Maryland Health Care Commission
Center for Health Care Facilities Planning and Development

White Paper: Maryland Acute Psychiatric Hospital Services

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I. Introduction

The Maryland Health Care Commission (MHCC or the Commission) has regulatory oversight of certain health care facilities and services development, including development of psychiatric hospital services, through its Certificate of Need (CON) program. The major functions of acute psychiatric hospitalization are to provide crisis intervention, stabilization, and treatment of acute behavioral disorders. An episode of hospitalization may also facilitate delivery of services aimed at helping the patient generate effective psychological coping mechanisms in response to stress and promote maintenance of the patient in the community. Inpatient psychiatric services may include psychiatric and clinical evaluation, medication administration and management, individual and family counseling, group therapy, medical and nursing supervision, psychoeducation, and other services.[1] The placement of a patient in an acute psychiatric bed is not a treatment in itself, just as placing a patient in a hospital bed is not a treatment, but rather a location for the receipt of care when frequent monitoring or specialized services are required that cannot be provided in a less restrictive setting.

Historically, CON regulation of psychiatric hospital facilities in Maryland has primarily focused on assuring that: (1) the health care system has available and accessible service capacity for the level of demand for patient care that is likely to be expressed, while also avoiding development of excess capacity; (2) the facilities will be developed by qualified organizations; (3) facilities will be sustainable; and (4) facilities will have, on balance, a positive impact on the health care system. Due to the range of symptoms and diagnoses that may require inpatient psychiatric services, and the range of medication and other services that these patients may receive, studies that aim to evaluate the effectiveness of inpatient psychiatric services must focus on a specific subgroup of users of inpatient psychiatric services and a specific set of services. CON regulation is not designed to regulate the provision of patient-level care, based on an evaluation of the efficacy of specific hospital services for specific subgroups of patients. As in other states, Maryland relies on the authority and expertise of the health care facilities licensing authorities. In Maryland, these authorities include the Office of Health Care Quality (OHCQ) and the Behavioral Health Administration (BHA), both divisions of the Maryland Department of Health (MDH), to assure that psychiatric hospital facilities meet operational standards for the delivery of safe and effective care.

In 2018, MHCC developed a report, at the direction of the Senate Finance and House Government Operations Committee, examining CON regulation and made recommendations on reforms intended to better align this regulatory program with changes in regulation of hospital charges and to streamline its operation. To assist in development of this report, MHCC convened a Task Force on Modernization of CON regulation. The membership of the Task Force included Commissioners and "stakeholder" representatives with respect to CON regulation, including physicians, payers, employers, consumers, and operators of regulated health care facilities and services. The work of the Task Force was supported by MHCC staff. The Report on Modernization of the Maryland CON Program (Report) was approved by the

[1] MD Dep't of Health, Behavioral Health Admin., *Office of Adult and Specialized Behavioral Health Services (last visited* Sept. 13, 2018), *available at* http://bha.dhmh.maryland.gov/Pages/Office-of-Adult-and-Specialized-Behavioral-Health-Services.aspx.

Commission in December 2018 and forwarded to the legislative committees.[2] MHCC recommended statutory changes, requiring legislative action, and changes in the State Health Plan (SHP) and procedural regulations that are used by MHCC to guide decisions on proposed projects and shape the project review process.

In the Report, MHCC recommended that the SHP regulations that are most in need of updating and which offer the greatest potential to meet reform objectives be identified and ranked as priorities for revision. COMAR 10.24.07, the SHP regulations for psychiatric services have been identified as a top priority for updating. MHCC also recommended that SHP regulations be streamlined as they are updated. Specifically, the Report supports limiting SHP project review standards to those addressing project need, project viability, access, project impact, and applicant qualifications. In addition, the Report concluded that any other standards that do not address these specific criteria should only be included if the particular characteristics of a health care facility make it necessary. Applicant qualification standards are intended to establish performance or track record thresholds that must be met in order to become an applicant. As such, they will represent a practical approach in which CON regulation can address quality of care, as a "gatekeeper," assuring that persons entering Maryland to provide health care facility services are of good character and have the requisite competence. In the Report, MHCC also recommended that the scope of CON regulation in Maryland statute be amended to eliminate the requirement that hospitals currently providing inpatient psychiatric services obtain a CON to increase hospital psychiatric bed capacity. Legislation (HB 616) to effect this change and other changes to the scope of CON was initially introduced, but then later amended to remove language that would have eliminated the requirement that hospitals obtain a CON to expand psychiatric bed capacity.

This White Paper serves as a starting point for review and updating of COMAR 10.24.07 (the Chapter), which is planned as a chapter of SHP regulation that will guide the review of acute psychiatric hospital services projects that require CON approval. Generally, with respect to psychiatric hospital services, a CON is required when a health care facility is newly established, relocates, changes its bed capacity, changes the type or scope of its services, or undertakes a capital expenditure for a project that exceeds the applicable capital expenditure threshold.[3] The White Paper provides an overview of psychiatric services in Maryland, including the regulation of psychiatric hospital services. It reviews the utilization and availability of psychiatric hospital bed capacity and approaches to planning for acute psychiatric hospital beds. A discussion of psychiatric bed need methodologies and approaches utilized by select states that regulate psychiatric hospital facility projects through CON programs is also provided.

II. Scope of CON Regulation of Psychiatric Services in Maryland

Maryland uses the CON process to regulate the supply and distribution of the most acute and expensive form of psychiatric care, hospitalization. Private and State psychiatric hospitals and psychiatric units in general acute hospitals require a CON to be established, to relocate, to add beds, or to introduce

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[2] "Modernization of the Maryland Certificate of Need Program" available at http://mhcc.maryland.gov/mhcc/pages/home/workgroups/documents/CON_modernization_workgroup/Final%20Report/con_modernization_workgroup_final_report_20181221.pdf.

