 16,286 | 16,839 | 19,696 | 20,304 |
| Other Operating Revenues | 542 | 438 | 564 | 564 | 564 | 564 | 564 |
| Net Operating Revenue | \$ 16,401 | \$ 16,639 | \$ 16,636 | \$ 16,850 | \$ 17,403 | \$ 20,260 | \$ 20,868 |
| Salaries, Wages, Etc. | 9,291 | 10,402 | 10,991 | 10,991 | 11,403 | 12,011 | 12,011 |
| Contractual Services | 1,476 | 1,361 | 1,448 | 1,448 | 1,448 | 1,448 | 1,448 |
| Interest on Current & Project Debt | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Current Depreciation | 1,061 | 1,051 | 1,256 | 1,456 | 1,656 | 1,856 | 2,056 |
| Project Depreciation | 0 | 0 | 0 | 0 | 479 | 575 | 575 |
| Current Amortization | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Loan Cost | 0 | 0 | 0 | 172 | 288 | 219 | 151 |
| Supplies | 426 | 432 | 403 | 403 | 403 | 403 | 403 |
| Other Expenses | 2,829 | 3,044 | 3,013 | 3,013 | 3,886 | 4,149 | 4,183 |
| Operating Expenses | \$ 15,103 | \$ 16,310 | \$ 17,131 | \$ 17,503 | \$ 19,583 | \$ 20,681 | \$ 20,847 |
| Income from Operation | \$ 1,298 | \$ 329 | \$ (495) | \$ (653) | \$ (2,180) | \$ (421) | \$ 21 |
| Non-operating Income | \$ 12,118 | \$ (1,276) | \$ 2,062 | \$ 2,062 | \$ 1,630 | \$ 1,630 | \$ 1,630 |
| Net Income (loss) | \$ 13,416 | \$ (947) | \$ 1,567 | \$ 1,409 | \$ (550) | \$ 1,209 | \$ 1,651 |
| Operating Margin | 8.2% | 2.0% | -3.1% | -4.0% | -12.9% | -2.1% | 0.1% |

Source: Father Martin's Ashley March 19, 2013 response to first completeness letter (DI #11, pp. 67-68)

The facility projects opening operations with the new building and increased bed inventory in 2015. FMA will assume increasing expenses (or revenue deductions) for charity care and depreciation expenses will also have a negative impact on its operating margin. The financial projections show that FMA anticipates a return to operational profitability by 2017.

FMA does not participate in either Medicare or Medicaid. The applicant is a contracted provider with CareFirst BC/BS and with United Behavioral Health (Optum), Compsych, Managed Health Network, and Value Options. FMA also is a contracted provider for two union groups – Princeton Health Services and Tri State Health & Welfare Fund and three employer groups. As a result, the applicant provides the following breakdown of utilization by payor.

**Table 11: Percent of Patient Days by Payor
Father Martin's Ashley**

| | 2011 | 2012 | 2013 | 2014 | 2014 | 2016 | 2017 |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|
| Blue Cross | 27.9% | 32.1% | 36.0% | 34.9% | 33.0% | 32.0% | 30.0% |
| Commercial Insurance | 25.6% | 24.3% | 24.2% | 27.7% | 28.0% | 28.5% | 29.4% |
| Self-Pay | 39.6% | 34.6% | 30.2% | 28.0% | 28.0% | 28.5% | 29.0% |
| Other–Charity | 6.9% | 9.0% | 9.6% | 9.4% | 11.0% | 11.0% | 11.6% |

Source: Father Martin's Ashley March 19, 2013 response to first completeness letter (DI #11, p. 69)

Conclusion

Staff finds that this facility has a history of successful financial performance and has the cash and investments available to fund the project and finance at the projected level of borrowing projected for the project. Staff also believes that FMA's assumptions with respect to its ability to fill the increased inventory of beds and generate the revenue necessary to sustain the modernization and expansion are reasonable and supportable. Staff concludes that the proposal is viable, based on the availability of resources and the likely level of support for the expansion of bed capacity.

E. COMPLIANCE WITH CONDITIONS OF PREVIOUS CERTIFICATES OF NEED

COMAR 10.24.01.08G(3)(e) Compliance with Conditions of Previous Certificates of Need. An applicant shall demonstrate compliance with all terms and conditions of each previous Certificate of Need granted to the applicant, and with all commitments made that earned preferences in obtaining each previous Certificate of Need, or provide the Commission with a written notice and explanation as to why the conditions or commitments were not met.

Only one FMA CON has been identified in MHCC records. In 1990, FMA was authorized to replace a building on campus to house 20 beds, dietary facilities, administrative offices, activity areas, clinical staff offices, and treatment areas. The CON was conditioned on FMA notifying the Commission of any increases in patient charges and demonstrating that such increases were not the result of capital expenditures for the approved project. MHCC records do not indicate any non-compliance with this condition. No debt was identified as a source of funding for this project, which had an approved cost of \$6,558,700.

F. IMPACT ON EXISTING PROVIDERS AND THE HEALTH CARE DELIVERY SYSTEM

COMAR 10.24.01.08G(3)(f)Impact on Existing Providers and the Health Care Delivery System. An applicant shall provide information and analysis with respect to the impact of the proposed project on existing health care providers in the health planning region, including the impact on geographic and demographic access to services, on occupancy, on costs and charges of other providers, and on costs to the health care delivery system.

Given that the proposed project is a modernization and expansion of an existing facility, it will have no impact on geographic accessibility. This project is aimed at improving FMA's competitiveness on a national basis, regional, or state basis, where it is not confronted with competitors that are drawing from the same market. FMA considers its primary competitors to be The Betty Ford Center, Hazelden Foundation, CRC-Sierra Tucson, The Farley Center, Williamsburg Place, and other facilities of this type in other states. Staff research supports the validity of this conclusion. (DI. #2, Attachment 11).

FMA's commitment to an increase the amount of charity care days including the days of care for the indigent and gray area population should improve access for these populations. However, the direct impact on accessibility for the regional population is likely be modest, given FMA's historic patient origin pattern. This expansive service area will also minimize the potential impact of the proposed project on occupancy at other Central Maryland ICF-CDs. While the proposed facility modernization and expansion in bed capacity may have some impact on other area providers, it is likely to be very small and, as noted, to the extent that the SHP need methodology has merit (see SHP Project Review Standard B), it would be expected that demand exceeds supply for beds of this type. While FMA is proposing to increase its licensed bed capacity by 15 beds (and effective capacity by 22 beds), assuming that FMA's current utilization pattern continues, only three to four of these beds are likely to be utilized by Central Maryland residents and approximately seven of these beds are likely to be used by residents from anywhere in Maryland. For Central Maryland four beds would be a 2.8 percent increase over the current number of Track One beds and a 0.6 percent increase in total beds as detailed in the following table.

**Table 12: Intermediate Care Facility Level Alcohol and Drug Abuse Administration
Certified Substance Abuse Treatment Programs Operating in Central Maryland Region**

| COUNTY/FACILITY | TRACK | ADULT BEDS |
|--|--------------|-------------------|
| Anne Arundel County | | |
| Anne Arundel Medical Center (Pathways) - Annapolis | One | 32 |
| Chrysalis House, Inc. - Crownsville | Two* | 35 |
| Hope House Treatment Center - Crownsville | Two | 45 |
| Serenity Acres Treatment Center - Crownsville | One | 27 |
| Baltimore County | | |
| Gaudenzia, Inc. at Owings Mills - Owings Mills | Two | 50 |
| Baltimore City | | |
| Baltimore Crisis Response, Inc. - Baltimore | Two | 28 |
| Gaudenzia at Park Heights - Baltimore | Two | 135 |
| Gaudenzia Inc., Weinberg Center - Baltimore | Two | 140 |
| Tuerk House, Inc. - Baltimore | Two | 78 |
| Harford County | | |
| Father Martin's Ashley - Havre de Grace | One | 85 |
| Total Track One Beds | | 144 |
| Total Track Two Beds | | 511 |
| Total Beds | | 655 |

Source: MHCC telephone survey

*Track Two facilities are defined in the SHP as intermediate care facilities with "beds owned and wholly operated by the State or substantially funded by the budget process of the State or substantially funded by one or more jurisdictional governments, which are established jointly by providers and the jurisdiction or jurisdictions to meet the special needs of their residents and that reserve at least 50 percent of their proposed annual adolescent or adult bed capacity for indigent and gray area patients."

Based on all of the above, staff concludes that the proposed modernization and expansion should have minimal if any impact on occupancy, costs and charges of other providers in the Central Maryland region or other providers in the state.

IV. STAFF RECOMMENDATION

Staff has analyzed the proposed project's compliance with the applicable State Health Plan criteria and standards in COMAR 10.24.14.05, and with the other general review criteria, COMAR 10.24.01.08G(3)(b)-(f).

Based on these findings, Staff recommends that the project be approved with the following conditions:

1. Father Martin's Ashley shall commence reporting data and other required information to the Alcohol and Drug Abuse Administration's Substance Abuse Management Information System (SAMIS) program within six months of this approval and first use approval shall not be granted until FMA submits documentation of such reporting.
2. Father Martin's Ashley shall provide a minimum of 6.3% of patient days of care to indigent and gray area patients, as defined in the State Health Plan, commencing with the first full

year of operation following completion of the approved project. Father Martin's Ashley shall document the provision of such charity care by submitting annual reports auditing its total days of care and the provision of days of care to indigent and gray area patients as a percentage of total days of care. Such audited reports shall be submitted to the Maryland Health Care Commission following the first full year of operation following completion of the approved project and continuing for five years thereafter.

3. At the end of the fifth year of full operation following completion of the approved project, FMA will provide a report to MHCC, detailing its efforts to systematically evaluate its effectiveness in alcohol and substance abuse treatment. This should include follow-up evaluation of treatment success and collaborative efforts with similar treatment programs in other states to institute standardized peer review to study and improve program effectiveness.

| | | |
|------------------------|---|-------------|
| IN THE MATTER OF | * | BEFORE THE |
| | * | |
| ASHLEY, INC., d/b/a | * | MARYLAND |
| | * | |
| FATHER MARTIN’S ASHLEY | * | HEALTH CARE |
| | * | |
| Docket No. 13-12-2340 | * | COMMISSION |
| | * | |

FINAL ORDER

Based on Commission Staff’s analysis and findings, it is this 19th day of September 2013, **ORDERED** that the application for a Certificate of Need, submitted by Ashley, Inc. d/b/a Father Martin’s Ashley to construct a new building at an estimated cost of \$18,653,000, and increase the number of licensed beds from 85 to 100 ICF/CD beds, Docket No. 13-12-2340, be **APPROVED** subject to the following conditions.

1. Father Martin’s Ashley shall commence reporting data and other required information to the Alcohol and Drug Abuse Administration’s Substance Abuse Management Information System (SAMIS) program within six months of this approval and first use approval shall not be granted until FMA submits documentation of such reporting.
2. Father Martin’s Ashley shall provide a minimum of 6.3% of patient days of care to indigent and gray area patients, as defined in the State Health Plan, commencing with the first full year of operation following completion of the approved project. Father Martin’s Ashley shall document the provision of such charity care by submitting annual reports auditing its total days of care and the provision of days of care to indigent and gray area patients as a percentage of total days of care. Such audit reports shall be submitted to the Maryland Health Care Commission following the first full year of operation following completion of the approved project and continuing for five years thereafter.
3. At the end of the fifth year of full operation following completion of the approved project, FMA will provide a report to MHCC, detailing its efforts to systematically evaluate its effectiveness in alcohol and substance abuse treatment. This should include follow-up evaluation of treatment success and collaborative efforts with similar treatment programs in other states to institute standardized peer review to study and improve program effectiveness.

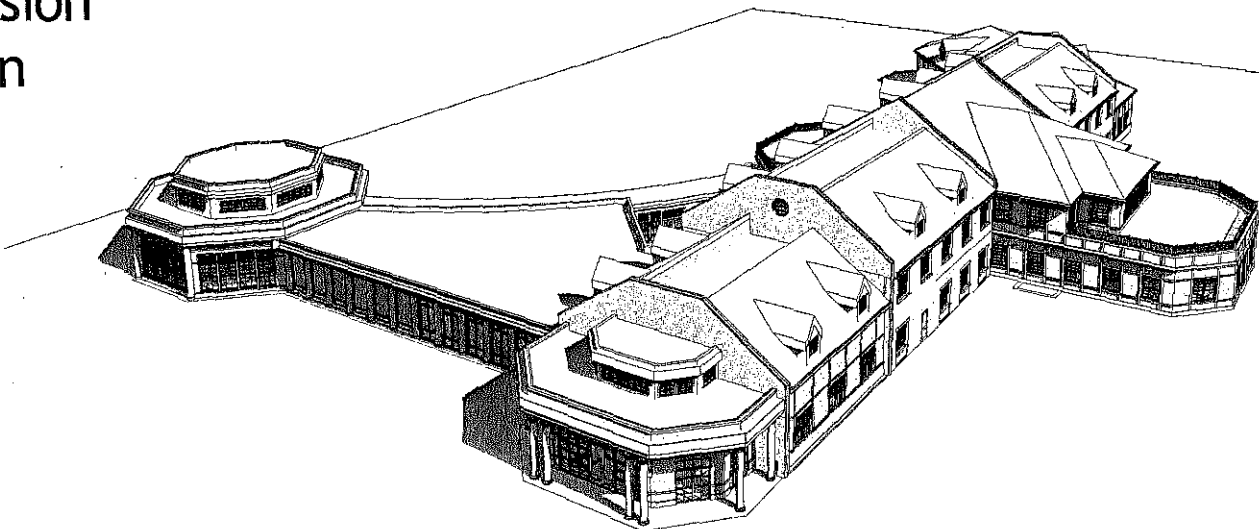
APPENDIX A

Site Plan and Floor Plans

FATHER MARTIN'S ASHLEY PATIENT INTAKE BUILDING

HAVRE DE GRACE, MARYLAND

Maryland Health Care Commission
Certificate of Need Application



DRAWING LIST

| |
|--------------------------|
| COVER SHEET |
| CS.1 COVER SHEET |
| ARCHITECTURAL |
| A0.1 Life Safety Plans |
| A0.3 Assemblies |
| A2.0 Basement Floor Plan |
| A2.1 First Floor Plan |
| A2.2 Second Floor Plan |
| A2.3 Roof Plan |
| A4.0 EXTERIOR ELEVATIONS |
| A5.0 BUILDING SECTIONS |
| A5.1 BUILDING SECTIONS |

MATERIAL FILL PATTERNS

| | | | |
|--|---------------------|--|--|
| | BRICK | | ROUGH LUMBER OR BLOCKING (CONTINUOUS) |
| | CMU | | ROUGH LUMBER OR BLOCKING (DISCONTINUOUS) |
| | CONCRETE | | WOOD FINISH |
| | METAL (IN SECTIONS) | | PLYWOOD |
| | EARTH | | R-11 INSULATION |
| | MORTAR, GROUT, SAND | | R-20 INSULATION |

SYMBOL LEGEND

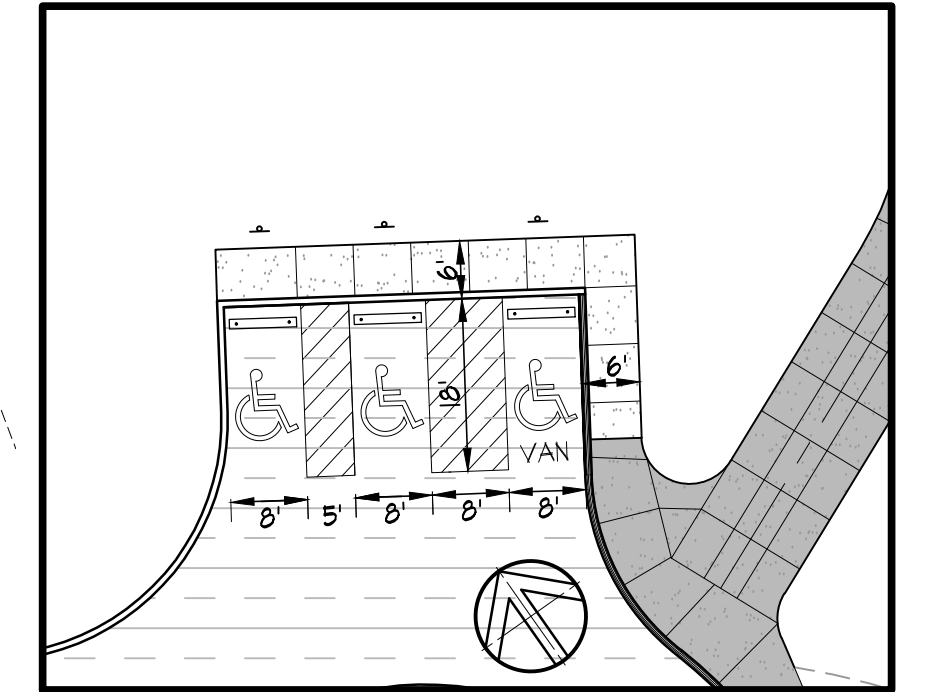
| | |
|--|-----------------------------------|
| | SECTION MARKER |
| | CUTS CONSTRUCTION |
| | SECTION IDENTIFICATION |
| | DETAIL MARKER |
| | DETAIL IDENTIFICATION |
| | ELEVATION MARKER |
| | ELEVATION IDENTIFICATION |
| | INTERIOR ELEVATION MARKER |
| | INTERIOR ELEVATION IDENTIFICATION |

ABBREVIATIONS

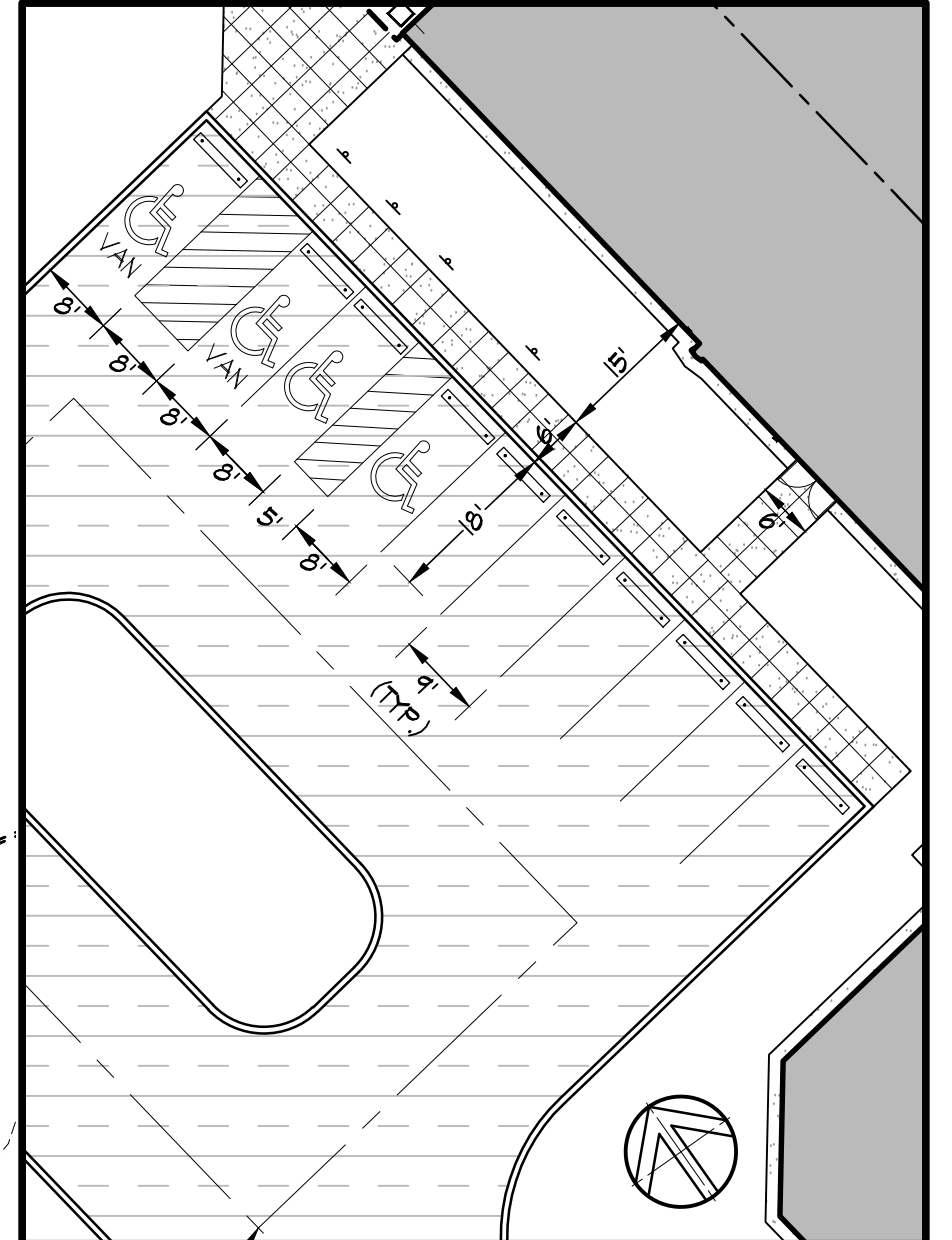
| | | | | | |
|------|-------|-------------------------|--------|--------|------------------|
| A | AP | AF | GA | Q | GT. |
| ACT | ACT | ADDITIONAL CEILING TIES | GALE | R | B.A. |
| ADJ | ADJ | ADJACENT | GEN. | R.A. | ROOF |
| ALT | ALT | ALTERNATE | GL. | R.O. | REF. |
| | | | GWB | R.O. | RENF. |
| | | | GYP BD | R.O. | REIN. |
| B | BARR. | BARRIER | H | RM. | R.O. |
| B.D. | B.D. | BUILDING | H.C. | R.O. | REIN. |
| B.K. | B.K. | BLOCKING | H.C. | R.O. | REIN. |
| B.T. | B.T. | BOTTOM | H.C. | R.O. | REIN. |
| B.M. | B.M. | BOTTOM | H.C. | R.O. | REIN. |
| B.O. | B.O. | BOTTOM | H.C. | R.O. | REIN. |
| B.S. | B.S. | BOTTOM | H.C. | R.O. | REIN. |
| C | CAB. | CABINET | I | INSUL. | INSULATION |
| CIP | CIP | CAST-IN-PLACE | INT. | INT. | INTERIOR |
| CL | CL | CEILING | J | J.C. | JANITOR'S CLOSET |
| CLB | CLB | CEILING | J.O. | J.O. | JANITOR'S CLOSET |
| CLC | CLC | CEILING | JT | JT | JOINT |
| CLD | CLD | CEILING | K | KIT. | KITCHEN |
| CLF | CLF | CEILING | L | LAM. | LAMINATE |
| CLG | CLG | CEILING | L.V. | L.V. | LAMINATE |
| CLH | CLH | CEILING | L.P. | L.P. | LAMINATE |
| CLJ | CLJ | CEILING | M | M. | MEN'S TOILET |
| CLK | CLK | CEILING | | | MATCHLINE |
| CLL | CLL | CEILING | | | |
| CLM | CLM | CEILING | | | |
| CLN | CLN | CEILING | | | |
| CLP | CLP | CEILING | | | |
| CLQ | CLQ | CEILING | | | |
| CLR | CLR | CEILING | | | |
| CLS | CLS | CEILING | | | |
| CLT | CLT | CEILING | | | |

LEGEND

- PROPERTY LINE
- EXISTING WALK
- EXISTING ROAD
- EXISTING CURB
- EXISTING FENCE
- EXISTING FLAGPOLE
- EXISTING BUILDINGS
- EXISTING 100 YR FLOODPLAIN
- PROPOSED CONCRETE WALK
- PROPOSED HEAVY DUTY CONCRETE WALK
- PROPOSED ROAD
- PROPOSED ASPHALT MILL & OVERLAY
- PROPOSED CONCRETE PAVEMENT
- PROPOSED CURB
- PROPOSED BUILDING
- PROPOSED FENCE
- DETAIL REFERENCE
- RELOCATED FLAGPOLE



HC PARKING ENLARGEMENT 1" = 20'



HC PARKING ENLARGEMENT 1" = 20'

WALKWAY LINE TABLE

| | | |
|------|----------------|---------|
| L-50 | N 11° 08'38" E | 109.14' |
|------|----------------|---------|

WALKWAY CURVE TABLE

| | | | | | |
|------|---------|--------|--------|----------------|------------|
| C-50 | 156.00' | 75.54' | 74.85' | S 84° 30'08" E | 21' 45.41" |
| C-51 | 60.49' | 76.10' | 71.75' | N 68° 20'49" E | 12' 02.97" |

DRIVEWAY LINE TABLE

| LINE | BEARING | DISTANCE |
|------|----------------|----------|
| L-1 | S 64° 21'01" E | 120.60' |
| L-2 | S 42° 09'34" E | 355.34' |
| L-3 | N 44° 51'26" E | 78.63' |
| L-4 | N 28° 32'50" E | 73.78' |
| L-5 | N 38° 11'16" E | 183.09' |
| L-6 | N 08° 40'11" E | 128.42' |
| L-7 | N 55° 40'11" E | 85.88' |
| L-8 | S 32° 28'08" E | 6.74' |
| L-9 | N 50° 58'47" E | 43.53' |
| L-10 | S 50° 58'19" E | 42.41' |
| L-11 | N 81° 15'44" E | 45.84' |
| L-12 | S 08° 40'11" E | 75.64' |
| L-13 | S 81° 11'53" E | 45.95' |
| L-14 | S 35° 51'13" E | 48.35' |

DRIVEWAY CURVE TABLE

| CURVE | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING | DELTA ANGLE |
|-------|---------|------------|--------------|----------------|-------------|
| C-1 | 240.00' | 148.25' | 146.72' | S 54° 47'50" E | 24° 18'32" |
| C-2 | 150.00' | 83.64' | 83.64' | N 31° 42'08" E | 24° 18'32" |
| C-3 | 200.00' | 44.54' | 44.50' | N 31° 56'03" E | 12° 46'21" |
| C-4 | 100.00' | 82.02' | 79.74' | N 14° 44'30" E | 46° 54'34" |
| C-5 | 150.00' | 117.81' | 114.81' | N 31° 10'11" E | 45° 00'00" |
| C-6 | 62.00' | 101.51' | 90.50' | S 74° 23'55" E | 58° 11'54" |
| C-7 | 43.00' | 139.04' | 86.00' | N 34° 01'24" E | 12° 46'21" |

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Owner

FATHER MARTIN'S
ASHLEY PATIENT
INTAKE BUILDING

HAVRE DE GRACE, MARYLAND

hord | coplan | macht

ARCHITECTURE
LANDSCAPE ARCHITECTURE
PLANNING
INTERIOR DESIGN



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED
OR SUPERVISED BY ME OR THAT I AM A FULLY LICENSED
PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF
MARYLAND. LICENSE NO. 10485 EXPIRATION DATE: 05/31/16

| | | |
|-----|----------|--------------|
| 3 | 07.09.13 | Addendum # 3 |
| 4 | 07.12.13 | Addendum # 4 |
| no. | date | revision |

Project Name
FATHER MARTIN'S ASHLEY
PATIENT INTAKE BUILDING

Project Number
212070.00

Date
08.29.2013

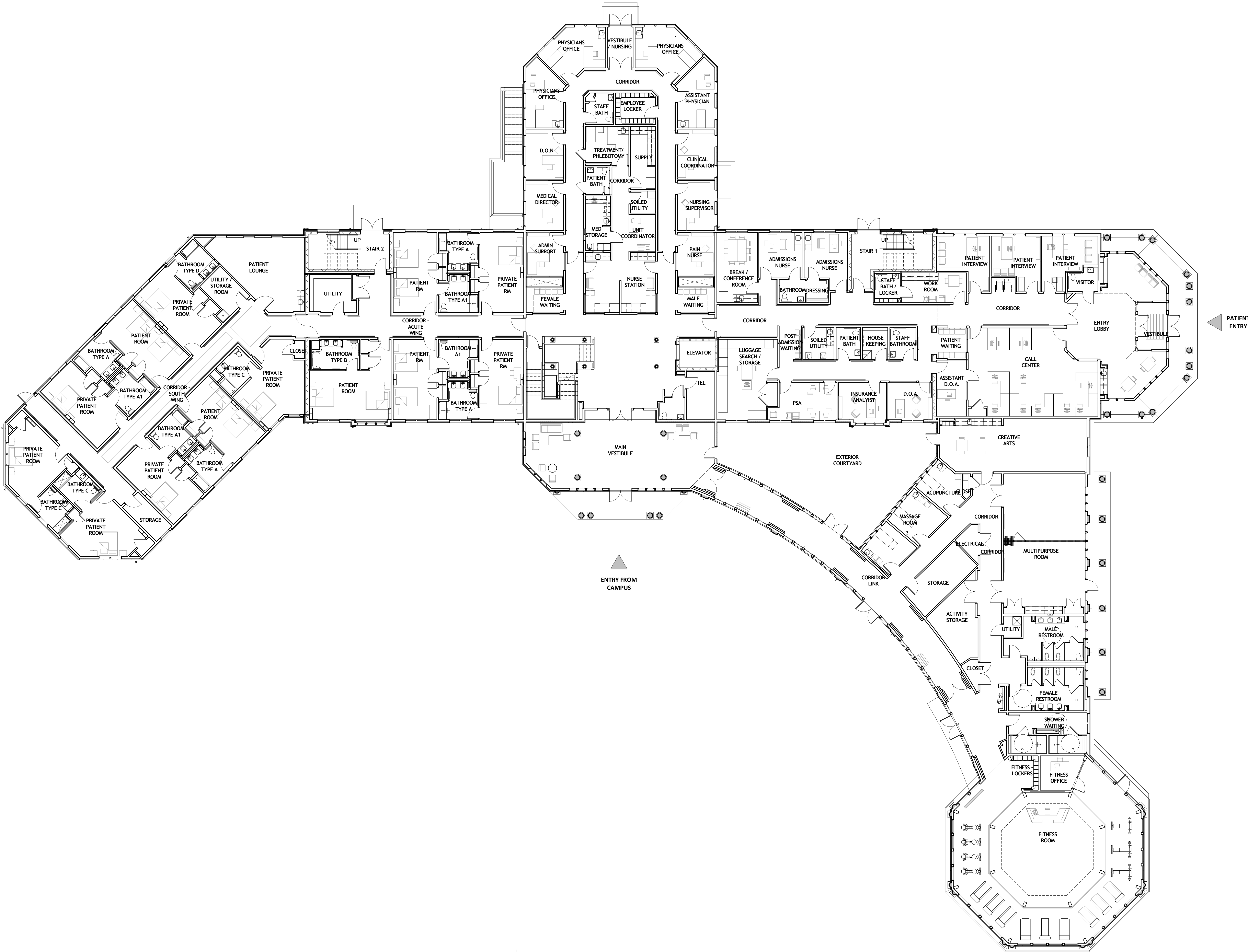
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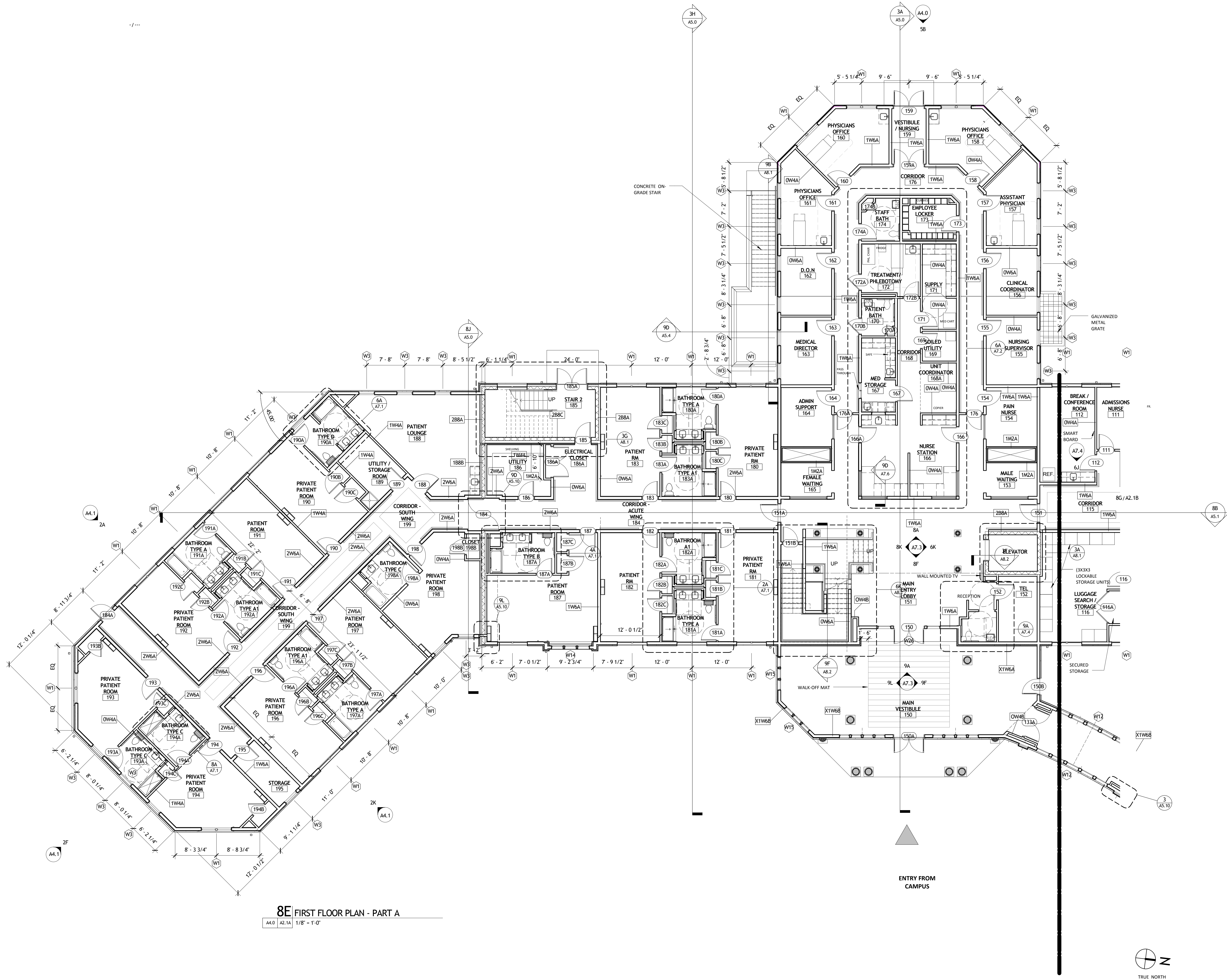
AS NOTED

Drawing
LAYOUT & DETAIL
REFERENCE PLAN

C1.03

BID SET





8E FIRST FLOOR PLAN - PART A
A4.0 A2.1A 1/8" = 1'-0"

GENERAL NOTES:
1. SEE SHEET A2.2 FOR FLOOR DIMENSIONS.
2. OPERABLE PARTITION TO BE DORMA ACOUSTI-SEAL PAIRED PANEL SYSTEM W/ MAN DOOR. PROVIDE ALL STRUCTURAL SUPPORTS NEEDED FOR COMPLETE INSTALLATION.
3. SEE INTERIOR DESIGN DRAWINGS FOR CORNER GUARD LOCATIONS

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FATHER MARTIN'S ASHLEY PATIENT INTAKE BUILDING

HAVRE DE GRACE, MARYLAND

hord | coplan | macht

ARCHITECTURE
LANDSCAPE ARCHITECTURE
PLANNING
INTERIOR DESIGN

PROFESSIONAL CERTIFICATION I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NUMBER: 1304
EXPIRATION DATE: 06/30/15

| | | |
|-----|----------|--------------|
| 5 | 07.16.13 | Addendum # 5 |
| 4 | 07.12.13 | Addendum # 4 |
| 2 | 07.05.13 | Addendum # 2 |
| no. | date | revision |

Project Name
FATHER MARTIN'S ASHLEY PATIENT
INTAKE BUILDING

Project Number
21.2070.00

Date
08.26.2013

Scale
1/8" = 1'-0"

Drawing
FIRST FLOOR PLAN -
PART A

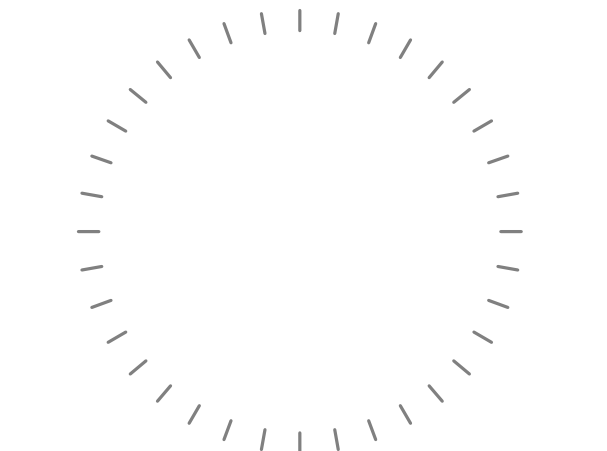
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PERMIT SET

FATHER MARTIN'S
ASHLEY PATIENT
INTAKE BUILDING

HAVRE DE GRACE, MARYLAND

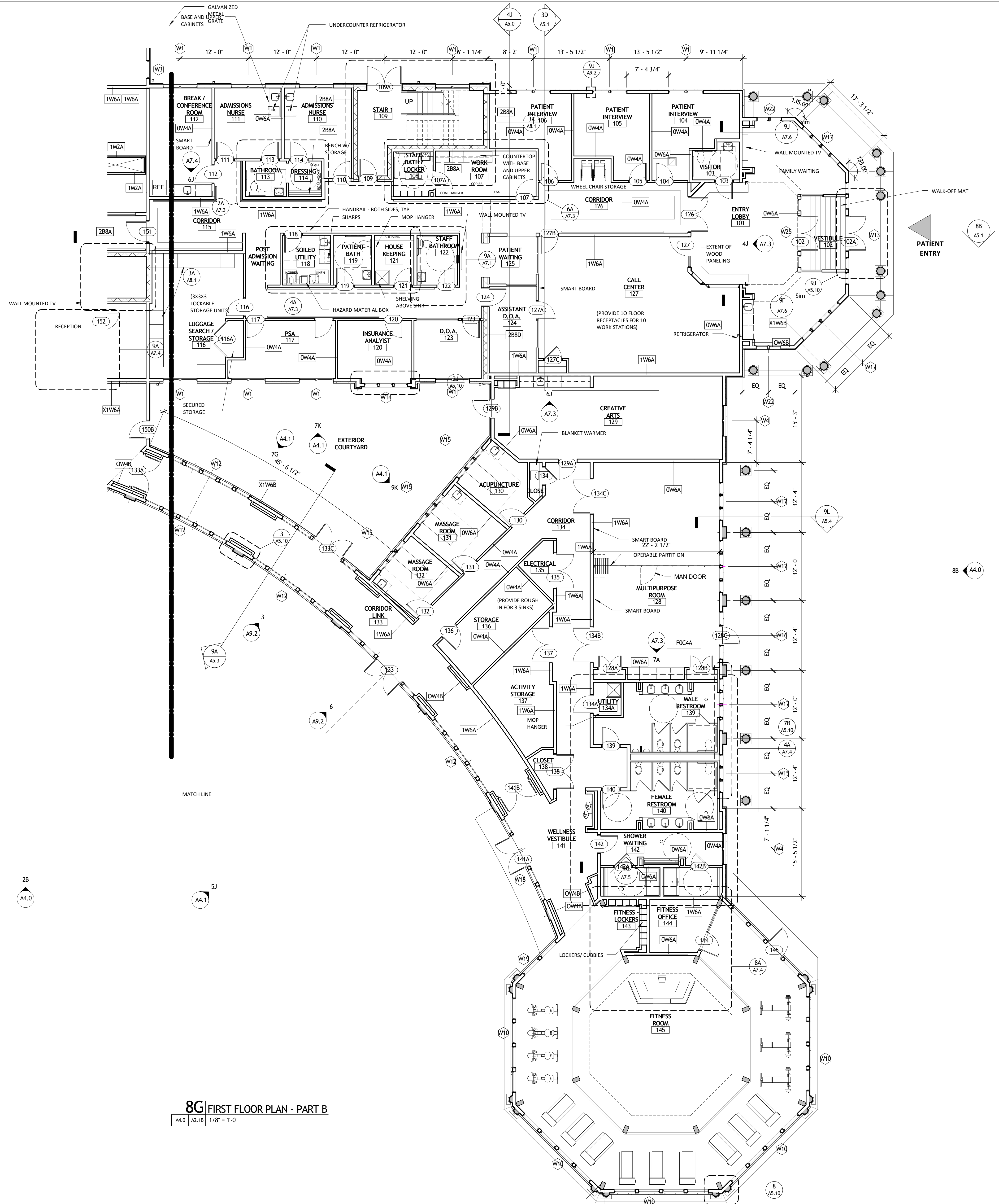
ARCHITECTURE
LANDSCAPE ARCHITECTURE
PLANNING
INTERIOR DESIGN

[illegible]

FIRST FLOOR PLAN -
PART B

A2.1B

PERMIT SET



8G FIRST FLOOR PLAN - PART B

GENERAL NOTES:

1. SEE SHEET A2.2 FOR FLOOR DIMENSIONS.
2. OPERABLE PARTITION TO BE DORMA ACOUSTI-SEAL PAIRED PANEL SYSTEM W/ MAN DOOR. PROVIDE ALL STRUCTURAL SUPPORTS NEEDED FOR COMPLETE INSTALLATION.
3. SEE INTERIOR DESIGN DRAWINGS FOR CORNER GUARD LOCATIONS