[3] *See* COMAR 10.24.01.02, s*ee* also COMAR 10.24.10.02(D). The 2018 capital expenditure thresholds are $12,300,000 for hospitals and $6,150,000 for non-hospital health care facilities. *See*, MD. HEALTH CARE COMM'N, *Threshold for Reviewability of Health Care Facility Capital Expenditures – 2018 Thresholds*, http://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_con/documents/con_capital_threshold_update_20180417.pdf (last visited, August 28, 2018).

programming to serve an age group that they have not been authorized to serve in the past. This last requirement is a feature of the current SHP regulations and not the CON statute. Psychiatric beds must be designated and approved specifically for children, adolescents, or adults. Services provided by psychiatric hospitals and acute general hospitals with psychiatric units include short and longer-term inpatient psychiatric services, including crisis care and involuntary hospitalization. General acute hospitals and private psychiatric hospitals primarily provide acute psychiatric inpatient services, while State psychiatric hospitals primarily provide longer-term inpatient psychiatric care and care for forensic patients.[4] Forensic patients are those with mental illness involved with the court system.[5] Forensic patients occupy over 90 percent of State hospitals beds.[6]

In addition to acute psychiatric hospital services, the current SHP includes regulations for other behavioral health services, including residential treatment centers (RTCs) for juvenile sex offenders and intermediate care facilities (ICF) for sub-acute detoxification and rehabilitation of alcohol and drug abusers. RTCs are addressed in the Chapter, and ICFs are addressed in COMAR 10.24.14.[7] A CON is required to establish a new RTC or ICF, to relocate such facilities, to expand their bed capacity, or to undertake a capital project, for any purpose, that exceeds a capital expenditure threshold (currently $6.15 million).

Outpatient and lower acuity levels of service that are intended to reduce the need for inpatient hospitalization are not categorically regulated through CON. Facilities for the delivery of outpatient psychiatric services can and often are components of projects that require CON approval, such as the construction of new or replacement psychiatric hospital facilities or hospital renovation and modernization projects that require CON approval because of their cost.

The operation of all psychiatric hospital facilities is regulated, on an ongoing basis, through licensure and certification requirements established and enforced by MDH and two of its divisions, the BHA and the OHCQ. MDH also has the chief responsibility for ensuring that Maryland consumers receive quality mental health services, by funding, planning, and providing regulatory oversight of community-based mental health services.[8] These include programs that are not located in a hospital, such as group

[4] In an interview with MHCC staff in August 2018, BHA officials reported that, at times, forensic patients are court ordered to State psychiatric facilities without having received a formal psychiatric evaluation and diagnosis. These patients stay in inpatient care at State psychiatric hospitals until their next court appearance, even though they would otherwise be discharged.

[5] MARYLAND DEP'T OF HEALTH, *Office of Forensic Services* (last viewed March 5, 2019), *available at* https://health.maryland.gov/mha/Pages/forensicservices.aspx.

[6] Goldberg, Stephen B. "Forensic Services Work Group: Report of Recommendations" August 31, 2016. <http://cdm16064.contentdm.oclc.org/cdm/ref/collection/p266901coll7/id/5771>

[7] In addition to regulating acute psychiatric services, the Chapter also regulates residential treatment facilities for child sex offenders. *See* COMAR 10.24.07. A residential treatment facility means an institution that provides campus-based intensive and extensive evaluation and treatment of children and adolescents with severe and chronic emotional disturbance or mental illness who require care in a residential setting whose ALOS averages between twelve and eighteen months. Residential treatment facilities have an average length of stay (ALOS) beyond what would be considered acute care (<30 days). *Id.*

[8] COMAR 10.63. MDH includes the Maryland Medical Assistance Program (Medicaid) that funds behavioral health services delivery for qualifying indigent residents of the state.

homes for adults with mental illness, outpatient mental health centers, and partial hospitalization treatment programs.[9]

III. SHP Chapter for Psychiatric Hospital Services

The Chapter includes five designated health planning regions for psychiatric hospital services: Western Maryland, Montgomery County, Southern Maryland, Central Maryland, and the Eastern Shore. The geographic regions for psychiatric services are based on the original five health planning regions officially designated by the Commission under State statute.[10] The jurisdictions covered by each health planning region are shown in Table 1.

Table 1: Maryland Health Planning Areas for Acute Psychiatric Services

Health Planning Region	Jurisdictions
Central	Anne Arundel, Baltimore, Carroll, Harford, and Howard Counties; Baltimore City
Eastern Shore	Cecil, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, Somerset, and Worcester Counties
Montgomery County	Montgomery County
Southern	Calvert, Charles, St. Mary's, and Prince George's Counties
Western	Allegany, Garrett, Frederick and Washington Counties

Source: COMAR 10.24.07

The Central health planning region for psychiatric hospital services represents a Baltimore City and County-centered catchment area, with facilities concentrated in two jurisdictions of the region drawing in patients from throughout the region. The two regions that are suburbs and exurbs of Washington, D.C., Montgomery County and Southern Maryland, comprise to a degree, a D.C.-centered catchment area, with a similar concentration of specialized services drawing on a regional service area population. The other two regions, the Western and the Eastern Shore, are more diffuse in their referral patterns, although a plan for general hospital services regionalization in the Mid-Shore is being implemented, to some extent, at the present time.

Since the late 1990s, with the advent of the MHCC as the state's CON agency, the development of regional bed need projections has not been important as a framework for regulating the number of psychiatric hospitals or psychiatric hospital bed capacity. Until very recently, health care systems have not been seeking to develop more private psychiatric hospitals. Most capital projects involving psychiatric hospital services have emerged from general hospitals and have involved psychiatric units operating within the general hospital setting. In the last five years, establishment of three small (16 to 40 beds) special hospital psychiatric hospitals have been proposed by hospitals or hospital systems, with most of the bed capacity replacing beds operated within general hospitals, rather than adding bed capacity.

Instead of evaluating the need for psychiatric hospital bed capacity by health planning regions, the need for this capacity should be evaluated using hospital service areas because psychiatric hospital bed capacity, at least for adults, is widely needed and distributed, similar to other basic hospital services. Hospital service areas are typically defined at the zip code area-level. Understanding service area population use with respect to overlap of facility service areas and the observed levels of market share

[9] *See* COMAR 10.63.02.02 for a complete list of programs and services regulated by BHA, *available at* http://www.dsd.state.md.us/comar/comarhtml/10/10.63.02.02.htm.
[10] COMAR 10.24.07 at O-3 – O-5.

achieved by facilities are more meaningful tools for decision-making than large regional calculations of bed need. The value and utility of these health planning regions in an updated Chapter is a primary question to be answered.