SECOND FLOOR PLAN
A1.3

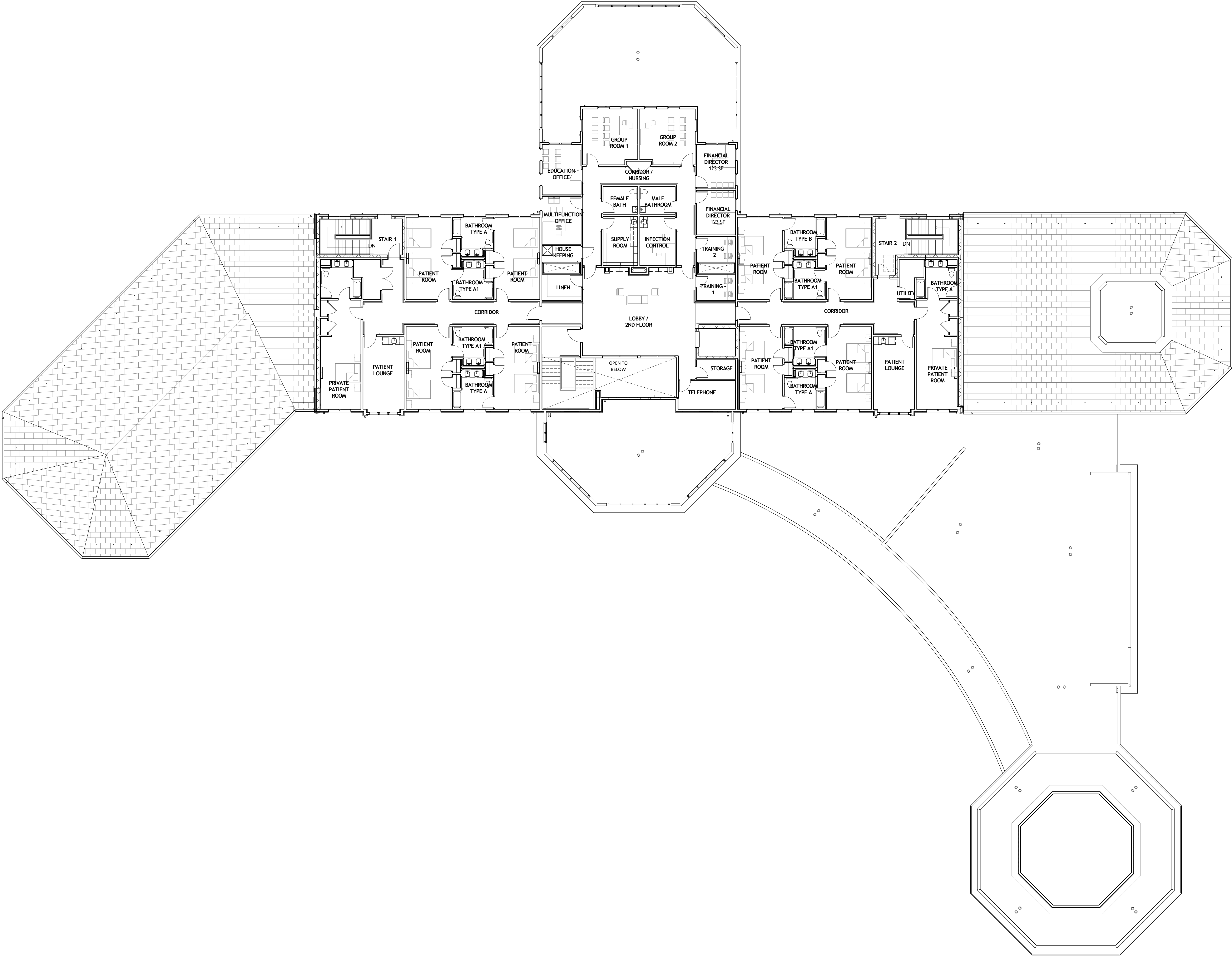


EXHIBIT 12

Marilyn Moon, Ph.D.
CHAIR

STATE OF MARYLAND



Rex W. Cowdry, M.D.
EXECUTIVE DIRECTOR

MARYLAND HEALTH CARE COMMISSION

4160 PATTERSON AVENUE – BALTIMORE, MARYLAND 21215
TELEPHONE: 410-764-3460 FAX: 410-358-1236

MEMORANDUM

To: Commissioners
From: Paul E. Parker *pap*
Chief, Certificate of Need
Date: February 18, 2010
Re: A. F. Whitsitt Center
Docket No. 09-14-2305

The A. F. Whitsitt Center ("Whitsitt") is a 24-bed intermediate care facility ("ICF") for the treatment of alcohol and/or drug abusing adults in Chestertown (Kent County). It is owned by and primarily funded through the Mental Hygiene Administration of the Maryland Department of Health and Mental Hygiene ("DHMH") and operated by the Kent County Department of Health. It shares a campus with the Upper Shore Community Mental Health Center ("Upper Shore").

DHMH is eliminating acute psychiatric hospital services at Upper Shore, including a program that has specialized in treating patients with co-occurring substance use disorders and moderate mental health disorders. DHMH proposes to expand Whitsitt to incorporate the facilities of this hospital program into the Whitsitt ICF treatment model. Sixteen beds will be added and the staffing of Whitsitt will increase to provide this "enhanced" level of care. Whitsitt projects that approximately 80 percent of the patients historically served in the Upper Shore hospital unit can be appropriately served in the ICF setting of the Center.

MHCC Staff recommends approval of the proposed project with two conditions: a requirement that Whitsitt reestablish accreditation status that was allowed to lapse in 2009 and a condition that DHMH evaluate and report on the performance of Whitsitt in effectively treating patients with severe substance use disorders who have a co-occurring moderate mental health disorder during the first two years of Whitsitt's provision of these enhanced level of care.



IN THE MATTER OF

*

BEFORE THE

*

A. F. WHITSITT CENTER

*

MARYLAND HEALTH

*

Docket No. 09-14-2305

*

CARE COMMISSION

Staff Report and Recommendation

February 18, 2010

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Appendices

- A. Alternative Services Plan for Upper Shore Community Mental Health Center, November 17, 2009
- B. Project Floor Plan

I. INTRODUCTION

The A. F. Whitsitt Center (“Whitsitt” or “the Center”) is a 24-bed intermediate care facility (“ICF”) for the treatment of alcohol and/or drug abusing adults. It is located at 300 Scheeler Road in Chestertown (Kent County). It is owned by and primarily funded through the Mental Hygiene Administration of the Maryland Department of Health and Mental Hygiene (“DHMH”) and operated by the Kent County Department of Health since 1981. It provides “medically monitored intensive inpatient treatment” (Level III.7 in the Alcohol and Drug Abuse Administration treatment typology) and “medically monitored intensive inpatient services-detoxification” (Level III.7.D) It shares a campus with the Upper Shore Community Mental Health Center (“Upper Shore”).

A. Project Description and Background

In 2009, DHMH developed an “Alternative Services Plan for Upper Shore Community Mental Health Center.” (See Appendix A.) The current “widespread economic downturn and resultant impact upon State revenues ... brought DHMH to a decision about services at the Upper Shore” embodied in this Plan. However, DHMH notes that the Plan’s “proposed transition to community-based alternatives is consistent with long-standing policy and law that provide preference for services to be given to patients in the least restrictive setting.” The Plan has four parts:

1. Elimination of acute psychiatric hospital services at Upper Shore Community Mental Health Center (“Upper Shore”) and meeting the needs for this service through private hospitals, paid through the Health Services Cost Review Commission’s rate-setting system. Physicians treating these patient would be compensated by DHMH through purchase of care agreements;
2. Expansion of the A. F. Whitsitt Center’s substance abuse treatment services;
3. Expansion of community behavioral health services; and
4. Assisting Upper Shore employees.

This project involves the addition of 16 ICF beds to the Whitsitt Center. The proposed beds would be located in space that has historically been used as acute psychiatric hospital bed capacity of Upper Shore, which is physically connected to the Center. The Center’s existing beds and the nursing unit which will be added to the Center occupy adjoining wings of the same building. (See Appendix B.)¹

¹ In conjunction with this project, four “crisis” beds, which may be provided at the Center, will be added to the local continuum of mental health services. Residential crisis services are licensed as services rather than beds and not regulated under the Certificate the Need (“CON”) program. These crisis beds will be funded by DHMH through Mid-Shore Mental Health Services, the local “Core Services Agency,” which will issue an RFP for operation of these crisis beds. These services are designed to prevent a psychiatric inpatient admission and provide an alternative to such admission for persons with mental illness who are experiencing or at risk of a psychiatric crisis that impairs their ability to function in the community or to shorten the length of inpatient treatment or reduce pressure on general hospital emergency departments.

The current Upper Shore hospital wing (the “Red” unit) that will be occupied by Whitsitt to expand its ICF services is one of two acute psychiatric hospital units at Upper Shore. It is used for the admission of patients with mental health disorders who also have a concomitant substance abuse disorder. The other Upper Shore inpatient unit (the “Brown” unit) slated for closure has historically served patients with severe and persistent mental health disorders.

Whitsitt projects that approximately 80 percent of the patients currently served in this Upper Shore unit could be appropriately served in the ICF setting of the Center. This would be a patient population with a dual diagnosis of substance abuse and mental health disorder who do not need to be restrained or secluded and do not need “one-on-one care.” Patients who need this care would be referred for treatment to an acute psychiatric hospital program. There are three such programs on the Eastern Shore: a 7-bed unit at Union Hospital in Elkton (Cecil County), approximately 35 miles from Chestertown; Dorchester General Hospital in Cambridge (Dorchester County), with a 16-bed unit approximately 52 miles from Chestertown; and a 10-bed unit at Peninsula Regional Medical Center, in Salisbury (Wicomico County), approximately 84 miles from Chestertown. Four general hospitals on the “western shore” of Maryland with acute psychiatric inpatient units are closer to Chestertown than Peninsula Regional Medical Center: Harford Memorial Hospital in Havre de Grace (Harford County), at approximately 52 miles; Baltimore Washington Medical Center in Glen Burnie (Anne Arundel County), at approximately 63 miles; Prince George’s Hospital in Cheverly (Prince George’s County), at approximately 70 miles; and Laurel Regional Hospital in Laurel (Prince George’s County), at approximately 73 miles.²

The patient population that the expanded Whitsitt Center will serve may typically have a “severe” substance use disorder (which is the basis for residential programming of the ICF setting as an appropriate treatment approach) but their co-occurring mental health disorder will fall within the “mild” to “moderate” range of severity. The Center will employ a psychiatrist and social worker, currently employed by Upper Shore, in order to integrate this new level of residential programming for dually-diagnosed patients into the Center’s scope of service, in addition to expanding staff in existing staffing categories: registered nursing; counselors; and direct care assistants. Additional support staff will also be required for the expanded facility. The Center also projects adding a part-time nurse practitioner, a staff category not currently employed by the Center.

The total amount of space to be added to Whitsitt is approximately 16,000 gross square feet (“GSF”), which includes the nursing unit housing the 16 additional beds (approximately 14,600 GSF), waiting, administrative, storage, and corridor space near the front entrance of the Upper Shore building complex (approximately 1,020 GSF), and a clinical director’s office (160 GSF). Whitsitt does not project the need to undertake any renovation of this space, finding it to be fully compatible, as is, with the Center’s needs. Therefore, there are no estimated capital expenditures associated with this project. The food service and dining area (approximately 5,800 GSF), which has been common space for Upper Shore and Whitsitt, will continue to be used by the expanded ICF. The existing residential unit of Whitsitt comprises approximately 10,600 GSF.

² Mileage figures are driving mileages reported by MapQuest.com

Facility floor plan drawings provided by the applicant indicate that the existing Whitsitt Center has 16 rooms designed as patient rooms, four private and 12 semi-private, for a designed physical bed capacity of 28 beds. However, the Center has indicated that the 4 private rooms are used for counseling, leaving an operating complement of 12 semi-private rooms and 24 beds. These are located on two wings, set up as a four-room, eight-bed female unit and an eight-room, 16-bed male unit. The floor plan shows that the Upper Shore hospital unit which is proposed for addition to the Whitsitt Center is designed with 20 patient rooms; 4 private and 16 semi-private, for a designed physical bed capacity of 36 beds. However, as noted, Whitsitt intends to add only 16 ICF beds to its complement by expanding into this unit and, thus, it will be able to reach full occupancy of this unit with all private room accommodations. Four of the designed patient rooms will be used for other purposes. The unit is designed with two patient room wings extending at right angles from a central nursing station, each wing containing 8 large rooms (designed as semi-private rooms) and one wing also containing 4 smaller patient rooms, designated on the plan as private patient rooms.

The floor plan shows this new Whitsitt wing as including a large (approximately 1,720 GSF) common wing with day room, TV room, art and music room, three “visitor” rooms, “multi-purpose,” “occupational therapy,” “quiet,” and “conference” rooms (2 each), a “treatment” room, a “crisis” room, an interview room, a hairdressing room, an employee and an admissions lounge, and 18 offices, one of which is a “dental” office and one of which doubles as an “admissions lounge.” These spaces are in addition to the storage and utility rooms near the nursing station.

The following tables summarize the ICF residential treatment capacity changes proposed by Whitsitt and profile patient origin at Whitsitt in fiscal year (“FY”) 2009.

Table 1: Existing and Proposed Service Capacity
A. F. Whitsitt Center

| Room Type/Other Space | Existing Capacity | Proposed Capacity |
|-------------------------------------|-------------------|-------------------|
| Licensed ICF Beds | 24 | 40 |
| Detoxification Bed Capacity* | 4 | 10 |
| Crisis Beds* | 0 | 4 |

Source: CON Application

*Detoxification services are provided in licensed ICF beds as needed. The numbers in the table represent the approximate capacity, currently and post-project, to provide this service at the facility. Capacity will expand through the availability of additional beds and staff resources.

Table 2: Patient Origin of Admissions – FY 2009
A. F. Whitsitt Center

| Jurisdiction of Residence | Admissions | Proportion of Total Admissions |
|---------------------------|------------|--------------------------------|
| Cecil | 198 | 42% |
| Caroline | 65 | 14% |
| Queen Anne’s | 64 | 14% |
| Kent | 59 | 13% |
| Harford | 42 | 9% |
| Talbot | 40 | 9% |
| Other | 2 | 0% |
| TOTAL | 470 | 100% |

Source: CON Application

B. Staff Recommendation

MHCC Staff recommends approval of the proposed project with two conditions, as follows:

1. The A. F. Whitsitt Center will be accredited by The Joint Commission or the Commission on Accreditation of Rehabilitation Facilities no later than one year following award of this Certificate of Need; and
2. The Alcohol and Drug Abuse Administration of the Department of Health and Mental Hygiene will provide an annual evaluation of the performance of the A. F. Whitsitt Center in treating patients with co-occurring severe substance abuse disorders and moderate mental health disorders during the first two years following the expansion of the A. F. Whitsitt Center. This evaluation will be contained in a report to the Maryland Health Care Commission and will provide information, at a minimum, on admissions, discharges, length of stay, reason for discharge, subsequent use of substance abuse/mental health treatment programs following discharge, substance use at admission and discharge, elopement, medication errors, and patient injuries. The evaluation report will compare the performance of the A. F. Whitsitt Center in treating publicly-funded patients with co-occurring severe substance abuse disorders and moderate mental health disorders and the performance of Department of Health and Mental Hygiene hospital facilities and/or private general acute care or special hospital facilities in treating publicly-funded patients with a similar diagnosis. The first report, covering the first year of operation of the expanded A. F. Whitsitt Center, will be due 18 months after expansion of the Center. The second report, covering the second year of operation, will be due 30 months after expansion of the Center.

II. PROCEDURAL HISTORY

A. Review Record

On December 7, 2009, Whitsitt submitted a Letter of Intent (“LOI”) to apply for a CON to increase the number of beds at the facility. This letter was acknowledged by Maryland Health Care Commission (“MHCC”) staff on December 8, 2009 [Docket Item (“DI”) #1].

On December 10, 2009, Whitsitt reiterated a request, first outlined in its LOI, to waive the 60-day waiting period for the filing of a CON application, indicating an intention to file a CON application on December 18, 2009. On December 15, 2009, MHCC granted the request (DI #2).

On December 18, 2009, Whitsitt filed the CON application (DI #3).

On December 21, 2009, MHCC staff sent a request for additional information needed to complete the application to Whitsitt (DI #4).

On December 22, 2009, MHCC staff requested publication of a notice of receipt of the CON application in the *Kent County News* (DI #5) and the *Maryland Register* (DI #6).

On December 29, 2009, Whitsitt provided a response to the MHCC staff information request (DI#7).

On January 4, 2010, MHCC staff requested publication of a notice of docketing of the CON application in the *Maryland Register* (DI #8).

On January 9, 2010, MHCC staff notified Whitsitt that its CON application would be docketed for review effective January 15, 2010 and that notice of the application's docketing would be published in the *Maryland Register* on that date. MHCC staff also requested additional information from the facility regarding the proposed project (DI #9).

On January 20, 2010, Whitsitt provided a response to the MHCC staff request for additional information (DI#10).

On February 8, 2010, MHCC staff discussed with Carol Wise, via phone, several matters relating to the information Whitsitt provided on the CON application.

B. Interested Parties

There are no interested parties in this review.

C. Local Government Review

No comments on the proposed project were received from local government elected officials or bodies. Units of the Kent County Health Department provided letters of support for the proposed project or support and cooperation with Whitsitt, as shown in II.D. below.

D. Community Support

Copies of fourteen letters were provided with the CON application expressing specific support for the proposed expansion of Whitsitt, as follows:

Nora Becker, C.P.P., C.S.C.-A.D.
Prevention Supervisor
Substance Abuse Prevention Program
Kent County Behavioral Health

Heather Brown, B.A.S.W., C.A.C.-D.
Director of Addictions
Wicomico County Health Department

Mark Carpenter, Psy.D., Program Director
Addictions Program
Talbot County Health Department

William J. Clark
Case Management Program Supervisor
Maryland Department of Juvenile Services
Chestertown

Gary B. Fry, L.C.A.D.C., Director
Division of Alcohol and Drug Abuse Services
Queen Anne's County Department of Health

Paula Gish, L.C.S.W.-C.
Assistant Director for Services
Maryland Department of Human Resources
Kent County Department of Social Services

Doris A. Moxley, M.A., L.C.A.D.C.
Addictions Program Director
Worcester County Health Department

John F. Price, Sheriff
Kent County

Craig Stofko, M.Ed., L.C.A.D.C.
Director, Behavioral Health

Kenneth R. Collins, Director
Alcohol and Drug Recovery Unit
Cecil County Health Department

Roy W. Crow, President
Ronald H. Fithian, Member
William W. Pickrum, Member
The County Commissioners of Kent County

Timothy A. Dove, M.H.S.
Director
Caroline Counseling Center/
Caroline County Health Department

Somerset County Health Department

Robert H. Strong, Jr.
State's Attorney for Kent County

John R. Winslow, M.H.S., C.P.P.
Program Director
Dorchester County Addictions Program/
Dorchester County Department of Health

Copies of three other letters were provided in the CON application that expressed general support for Whitsitt, confirmed a collaborative relationship with the Center, and/or pledged continuing collaboration and coordination with Whitsitt, as follows:

Nancy Connolly, L.C.S.W.-C., Director
Outpatient Mental Health Services
Kent County Behavioral Health

Gary B. Fry, L.C.A.D.C., Director
Division of Alcohol and Drug Abuse Services
Queen Anne's County Department of Health

Carol B. Wise, M.A., L.C.A.D.C.
Director of Addiction Service
Outpatient Addiction Services
Kent County Behavioral Health

III. STAFF REVIEW AND ANALYSIS

The Commission is required to make its decision in accordance with the general Certificate of Need review criteria at COMAR 10.24.01.08G(3)(a) through (f).

A. The State Health Plan

COMAR 10.24.01.08G(3)(a) states, "An application for a CON shall be evaluated according to all relevant State Health Plan standards, policies, and criteria."

The relevant State Health Plan chapter is COMAR 10.24.14, *State Health Plan for Facilities and Services: Alcoholism and Drug Abuse Intermediate Care Facility Treatment Services*. In this section of the report, consistency and compliance of the proposed project with Parts 3 through 7 of this regulation will be considered.

COMAR 10.24.14 State Health Plan for Facilities and Services: Alcoholism and Drug Abuse Intermediate Care Facility Treatment Services

COMAR 10.24.14.03B — Statement of Issues and Policies

Access to Care

- Policy 1.0** **The Commission will create a separate Certificate of Need review track to encourage public intermediate care facilities to increase access to services for indigent and gray area patients.³ To be considered for this review track, a project must document and secure public funding, make a commitment to allocate more than half of its capacity to treat the indigent and gray area population, and create an active partnership with local and state governments.**
- Policy 1.1** **The Commission will require private intermediate care providers to achieve and maintain a specified minimum level of care to treat publicly funded indigent and gray area populations.**
- Policy 1.2** **The Commission will support the development of programs to treat special and underserved populations, including: addicted pregnant women; mothers and their infants; women; the elderly; the homeless; low-income individuals; the disabled; minorities; persons involved with the criminal justice system; and others with special needs. All programs should be responsive to the needs of different cultures and to the client’s family structure, social support structure, and community environment.**

Whitsitt is a public ICF and states that no person is denied admission based on an inability to pay. Twenty of its 24 ICF beds are funded through the Alcohol and Drug Administration (“ADAA”) of DHMH, with the remaining four beds purchased through insurance and private contracts. The facility reports that 77% of ICF patients admitted to the Center are indigent; only 36% have some health insurance coverage, but even these patients do not typically have insurance coverage for residential substance abuse treatment. Historically, approximately 90% of admitted patients are not required to pay for care as a result of indigency and low income, coupled with lack of insurance coverage. Referrals of indigent patients come from local health departments, hospitals, and the criminal justice system.

Whitsitt states that it is “responsive to the specific cultural needs” of its patient population. It states that pregnant women, individuals diagnosed with HIV/AIDS and Hepatitis C, and homeless individuals are “priority populations.” It characterizes over 60% of its patients as “poly-addicted,” addicted to more than one substance, and just over half of its patients are diagnosed as having disorders that are “co-occurring” with their substance abuse disorder, such as anxiety disorder, depression, and bi-polar disorder.

Whitsitt is an ICF worthy of support by MHCC, based on these “Access” policies.

³ “Gray area population” means those persons who do not qualify for services under the Maryland Medical Assistance Program but whose annual income from any source is no more than 180 percent of the current Federal Poverty Index and who have no insurance for alcohol and drug abuse treatment services.

Funding for Alcohol and Drug Treatment Services

Policy 2.0 The Commission will support efforts to significantly increase both public and private funding for drug and alcohol treatment to close the treatment gaps and to create an effective system of care.

This project involves increased funding for a public ICF which will allow it to increase its bed complement by 67% and establish ICF programming for persons in need of substance abuse rehabilitation who have a co-occurring mental disorder that is mild or moderate. Support for this project by MHCC would be consistent with this “Funding” policy statement.

Quality of Care

Policy 3.0 To improve the effectiveness of the drug and alcohol treatment system and its programs, the Commission will support efforts to implement a statewide performance measurement system as recommended by the Drug Treatment Task Force.

Policy 3.1 Each Maryland intermediate care facility must be accredited by the Joint Commission on Accreditation of Health Care Organizations (JCAHO) or CARF...The Rehabilitation Accreditation Commission or other accrediting body deemed appropriate by the Department of Health and Mental Hygiene and must also be certified by the Office of Health Care Quality of the Department of Health and Mental Hygiene.

Whitsitt reports that a performance measurement system, the ADAA SMART (“State of Maryland Automated Record Tracking”) data system, has been in place for approximately five years. (Policy 3.0 is in a State Health Plan Chapter which became effective on January 21, 2002.) This system measures the type of discharge (completed treatment, transferred, referred, incarcerated, discharged due to a health problem, discharged due to non-compliance with program rules, or left before completing program), changes in substance use, length of stay, and readmission within 30 days of discharge to any other level of care.

The Center provided information on performance over the last five years which can be summarized as follows:**Table 3: Length of Stay (“LOS”) for Patients Discharged from ADAA-Funded Level III.7.D**
(medically monitored intensive inpatient services - detoxification)

Mean LOS – 2009:

Range of Mean LOS – 2005-09:

Whitsitt: 5.4 days
Other Maryland programs: 6.8 days
State total: 6.8 days

Whitsitt: 4.3 - 5.4 days
Other Maryland programs: 5.9 - 13.7 days
State total: 5.9 - 13.5 days

**Table 4: Reason for Discharge - Patients Discharged from ADAA-Funded Level III.7.D
(medically monitored intensive inpatient services - detoxification)**

| 2009 | Range - 2005-2009 |
|---|---|
| <u>Completed treatment/transfer/referral</u> | <u>Completed treatment/transfer/referral</u> |
| Whitsitt: 93.1% | Whitsitt: 81.4-93.9% |
| Other Maryland programs: 84.7% | Other Maryland programs: 79.8-84.7% |
| State total: 85.1% | State total: 79.9-85.1% |
| <u>Incarcerated</u> | <u>Incarcerated</u> |
| Whitsitt: 0.0% | Whitsitt: 0.0-0.0% |
| Other Maryland programs: 0.0% | Other Maryland programs: 0.0-0.1% |
| State total: 0.0% | State total: 0.0-0.1% |
| <u>Health problem</u> | <u>Health problem</u> |
| Whitsitt: 0.0% | Whitsitt: 0.0-1.7% |
| Other Maryland programs: 0.0% | Other Maryland programs: 0.0-0.9% |
| State total: 0.0% | State total: 0.0-0.9% |
| <u>Non-compliance with program rules</u> | <u>Non-compliance with program rules</u> |
| Whitsitt: 1.1% | Whitsitt: 0.9-5.1% |
| Other Maryland programs: 2.4% | Other Maryland programs: 2.1-3.3% |
| State total: 2.3% | State total: 2.0-3.4% |
| <u>Patient left before completing program</u> | <u>Patient left before completing program</u> |
| Whitsitt: 5.9% | Whitsitt: 5.2-11.9% |
| Other Maryland programs: 12.8% | Other Maryland programs: 12.8-16.0% |
| State total: 12.5% | State total: 12.5-15.9% |

**Table 5: Enrollment to Other Levels of Substance Abuse Treatment (% of All Discharges) within
30 Days of Discharge from ADAA-Funded Level III.7.D (medically monitored intensive inpatient
services - detoxification)**

| 2009 | Range - 2005-2009 |
|---|---|
| <u>To Level III.7 (ICF residential treatment)</u> | <u>To Level III.7 (ICF residential treatment)</u> |
| Whitsitt: 92.4% | Whitsitt: 69.8-92.4% |
| Other Maryland programs: 51.1% | Other Maryland programs: 36.2-62.2% |
| State total: 53.1% | State total: 37.2-64.4% |
| <u>To other treatment programs</u> | <u>To other treatment programs</u> |
| Whitsitt: 1.7% | Whitsitt: 0.0-3.9% |
| Other Maryland programs: 24.9% | Other Maryland programs: 10.0-24.9% |
| State total: 23.8% | State total: 9.5-23.8% |

Table 6: Length of Stay for Patients Discharged from ADAA-Funded Level III.7.
(medically monitored intensive inpatient services)

| <u>Mean LOS – 2009:</u> | | <u>Range of Mean LOS – 2005-09</u> | |
|--------------------------------|-----------|---|-------------------|
| Whitsitt: | 21.1 days | Whitsitt: | 18.7 to 21.9 days |
| Other Maryland programs: | 19.7 days | Other Maryland programs: | 17.7 to 21.2 days |
| State total: | 19.7 days | State total: | 17.7 to 21.2 days |

Table 7: Reason for Discharge (% of All Discharges) - Patients Discharged from ADAA-Funded Level III.7 (medical monitored intensive inpatient services)

| <u>2009</u> | | <u>Range - 2005-2009</u> | |
|--|-------|--|------------|
| <u>Completed treatment/transfer/referral</u> | | <u>Completed treatment/transfer/referral</u> | |
| Whitsitt: | 83.5% | Whitsitt: | 71.1-83.5% |
| Other Maryland programs: | 82.9% | Other Maryland programs: | 79.4-83.2% |
| State total: | 82.9% | State total: | 79.4-82.9% |
| <u>Incarcerated</u> | | <u>Incarcerated</u> | |
| Whitsitt: | 0.4% | Whitsitt: | 0.0-0.7% |
| Other Maryland programs: | 0.2% | Other Maryland programs: | 0.1-0.4% |
| State total: | 0.2% | State total: | 0.1-0.4% |
| <u>Health problem</u> | | <u>Health problem</u> | |
| Whitsitt: | 0.0% | Whitsitt: | 0.0-1.7% |
| Other Maryland programs: | 0.2% | Other Maryland programs: | 0.0-1.3% |
| State total: | 0.2% | State total: | 0.0-1.4% |
| <u>Non-compliance with program rules</u> | | <u>Non-compliance with program rules</u> | |
| Whitsitt: | 3.7% | Whitsitt: | 3.5-6.7% |
| Other Maryland programs: | 5.3% | Other Maryland programs: | 3.8-5.9% |
| State total: | 5.2% | State total: | 3.8-5.8% |
| <u>Patient left before completing program</u> | | <u>Patient left before completing program</u> | |
| Whitsitt: | 12.5% | Whitsitt: | 12.5-20.5% |
| Other Maryland programs: | 11.4% | Other Maryland programs: | 11.4-14.3% |
| State total: | 11.4% | State total: | 11.4-14.3% |

Table 8: Enrollment to Other Levels of Substance Abuse Treatment (% of All Discharges) within 30 Days of Discharge from ADAA-Funded Level III.7 (medically monitored intensive inpatient services)

2009

To Level I (outpatient treatment)

| | |
|--------------------------|-------|
| Whitsitt: | 21.9% |
| Other Maryland programs: | 6.8% |
| State total: | 7.4% |

To Level III.3/III.5 (clinically managed residential treatment: medium- to high-intensity)

| | |
|--------------------------|------|
| Whitsitt: | 0.4% |
| Other Maryland programs: | 3.8% |
| State total: | 3.6% |

To Level II.1/II.5 (intensive outpatient treatment/partial hospitalization)

| | |
|--------------------------|-------|
| Whitsitt: | 2.7% |
| Other Maryland programs: | 13.3% |
| State total: | 12.8% |

To other treatment programs

| | |
|--------------------------|------|
| Whitsitt: | 0.9% |
| Other Maryland programs: | 1.5% |
| State total: | 1.5% |

To Level III.1 (clinically managed low-intensity residential treatment)

| | |
|--------------------------|-------|
| Whitsitt: | 14.7% |
| Other Maryland programs: | 8.4% |
| State total: | 8.7% |

Table 8 continued: Enrollment to Other Levels of Substance Abuse Treatment (% of All Discharges) within 30 Days of Discharge from ADAA-Funded Level III.7 (medically monitored intensive inpatient services)

Range - 2005-2009

To Level I (outpatient treatment)

| | |
|--------------------------|------------|
| Whitsitt: | 20.0-27.5% |
| Other Maryland programs: | 6.8 - 9.5% |
| State total: | 7.4-10.3% |

To Level III.3/III.5 (clinically managed residential treatment: medium- to high-intensity)

| | |
|--------------------------|----------|
| Whitsitt: | 0.0-1.9% |
| Other Maryland programs: | 3.4-4.1% |
| State total: | 3.4-4.0% |

To Level II.1/II.5 (intensive outpatient treatment/partial hospitalization)

| | |
|--------------------------|-----------|
| Whitsitt: | 0.5-14.0% |
| Other Maryland programs: | 8.9-13.7% |
| State total: | 8.7-13.2% |

To other treatment programs

| | |
|--------------------------|----------|
| Whitsitt: | 0.0-3.3% |
| Other Maryland programs: | 1.1-3.2% |
| State total: | 1.1-3.0% |

To Level III.1 (clinically managed low-intensity residential treatment)

| | |
|--------------------------|------------|
| Whitsitt: | 1.0-14.7% |
| Other Maryland programs: | 7.4 - 8.9% |
| State total: | 7.5 - 8.9% |

Table 9: Substance Use at Admission and Discharge (% of All Patients Admitted and Discharged) from ADAA-Funded Level III.7 (medically monitored intensive inpatient services)

| 2009 | | Range-2005 to 2009 | |
|--------------------------|-------|---------------------------|------------|
| Whitsitt Center: | | Whitsitt Center: | |
| At admission | 94.1% | At admission | 94.1-98.3% |
| At discharge | 3.7% | At discharge | 0.3 - 3.7% |
| Other Maryland programs: | | Other Maryland programs: | |
| At admission | 95.4% | At admission | 90.8-95.4% |
| At discharge | 18.9% | At discharge | 18.9-53.0% |

As shown in this summary data, Whitsitt reports performance that compares favorably with the experience of other Maryland substance abuse ICFs with respect to the length of stay of detoxification patients, the proportion of detoxification patients completing treatment, the proportion of detoxification patients continuing treatment after discharge, the proportion of residential treatment patients completing treatment, the proportion of residential patients continuing treatment after discharge, and the number of discharged residential patients using substances at the time of discharge.

Whitsitt is not accredited by The Joint Commission or CARF. It reports that it was CARF-accredited for approximately ten years but allowed this accreditation to lapse in January, 2009 because of the expense of accreditation and an assessment that accreditation was not required by health insurers as a condition of reimbursement or by DHMH as a condition of licensure. The Center believes it remains compliant with CARF accreditation standards and commits to reaccreditation. It reports that application was made to CARF in December, 2009 and a survey for reaccreditation is anticipated in April, 2010. The facility is certified by the Office of Health Care Quality of the Department of Health and Mental Hygiene.

With respect to the "Quality of Care" policies, Whitsitt measures performance and reported performance is strong relative to overall performance by comparable programs in the state. However, the Center does not fully comply, currently, with Policy 3.1. While the facility may be correct that it has continued to operate in a manner consistent with accreditation standards, this policy is intended to provide independent, validated assurance that ICF services for substance abusers function at peer-reviewed levels of quality.

Given that the Center has a history of CARF accreditation for most of its recent past and has committed to regain this accreditation status, MHCC staff recommends that the approval of this project be conditioned on achieving CARF or Joint Commission accreditation within one-year of CON approval. The recommended condition is as follows:

The A. F. Whitsitt Center will be accredited by The Joint Commission or the Commission on Accreditation of Rehabilitation Facilities no later than one year following award of this Certificate of Need.

Data Collection Systems

Policy 4.0 **The Commission will support efforts to develop a more comprehensive and integrated data collection and management system administered by the Alcohol and Drug Abuse Administration through the Substance Abuse Management Information System (SAMIS) to obtain data required to plan for needed services, to evaluate outcomes, and to assess treatment innovations.**

Policy 4.1 **The Commission will support efforts to require all public and private intermediate care facilities to report on a regular basis to SAMIS data required to support planning for services.**

Whitsitt states that admission and discharge data for all publicly-funded patients is entered into a statewide data base and entry of a more complete field of data (“the full electronic record available in SMART”) will be required by ADAA by July 1 of this year. The data is used by jurisdictions to monitor program quality, efficiency, and utilization and provides the information needed for program planning and evaluation. Based on the information provided, ADAA and ICF facilities like Whitsitt have largely implemented the data collection systems policies outlined in the State Health Plan, at least with respect to the publicly-funded patient population which makes up the bulk of the patients served by Whitsitt.

The Continuum of Care

Policy 5.0 **Each jurisdiction or region should have a balanced service system with increased capacity for intensive, rehabilitative and other kinds of outpatient and community based services, where needed.**

Policy 5.1 **The Commission, in cooperation with the Alcohol and Drug Abuse Administration, should support the development of regionalized acute detoxification units.**

Whitsitt describes the Upper Eastern Shore as a region with a balanced service system, in which each jurisdiction coordinates substance abuse treatment services for its residents through a Local Drug and Alcohol Abuse Council, with representation from all involved agencies. These councils approve grant request submissions to the ADAA so that public funding reflects local plan priorities.

The Center, as the regional source for medically monitored intensive inpatient treatment and detoxification, accepts patients referred from surrounding jurisdictions and refers patients requiring less intensive care or continuing care following discharge to outpatient and community-based services throughout the region. It also works with local hospitals to assure care for patients requiring acute medical services and determine appropriate direction for patients presenting at hospital emergency departments with substance abuse disorders.

Whitsitt provided copies of agreements, including referral agreements, memorandums of understanding concerning outpatient service delivery during emergency agency closures,

M.O.U.s for service coordination, and Qualified Service Organization Agreements, between Whitsitt and the following organizations:

Addiction Connections Resource, Inc.,
Harford County
Caroline Counseling Center/Caroline
County Health Department
Cecil County Addictions/Cecil County
Health Department
Chester River Hospital
Chestertown Family Medicine
Dorchester County Addictions/Dorchester
County Health Department
For All Seasons
Hope House
Hudson Center
Kent County Outpatient Mental Health/
Kent County Health Department -
Kirkwood Detox

Memorial Hospital, Shore Behavioral Health
Services
Mid Shore Council on Family Violence
Patricia Ann O'Connor (grief counseling)
Publick House
Queen Anne's County Addictions/
Queen Anne's County Alcohol and Drug
Abuse Services/Queen Anne's County
Health Department
Talbot County Addictions/Talbot County
Health Department
Warwick Manor Behavioral Health
Wicomico County Health Department
Worcester County Health Department

Whitsitt has operated a detoxification unit, designating four of its 24 beds for this purpose, since late 2000. It serves the Upper Eastern Shore region.

Based on the information provided, the Upper Eastern Shore is a region that functions with a continuum of care for the treatment of alcohol and drug abuse and Whitsitt plays an appropriate role in this continuum.

***COMAR 10.24.14.04 — Docketing Requirements for Certificate of Need
Applications to Establish Intermediate Care Facilities Providing Substance
Abuse Treatment Services***

A. The following requirements apply to both Track One and Track Two Certificate of Need applications.⁴

(1) The Commission will docket Certificate of Need applications from applicants that apply only for either private bed capacity (Track One) or publicly-funded bed capacity (Track Two).

Whitsitt is proposing to add only Track Two bed capacity.

(2) The Commission will docket a Certificate of Need application for expansion of an existing intermediate care facility only if the applicant has been operating the facility for at least two years and is documented by the Alcohol and Drug Abuse Administration's Substance Abuse Management Information System (SAMIS) as having an 85 percent occupancy rate for two consecutive years prior to the applicant's letter of intent.

⁴ "Track One" ICF beds are not sponsored by local jurisdictions and do not have significant funding by the State or local jurisdiction. "Track Two" ICF beds are owned and wholly operated by the State or substantially funded by the budget process of the State or in facilities substantially funded by one or more jurisdictional governments, which are established jointly by providers and the jurisdiction or jurisdictions to meet the special needs of their residents.

Whitsitt is an existing ICF proposing expansion and has been operating since 1981. However, it reports that average annual occupancy of its 24 beds has not reached 85 percent in the most recent completed two years of operation. In fiscal year (“FY”) 2008, it operated at an average annual occupancy rate of 83.5% and, in FY 2009, it operated at a reported average annual occupancy rate of 76.0%.

The Center asks the Commission to consider the bed occupancy threshold of this docketing requirement in the context of the two types of ICF beds it operates. As previously noted, 20 of Whitsitt’s 24 ICF beds are funded through the Alcohol and Drug Administration (“ADAA”) of DHMH, with the remaining four beds purchased through insurance and private contracts. The facility reports that, in FY 2008, an average of 91% of its 20 “public” or “grant-funded” beds were occupied on a daily basis. In FY 2009, it reports that these grant-funded beds operated at an average annual occupancy rate of 98%.⁵ As a consequence, it reports that over 200 persons requesting admission to a grant-funded bed in FY 2009 were denied admission, because of high bed occupancy. Whitsitt projects that incorporating the additional beds being eliminated from the Upper Shore facility as ICF beds specializing in the treatment of persons with a dual diagnosis of substance abuse and mental disorder, a move that will also transfer the bulk of the patient population historically served by this Upper Shore unit to Whitsitt, will have the effect of raising its average annual ICF bed occupancy rate. The Center projects that, in FY 2010, a fiscal year that will include 4 months during which Whitsitt will operate as an expanded facility, average annual occupancy will remain steady at 76.0%. In the following fiscal year, the first full year of operating with 40 ICF beds, the Center projects an average annual occupancy rate of 88.2%.

This narrative suggests that inpatient treatment resources in the Upper Eastern Shore for persons without insurance or financial means to pay for treatment have been substantially underfunded in recent years. Whitsitt reports a total of 470 total admissions in FY 2009, a number that represents, by the Center’s admission, significant double-counting, given that it is comprised of 185 admissions of patients for detoxification and 285 admissions of patients for residential ICF treatment and over 90% of the patients completing detoxification “roll over” to ICF care. This indicates that for every three persons admitted to Whitsitt, approximately two are denied admission due to the lack of availability of an appropriately funded bed. This project, in and of itself, will not necessarily result in substantial improvement in the ICF bed availability problem outlined, given that it has the primary effect of maintaining facilities for a portion of a different patient population that has been historically managed by Upper Shore. However, the data suggest that overall bed occupancy is not a logical basis for evaluating compliance of this project with this docketing requirement. The issue addressed by this docketing requirement is sufficiency of demand as a justification of adding beds to an existing facility. In this case, Whitsitt is claiming that its recent average annual occupancy rates, while below the threshold, are not an indicator that it has sufficient ICF bed capacity for the primary population it serves,

⁵ This figure of 98% average annual occupancy is not consistent with reported patient day totals for FY 2009 and, thus, must be an overstatement. ADAA was unable to clarify this inconsistency. There were sufficient patient days for the publicly-funded beds to operate at a high average annual occupancy rate, in excess of 85%, but the actual rate could not exceed 91.2% if the underlying data is correct.

the indigent and/or uninsured. For this reason, this docketing requirement should not bar docketing of this CON application for review.

B. The following requirements apply only to applicants for Track One, substance abuse intermediate care facility beds:

(1) The Commission will docket a Certificate of Need for Track One for private beds, as defined in Regulation .08 of this Chapter, only if the applicant:

(a) Proposes to reserve 30 percent or more of its proposed annual adolescent intermediate care facility bed days for indigent and gray area patients; and

(b) Proposes to reserve 15 percent or more of its proposed annual adult intermediate care facility bed days for indigent or gray area patients.

(2) The Commission will docket a Certificate of Need application to increase the number of beds in an existing Track One intermediate care facility providing alcohol and drug abuse treatment only if the facility can demonstrate that at least 15 percent of its annual patient days in the preceding 12 months were generated by a charity care, indigent, or gray area population, including publicly-funded patients.

This docketing requirement is not applicable to the proposed project, which involves expansion of a Track Two ICF.

C. The following docketing requirements apply only to applicants to establish a Track Two intermediate care facility for substance abuse treatment.

(1) The Commission will docket a Certificate of Need for publicly-funded beds, as defined in Regulation .08 of this Chapter, only if the applicant proposes to reserve 50 percent or more of its proposed annual adolescent or adult intermediate care facility bed days for indigent and gray area patients.

(2) The Commission will docket a Certificate of Need application for new publicly-funded beds, as defined in Regulation .08 of this Chapter, to establish a new intermediate care facility, or to expand an existing facility only if the applicant:

(a) Provides a signed letter of commitment from the Alcohol and Drug Abuse Administration, or a signed agreement with one or more state or jurisdictional authorities that documents sufficient funding for the bed and service capacity proposed at the new facility, and

(b) Documents, through Memoranda of Understanding (MOUs), linkages with related state and local government agencies, defining:

(i) Areas of cooperation and shared responsibilities; and

(ii) The applicant's agreement to screen, evaluate, diagnose, and treat individuals with alcohol or drug diagnoses, including uninsured, underinsured, and court-committed persons;

(c) Documents that if the affected jurisdiction or region has a written plan that shows the need for the applicant's proposed service and that the applicant's proposal is consistent with the local plan(s);

(d) Documents that the applicant, in cooperation with the Mental Hygiene Administration and the Alcohol and Drug Abuse Administration will use approved admission criteria, to assure proper placement of mentally ill substance abusers, and will:

- (i) **Treat mildly mentally ill substance abusers;**
 - (ii) **Treat or refer the moderately mentally ill substance abuser to a more appropriate facility and program; and**
 - (iii) **Refer the severely mentally ill substance abuser to a facility with a medically appropriate level of care.**
- (e) **Documents that the applicant will provide priority to each affected jurisdiction's residents for admission to the facility, regardless of their ability to pay for treatment.**
- (f) **Documents that the entire facility, including existing and proposed intermediate care facility beds, will meet the annualized indigent and gray area requirements as specified in Regulation .08.**

With respect to C(1) above, Whitsitt notes, as previously reported, that 77% of its patients are indigent or gray area patients and also states that these patients will continue to be given priority in allocation of beds.