All CON applications are evaluated for compliance with six general criteria, established in COMAR 10.24.01.08G. The six general criteria that apply to all CONs are: compliance with the relevant SHP chapter; demonstration of the need for the project; demonstration of cost-effectiveness, demonstration of financial viability; compliance with the conditions of previous CONS; and evaluation of the impact of the proposed project. In recent years, updated chapters of the SHP have included project review standards that overlap with the review criteria beyond the issue of need, which has traditionally been a central concern of SHP regulations. For example, recently updated SHP chapters provide guidance on how the cost-effectiveness of alternative project solutions, financial viability, and project impact should be considered for particular types of facilities or services. The Chapter for acute psychiatric services includes 24 standards that are used for evaluating CON applications involving psychiatric hospital projects. These standards are organized under six criteria: availability, accessibility, cost, quality, continuity, and acceptability. These standards are described in detail in Section VIII.

IV. Trends in Acute Psychiatric Services Across Care Settings

A key function of CON regulation for inpatient psychiatric beds is to regulate the supply of inpatient psychiatric beds. This section of the White Paper includes information on current psychiatric hospital bed capacity, the utilization of psychiatric hospital beds, and hospital emergency department visit volume by patients with a primary psychiatric diagnosis. It also includes information on other trends that could be relevant to determining how the demand and use of psychiatric hospital services has changed over time.

This section describes three measures of psychiatric hospital bed capacity: physically available beds, licensed beds, and staffed beds. Physically available beds refers to the actual capacity to physically set up beds for operation, maintain operations, and make the beds available for use.[11] Licensed beds are the maximum number of beds that a hospital holds a license to operate.[12] It may or may not equal physically available beds. A staffed bed is a physically available and licensed bed for which staff is designated to attend to patients who may occupy the bed.[13] In Maryland's general hospitals, not all physically available beds are licensed and not all licensed beds are staffed beds. The number of licensed beds designated as acute psychiatric beds may not be equivalent to physical bed capacity available for use in those areas of the hospital designed for operation of an acute psychiatric unit. Licensed hospital beds may go unstaffed for a number of reasons including a lack of demand or a lack of available financial or staff resources.

A. Psychiatric Hospital Bed Capacity

Based on staffed occupancy rates for psychiatric hospital beds in CY 2017 in general acute hospitals and private psychiatric hospitals, there appears to be sufficient physical capacity for handling the demand for acute inpatient care. As shown in Table 5, bed occupancy levels calculated on the basis

[11] ADMINISTRATION FOR HEALTHCARE RESEARCH & QUALITY, *AHRQ Releases Standardized Hospital Bed Definitions* (last visited Jan. 22, 2019), *available at* https://archive.ahrq.gov/research/havbed/definitions.htm.
[12] *Id.*
[13] *Id.*

of reported staffed psychiatric beds at general hospitals declined from an annual average occupancy level of 89 percent to 81 percent between CY 2010 and CY 2017. Similarly, bed occupancy levels for staffed beds declined at private psychiatric hospitals from 81 percent to 78 percent during this time period, as shown in Table 9. State psychiatric hospitals have maintained high occupancy levels of staffed beds during this time, average annual occupancy levels of 97 percent in CY 2010 and 94 percent in CY 2017. State hospitals primarily treat forensic patients, and a need for more beds to treat the forensic population has been identified.[14]

The staffed bed occupancy rate for psychiatric beds is the best measure of capacity because it is common for the number of physical beds at a hospital to be higher than the number of staffed beds, and beds that are not staffed are not available. For example, On June 1, 2018, there were a reported 1,765 acute psychiatric hospital beds physically available in Maryland, but only 1,540 of those beds were staffed (See Table 2).

Table 2. Acute Psychiatric Hospital Bed Capacity as of June 1, 2018, Maryland

Region	Facility Type	Physical Beds	Staffed Beds	Percentage of Physical Bed Capacity Staffed	Unstaffed Beds
Western Maryland	General acute care hospitals	58	56	97%	2
	State psychiatric hospitals	66	44	67%	22
	Private psychiatric hospitals	57	57	100%	0
	All Facilities	**181**	**157**	**87%**	**24**
Montgomery County	General acute care hospitals	70	70	100%	1
	State psychiatric hospitals	-	-	-	-
	Private psychiatric hospitals	136	118	87%	18
	All Facilities	**206**	**188**	**91%**	**18**
Southern Maryland	General acute care hospitals	97	83	86%	14
	State psychiatric hospitals	-	-	-	-
	Private psychiatric hospitals	-	-	-	-
	All Facilities	**97**	**883**	**86%**	**14**
Central Maryland	General acute care hospitals	467	441	94%	26
	State psychiatric hospitals	268	219	82%	49
	Private psychiatric hospitals	414	336	81%	78
	All Facilities	**1,149**	**996**	**87%**	**153**
Eastern Shore	General acute care hospitals	52	36	69%	16
	State psychiatric hospitals	80	80	100%	0
	Private psychiatric hospitals	-	-	-	-
	All Facilities	**132**	**116**	**88%**	**16**
Maryland	General acute care hospitals	744	686	92%	68
	State psychiatric hospitals	414	343	83%	71
	Private psychiatric hospitals	607	511	85%	96
Total	**All Facilities**	**1,765**	**1,540**	**87%**	**235**

Source: MHCC Analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

[14] Goldberg, Stephen B. "Forensic Services Work Group: Report of Recommendations." August 31, 2016. http://cdm16064.contentdm.oclc.org/cdm/ref/collection/p266901coll7/id/5771.