With respect to C(2)(a) above, the Center has provided a copy of a December 28, 2009 letter from Kathleen Rebbert-Franklin, L.C.S.W.-C., Deputy Director of ADAA, stating that ADAA "commits to providing sufficient funding for the new bed and service capacity expansion project proposed at the Whitsitt Center." The letter notes that ADAA "has committed \$389,650 to support the proposed bed and service capacity expansion" for the period of March 1, 2010 through June 30, 2010 and "\$1,434,352 in FY 2011 and an equal amount adjusted for inflation in the out years to support this expansion effort."

With respect to C(2)(b), as previously noted, Whitsitt provided copies of agreements with 20 organizations or subunits of these organizations, including referral agreements, memorandums of understanding concerning outpatient service delivery during emergency agency closures, M.O.U.s for service coordination, and Qualified Service Organization Agreements.

With respect to C(2)(c), the Center submitted a copy of the Kent County Strategic Plan for Behavioral Health, reported to have been last updated in July, 2009, developed and adopted by the Kent County Behavioral Health Council. One of this Plan's "Treatment" objectives is supportive of the proposed project. It reads, as follows:

Increase residential treatment capacity for individuals with co-occurring disorders (20 beds) and women with children (5 beds). Dually diagnosed capable (A. F. Whitsitt Center is a 24 bed dually diagnosed capable facility.) The addition of 25 additional beds (or a new regional facility) would lower the waiting period for an individual to wait for services.

With respect to C(2)(d), the applicant notes that ADAA requires use of the patient placement criteria of the American Society of Addiction Medicine and that patient diagnosis is based on DSM-IV-TR (Diagnostic and Statistical Manual, Fourth Edition, Text Revision) It states that it treats mildly mentally ill substance abusers and will continue to do so. It has historically referred moderately to severely mentally ill substance abusers to appropriate

facilities, but this project will allow it to treat moderately mentally ill substance abusing patients. Patients with a substance abuse disorder and severe mental illness would continue to be referred to general acute care hospital with psychiatric services or Eastern Shore Hospital Center.

With respect to C(2)(e) and (f), Whitsitt reiterates its priority commitment to serving indigent and gray area patients, as defined by the State Health Plan. These patients would originate from Kent and surrounding and nearby jurisdictions served by the Center, who would be admitted regardless of their ability to pay for treatment, subject only to service capacity limitations. The proposed project is consistent with these docketing requirements.

COMAR 10.24.14.05 — Certificate of Need Approval Rules and Review Standards for New Substance Abuse Treatment Facilities and for Expansion of Existing Facilities

A. Approval Rules Related To Facility Size. Unless the applicant demonstrates why a relevant standard should not apply, the following standards apply to applicants seeking to establish or to expand either a Track One or a Track Two intermediate care facility.

(1) The Commission will approve a Certificate of Need application for an intermediate care facility having less than 15 beds only if the applicant dedicates a special population as defined in Regulation .08.

(2) The Commission will approve a Certificate of Need application for a new intermediate care facility only if the facility will have no more than 40 adolescent or 50 adult intermediate care facility beds, or a total of 90 beds, if the applicant is applying to serve both age groups.

(3) The Commission will not approve a Certificate of Need application for expansion of an existing alcohol and drug abuse intermediate care facility if its approval would result in the facility exceeding a total of 40 adolescent or 100 adult intermediate care facility beds, or a total of 140 beds, if the applicant is applying to serve both age groups.

Only standard A(3) is applicable to this project. The proposed ICF expansion would result in a facility of 40 adult beds. Thus, the project is consistent with this standard.

B. Identification of Intermediate Care Facility Alcohol and Drug Abuse Bed Need.

(1) An applicant seeking Certificate of Need approval to establish or expand an intermediate care facility for substance abuse treatment services must apply under one of the two categories of bed need under this Chapter:

(a) For Track One, the Commission projects maximum need for alcohol and drug abuse intermediate care beds in a region using the need projection methodology in Regulation .07 of this Chapter and updates published in the *Maryland Register*.

(b) For Track Two, as defined at Regulation .08, an applicant who proposes to provide 50 percent or more of its patient days annually to indigent and gray area patients may apply for:

(i) **Publicly-funded beds, as defined in Regulation .08 of this Chapter, consistent with the level of funding provided by the Maryland Medical Assistance Programs (MMAP), Alcohol and Drug Abuse Administration, or a local jurisdiction or jurisdictions; and**

(ii) **A number of beds to be used for private-pay patients in accordance with Regulation .08, in addition to the number of beds projected to be needed in Regulation .07 of this Chapter.**

(2) **To establish or to expand a Track Two intermediate care facility, an applicant must:**

(a) **Document the need for the number and types of beds being applied for;**

(b) **Agree to co-mingle publicly-funded and private-pay patients within the facility;**

(c) **Assure that indigents, including court-referrals, will receive preference for admission, and**

(d) **Agree that, if either the Alcohol and Drug Abuse Administration, or a local jurisdiction terminates the contractual agreement and funding for the facility's clients, the facility will notify the Commission and the Office of Health Care Quality within 15 days that the facility is relinquishing its certification to operate, and will not use either its publicly- or privately-funded intermediate care facility beds for private-pay patients without obtaining a new Certificate of Need.**

With respect to Part (1) of this standard, Whitsitt is a Track Two facility, as defined in the State Health Plan, which proposes to provide 50 percent or more of its patient days annually to indigent and gray area patients. It proposes to operate publicly-funded beds, as defined in the State Health Plan, consistent with the level of funding provided by the Alcohol and Drug Abuse Administration. It will continue to have beds used for private-pay patients.

With respect to Part (2), the Center has documented the need for the number and types of beds being applied for. It is expanding by integrating an existing mental health/substance abuse treatment program, historically operated by Upper Shore, into its existing ICF and plans on serving most of the patient population which that program historically served. It notes that it maintains a waiting list for its grant-funded beds. The Center currently co-mingles publicly-funded and private-pay patients within the facility and will continue this practice. Whitsitt will continue its current practice of assuring that indigents, including court-referrals, will receive preference for admission. Finally, the Center agrees to notify MHCC and the Office of Health Care Quality of DHMH within 15 days if the certification to operate the facility is relinquished and will not use either publicly- or privately-funded ICF beds for private-pay patients without obtaining a new Certificate of Need.

The proposed project is consistent with this standard.

C. Sliding Fee Scale. An applicant must establish a sliding fee scale for gray area patients consistent with the client's ability to pay.

Whitsitt provided a copy of the ADAA “Ability to Pay Schedule” which it is required to use. It establishes a standard personal allowance and a “family allowance” scale based on the published federal poverty index. These are deducted from a prospective patient’s net family or household income and further adjustments may be made for job-related transportation expenses, medical bills, and living expenses in excess of the family allowance, to calculate a net monthly allowable income. This is translated into a daily amount available by dividing by 30 and the lower of this amount or the DHMH approved daily program rate is the daily amount to be charged. Whitsitt complies with this standard.

D. Information Regarding Charges. An applicant must agree to post information concerning charges for services, and the range and types of services provided, in a conspicuous place, and must document that this information is available to the public upon request.

Whitsitt states that it will comply with this standard. It states that it has historically posted information concerning charges for services and the range and types of services provided in the patient day room and the patient bulletin board located across from the nursing station. It states that it does not have a policy addressing the availability of charge information to the requesting members of the public but its practice has been to provide charge and fee information to any interested party requesting such information. Whitsitt complies with this standard.

E. Location. An applicant seeking to establish a new intermediate care facility must propose a location within a 30-minute one-way travel time by automobile to an acute care hospital.

While not directly applicable to this project, the Center reports that it is located within a 5-minute drive of Chester River Hospital.

F. Age Groups.

(1) An applicant must identify the number of adolescent and adult beds for which it is applying, and document age-specific treatment protocols for adolescents ages 12-17 and adults ages 18 and older.

(2) If the applicant is proposing both adolescent and adult beds, it must document that it will provide a separate physical, therapeutic, and educational environment consistent with the treatment needs of each age group including, for adolescents, providing for continuation of formal education.

(3) A facility proposing to convert existing adolescent intermediate care substance abuse treatment beds to adult beds, or to convert existing adult beds to adolescent beds, must obtain a Certificate of Need.

Whitsitt serves an adult population and will continue to only serve adults, aged 18 and older, in the expanded facility.

G. Quality Assurance.

(1) An applicant must seek accreditation by an appropriate entity, either the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO), in

accordance with CFR, Title 42, Part 440, Section 160, the CARF...The Rehabilitation Accreditation Commission, or any other accrediting body approved by the Department of Health and Mental Hygiene. The appropriate accreditation must be obtained before a Certificate of Need-approved ICF begins operation, and must be maintained as a condition of continuing authority to operate an ICF for substance abuse treatment in Maryland.

(a) An applicant seeking to expand an existing ICF must document that its accreditation continues in good standing, and an applicant seeking to establish an ICF must agree to apply for, and obtain, accreditation prior to the first use review required under COMAR 10.24.01.18; and

(b) An ICF that loses its accreditation must notify the Commission and the Office of Health Care Quality in writing within fifteen days after it receives notice that its accreditation has been revoked or suspended.

(c) An ICF that loses its accreditation may be permitted to continue operation on a provisional basis, pending remediation of any deficiency that caused its accreditation to be revoked, if the Office of Health Care Quality advises the Commission that its continued operation is in the public interest.

(2) A Certificate of Need-approved ICF must be certified by the Office of Health Care Quality before it begins operation, and must maintain that certification as a condition of continuing authority to operate an ICF for substance abuse treatment in Maryland.

(a) An applicant seeking to expand an existing ICF must document that its certification continues in good standing, and an applicant seeking to establish an ICF must agree to apply for certification by the time it requests that Commission staff perform the first use review required under COMAR 10.24.01.18.

(b) An ICF that loses its State certification must notify the Commission in writing within fifteen days after it receives notice that its accreditation has been revoked or suspended, and must cease operation until the Office of Health Care Quality notifies the Commission that deficiencies have been corrected.

(c) Effective on the date that the Office of Health Care Quality revokes State certification from an ICF, the regulations at COMAR 10.24.01.03C governing temporary delicensure of a health care facility apply to the affected ICF bed capacity.

With respect to Part (1) of this standard, as previously noted, Whitsitt is not accredited by The Joint Commission or CARF. It reports that it was CARF-accredited for approximately ten years but allowed this accreditation to lapse in January, 2009 because of the expense of accreditation and an assessment that accreditation was not required by health insurers as a condition of reimbursement or by DHMH as a condition of licensure. The Center believes it remains compliant with CARF accreditation standards and commits to reaccreditation. It reports that application was made to CARF in December, 2009 and a survey for reaccreditation is anticipated in April, 2010.

Given that the Center has a history of CARF accreditation for most of its recent past and has committed to regain this accreditation status, MHCC staff recommends that the approval of this project be conditioned on achieving CARF or Joint Commission accreditation within one-year of CON approval. The recommended condition is as follows:

The A. F. Whitsitt Center will be accredited by The Joint Commission or the Commission on Accreditation of Rehabilitation Facilities no later than one year following award of this Certificate of Need.

With respect to Part (2) of this standard, the facility is certified by the Office of Health Care Quality of DHMH and its certification remains in good standing.

H. Utilization Review and Control Programs.

(1) An applicant must document the commitment to participate in utilization review and control programs, and have treatment protocols, including written policies governing admission, length of stay, discharge planning, and referral.

(2) An applicant must document that each patient's treatment plan includes, or will include, at least one year of aftercare following discharge from the facility.

Whitsitt provided copies of the following policies: "Screening and Access to Services;" "Admission Criteria;" "Referrals to the Center;" "Continued Stay;" "External Referrals;" and "Transitional/Recovery Support Services Planning." It also provided a statement of its treatment "Philosophy," its policies governing the development of annual "Program Goals" and "Program Evaluation," its policies governing methadone dispensing, the information material provided to patients, including a statement of "Patient Rights," "Boundaries for Whitsitt Patients," "Program Rules," a statement about "Working the Program," a general "Information" sheet, and "Food Service Information," "Information for the Family," "Guidelines for Twelve Step Meetings," and a "Notice of Privacy Practices." It states a commitment to utilization review and control.

With respect to Part (2) of this standard, the Center notes that it does not directly provide aftercare services. Most patients are referred to Whitsitt for detoxification and inpatient treatment from the region's outpatient programs and are referred back to these programs for continuing treatment. These programs do not place limits on the length of continuing care. They will continue to treat patients as long as they meet the American Society for Addiction Medicine criteria for treatment.

The facility is in compliance with this standard.

I. Transfer and Referral Agreements.

(1) An applicant must have written transfer and referral agreements with facilities capable of managing cases which exceed, extend, or complement its own capabilities, including facilities which provide inpatient, intensive and general outpatient programs, halfway house placement, long-term care, aftercare, and other types of appropriate follow-up treatment.

(2) The applicant must provide documentation of its transfer and referral agreements, in the form of letters of agreement or acknowledgement from the following types of facilities:

- (a) Acute care hospitals;**
- (b) Halfway houses, therapeutic communities, long-term care facilities, and local alcohol and drug abuse intensive and other outpatient programs;**

- (c) **Local community mental health center or center(s);**
- (d) **The jurisdiction's mental health and alcohol and drug abuse authorities;**
- (e) **The Alcohol and Drug Abuse Administration and the Mental Hygiene Administration;**
- (f) **The jurisdiction's agencies that provide prevention, education, driving-while-intoxicated programs, family counseling, and other services; and,**
- (g) **The Department of Juvenile Justice and local juvenile justice authorities, if applying for beds to serve adolescents.**

As previously noted, Whitsitt provided copies of agreements with 20 organizations or subunits of these organizations, including referral agreements, memorandums of understanding (“MOUs”) concerning outpatient service delivery during emergency agency closures, MOUs for service coordination, and Qualified Service Organization Agreements. This included agreements with acute care hospitals, halfway houses, therapeutic communities, local alcohol and drug abuse intensive and other outpatient programs, and agencies involved in prevention of substance abuse, education, and counseling. With respect to Part (c) of this standard, the outpatient mental health center of Upper Shore will continue to operate on the same campus as Whitsitt. With respect to Part (d), Whitsitt is operated by the Kent County Department of Health. Part (g) of the standard is not applicable to Whitsitt. The Center states it will develop MOUs with mental health facilities because, with the proposed project, it is expanding to serve a patient population with a greater range and a higher severity level of co-occurring mental illnesses.

Whitsitt complies with this standard.

J. Sources of Referral.

(1) **An applicant proposing to establish a new Track Two facility must document to demonstrate that 50 percent of the facility’s annual patient days, consistent with Regulation .08 of this Chapter, will be generated by the indigent or gray area population, including days paid under a contract with the Alcohol and Drug Abuse Administration or a jurisdictional alcohol or drug abuse authority.**

(2) **An applicant proposing to establish a new Track One facility must document referral agreements to demonstrate that 15 percent of the facility’s annual patient days required by Regulation .08 of this Chapter will be incurred by the indigent or gray area populations, including days paid under a contract with the Alcohol or Drug Abuse Administration or a jurisdictional alcohol or drug abuse authority, or the Medical Assistance program.**

As previously noted, Whitsitt is a Track Two facility, as defined in the State Health Plan, that proposes to provide 50 percent or more of its patient days annually to indigent and gray area patients. (It reports that over 77% of admissions in FY 2009 were indigent or gray area patients and 66% were uninsured.) The Center proposes to operate publicly-funded beds, as defined in the State Health Plan, consistent with the level of funding provided by the Alcohol and Drug Abuse Administration. The proposed project is consistent with this standard.

K. In-Service Education. An applicant must document that it will institute or, if an existing facility, maintain a standardized in-service orientation and continuing education program for all categories of direct service personnel, whether paid or volunteer.

Whitsitt states that it “maintains a standardized in-service orientation and continued education program for all of its employees.” It provided a copy of its Employee Orientation materials. The applicant is consistent with this standard.

L. Sub-Acute Detoxification. An applicant must demonstrate its capacity to admit and treat alcohol or drug abusers requiring sub-acute detoxification by documenting appropriate admission standards, treatment protocols, staffing standards, and physical plant configuration.

Whitsitt provides sub-acute detoxification. It reported 185 admissions for detoxification in FY 2009 and 1,144 detoxification patient days. As previously noted, the Center provided copies of its adopted policies for “Screening and Access to Services,” its “Admission Criteria,” “Referrals to the Center,” “Continued Stay,” “External Referrals,” and “Transitional/Recovery Support Services Planning.” With respect to physical plant configuration, the facility states that “the number of ICF beds used for detoxification at any point in time varies based on the needs of the admitted patients.” It has recently operated with 4 designated detoxification beds within its overall ICF bed capacity of 24. It believes that up to ten detoxification patients could be managed within the overall 40-bed capacity of the expanded facility, with the staffing increases it plans. Detoxification services are staffed round-the-clock with professional nurses and a physician Medical Director is present or on call at all times for medical detoxification orders.

The proposed project complies with this standard.

M. Voluntary Counseling, Testing, and Treatment Protocols for Human Immunodeficiency Virus (HIV). An applicant must demonstrate that it has procedures to train staff in appropriate methods of infection control and specialized counseling for HIV-positive persons and active AIDS patients.

Whitsitt states that it will provide voluntary counseling and testing for HIV infection, with counseling provided prior to any testing, through staff trained by DHMH, and available post-testing. The Center states that all patients receive education on HIV/AIDS, other sexually transmitted diseases, tuberculosis, and hepatitis. Based on the information and assurances provided, the applicant is consistent with this standard.

N. Outpatient Alcohol & Drug Abuse Programs.

(1) An applicant must develop and document an outpatient program to provide, at a minimum: individual needs assessment and evaluation; individual, family, and group counseling; aftercare; and information and referral for at least one year after each patient’s discharge from the intermediate care facility.

(2) An applicant must document continuity of care and appropriate staffing at off-site outpatient programs.

(3) Outpatient programs must identify special populations as defined in

Regulation. 08, in their service areas and provide outreach and outpatient services to meet their needs.

(4) Outpatient programs must demonstrate the ability to provide services in the evening and on weekends.

(5) An applicant may demonstrate that outpatient programs are available to its patients, or proposed patient population, through written referral agreements that meet the requirements of (1) through (4) of this standard with existing outpatient programs.

All of the Upper Eastern Shore jurisdictions served by Whitsitt provide outpatient alcohol and drug abuse services, which refer patients to Whitsitt and are used for on-going treatment of patients discharged from the residential programs of Whitsitt. This is the model that has been historically used, rather than direct provision by Whitsitt of outpatient services and Whitsitt believes that it provides appropriate individual needs assessment and evaluation, counseling, continuity of care, staffing, and outreach. These programs are overseen by the Office of Health Care Quality of DHMH and Whitsitt's Admissions Coordinator tracks the status of discharged patients enrolling in these programs. The programs do not place limits on the length of continuing care. They will continue to treat patients as long as they meet the American Society for Addiction Medicine criteria for treatment. The programs identify special populations and work with Whitsitt to determine priority for admission. Evening hours are available and crisis services and Twelve Step meetings are operated on weekends. As previously noted, the Center provided copies of agreements with these outpatient substance abuse programs.

The proposed project complies with this standard.

O. Program Reporting. Applicants must agree to report, on a monthly basis, utilization data and other required information to the Alcohol and Drug Abuse Administration's Substance Abuse Management Information System (SAMIS) program, and participate in any comparable data collection program specified by the Department of Health and Mental Hygiene.

Utilization data and other information is reported by Whitsitt on a monthly basis to ADAA's SMART data system. (See evaluation of the State Health Plan's Quality of Care policies, page 8.) The applicant complies with this standard.

***COMAR 10.24.14.06 — Preferences for Certificate of Need Approval and
COMAR 10.24.14.07 — Bed Need Projection Methodologies***

These components of COMAR 10.24.14 are not applicable to this project. Part .06 outlines criteria to be used by MHCC in a comparative review of applicants for private ICF bed capacity. This project is a non-comparative review of a proposed expansion of a public ICF.

Part .07 outlines a method for projecting the need for private ICF beds. There is no bed need methodology for public ICF beds. (See Policy 1.0 respecting "access" to services for indigent and gray area patients.)

B. Need

COMAR 10.24.01.08G(3)(b) states “The Commission shall consider the applicable need analysis in the State Health Plan. If no State Health Plan need analysis is applicable, the Commission shall consider whether the applicant had demonstrated unmet needs of the population to be served, and established that the proposed project meets those needs.”

The applicant “approaches” the issue of need for the proposed project in terms of utilization of the Whitsitt Center, the closure of Upper Shore, and Whitsitt’s “role” in “mitigating” the impact of that closure, and need projection models.

With respect to utilization and the closure of Upper Shore, Whitsitt notes that 41% of its admissions in FY 2009 were substance abusers who also reported current mental health problems. The closure of Upper Shore, in the absence of the proposed Whitsitt expansion, would be projected to result in very high bed occupancy at Whitsitt (95-96% in the current and next fiscal year), given that half of Upper Shore’s beds were programmed to treat patients with dual diagnoses of mental illness and substance abuse and a large proportion of these patients, with mild to moderate mental health disorders, would look to Whitsitt as a treatment alternative. This would greatly exacerbate the already strained availability and accessibility of grant-funded ICF beds that, as previously reported, have a waiting list. The Center reports that over 200 requests for admission at Whitsitt in FY 2009 could not be fulfilled because of a lack of available grant-funded bed capacity. Furthermore, the expansion of Whitsitt will reduce the impact of Upper Shore’s closure on hospital emergency departments and existing outpatient substance abuse programs.