Licensed bed capacity for general acute care hospitals may fluctuate from year-to-year. Licensed bed capacity in general hospitals is calculated annually based on historic average daily census (ADC). ADC is measured by MHCC as the average number of inpatients treated by each hospital on an average day for the twelve-month period ending with the first quarter of the year (March 31).[15] A hospital's total licensed acute care bed capacity is established for the next fiscal year at 140 percent of the hospital's ADC. This reflects an average annual occupancy rate of approximately 71 percent, which is assumed to be an appropriate benchmark for determining the maximum number of licensed beds that an acute care hospital needs to operate in order to operate efficiently and be reasonably available for patients. After licensed bed capacity has been determined, general acute care hospitals allocate their total licensed beds to each existing clinical service, including psychiatric services.[16] Because the allocation process allows general acute care hospitals to reconfigure their licensed bed capacity, the beds assigned to major clinical services, including psychiatric services, may increase or decrease on an annual basis.[17]

In contrast to general acute care hospitals' ability to allocate their licensed beds among service lines each year, for private and State psychiatric hospitals, the number of licensed beds is fixed, theoretically on the basis of physical bed capacity, and changes would occur less frequently. For these specialty hospitals, the number of licensed beds is specified on the license issued every three years to reflect the accreditation cycle of the Joint Commission.[18] For some psychiatric hospitals, the number of beds on the license reflects historic capacity and may not correspond well to the current physical capacity to provide care.[19] BHA maintains and reports data on staffed beds at State psychiatric hospitals.[20] State psychiatric hospitals have the ability to incrementally expand bed capacity over time without CON review and approval by requesting authorization of what are commonly referenced as "waiver beds,"[21] up to a maximum of ten beds.

Although private psychiatric hospitals and general hospitals treat a similar population of psychiatric patients, one key difference is that Maryland acute care general hospitals are subject to the All Payer system of charge regulation, which has recently evolved to the Total Cost of Care Model, but charges by private psychiatric hospitals are only partially regulated under this state authority. Only the charges paid by private payers are regulated. This difference potentially affects decisions regarding expansion of capacity and staffing of beds.

There appears to be adequate capacity based on occupancy levels; however, the occupancy and availability of acute psychiatric hospital services must be considered for specific age groups and by geographic location. The following sections include more detailed information on the available capacity and utilization of psychiatric hospital beds at general hospitals, private psychiatric hospitals, and State psychiatric hospitals.

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[15] MARYLAND HEALTH CARE COMMISSION. ANNUAL REPORT ON SELECTED MARYLAND ACUTE CARE AND SPECIAL HOSPITAL SERVICES. 1 (June 28, 2018) [hereinafter 2018 REPORT], a*vailable at* https://mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_hospital/documents/acute_care/chcf_Annual_Rpt_Hosp_Services_FY2018.pdf.

[16] *Id.*

[17] *Id.* Specialty hospitals lack the flexibility that general acute hospitals possess in allocating beds among clinical services.

[18] *Id.*

[19] *Id.*

[20] *Id.*

[21] *Id.*

General Acute Care Hospitals

Most acute inpatient psychiatric care in Maryland is provided by 29 general acute care hospitals.[22] For FY 2019, there were a total of 714 licensed beds that were designated for acute psychiatric services at Maryland general hospitals (Table 3).[23] All 29 general hospitals in Maryland with psychiatric beds accept adult psychiatric patients (age 18 and above). Two hospitals (7 percent) provide acute psychiatric services for children (ages 0-12). Five hospitals (17 percent) provide services for adolescents (ages 13-17), and 16 (55 percent) provide psychiatric services specifically designed for geriatric patients.[24] The Western Maryland and Eastern Shore regions lack any general hospitals that provide psychiatric services for children or adolescents, and the Central Maryland region is the only region with acute psychiatric hospital services for children.

In addition to a patient's age category, a patient's status as a voluntary or involuntary patient may affect whether a hospital will accept the patient. [25] In CY 2017, almost a quarter of psychiatric patients admitted to general acute care hospitals were involuntary patients, and almost 20 percent of psychiatric patients admitted to private psychiatric hospitals were involuntary patients. A hospital's refusal to accept any involuntary patients could hinder the ability of some involuntary patients to access acute psychiatric beds.

Most general hospitals (23 hospitals; 79 percent) accept involuntary psychiatric patients.[26] While Standard 2b in the Chapter requires that any general hospital that has a psychiatric unit perform evaluations of persons brought in as a result of an emergency psychiatric petition, there is no requirement that these hospitals admit and treat involuntary patients. Although most general hospitals offering psychiatric services accept involuntary patients, Montgomery County has, historically, been an exception to the statewide pattern. Only one of four general hospitals, Adventist HealthCare Washington Adventist Hospital (WAH), accepts involuntary patients. A private psychiatric hospital in Montgomery County, also operated by Adventist HealthCare, historically accepted involuntary patients. That hospital has recently consolidated its operation with a general hospital, Adventist HealthCare Shady Grove Medical Center (SGMC) and its beds are now licensed as general hospital beds. Also, some of the psychiatric bed capacity at WAH is slated to be relocated to SGMC within the next two years, with the balance of the beds relocating to a replacement WAH facility. The limited number of hospitals that accept involuntary psychiatric patients (currently two of the six general hospitals) in this region may hinder access to care for some patients.

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[22] *Id.*at 35.

[23] *Id.* at 36.

[24] *Id.*

[25] An individual may be committed for psychiatric services through several different mechanisms. An individual may voluntarily commit himself to psychiatric care; an application for involuntary commitment can be submitted by a medical professional, law enforcement officer, or interested party through a civil proceeding; or an individual may be a forensic patient as a result of a criminal proceeding. *See* MD Health-Gen Code § 10-609 (2017); MD Health-Gen Code § 10-610 (2017); MD Health-Gen Code § 10-614 (2017); COMAR 10.07.13.02. Although not discussed in this paper, forensic patients are limited to those patients: whose competency to stand trial or assume criminal responsibility are in question; committed as incompetent to stand trial or assume criminal liability; or found not criminally responsible and court-ordered to conditional release in the community. COMAR 10.07.13.02; MARYLAND DEP'T OF HEALTH, *Office of Forensic Services* (last viewed March 5, 2019), *available at* https://health.maryland.gov/mha/Pages/forensicservices.aspx.

[26] *Id.*

Table 3. Licensed Acute Psychiatric Hospital Beds at Maryland General Hospitals, FY 2012 – FY 2019

Region	Licensed Psychiatric Beds								Percent Change in Licensed Beds
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	
Western Maryland	60	59	58	57	54	58	58	56	-7%
Montgomery County	89	89	89	84	90	88	88	70	-21%
Southern Maryland	90	90	90	90	83	92	89	87	-3%
Central Maryland	423	432	444	457	448	455	464	457	7%
Eastern Shore	33	33	33	36	47	47	48	44	33%
Maryland	695	703	714	724	722	740	747	714	3%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

As shown in Table 3, the number of licensed psychiatric beds at general acute care hospitals in Maryland increased slightly between FY 2012 and FY 2019. The total number of beds also fluctuated within a fairly narrow range (52 beds) during this period, between a low of 695 beds in 2012 and a high of 747 beds in 2018. The largest year-to-year change in licensed bed allocations to psychiatric services was only four percent, between FY 2018 and FY 2019. From FY 2012 to FY 2019, acute psychiatric bed capacity remained relatively stable in the Western, Central, and Southern Maryland regions. On the Eastern Shore, the number of licensed beds increased about 33 percent over that period. The largest decrease in bed capacity among all regions was in Montgomery County. From FY 2012 to FY 2019, the number of licensed psychiatric beds decreased 21 percent in Montgomery County. Although a general hospital's total licensed acute care beds is based on its ADC, a change in licensed beds does not necessarily equate to a corresponding change in the ADC for acute psychiatric hospital beds because the licensure change starting point is the overall ADC for all acute care hospital beds. Hospitals have discretion to allocate the total number of licensed beds among all the hospital's acute care services, independent of any changes in demand for particular categories of beds.

Table 4. Staffed Acute Psychiatric Hospital Beds at Maryland General Hospitals, CY 2011 – CY 2018

Region	Staffed Psychiatric Beds on June 1 of Survey Year								Percent Change in Staffed Beds
	2011	2012	2013	2014	2015	2016	2017	2018	
Western Maryland	55	56	56	77	56	56	56	56	2%
Montgomery County	88	89	88	82	88	89	90	70	-21%
Southern Maryland	88	87	98	85	77	86	82	83	-6%
Central Maryland	417	420	422	436	428	421	458	441	5%
Eastern Shore	33	33	32	34	34	35	36	36	9%
Maryland	681	685	696	714	683	687	722	686	<1%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

From FY 2011 to FY 2018, the number of staffed psychiatric hospital beds increased overall, and in each region, except for Southern Maryland and Montgomery County. (See Table 4.) Statewide the number of staffed psychiatric beds changed very little over this period, increasing by less than one percent. From 2016 to 2017, staffed acute psychiatric hospital beds increased from 687 to 722 beds. In

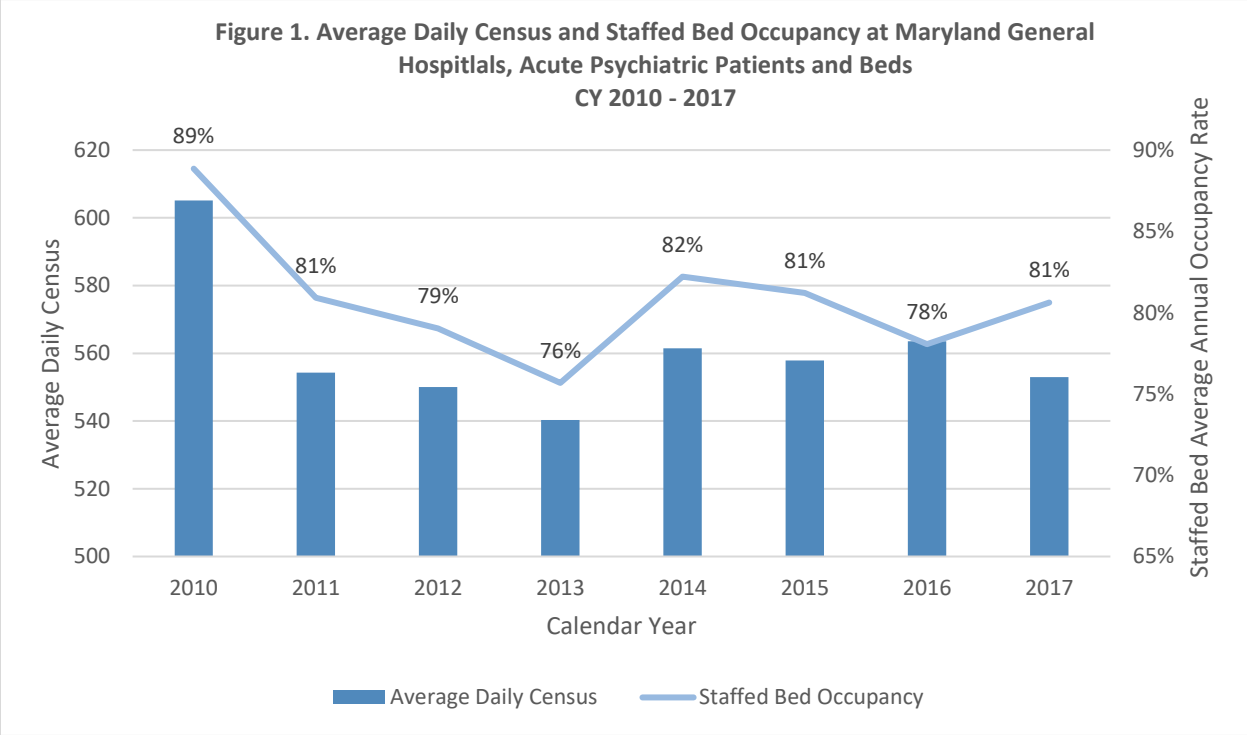
2018, however, the number of reported staffed acute psychiatric hospital beds declined to 686 beds. The Eastern Shore region saw a sharp increase (33 percent) in licensed acute psychiatric hospital beds from FY 2012 to FY 2019, and an increase of nine percent in the number of acute psychiatric hospital beds staffed and ready for use from 2011 to 2018. While staffed psychiatric beds in Maryland remained unchanged from 2011 to 2018, the number of staffed acute psychiatric hospital beds in the Southern Maryland Region and in Montgomery County declined by six percent and 21 percent, respectively.