The Center outlines estimates from the National Household Survey on Drug Use and Health of the Substance Abuse and Mental Health Services Administration that the Upper Eastern Shore has just under 25,700 residents who experienced alcohol dependence or abuse and the number of persons whose need for treatment for these problems was unmet is 24,300. The Center estimates that approximately 11,000 residents experienced illicit drug dependence or abuse in the past year and that, of this group, 9,300 did not have their drug dependence or abuse treated. It estimates that approximately 8.4% of the population experiences these problems after adjusting for individuals who have problems with both alcohol and illicit drugs.

The information provided by Whitsitt adequately demonstrates that population demand for the publicly-funded substance abuse treatment services it has historically provided indicates a need for its services. With respect to the proposed project, a census of 18 patients in the 20-bed “Red” hospital unit of Upper Shore was reported on October 19, 2009⁶, a patient census that exceeds the number of “Red” unit beds (16) that Whitsitt proposes to incorporate into its ICF bed complement. Whitsitt projects that approximately 80% of the “Red” unit patients could be appropriately served in the ICF setting of the Center, suggesting that, at the time that the transition plan for Upper Shore was being finalized, the “Red” unit was treating 14-15 patients that could be appropriately served in the expanded Whitsitt “co-occurring” ICF unit. Thus, there is also documentation, based on the demand for substance abuse and mental illness treatment

⁶ *Alternative Services Plan for Upper Shore Community Mental Health Center*, DHMH, November 17, 2009.

services that Whitsitt proposes to provide, that the population of the Upper Eastern Shore needs these services.

It is important to recognize that this project does not embody an approach to meeting more of the unmet need for treating substance abuse in Maryland. This project reconfigures a major resource node on the Eastern Shore. Closure of the Upper Shore Community Mental Health Center's inpatient programs shifts the loci of inpatient care for severe and persistent mental health disorders to the general hospital setting and the State hospital in Cambridge. DHMH plans to augment community-based services and crisis response services to ameliorate the negative impact of the Upper Shore closure. This project will allow for continued use of the Upper Shore campus for a portion of the patient population who can be appropriately managed at the ICF level of care. This reduces the impact of the Upper Shore closure on other facilities and has the potential for reducing, over the longer-term, the cost to the State of treating these patients, because they will be cared for in a program with lower resource requirements than the acute hospital setting.

C. Availability of More Cost-Effective Alternatives

COMAR 10.24.01.08G(3)(c): “The Commission shall compare the cost-effectiveness of the proposed project with the cost-effectiveness of providing the service through alternative existing facilities, or through an alternative facility which has submitted a competitive application as part of a comparative review.”

The applicant in this case is not posed with the challenge of determining how best to introduce a new service that has been determined to be needed. The service that is the subject of this application, the simultaneous treatment of substance abuse and mental health disorders in patients who have such co-occurring conditions, has historically been provided on the Upper Shore/Whitsitt campus: by Upper Shore, for patients with mental health disorders of higher severity; and by Whitsitt, for patients with milder forms of mental illness. The essence of this project is a two-fold reconfiguration of how this service will continue to be delivered. First, a portion of this patient population historically served on the Chestertown campus – persons with severe and persistent mental health disorders – will obtain inpatient treatment at other hospital facilities. Secondly, Whitsitt projects the ability to continue to treat a majority of the patients historically served by transforming the Upper Shore “Red” hospital unit into an ICF unit. It projects the ability to staff this ICF treatment program at a substantially lower average cost per bed. Thus, to the extent that a level of effectiveness in patient treatment can be achieved in this reconfigured program that is comparable to that achieved in the Upper Shore “Red” unit, the project will represent a more cost effective model for this portion of “Red” unit’s historic patient population.

In addressing this review criterion, the applicant outlines an evolution of treatment practice and an evolution of patient care at Whitsitt that, together, frame the proposed project as a logical step for effectively treating a patient population requiring a level of care “competence” described as “Co-occurring Enhanced.” A unit operating at this level of competency can effectively manage severe substance abuse disorders⁷ that are co-occurring with moderate mental

⁷ I.e., a severity of disorder that it has been determined cannot be effectively managed on an outpatient basis and, thus, requires the residential treatment environment of the ICF.

health disorder.

First, with respect to its own evolution, Whitsitt already provides service at the “Co-occurring Capable” level of competence for patients with severe substance abuse disorders and a mild co-occurring mental health disorder and its role in caring for this dually-diagnosed patient population has been growing. It notes that, in 2002, approximately 26% of its patients were diagnosed with a mental health problem that accompanied their severe substance abuse disorder. By 2009, over 41% of its enrolled patients were in this dual-diagnosis group.

Secondly, the Center states that changes in practice supported by research have proven that, with additional staff and appropriate training, the patient population requiring “Co-occurring Enhanced” care competency can be effectively treated in the ICF setting rather than the acute hospital setting, which has been the historic practice at Upper Shore.

Thus, Whitsitt views the proposed move to incorporate the former hospital unit into its intermediate care facility as a timely part of the plan for phasing out the delivery of hospital-level care on the Upper Shore campus. In order to take on the new program, it is projecting a need to upgrade its direct care staffing, adding five full-time equivalent registered nursing staff positions (no RN supervisor, charge nurse, or floor RNs are currently employed by Whitsitt) and, overall, increasing the number of direct care FTEs by 89% (7.1 FTEs). This compares with an increase in bed capacity of 67%, underscoring the significant difference in the care needs of the patient population that Whitsitt proposes to take on with this proposed project. However, the Center reports 22.0 direct care FTEs were required for the operation of the 20-bed “Red” unit at Upper Shore, or 1.10 FTEs per bed. Whitsitt’s projected addition of 7.1 direct care FTEs can be viewed as implying a staffing ratio of just 0.44 FTEs per bed. This marginal analysis is probably less meaningful than comparing the reported staffing pattern of the “Red” unit to the overall Whitsitt program, given that it fails to account for any level of program integration. Whitsitt projects the ability to staff the proposed 40 bed ICF being created through this project with a total of 22.5 direct care FTEs (0.56 FTEs per bed).

Thus, the applicant has provided the Commission with information that allows for a comparison of the costs of providing substance abuse and mental illness treatment services to a portion of the patient population historically served by Upper Shore that demonstrates a significant cost saving.

DHMH believes that treatment of this patient population at the ICF level of care at the reduced staffing levels will be effective. The November, 2009 *Alternative Services Plan for Upper Shore Community Mental Health Center* states, in reference to persons “with behavioral health issues that include co-occurring substance abuse disorders and mental illness,” that “[t]hese individuals are generally well accommodated in a medically monitored intensive inpatient treatment program,” i.e., the ICF level of residential treatment. It notes that “[a] part-time psychiatrist and an additional medical doctor would be needed to provide psychiatric and detox services. The utilization of staff from the inpatient and outpatient units will maximize both cost effectiveness and efficiency.”

The applicant was asked to address performance of the “Red” unit. In response, it provided information on three performance indicators for a four-year period (FY 2006 through FY 2009); the “elopement (leaving treatment without notice) rate,” the “medication error rate,” and the “patient injury rate.” This information was provided for all of the Upper Shore hospital patient population, including both the “Red” and “Brown” units. (The applicant states that data for the “Red” unit alone was not available.) For all three indicators, the data showed that Upper Shore compared unfavorably with U.S. rates in FY 2006, but that improvement had occurred over the last four years and, by FY 2009, Upper Shore experienced a much lower elopement rate and medication error rate per thousand patient days than the U.S. rate and experienced a patient injury rate per thousand patient days that was approximately the same as the U.S. rate. It was stated that the expanded Whitsitt Center would need to add these performance measures to the indicators it has been monitoring with its integration of the “Red” unit.

Whitsitt was also asked to identify examples of other ICFs that were delivering a level of service similar to that proposed in this project, i.e., substance abusing patients with moderate levels of mental disorder and to comment on their success. It was unable to provide such information. It stated that there were no publicly funded facilities in Maryland providing this “enhanced” level of care to a co-occurring patient population. It also could not identify such facilities outside of Maryland.

Thus, the information that this applicant has provided supporting the ability of an ICF to be as effective or more effective than a psychiatric hospital setting in treating patients with severe substance abuse disorders and moderate levels of mental illness is much less definitive than the information it has put forward concerning the cost implications of this alternative service delivery model.

On balance, MHCC Staff believes that the applicant has satisfied the requirements of this review criterion and that MHCC should allow DHMH to implement this project. It is reasonable to conclude, based on the planning done by DHMH and the specific project plans outlined by Whitsitt in its application, that the Center can extend and enhance its existing treatment program, which already manages the care of a substantial number of patients with co-occurring substance abuse and mental health disorders, to appropriately care for patients with a marginally higher severity index of mental illness. A delivery model of this type, seeking to enhance a residential program model so that at least portions of a patient population that has historically used a hospitalization program model can be treated in a more cost-effective way, is a worthy experiment. However, given that this is, according to the applicant, a model that has not been tried before in Maryland in a publicly funded ICF and that the applicant failed to provide non-Maryland examples of how this model has functioned, MHCC staff recommends that approval of the project come with a condition that DHMH provide the Commission and the public with an evaluation of the program’s effectiveness in treating the types of patients that have been historically treated in Upper Shore’s “Red” unit. The following condition is recommended:

The Alcohol and Drug Abuse Administration of the Department of Health and Mental Hygiene will provide an annual evaluation of the performance of the A. F. Whitsitt Center in treating patients with co-occurring severe substance abuse disorders and moderate mental health disorders during the first two years following the expansion of

the A. F. Whitsitt Center. This evaluation will be contained in a report to the Maryland Health Care Commission and will provide information, at a minimum, on admissions, discharges, length of stay, reason for discharge, subsequent use of substance abuse/mental health treatment programs following discharge, substance use at admission and discharge, elopement, medication errors, and patient injuries. The evaluation report will compare the performance of the A. F. Whitsitt Center in treating publicly-funded patients with co-occurring severe substance abuse disorders and moderate mental health disorders and the performance of Department of Health and Mental Hygiene hospital facilities and/or private general acute care or special hospital facilities in treating publicly-funded patients with a similar diagnosis. The first report, covering the first year of operation of the expanded A. F. Whitsitt Center, will be due 18 months after expansion of the Center. The second report, covering the second year of operation, will be due 30 months after expansion of the Center.

D. Viability of the Proposal

COMAR 10.24.01.08G(3)(d): “The Commission shall consider the availability of financial and nonfinancial resources, including community support, necessary to implement the project within the time frames set forth in the Commission’s performance requirements, as well as the availability of resources necessary to sustain the project.”

As previously noted, the proposed project is not estimated to require any capital expenditure, given that the Upper Shore patient unit to be added to Whitsitt is already fully equipped and furnished and is located in the same building as the Center.

Whitsitt provided two years of revenue and expense data and projected revenues and expenses for the current fiscal year 2010 and for FY 2011, as presented in the following table. As will be seen, the Center is presenting a statement with equivalent levels of revenues and expenses, i.e., no net income or loss, and, based on two rounds of questions, does not appear to be able to present an accounting of revenue corresponding to MHCC’s standard schedule format. It stated that it did not maintain billing records that allowed it to report gross revenues or standard deductions from revenue, such as bad debts and contractual allowances, and thus, no calculation of net revenue based on this type of revenue accounting can be made. It asserts, in essence, that, as a State facility which primarily serves indigent patients through State grant funding, all of its necessary operating expenditures are ultimately underwritten by the State. It does not create a financial statement analogous to a balance statement and does not account for physical facilities depreciation in its expenses.

Whitsitt reports that in the most recent two completed fiscal years, 2008 and 2009, ADAA grant funding accounted for 79% and 77.5%, respectively, of total Center revenue while payments by patients accounted for 17.5% and 17.8%, respectively. Private insurance and payments by outside agencies accounted for only 3.3% of revenue in 2008 and 4.7% in 2009. Whitsitt projects a similar payor mix pattern in FY 2010 and 2011.

The applicant has provided a letter from the Alcohol and Drug Abuse Administration confirming the commitment of grant funding through FY 2011, adjusted for inflation. The letter notes that ADAA “has committed \$389,650 to support the proposed bed and service capacity

expansion” for the period of March 1, 2010 through June 30, 2010 and “\$1,434,352 in FY 2011 and an equal amount adjusted for inflation in the out years to support this expansion effort.”

**Table 10: Historic and Projected Revenues and Expenses
Whitsitt Center**

| | 2008 | 2009 | 2010 | 2011 |
|--|-------------|-------------|-------------|-------------|
| Revenue | \$1,363,546 | \$1,544,200 | \$1,938,938 | \$3,073,152 |
| Expenses | | | | |
| Salaries, Wages, & Professional Fees (including fringe benefits) | \$974,390 | \$960,806 | \$1,095,800 | \$1,950,730 |
| Supplies | 18,789 | 33,788 | 105,000 | 110,000 |
| Food Service | 102,875 | 150,821 | 225,000 | 325,000 |
| Utilities | 28,813 | 60,561 | 90,000 | 130,000 |
| Physicians | 88,369 | 98,924 | 150,000 | 200,000 |
| Miscellaneous | 150,309 | 239,351 | 273,138 | 357,422 |
| Total Expenses | \$1,363,546 | \$1,544,200 | \$1,938,938 | \$3,073,152 |
| Admissions | 467 | 470 | 574 | 865 |
| Patient Days | 7,332 | 6,658 | 8,142 | 12,877 |
| ICF Beds | 24 | 24 | 29.3* | 40 |
| Occupancy Percentage | 83.5% | 76.0% | 76.0% | 88.2% |
| Revenue/Expense Per Patient Day | \$185.97 | \$231.93 | \$238.14 | \$238.65 |
| Revenue/Expense Per Admission | \$2,920 | \$3,286 | \$3,378 | \$3,553 |

Source: CON Application

* Average number of beds available in FY 2010 assuming 24 beds between July 1, 2009 and February 28, 2010 and 40 beds between March 1, 2010 and June 30, 2010.

The applicant also provided a copy of a November 5, 2009 letter from the DHMH office of the Inspector General, External Audit Division, notifying the Kent County Department of Health that an examination of its DHMH grant funding accounts for FY 2005 through FY 2009, including the ADAA grants to Whitsitt, was complete. No problems were identified in this audit report and it was determined that no money was due either party.

The applicant has demonstrated the availability of funding for the operation of the additional beds. The project will obtain patients in the same manner that Upper Shore and Whitsitt currently obtain patients and the applicant’s utilization projections are reasonable. Based on the information provided, the proposed project is feasible and, so long as state operational funding support remains adequate and state capital support is provided when necessary, the expanded Whitsitt Center should be viable over the long term.

E. Compliance with Conditions of Previous Certificates of Need

COMAR 10.24.01.08G(3)(e): “An applicant shall demonstrate compliance with all terms and conditions of each previous Certificates of Need granted to the applicant, and with all commitments made that earned preferences in obtaining each previous Certificate of Need, or provide the Commission with a written notice and explanation as to why the conditions or commitments were not met.”

No CON records for this facility have been retained by DHMH nor could such records be located by MHCC. The record indicates no CON reviews concerning any changes at the facility have been reviewed since its establishment. The Whitsitt Center is consistent with this criterion.

F. Impact on Existing Providers

COMAR 10.24.01.08G(3)(f): “An applicant shall provide information and analysis with respect to the impact of the proposed project on existing health care providers in the service area, including the impact on geographic and demographic access to services, on occupancy, on costs and charges of other providers, and on costs to the health care delivery system.”

The applicant notes that it is the only facility in the Upper Eastern Shore providing ICF inpatient treatment for substance abuse. It views the proposed project as having a positive impact on: (1) outpatient providers of substance abuse treatment that will have “improved access to an increased level of care for referral of patients who are relapsing in outpatient treatment, or who require a period of stabilization before returning to an outpatient level of care;” and (2) hospitals “which face continuing absence of appropriate placement for uninsured and indigent alcohol and drug patients who are homeless or who suffer from comorbid medical or psychiatric disorders.”

There are no other facilities seeking to retain or expand their service to indigent and uninsured patients with severe substance abuse disorders and co-occurring mental health disorders. Whitsitt serves a very small number of paying patients. MHCC staff agrees with the applicant that the project, by maintaining service to a portion of the patient population served by the Upper Shore “Red” unit will have a positive impact on the continuum of care available in this region of Maryland for substance abusing and mentally ill patients. Recent policy research and analysis undertaken by MHCC and other agencies suggest that most general hospitals providing psychiatric services view themselves as having a limited capacity to expand the number of publicly funded patients, especially if those patients require service beyond a short period of hospitalization.⁸

There is no basis for finding that the proposed project will have a negative impact on existing health care providers in the Whitsitt service area. It will not reduce geographic or demographic access to services. It will serve to maintain better availability and access to care for a portion of the Upper Shore patient population than that patient population would have experienced if Upper Shore terminated its hospital programs without implementation of this

⁸ *Roles of State and Private Hospitals in the Provision of Inpatient Psychiatric Treatment*, A White Paper prepared for the Task Force on the Plan to Guide the Future Mental Health Service Continuum, April, 2008.

project by Whitsitt. It is likely that demands on general hospital and state hospital psychiatric beds on the Eastern Shore beds would be greater without this project. Thus, this project is likely to have an impact on the occupancy those beds would be likely to experience if Upper Shore closed its hospital beds without the proposed expansion of the Center and an impact on the cost those facilities would need to incur for treatment of co-morbid psychiatric patients. If successful in providing effective treatment of substance abusing patients with moderate mental illness, the proposed project will have a positive impact on costs to the health care delivery system, by replacing the hospital model of the Upper Shore “Red” unit with a less costly treatment model for a large portion of the historic “Red” unit patient population.

MHCC staff concludes that consideration of the likely impact of this proposed project supports project approval.

IV. SUMMARY AND STAFF RECOMMENDATION

There is a need for the services that will be provided by the Whitsitt Center through this project and the project is viable, from the standpoint of resource availability and financial support. The project will not have a negative impact on access to care, the cost of care, or other health care facilities.

The project involves the development of an enhanced program of residential treatment for patients with both severe substance abuse disorders and moderate mental health disorders which may prove to be a highly cost-effective alternative to the hospital-based treatment model that has been historically used for treatment of this patient population. However, because this is a new model for publicly-funded care in Maryland it is recommended that a condition be placed on approval of this project for a formal evaluation of the new program’s effectiveness during its first two years of operation.

Whitsitt is not accredited by The Joint Commission or CARF, as required by the State Health Plan. However, the facility was CARF-accredited for approximately ten years but allowed this accreditation to lapse in January, 2009. The Center believes it remains compliant with CARF accreditation standards and commits to re-accreditation. It reports that application was made to CARF in December, 2009 and a survey for re-accreditation is anticipated in April, 2010. The facility is certified by the Office of Health Care Quality of the Department of Health and Mental Hygiene and its reported performance is strong relative to overall performance by comparable programs in the State. MHCC staff has also concluded that the project complies with the other applicable State Health Plan policies, docketing requirements, and CON approval rules. For this reason, it is recommended that the approval of this project be conditioned on achieving CARF or Joint Commission accreditation within one-year of CON approval.

IN THE MATTER OF

A. F. WHITSITT CENTER

Docket No. 09-14-2305

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BEFORE THE

MARYLAND HEALTH

CARE COMMISSION

FINAL ORDER

Based on the analysis and findings in the Staff Report and Recommendation, it is this 18th day of February 2010, by the majority of the Maryland Health Care Commission, **ORDERED:**

That the application of A. F. Whitsitt Center for a Certificate of Need to add 16 intermediate care facility beds for enhanced treatment of patient with co-occurring severe substance abuse disorders and moderate mental health disorders treatment shall be **APPROVED** with the following conditions:

1. The A. F. Whitsitt Center will be accredited by The Joint Commission or the Commission on Accreditation of Rehabilitation Facilities no later than one year following award of this Certificate of Need; and
2. The Alcohol and Drug Abuse Administration of the Department of Health and Mental Hygiene will provide an annual evaluation of the performance of the A. F. Whitsitt Center in treating patients with co-occurring severe substance abuse disorders and moderate mental health disorders during the first two years following the expansion of the A. F. Whitsitt Center. This evaluation will be contained in a report to the Maryland Health Care Commission and will provide information, at a minimum, on admissions, discharges, length of stay, reason for discharge, subsequent use of substance abuse/mental health treatment programs following discharge, substance use at admission and discharge, elopement, medication errors, and patient injuries. The evaluation report will compare the performance of the A. F. Whitsitt Center in treating publicly-funded patients with co-occurring severe substance abuse disorders and moderate mental health disorders and the performance of Department of Health and Mental Hygiene hospital facilities and/or private general acute care or special hospital facilities in treating publicly-funded patients with a similar diagnosis. The first report, covering the first year of operation of the expanded A. F. Whitsitt Center, will be due 18 months after expansion of the Center. The second report, covering the second year of operation, will be due 30 months after expansion of the Center.

MARYLAND HEALTH CARE COMMISSION

APPENDIX A

**Alternative Services Plan for Upper Shore Community Mental
Health Center**

Department of Health and Mental Hygiene

November 17, 2009

John M. Colmers

Secretary

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I. Executive Summary

Due to the widespread economic downturn and resultant impact upon State revenues, the Department of Health and Mental Hygiene (DHMH) has been forced to make significant budgetary cuts to community providers, State facilities, research and services grants, and to DHMH programs. In concert with other State agencies, DHMH has made five rounds of budget cuts over the past 15 months totaling \$328 million. This has proved particularly difficult given that 93% of the DHMH budget funds services for Maryland citizens.