Table 5. Average Daily Census and Staffed Bed Occupancy (SBO) for Acute Psychiatric Hospital Beds at Maryland General Hospitals, CY 2010 – CY 2017

Region	Average Daily Census								Percent Change in ADC	SBO 2010	SBO 2017
	2010	2011	2012	2013	2014	2015	2016	2017			
Western Maryland	50	47	47	45	43	45	46	43	-14%	90%	77%
Montgomery County	68	59	60	53	55	59	57	54	-21%	78%	77%
Southern Maryland	71	64	57	57	62	67	69	60	-16%	81%	72%
Central Maryland	384	354	359	359	372	358	362	369	-4%	92%	84%
Eastern Shore	32	29	27	26	29	29	29	27	-16%	97%	74%
Maryland	605	554	550	540	562	558	564	553	-9%	89%	81%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

Statewide, the staffed bed occupancy rate fell from 89 percent in CY 2010 to 81 percent in CY 2017, but the 2010 rate is an aberration. In the following seven years, the annual average occupancy rate was just under 80 percent. As shown in Figure 1, the annual occupancy rates ranged from 76 percent to 82 percent. Staffed bed occupancy rates declined across all regions of Maryland in these years. Between FY 2010 and FY 2017, ADC declined in every health planning region, with a statewide drop of nine percent. The ADC for psychiatric patients in general hospitals shrank from 605 patients to 553 patients from CY 2010 to CY 2017. The falling ADC indicates that fewer patients are receiving treatment and, as shown in Figure 1, fewer acute psychiatric beds at general hospitals were staffed as ADC dropped.



Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

As shown in Figure 1, the increases and decreases in ADC and staffed bed occupancy at general hospitals track with each other. This pattern suggests that hospitals are able to appropriately respond to changes in the demand for acute psychiatric hospitalization.

State Psychiatric Hospitals

There are five psychiatric hospitals operated by the State of Maryland. These hospitals primarily provide long-term inpatient services and acute forensic services. One of these hospitals, located in the Central Maryland region (Jessup/Howard County), provides services exclusively to forensic and involuntary patients. Only one State hospital, located in the Central Maryland region (Catonsville/Baltimore County), provides acute psychiatric services for adolescents; none of the State hospitals provide acute psychiatric services for children.[27]

In CY 2017, State psychiatric hospitals reported staffing 999 beds, with 343 of these beds (34.3 percent) used for acute psychiatric services. State psychiatric hospitals are located in three regions; Montgomery County and the Southern Maryland region do not contain a State psychiatric hospital. From CY 2010 to CY 2017, the statewide staffed bed occupancy rate remained consistently above 90 percent with its lowest average annual occupancy rate during this period, 94 percent, reported for CY 2016 and

[27] MD DEP'T OF HEALTH & MENTAL HYGIENE, HOSPITAL MGMT. INFO. CTR., *Maryland Health Care Comm'n Survey: Special Hospitals – Psychiatric* (June 1, 2016). Licensed and budgeted bed totals include both acute and continuing care psychiatric beds.

2017. The only decline in staffed bed occupancy occurred in the Eastern Shore region in CY 2016. That same year, the region added 20 staffed beds, which undoubtedly contributed to the slight decline in staffed bed occupancy.

Table 6. Staffed Acute Beds at Maryland State Psychiatric Hospitals, CY 2011 – CY 2018

Region	Staffed Acute Psychiatric Beds on June 1 of Survey Year								Percent Change in Staffed Beds
	2011	2012	2013	2014	2015	2016	2017	2018	
Western Maryland	44	44	44	44	44	44	44	44	0%
Montgomery County	0	0	0	0	0	0	0	0	0%
Southern Maryland	0	0	0	0	0	0	0	0	0%
Central Maryland	241	241	226	226	226	227	219	219	-9%
Eastern Shore*	20	20	60	60	60	60	80	80	300%
Maryland	305	305	330	330	330	331	343	343	13%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

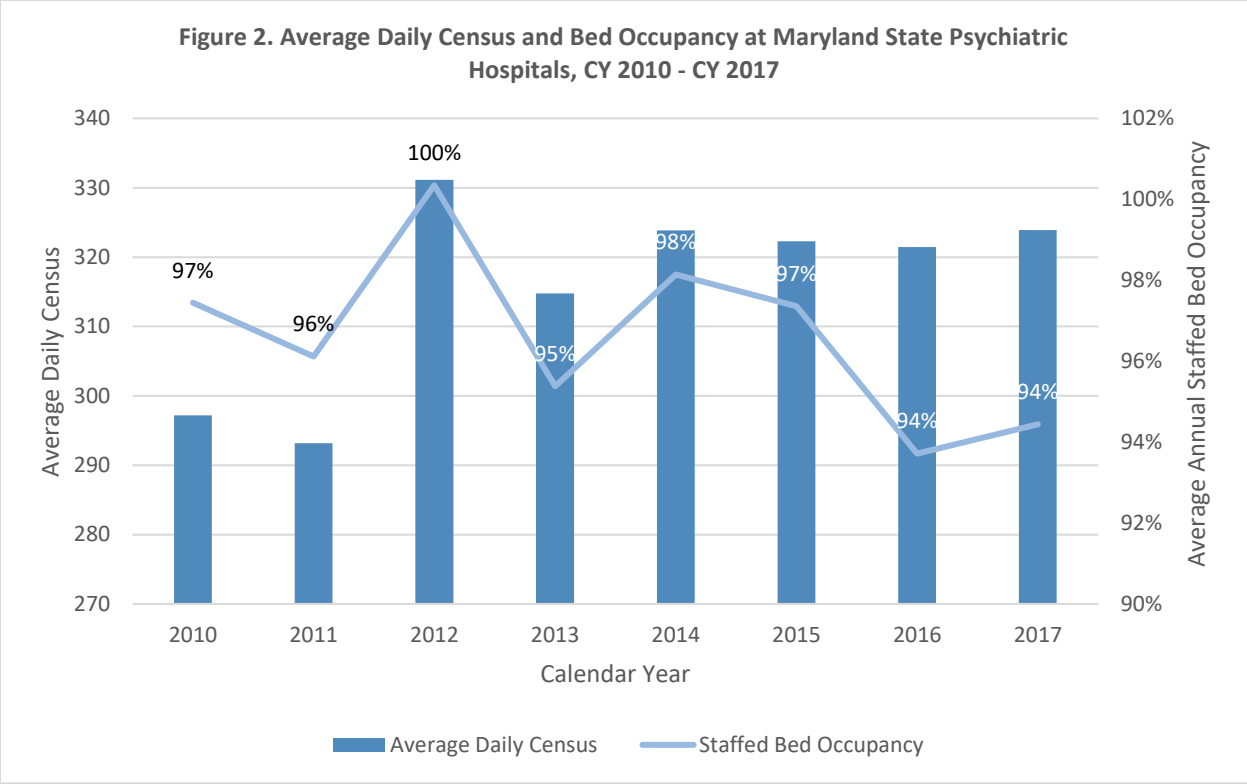
From CY 2011 to CY 2018, staffed acute care beds in State psychiatric hospitals increased approximately 13%, from 305 beds to 343 (see Table 6). And from CY 2010 to CY 2017, the acute patient ADC in State hospitals increased approximately eight percent, from 297 patients to 321 (see Table 7).

Table 7. Average Daily Census and Staffed Bed Occupancy (SBO) for Acute Beds at Maryland State Psychiatric Hospitals, CY 2010 – CY 2017

Region	Average Daily Census								Percent Change in ADC	SBO 2010	SBO 2017
	2010	2011	2012	2013	2014	2015	2016	2017			
Western Maryland	44	44	45	45	45	45	46	43	-2%	100%	97%
Montgomery County	-	-	-	-	-	-	-	-	-	-	-
Southern Maryland	-	-	-	-	-	-	-	-	-	-	-
Central Maryland	232	230	229	215	219	218	216	210	-10%	96%	96%
Eastern Shore	21	19	57	55	60	60	59	61	191%	107%	76%
Maryland	297	293	331	315	324	322	321	321	8%	97%	94%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

As shown in Figure 2, staffed acute care bed occupancy has remained consistently high, with average annual occupancy rates that suggests very few or no staffed beds available for new patient admissions on many days. The lowest level of average annual occupancy implied by the data, between CY 2010 and CY 2017, was 94 percent (in both CY 2016 and 2017). The consistent high level of staffed bed occupancy suggests that psychiatric beds at State hospitals are difficult to access for patients who need them most of the time.



Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

Private Psychiatric Hospitals

There are currently three private psychiatric hospitals in Maryland, located in two health planning regions. There is one private psychiatric hospital in the Western Maryland region (Hagerstown/Washington County) that provides services to adults, children, and adolescents. It accepts involuntary admissions.

In the Central Maryland region, there are two private psychiatric hospitals operated by a single health system. The larger hospital (Towson/Baltimore County) provides services to all age groups and also has a specialized program for geriatric patients. The smaller hospital (Ellicott City/Howard County) provides adult and adolescent programming. (This smaller hospital will soon be replaced with a larger facility in the Elkridge area of Howard County.) The Southern Maryland Region has historically lacked a private psychiatric hospital, and the Eastern Shore Region had one private psychiatric hospital, specializing in child and adolescent care, until it closed in November 2016.

Until recently, there was also a private psychiatric hospital in Montgomery County in Rockville. That hospital recently consolidated its operations under the general hospital license of an adjacent sister general hospital. As a large general hospital psychiatric hospital program, it continues to provide services to all age groups, including a specialized geriatric program. The hospital also admits involuntary patients.

Table 8. Acute Psychiatric Staffed Beds at Maryland's Private Psychiatric Hospitals, CY 2011 – CY 2018

Region	Staffed Acute Psychiatric Beds on June 1 of Survey Year								Percent Change in Staffed Beds
	2011	2012	2013	2014	2015	2016	2017	2018	
Western Maryland	44	42	43	43	57	57	57	57	30%
Montgomery County*	107	106	106	106	106	118	118	118	10%
Southern Maryland	-	-	-	-	-	-	-	-	-
Central Maryland	328	336	333	333	340	335	336	336	2%
Eastern Shore	15	15	15	15	15	15	0	0	-100%
Maryland	494	499	497	497	518	525	511	511	3%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

*These beds were consolidated into a general hospital license, Adventist HealthCare Shady Grove Medical Center, in 2018.

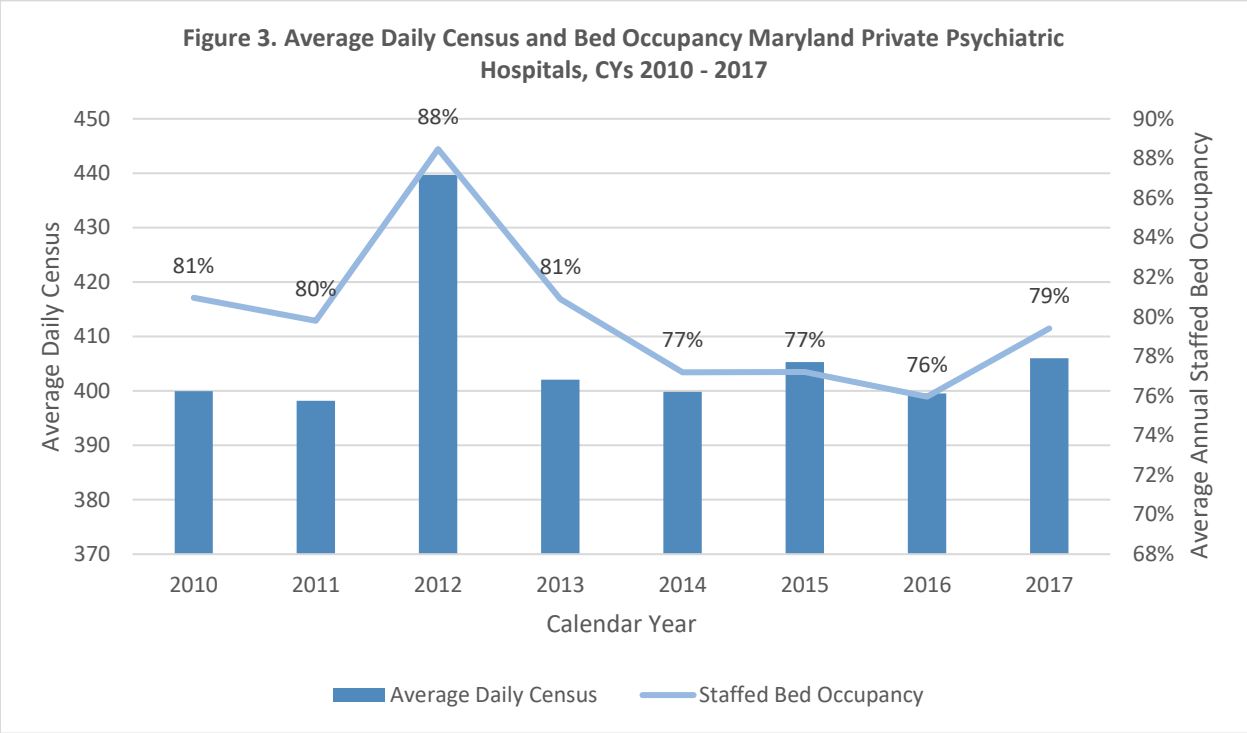
As of June 1, 2018 there were 511 staffed acute beds at Maryland private psychiatric hospitals, a three percent increase from June 1, 2011 (see Table 8). From 2011 to 2018, the number of staffed acute psychiatric beds increased in all but one health planning region where private psychiatric hospitals are located. Western Maryland, Montgomery County, and Central Maryland saw increases in staffed beds of 30, 10, and two percent, respectively. As previously noted, the Eastern Shore Region had 15 acute psychiatric beds until November 2016 when those beds were delicensed; and in Montgomery County, while the facilities and bed capacity did not change, the former psychiatric hospital is now organized as part of a general hospital. Among other factors, the decrease in staffed acute psychiatric beds may be a result of a decrease in the demand for acute psychiatric beds.