With regard to State facilities, over the past two fiscal years, DHMH has reduced the number of beds at Springfield Hospital Center, RICA Baltimore, RICA Gildner, Spring Grove Hospital Center, and the Deer's Head Hospital Center. DHMH has closed the Rosewood Center, RICA Southern Maryland and Walter P. Carter Center. Given the continued forecast and anticipated lag between economic recovery and recovery of the State's budget, along with the end of American Reinvestment and Recovery Act (ARRA) stimulus funding, FY 2011 will present even greater challenges. It is against this backdrop that the Department has reviewed the services provided at Upper Shore Community Health Center (Upper Shore) and has recommended changes in service delivery as provided below.

While the recession and its impact upon the State's budget brought DHMH to a decision about services at the Upper Shore, a proposed transition to community-based alternatives is consistent with long-standing policy and law that provide preference for services to be given to patients in the least restrictive setting. While DHMH commends the care provided by hard-working and dedicated staff at Upper Shore, many of the patients admitted to Upper Shore do not require extensive care in an inpatient psychiatric facility. Under federal and State law, individuals are entitled to receive care in the least restrictive environment, and many of Upper Shore's clients would not be served in an institution if they were in any other part of our State. They would, instead, receive much of their treatment for substance abuse and mental health needs in structured community settings.

DHMH acknowledges that community services and local providers should be strengthened on the Shore—and Upper Shore's transformation presents the opportunity to do just that. On September 26, 2009, the Governor directed that admissions to Upper Shore not cease for a period of 90 days. He asked that the Department circulate a plan for transformation of current Upper Shore services. This plan, which was circulated in draft form for review and written comment on October, 28, 2009, presents a four-part approach to the proposed transition, including:

- 1) For acute inpatient needs, compensation of private hospitals through the HSCRC rate setting system and purchase of care agreements for physician services;
- 2) Expansion of the A.F. Whitsitt Center's substance abuse services on-site at Upper Shore;
- 3) Expansion of community behavioral health services; and
- 4) Assistance for Upper Shore employees.

Acknowledging that this change will be difficult to accept for some, including the dedicated employees of Upper Shore, DHMH will make every effort to work with them so that to the extent possible, they may lend their expertise to local hospitals and community providers, including a proposed expanded Whitsitt Center for substance abuse on site at Upper Shore.

This document begins with an analysis of current Upper Shore patients and existing inpatient and community services, and then presents a transition plan for inpatient and community services. Also discussed are Upper Shore employee supports and a fiscal analysis of the proposed transition. As will be described in this report and plan:

- There is sufficient inpatient psychiatric bed capacity in three Eastern Shore general hospitals and vacancies in Eastern Shore Hospital Center;
- Reimbursement to local hospitals through the HSCRC rate-setting system and through Purchase of Care agreements will divert emergency department visits and inpatient admissions;
- Enhancement of community services and 20 new beds for the Whitsitt Center will assure co-occurring services for the Eastern Shore; and
- Expanding community settings on the Shore is consistent with national and State law and policy and will allow services to reach the greatest number of patients.

For these reasons, this plan recommends taking steps to heighten community capacity so that admissions to Upper Shore may cease January 4, 2010. Such action will generate General Fund savings of \$1.6 million in FY 2010 and \$5 million on an annual basis.

II. Analysis of Current Upper Shore Patients, Admissions and Discharges

In preparation for transitioning services, DHMH has, with assistance of facility staff, prepared the following current patient profiles:

As of October 19, 2009, a total of 36 patients were served on two units at the Upper Shore. The Upper Shore is licensed for 64 beds, but is currently operating 40. The average daily population census for the facility is 36. Over the past two years, the vast majority of Upper Shore patients have lived in counties on the Shore (see Appendix). Seventy-one percent of the patients admitted in FY 09 had a diagnosis of co-occurring substance abuse and mental health. In FY 09, a majority of patients (69%) were discharged to their homes.¹

Upper Shore has two distinct units. The Red Unit serves individuals with co-occurring mental health and substance abuse diagnoses, but with substance abuse as the primary diagnosis. These individuals are uninsured or have exhausted their insurance. Their admissions are defined as civil as they do not include court ordered patients or individuals on jail certificates. The Red Unit does admit individuals on conditional release and some of the patients have pending charges related to their substance abuse problem. The Red Unit does not include individuals who are court ordered for substance abuse treatment.

As of October 19, 2009, the current population on the Red Unit (20) includes: 18 persons transferred from private hospital emergency departments and psychiatric units. The individuals on Red Unit have milder psychiatric problems as compared with the Brown Unit; however, the Red Unit patients tend to have severe substance abuse problems. It appears that most of the current population on the Red Unit will be able to be

¹ In FY 09, 22% were discharged to residential rehabilitation and 5% to other hospitals.

discharged within 60-90 days. There are two persons on the Red Unit that will need additional community supports in order to transition to the community and one may need continued hospitalization. The focus of discharge planning for this population is substance abuse treatment.

The Brown Unit serves individuals with a primary mental health diagnosis. These individuals are uninsured or have exhausted their insurance. The status of this population on this unit is subject to change daily based admissions and discharges. Additionally, because of the nature of mental illness the clinical status of these patients fluctuates frequently as well.

As of November 13, 2009, there were 20 individuals receiving services on the Brown Unit. Seven are expected to be discharged before closure, four will need continued inpatient care and nine have the potential for community placement with intensive supports. The status of this population on this unit is subject to change between now and the time of closure due to admissions and discharges.

Inpatient Psychiatric Services on the Eastern Shore

Three Shore hospitals, Dorchester, Union and Peninsula Regional have reported to DHMH a combined physical capacity of 40 inpatient mental health beds. Hospitals' behavioral health specialists have reported to DHMH that inpatient psychiatric occupancy is typically short of physical capacity, however they also report concerns about availability of skilled behavioral health staff.

III. Analysis of Current Community-based Psychiatric, Substance Abuse and Co-Occurring Services

Community-based co-occurring resources

There are currently five Core Service Agencies (CSAs) serving the Eastern Shore - Cecil, Wicomico, Somerset, Worcester and Mid-Shore (Kent, Queen Anne, Talbot, Dorchester and Caroline). The CSAs assist citizens seeking services from community mental health providers and with patients being discharged from hospitals to community services. Substance abuse services are provided through both the county health departments and through local community-based providers.

To assist consumers and providers, the local counties, with support from the Core Services Agencies and Local Health Departments, have prepared Resource Guides. The Guides list local behavioral health resources, including social workers, counseling and support services, and acute services. These may be accessed online.²

The A. F. Whitsitt Center is a 24-hour, seven-day-a-week residential treatment facility operated by the Kent County Local Health Department on the grounds of Upper Shore. The Whitsitt Center offers treatment to adults ages 18 and over suffering from chemical dependency. A professional treatment team comprised of nurses,

² Cecil: <http://www.cecilcountyhealth.org/ccdhxx/ccdh200pbhsguide.htm>

Mid-Shore (Kent, Queen Anne, Talbot, Dorchester and Caroline):

<http://caroline.md.networkofcare.org/mh/countycontent/caroline/Guide-Public-MH-Addictions-Treatment.cfm>

Wicomico and Somerset:

http://www.wicomicohealth.org/Department_Pages/CoreServiceAgency/forms/BehavioralHealthWebGuide2009.pdf

Worcester: and http://www.worcesterhealth.org/Community_Compass.pdf

addictions counselors and a staff physician combine their skills and experience to provide a complete program tailored to the needs of each client. The Whitsitt Center also offers a medically monitored Detoxification Unit for alcohol, opiate and/or benzodiazepine dependent individuals. About one-third of the individuals served by the Whitsitt Center also have co-occurring mild mental illness. They are psychiatrically stable upon entry, already seeing a mental health professional and on medication. The Red Unit serves individuals with a diagnosis of substance abuse who have mild to moderate mental illness and have been psychiatrically stabilized at the hospital emergency department.

There are a total of 2,143 beds/slots for substance abuse services on the Eastern Shore. Excluding Worcester and Wicomico counties, the number is 1,312. The majority of these services are standard outpatient substance abuse treatment (Level I). The 20 beds operated by the Whitsitt Center are the sole services at the level of intensive inpatient beds (Level III.7) on the upper shore, although there are an additional 10 long term residential beds (Level III.5) and 35 halfway houses (Level III.1)

Local providers and other stakeholders have reported that behavioral health resources could be augmented with expansion of the Whitsitt Center combined with the transformation from institutionally based to community based services. As further described below, expansion would include the addition of assertive mobile treatment teams in the community, as well as a full-time staff person to assist consumers and providers to navigate provider listings and locate the appropriate community service.

IV. Plan for Enhancing Mental Health and Co-Occurring Services

Inpatient Services and Purchase of Care

Overall, seventy to seventy-five percent of adult psychiatric admissions for Medicaid recipients are to one of the three acute general hospitals (Union, Peninsula Regional or Dorchester). All three hospitals have reported some capacity for additional admissions. Therefore, it is anticipated that the uninsured adults who had been admitted to the Upper Shore will go to one of the three Maryland hospitals. In addition, Rockford Center in Delaware is available as back up in the event that a local hospital cannot provide a bed or if Delaware is more convenient to the consumer. This is consistent with the way inpatient care is provided for individuals who are uninsured throughout the remainder of the State. All three hospitals have reported capacity for additional admissions; however, hospitals have also reported concerns about the availability of professional staff, presenting opportunity for former Upper Shore employees.

Plan for Enhanced Inpatient Psychiatric Services:

- Hospitals' service costs It is anticipated that these patients will be treated at Maryland acute care inpatient psychiatric units. In this event, the cost of services provided to patients without insurance will be handled through the Health Services Cost Review Commission's unique hospital uncompensated care financing mechanism. It is difficult to estimate prospectively the number of patients who would use inpatient services, but the State share of the Medicaid portion of reallocated costs (using current costs per case of the three Maryland hospitals) for 100 admissions is \$44,675³.

³ One-hundred admissions is based upon past years' experience, per Upper Shore.

- Physician services costs will be paid for by MHA for individuals who are uninsured. Union Hospital of Cecil County, Dorchester General, Peninsula Regional and the Rockford Center (Delaware) have in place Purchase of Care (POC) agreements with MHA. The cost of professional fees to the State is for 100 admissions is estimated at between \$42,500 and \$60,000 per year.
- The five CSAs serving the Eastern Shore will link patients being discharged from hospitals to community services.

While a primary goal of this plan is to ensure that no client remains in an institutional setting if he/she could be more appropriately served in a community setting, care has been taken to ensure that individuals who continue to need hospital level services will not lose this access.

Some individuals who are currently at Upper Shore and who have been in institutions for a long period of time may not currently be ready for community care. The majority of these individuals were transferred from Eastern Shore Hospital Center and will be returned there. After transfer, readiness for community services will be monitored for these individuals through normal facility procedures and planning initiated to enable transition to community services as circumstances for these individuals change over time.

The Department will develop comprehensive discharge or transfer plans for all consumers at Upper Shore. Additionally, through the Department's existing contract with the Maryland Consumer Quality Team, current Upper Shore residents will have the opportunity to share concerns, issues and aftercare goals with the trained consumers and family members who make up these teams. In addition to regularly scheduled meetings with and calls to residents, the CQT teams will be available by phone as needed to address resident concerns. Issues raised by residents will be shared with facility, Core Services Agency and MHA staff for resolution through regularly scheduled CQT feedback meetings that are already operational on the Shore. Finally, the Department has appointed a point person, a former facility director, to assist with wind down of Upper Shore and the building up community resources. That person will be an additional check point in assuring safe and appropriate transition to each individual.

Plan for Enhancing Community-Based Co-occurring Services

Plan for Enhancing Community-Based Co-occurring Services

The following is a proposal that was prepared by stakeholders on the Eastern Shore. The group was convened by the Mid-Shore Mental Health System as a part of the System's on going planning process. The Department has consulted with Mid-Shore and other stakeholders about the plan and about prioritizing elements of the plan. Any plan adopted, however, must be flexible to adapt to current experience and circumstances as they develop.

A Consensus Approach...

Mid-Shore Mental Health Systems, Inc. (MSMHS) is the local mental health authority for the five counties of Maryland's Mid-Shore. The organization has convened a workgroup to plan new initiatives and enhancements of existing community programs to support the transition of those consumers who have traditionally relied on the Upper Shore Community Mental Health Center (USCMHC) for inpatient care. Key elements of our Community Alternatives Framework are presented below.

It is the consensus of this group of healthcare professionals, consumers and advocates that the closing of inpatient psych beds will put pressure on the Eastern Shore's community capacity. Accordingly, the Mid-Shore report recommends that a meaningful percentage of the State's projected "savings" from the closure be repurposed into the slate of evidenced-based behavioral health alternatives herein presented.

Each of us acknowledges the importance of pursuing an opportunity for those served in our public behavioral health system to be treated in the least restrictive setting possible throughout their recovery. While a small number of those at Upper Shore will need placement at other beds in the State system, we anticipate that this Plan maximizes the opportunity for successful community treatment.

...Based on Comprehensive Analysis

The basis for this Community Alternatives approach lies in the substantial amount of planning that has been the focus of Eastern Shore stakeholders over the last decade. Every two years, each Core Service Agency prepares a comprehensive needs assessment to identify gaps in the delivery of public mental health care within their jurisdiction and develops strategies to overcome them. Several other interested parties have also conducted discovery that, at least in part, reflects on the same issues identified in the MSMHS studies.

Our community mental health planning identifies a near-complete lack of crisis response throughout our region. This stands in sharp contrast to our Western Shore counterparts, where urban and suburban crisis response is the norm. The State has regularly pointed out that limited financial resources preclude the development of these programs, which provide a tremendous safety net for those who seek care from, or work within, the urgent care aspect of the behavioral health spectrum. However, we conclude that the opportunity to divert dollars previously used to fund USCMHC represents ideal approach to address the disparity.

Plan Priorities

The Plan framework places heavy emphasis on building a community safety net for those areas that will be affected by the facility closure. The components will lead to significant enhancement of community services in Kent, Queen Anne's and other counties whose residents are most often admitted to USCMHC.

The framework requires a significant labor component, which we believe will create employment opportunity for those workers displaced by the personnel reductions. Since most new and enhanced services are aimed at the Upper Shore region, providers serving that area will be ideally positioned to expand staffing to deliver

community alternatives. Undeniably, the rich experience of the licensed mental health professionals at USCMHC will make them ideal candidates.

Plan Vision

This framework addresses the expected impact on all nine (9) Eastern Shore counties as it relates to metrics of both admission and release patterns at Upper Shore. It focuses efforts in Kent, Cecil and Queen Anne's counties where the bulk of affected citizen reside, but clearly strengthens community treatment options across the entire Shore, building on services that are already available and planning for the implementation for those which are not. Our regional approach offers significant economies of scale in the procurement of needed services. Anticipated costs are presented in two tiers, representing core and secondary priorities.

Plan Elements

- A. Crisis / Urgent Care Response
 - a. 24/7 Eastern Shore Operations Center
 - b. Mobile Crisis Teams
 - c. Assertive Community Treatment
 - d. Crisis Beds
 - e. Same-Day Appointment
 - f. Chester River Hospital Emergency Department
 - g. Community Hospital Acute Psychiatric Capacity
- B. Residential Co-Occurring Unit
 - a. Crisis Beds
 - b. Detoxification Beds
 - c. Residential Beds
- C. Housing & Employment
 - a. Housing First Flex Funds
 - b. Residential Rehabilitation Bed Expansion
 - c. Supported Employment
- D. Pioneering Fresh Solutions
 - a. Integrated Dual Disorders Treatment
 - b. Aging in Place Programming
 - c. Peer Support / Wellness & Recovery

CRISIS / URGENT CARE RESPONSE

24/7 Eastern Shore Operations Center (ESOC): As mentioned earlier, the Shore has no central point for behavioral health emergency calls and orchestrated response. This operations center would serve as a single point of access for Eastern Shore residents in crisis with supportive assistance and linkages to resources within the community.

The center would receive calls 24 hours a day, 7 days a week. Anchored by behavioral health professionals, the Crisis Response System Staff would coordinate calls with the police, fire and community agencies that are requesting information on crisis matters. The ESOC Staff would also provide urgent linkage to community resources through Mobile Crisis Teams, Crisis Beds, Homeless Outreach Services, Urgent Care Clinics, Sexual Assault Centers and Community Education. Transportation arrangements can be organized during the encounter. Non-emergency contacts will provide the caller with information, support and referrals.

This represents the foundation of the entire framework. It was similarly the bedrock of the plan to address community needs in Anne Arundel, Prince George's and the three Southern Maryland counties when Crownsville State Hospital was closed in 2004. The architects of that plan report even today that it has been the key to minimizing the community impact in the aftermath of the closure of that facility.

Mobile Crisis Teams: Team members will intervene with callers who are experiencing a behavioral health emergency. A major function of the Mobile Crisis Team will be to assist the police in assessing the need for services. Mobile Crisis Team members will be licensed mental health professionals available from 10 a.m. to 12 a.m. (Sunday to Thursday) and 10 a.m. to 2:30 a.m. (Friday and Saturday). Two regional teams are proposed; one for the four lower shore counties and one to serve the counties north of that. Minimum staffing would be three (3) FTE Licensed Mental Health Professionals per team.

Assertive Community Treatment (ACT): Two teams that would parallel the proposed Mobile Crisis Team structure geographically. Funding is needed to support the development and launch of mobile treatment teams and bring them to Evidence-based Practice (EBP) fidelity. Each team would serve fifty (50) individuals. The cost of these teams would be sustainable through Public Mental Health Services (PMHS) fee for service reimbursement and the start-up funding could be shifted in future years to sustaining Housing First funds (presented below) utilized by this program.

Crisis Beds: Increase Wicomico County's existing program from three (3) to four (4) beds and position four (4) new beds to serve the mid- and northern counties of the Eastern Shore. Four new beds will be located in the Whitsitt Center in Kent County.

Urgent Care Clinics: Grants to ensure same-day access to assessment by a licensed mental health professional in at least one Outpatient Mental Health Clinic per county. This represents an excellent, inexpensive alternative for many who present in our Emergency Departments.

Chester River Hospital Emergency Department: Provide one (1) FTE licensed mental health professionals (day & evening coverage) to the Emergency Department at Chester River Hospital Center, augmenting existing capacity from a .6 FTE to 1.6 FTE. Link CRHC E.D. to the 24/7 Operations Center by televideo equipment for those needs outside of the 1.6 FTE.

Community Hospital Acute Psychiatric Capacity: Work with existing providers to increase acute bed availability in their existing locations by executing Purchase of Care agreements to cover professional fees when additional capacity is needed.

RESIDENTIAL CO-OCCURRING UNIT

With the closure of the Red Unit of the Upper Shore Mental Health Center, local hospital emergency rooms and community behavioral health providers in Kent, Caroline, Queen Anne's, Talbot, and Cecil Counties will no longer have access to a regional residential referral source for individuals with behavioral health issues that include co-occurring substance use disorders and mental illness.

The workgroup believes that this population could be treated in a Dual Diagnosis Enhanced treatment facility. These individuals are generally well accommodated in a medically monitored intensive inpatient treatment program.

The Kent County Health Department will expand its current Level III.7 residential substance abuse program to be able to provide this enhanced capacity and maintain this vital service within the community. The target

population would be similar to that of the Red Unit – those individuals who have severe substance use disorders and low or moderate severity mental involvement. The plan is to serve approximately 200 individuals per year.

This co-occurring disorders unit would provide mental health and substance abuse treatment in an integrated manner. It will offer 16 beds, to include both detox and residential treatment, along with 4 new behavioral health crisis beds. A part time psychiatrist and an additional medical doctor would be needed to provide psychiatric and detox services. The utilization of staff from the inpatient and outpatient units will maximize both cost effectiveness and efficiency.

Significant utilization by the uninsured and underinsured, as has been the case historically with the majority of the Red Unit population, will necessitate ongoing grant funding to ensure sustainability.

HOUSING & EMPLOYMENT

Housing First Flex Funds: Establish a fund that could be used to stabilize individuals through rapid re-housing in accordance with the Housing First model and philosophy. This initiative allocates funds toward housing and supportive services for the hardest-to-serve, chronically homeless population, a substantial number of whom are mentally ill. Because it addresses this population and its needs, the Housing First approach is enjoying unprecedented success in breaking the homelessness and inpatient cycles.

Residential Rehabilitation Bed Expansion: Add eight (8) intensive level beds within the Kent-Cecil-Queen Anne's catchment area, plus four (4) more south of it, to pursue a model similar to Wicomico's highly successful Peer Connection program.

Supported Employment: To date, no Eastern Shore provider of Supported Employment has qualified to provide those services at the highly-successful evidence-based practice level. The framework will provide "start-up" funds as incentive to pursue the Collaborative Learning Program (CLiP) offered by the Evidence-Based Practice Center, Department of Psychiatry, University of Maryland School of Medicine.

PIONEERING FRESH SOLUTIONS

Integrated Dual Disorders Treatment (IDDT): Coordination of collaborative planning and implementation of this model will address needs identified in the Mid-Shore Behavioral Health Access Study. Offered by the Evidence-Based Practice Center, Department of Psychiatry, University of Maryland School of Medicine University of Maryland, MSMHS will assume responsibility for the planning and implementation components.

Aging in Place Programming: MSMHS will collaborate to develop provider capacity in evidence-based disciplines which allow our rapidly-growing geriatric population with mental illness to "age in place." These opportunities demonstrate substantial savings while increasing the satisfaction of those who are consumers of the services.

Peer Support / Wellness & Recovery: Allocate funding to institute an 8-week training program for peer support specialists at Lower Shore Friends, Chesapeake Voyagers, On Our Own of Cecil County, and the peer support specialist for the proposed ACT teams. The Assertive Community Treatment requires a peer support specialist component as a fidelity standard, thereby increasing the professional opportunities for consumers in recovery.

Final Conclusions

We firmly believe that this Plan maximizes the opportunity for the successful transition of Upper Shore patients. It allows the Kent & Queen Anne's County area, and indeed, the Eastern Shore to comprehensively address crisis

needs with a robust range of alternatives. A further benefit is that the framework creates professional job opportunities.

Timelines for Implementing Enhanced Community-based Co-occurring Services

The plan for enhanced community-based co-occurring services as proposed by the Eastern Shore stakeholders has been approved for funding by the Department of Budget Management. It would be implemented using the following timeline:

Estimated Timeline for implementation of community services proposal (from launch date)

| | |
|--|---------------------------|
| Program Coordinator | One month |
| 24/7 Eastern Shore Operations Center | Two and one half months |
| Mobile Crisis Teams - Upper Shore/Lower Shore | Three and one-half months |
| Assertive Community Treatment - Lower Shore Region | Three and one half months |
| Residential Rehab.Beds | Four and one half months |
| Urgent Care Clinics | Five months |
| Inpatient Expansion (SA/Crisis beds) | Six months |
| Supported Employment | FY 2011 |
| Peer Support / Wellness & Recovery | FY 2011 |

IV. Assisting Upper Shore Employees

Efforts to Date and Future Plans

The numbers of employees that will be impacted through transition of the Upper Shore are as follows:

- 89 positions at Upper Shore on August 25, 2009
- 85 employees to be placed
- Four (4) permanent employees are not being terminated – two (2) maintenance and two (2) security staff will remain to maintain the building for tenants. Also, one (1) contractual housekeeper will remain for tenants

Actions taken and planned actions:

- MHA management was present for the meeting with employees – 8/25/09
- CEO has met with the Whitsitt Center and Kent County Outpatient Behavioral Health about openings and will also be meeting with the Department of Juvenile Services. If Upper Shore employees were hired into these programs, they would maintain their status as State employees.
- CEO discussed with the other state hospital CEOs any job possibilities. The Department will freeze any vacancies in affected classifications so that Upper Shore employees will be able to interview for any available positions for which they qualify.
- Employees will be able to move into vacancies at the Eastern Shore Hospital Center (ESHC). This includes existing vacancies as well as those that may become available in the future. Expected turnover at ESHC is 9-10 over a year. ESHC management is asking that any of their employees who have retirement plans for the next year to make themselves known as this will assist with planning. Three employees have self identified.
- A tracking document has been setup for hospital management to use to track every employee, date of entry, age, etc. to prioritize ESHC openings for senior employees nearing retirement
- DHMH made a request to DBM for blanket hiring freeze exemptions for agencies hiring employees affected by budgetary abolitions/closures. This was approved by DBM on 9/08/09.
- DBM Outplacement Services Meeting at the Upper Shore Center 09/22/09.
- The Office of Human Resources (OHR) met with 47 Upper Shore Employees for career counseling 10/06/09.
- DHMH OHR tracking position recruitments and referral of employees to DHMH hiring managers for interview. Forty-one (41) applications submitted by Upper Shore employees to OHR for placement on DBM eligible lists as pending lay-off/separations 10/09/09
- Additionally, the Department is coordinating its efforts with those of the Upper Shore Workforce Reinvestment Board. The Reinvestment Board has arranged for the "Mobile One-Stop Unit" to make

regular visits to Upper Shore to provide assistance in developing employment plans; coaching for interview skills and training for employment skills.

- Retirement Benefit counseling at Upper Shore
- Job Fair (date TBD)

V. Fiscal Analysis

The closure of Upper Shore will result in General Fund budget savings for the State of nearly \$1.6 million in FY 2010 and \$5 million on an annual basis. The FY 2010 savings are based on gross savings at the facility of \$2.7 million offset by increased costs for community-based behavioral health services and expansion of the residential substance abuse unit (Whitsitt) of \$1.1 million. For FY 2011, the gross savings at the facility total \$8 million offset by increased costs for community-based behavioral health services and expansion of the residential substance abuse unit of \$3 million.

Funding Projections (Includes Expanded Whitsitt Center)

| Grant Funded Plan Element | FY10 | FY11 | FY12 | FY13 |
|---|--------------|--------------|--------------|--------------|
| Community Expansion | | | | |
| 24/7 Eastern Shore Operations Center | \$ 180,063 | \$ 392,840 | \$ 404,625 | \$ 416,763 |
| Mobile Crisis Teams / Assertive Community Treatment | \$ 226,250 | \$ 427,230 | \$ 440,047 | \$ 453,248 |
| Same Day Appointment | \$ 45,000 | \$ 109,080 | \$ 112,352 | \$ 115,723 |
| Chester River Hospital Emergency Department | \$ 30,708 | \$ 74,437 | \$ 76,670 | \$ 78,970 |
| Housing First Flex Funds | \$ 25,000 | \$ 60,600 | \$ 62,418 | \$ 64,291 |
| Supported Employment | \$ 67,500 | \$ - | \$ - | \$ - |
| Peer Support / Wellness & Recovery | \$ 27,000 | \$ - | \$ - | \$ - |
| Program Coordination | \$ 47,337 | \$ 114,746 | \$ 118,188 | \$ 121,734 |
| <i>Subtotal</i> | \$ 648,858 | \$ 1,178,932 | \$ 1,214,300 | \$ 1,250,729 |
| Inpatient Expansion (Whitsitt) | | | | |
| 16 Substance Abuse / 4 Crisis Beds | \$ 389,650 | \$ 1,434,352 | \$ 1,477,382 | \$ 1,521,704 |
| <i>Subtotal</i> | \$ 389,650 | \$ 1,434,352 | \$ 1,477,382 | \$ 1,521,704 |
| Fee for Service (State Portion) | | | | |
| 6 Intensive / 6 General Residential Rehab Beds | \$ 69,326 | \$ 207,978 | \$ 207,978 | \$ 207,978 |
| <i>Subtotal</i> | \$ 69,326 | \$ 207,978 | \$ 207,978 | \$ 207,978 |
| Inpatient POC | \$ 30,000 | \$ 100,000 | \$ 100,000 | \$ 100,000 |
| Community Alternatives Total | \$ 1,137,834 | \$ 2,921,262 | \$ 2,999,660 | \$ 3,080,411 |

**Summary: Upper Shore Community Mental Health Center
Closure Savings**

| | FY 2010 Base | FY 2010 | FY 2011 |
|--|---------------------|----------------|----------------|
| General Fund Budget | 8,934,473 | 8,934,473 | 537,181 |
| Statewide savings (furlough, health insurance) | - | (172,036) | - |
| Closure Savings (90 positions) | - | (2,665,000) | - |
| Subtotal | 8,934,473 | 6,097,437 | 537,181 |
| Less: General Fund Revenues | 348,893 | 232,595 | - |
| Adjusted General Fund Budget | 8,585,580 | 5,864,842 | 537,181 |
| | | | |
| General Fund Savings at USCMHC | | 2,720,738 | 8,048,399 |
| Less: Community-Based Programs | | 1,100,000 | 3,000,000 |
| Net General Fund Savings | | 1,620,738 | 5,048,399 |

VI. Tenants – Plans and Planning for the Future

Tenant Plans

The current tenants of the Upper Shore building (the Whitsitt Center and a DJS Program) have plans to remain in place. They will be assisted with services by former employees of the Upper Shore - two maintenance employees, two security guards and one housekeeper.

Tenants – future plans

As previously discussed, the Whitsitt Center Director is considering increasing the capacity of their program by expanding into space now occupied by the Upper Shore.

VII. Recommendations and Next Steps

The major obstacle to the closure of the Upper Shore is the need to expand behavioral health services for residents of the Eastern Shore – specifically, community-based behavioral health services. Our analysis of inpatient psychiatric bed capacity demonstrates that there is unused capacity at the three Maryland general hospitals and back up if needed at the Rockford Center in Delaware. Our analysis of community-based mental health and substance abuse services demonstrated that residents of the Shore would benefit from additional capacity.

All three types of admissions can be accommodated: (1) Those from emergency departments that are acute psychiatric admissions. These patients' care will be covered through the HSCRC and through Purchase of Care

arrangements with Dorchester General, Union of Cecil, Peninsula Regional Hospitals and, if necessary, the Rockford Center. (2) Those from emergency departments who have co-occurring needs. These patients' needs will be handled through additional residential co-occurring services in the community; and (3) those already being served in the general hospital psychiatric units.

While no plan is perfect, the current budget constraints and the recognized need to expand services in community makes this Alternative Services Plan the best plan moving forward. Our recommendation is to go forward in adapting the service delivery model on the Upper Shore, and begin to terminate admissions on January 4, 2010. The decision to delay ceasing admissions for at least 90 days was made by the Governor in conjunction with Eastern Shore legislators during a visit to the Upper Shore in September 2009. Therefore we have selected a date after the holidays, January 4, 2010. Changes in EMTALA as well as the plans discussed above for compensation of the hospitals will help assure availability of inpatient psychiatric services. Enhancement of the community services will help assure services for a greater number of residents of the Eastern Shore.

As previously discussed, there are patients on the Brown Unit who will not be ready for the community at the time the inpatient unit ceases operation. These individuals will be transferred to inpatient services at the Eastern Shore Hospital Center or other inpatient services. The Red Unit would close through attrition following the January 4th termination of admissions, which would coincide with expansion of the Whitsitt Center.

The transformation process will be carried out by the employees of the Upper Shore with oversight by the Eastern Shore Hospital Center and MHA Management. DHMH officials will meet regularly with those overseeing the process as well as with the community stakeholders. A specific point person, a former director of a State facility, has been selected to coordinate the transition, including building up shore resources. We have developed a tracking tool for actions to be taken regarding the closure and another to monitor discharges. We will be monitoring the closure process for the following:

- Quality of care for the patients
- Numbers of new admissions
- Changes in patterns of admission referrals
- Numbers of discharges
- Barriers to discharges
- Implementation of community-based co-occurring services plan
- Possible problems with the Purchase of Care agreements
- The need to terminate admissions to the ESHC to accommodate US discharges
- Job placements obtained by the employees
- The needs of the building tenants

Appendix

Data on Admissions by County of Residence

Total Admissions by County FY2008-2010

| County | FY 2008 Red | FY 2008 Brown | FY 2008 Total | FY 2009 Red | FY 2009 Brown | FY 2009 Total | FY 2010 YTD Red | FY 2010 YTD Brown | FY 2010 YTD Total |
|---------------|-------------------|---------------------|---------------------|-------------------|---------------------|---------------------|--------------------------|----------------------------|----------------------------|
| Caroline | 23 | 3 | 26 | 21 | 3 | 24 | 6 | 0 | 6 |
| Kent | 36 | 12 | 48 | 24 | 20 | 44 | 4 | 4 | 8 |
| Queen Anne's | 22 | 13 | 35 | 22 | 7 | 29 | 4 | 3 | 7 |
| Talbot | 19 | 3 | 22 | 19 | 2 | 21 | 10 | 0 | 10 |
| Wicomico | 8 | 2 | 10 | 12 | 4 | 16 | 8 | 0 | 8 |
| Dorchester | 21 | 10 | 31 | 16 | 8 | 24 | 7 | 1 | 8 |
| Cecil | 27 | 11 | 38 | 20 | 10 | 30 | 4 | 0 | 4 |
| Anne Arundel | 6 | 0 | 6 | 1 | 0 | 1 | 0 | 0 | 0 |
| Allegany | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| Baltimore Co. | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 0 |
| Somerset | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Worcester | 3 | 0 | 3 | 2 | 0 | 2 | 0 | 0 | 0 |
| Harford | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| OOS | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| Prince Geo. | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| Washington | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| | | | | | | | | | |
| Total | 168 | 55 | 223 | 142 | 56 | 198 | 43 | 8 | 51 |

Year to date as of 10/22/09

APPENDIX B

UPPER SHORE "RED" HOSPITAL UNIT
PROPOSED NEW WHITSITT ICF UNIT

MAIN ENTRANCE/KITCHEN & DINING
MENTAL HEALTH CLINIC

UPPER SHORE "BROWN" HOSPITAL UNIT
(CLOSED)

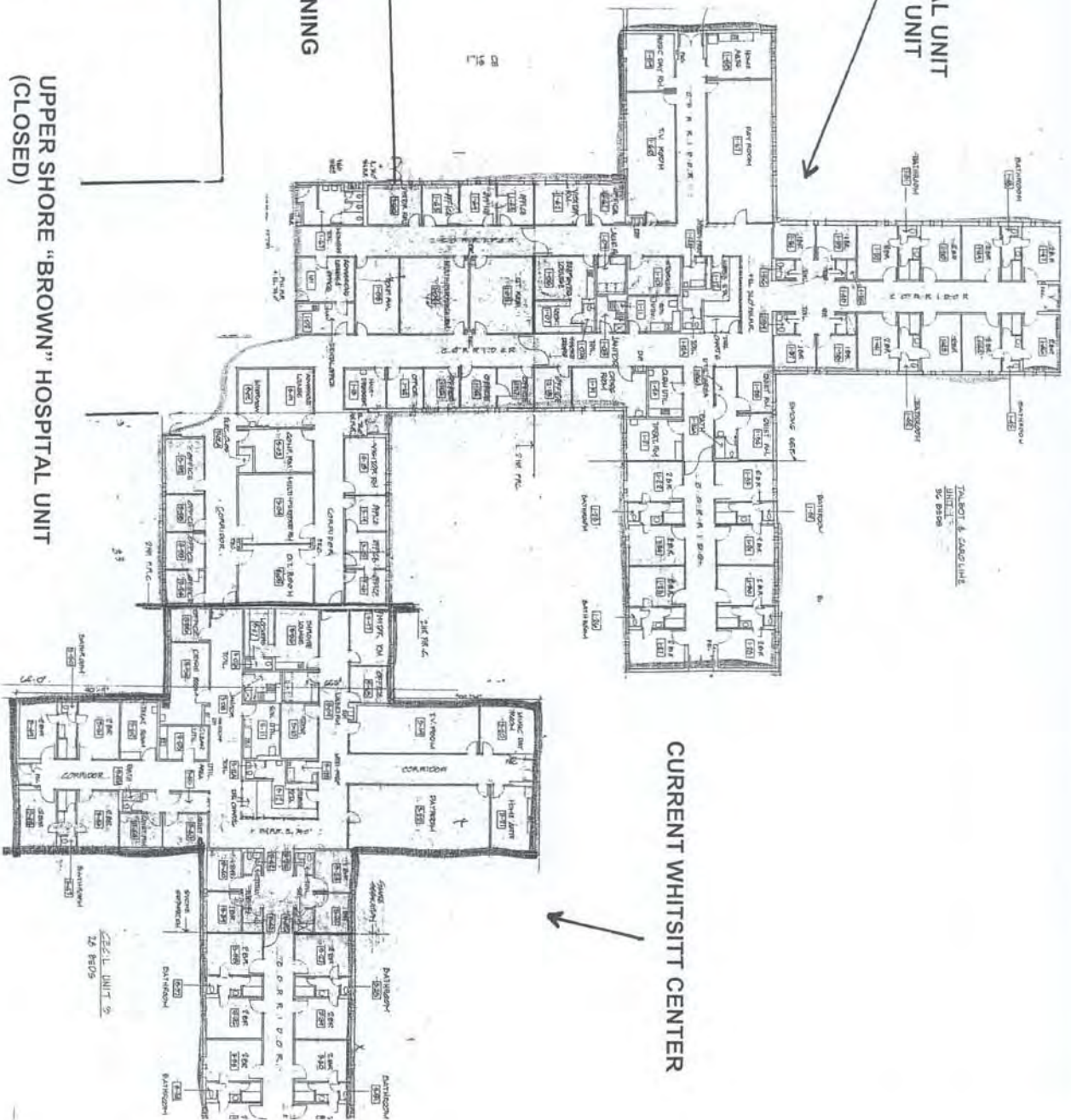


EXHIBIT 13

Health

Rutherford: 'Probably never going to be enough' money to fix Maryland's heroin problem



By **Jean Marbella** · **Contact Reporter**
The Baltimore Sun

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'Probably never going to be enough' money to address Maryland's heroin problem, Rutherford says.

AUGUST 25, 2015, 6:35 PM

Cautioning that there likely would never be enough money to fix Maryland's heroin problem, Lt. Gov. Boyd Rutherford said Tuesday that a state task force recommends an expansion of treatment and prevention efforts to begin addressing it.

Among the recommendations, part of an interim report to the governor, are allocations such as \$800,000 to a residential treatment facility in Kent County to increase its capacity to 40 beds, and \$300,000 to Baltimore for a pilot program in which recovering addicts would reach out to and help current users.

"We made some recommendations, about 10 of them, that we felt we could address immediately or in the next week or so that have no real major financial burden," Rutherford said.

But, he added, the state's heroin crisis is so vast — overdose deaths attributed to the drug have more than doubled since 2010 — that it outstrips the amount of money available.

Article continues below ↓

"We're not sure how we're going to fund this," Rutherford said of a range of state and local efforts to prevent and treat substance abuse. "It's probably never going to be enough."

Rutherford, who headed a task force of representatives from law enforcement, health and addictions fields, said the group would continue studying the issue and would make a final report to Gov. **Larry Hogan** in December.

In its interim report, the task force did not go as far as its counterpart in the city, which last month called for round-the-clock treatment on demand but did not identify a funding source. Advocates say that is what is needed to get more addicts on the path to recovery.

"We're turning about four people a week away," said John Herron, director of Tuerk House, a treatment program based in the Ashburton neighborhood. "The need is that great."

Of the 80 beds that Tuerk House has for in-patient treatment, 58 are state-funded, and they often are filled, he said.

By turning away addicts who are ready for treatment, a program runs the risk of losing them, perhaps forever, Herron said. Not only do you not know if they'll return when a bed is available, "you don't know if they'll live to next week," he said.

Herron said that while the state is not increasing his facility's funding as part of the task force recommendations, he remains hopeful that the increased attention paid to heroin addiction in recent years will have benefits.

"I think the time is right now, even if the state doesn't have the money, for the rest of the community to step up — the private sector, the foundation community," he said.

As for Rutherford's assessment that there probably will never be enough funding, Dr. Leana Wen, the city's health commissioner, said she sees the situation differently. Wen said there are research-based solutions to combating addiction, and public officials need to find ways to support them.

"We need to make a commitment to that," she said.

Wen said the city and state heroin task forces generally agree on goals such as reducing the stigma of addiction, increasing awareness of the problem and expanding access to treatment. Much of that work is already underway in Baltimore, which was dealing with a heroin crisis long before it became more pervasive in other parts of the state, she said.

The state task force's interim report detailed how the \$2 million previously allocated for prevention and treatment would be disbursed, recommendations that Hogan has already agreed to.

In addition to the funds directed to the A.F. Whitsitt Center in Kent County and the Baltimore peer outreach program, the allocations include \$500,000 to local health departments for training and distribution of naloxone, the opioid overdose-reversing drug, and \$100,000 for recovery housing specifically for women with children.

The governor has also approved allocations of about \$189,000 in crime prevention funds to assist police agencies in battling heroin trafficking. The Ocean City Police Department, for example, will receive \$124,635 for license plate reader technology to help track heroin entering the state from other areas.

"You have to stop the pipeline," Rutherford said.

Andrew Pons, program director of the Whitsitt Center, said that getting "the lion's share" of the state's \$2 million treatment funds would allow the facility to reduce its waiting list, which can grow as long as 50 people at times.

The center, the only state-run residential treatment facility on the Eastern Shore, had its funding reduced a couple of years ago and dropped from 44 beds to 26 beds. It plans to add eight beds for detox in the coming month, and as it increases staff, it will add more beds, Pons said.

"Detox is where the logjam is," Pons said of addicts waiting for space in the five- to seven-day program. "Most of the people on the waiting list are in need of detox."

Rutherford said that despite the amount of attention focused on heroin in recent years, awareness of addiction problems still must be improved, especially among youngsters.

"Every third-grader can tell you how bad cigarettes are," Rutherford said. "But they can't tell you how bad it is to take someone else's prescription pills."

He said previous awareness campaigns — such as "Just Say No" and the public service announcement equating a brain on drugs with an egg being fried — were effective because of their simple and memorable messages.

The task force, appointed shortly after Hogan took office in January, held six meetings across the state to hear from more than 200 law enforcement, medical and addictions personnel, as well as addicts and their families. Hogan, who said he has a cousin who died of an overdose, made combating heroin fatalities a campaign issue, although his initiatives to date have been similar to those put in place by his predecessor, Martin O'Malley.

Since 2010, the number of Marylanders who have died of heroin overdoses has more than doubled. Last year, 578 deaths were attributed to heroin, compared to 464 the previous year. The fatalities show no sign of abating: In the first three months of this year, 194 people died in Maryland of heroin overdoses, compared to 146 during the same period last year.

Local, state and federal officials have been scrambling to reverse those trends.

Baltimore Mayor Stephanie Rawlings-Blake's task force, in addition to calling for on-demand treatment around the clock, recommended a public education campaign and a data-tracking system to identify "hot spots" of overdoses and treatment needs. Many of those recommendations are underway, including an educational campaign launched via billboards and a website, dontdie.org.

The Baltimore-Washington area also received federal attention last week, with the White House drug czar creating a multistate public health and law enforcement effort to combat the drug in Northeast and Appalachian areas that have been particularly hard hit.

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