Table 9. Average Daily Census and Staffed Bed Occupancy (SBO) for Acute Psychiatric Hospital Beds at Private Psychiatric Hospitals, CY 2010 – CY 2017

Region	Average Daily Census								Percent Change in ADC	SBO 2010	SBO 2017
	2010	2011	2012	2013	2014	2015	2016	2017			
Western Maryland	34	33	43	36	33	36	30	37	9%	78%	64%
Montgomery County	82	72	95	80	79	72	79	86	5%	77%	73%
Southern Maryland	-	-	-	-	-	-	-	-	-	-	-
Central Maryland	272	284	289	275	276	289	283	283	4%	83%	86%
Eastern Shore	12	10	13	11	11	8	8	0	-100%	77%	-
Maryland	400	398	440	402	400	405	400	406	2%	81%	78%

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

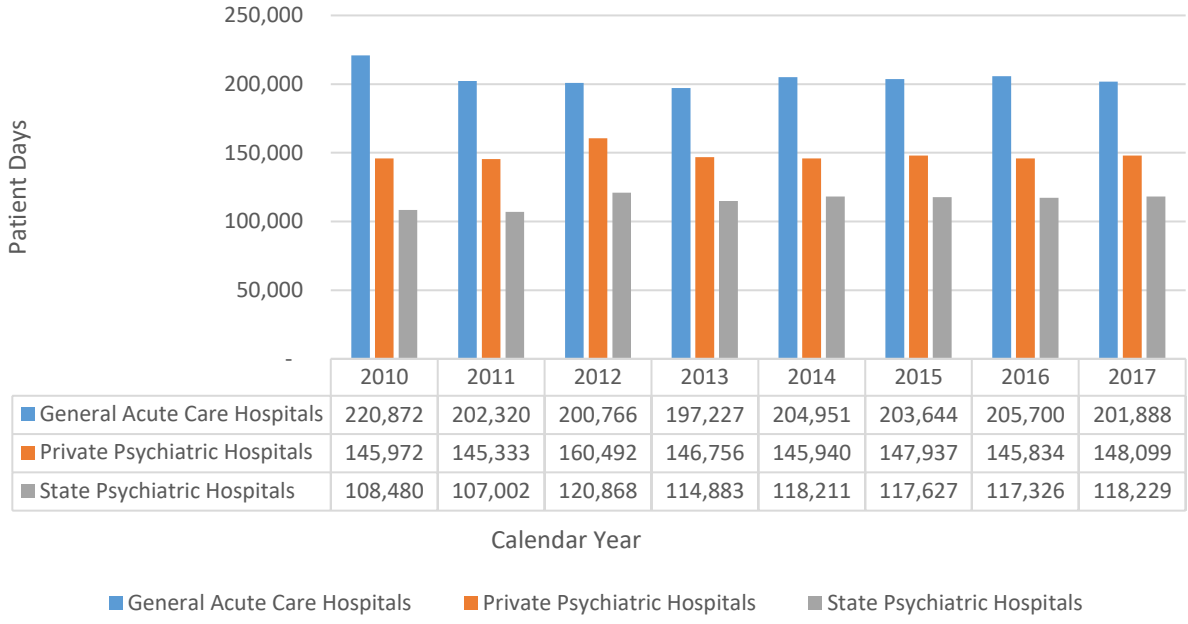
From CY 2010 to CY 2017, the overall ADC at Maryland private psychiatric hospitals increased slightly. The Central Maryland Region, where private hospital bed capacity is concentrated, saw four percent growth in ADC over this period and the Western Maryland Region and Montgomery County saw increases in ADC of five and nine percent, respectively. From CY 2010 to CY 2017, the statewide staffed bed occupancy for acute psychiatric beds at Maryland psychiatric hospitals declined slightly, from 81% to 78%.



Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

As shown in Figure 3, staffed bed occupancy at private psychiatric hospitals has generally remained around 80 percent, except in 2012 when staffed bed occupancy reached 88 percent. The ADC over the period CY 2010 to CY 2017 also has remained relatively flat at around 400 patients, with the exception of 2012, when the ADC reached 440 patients.

Figure 4. Number of Psychiatric Patient Days by Setting for Maryland Hospitals, CY 2010- CY 2017



	2010	2011	2012	2013	2014	2015	2016	2017
General Acute Care Hospitals	220,872	202,320	200,766	197,227	204,951	203,644	205,700	201,888
Private Psychiatric Hospitals	145,972	145,333	160,492	146,756	145,940	147,937	145,834	148,099
State Psychiatric Hospitals	108,480	107,002	120,868	114,883	118,211	117,627	117,326	118,229

Source: Maryland Health Care Commission (MHCC), *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, and FY 2018), and MHCC analysis of FY 2019 Psychiatric Hospital Facilities and Services data.

As shown in Figure 4, from CY 2010 to CY 2017, at general acute care hospitals, the number of psychiatric patient days declined from 220,872 days to 201,888 days (-4.5 percent), while patient days at private psychiatric hospitals grew, from 145,972 days to 148,099 days (1.5 percent) and at State psychiatric hospitals increased from 108,480 days to 118,229 days (nine percent).

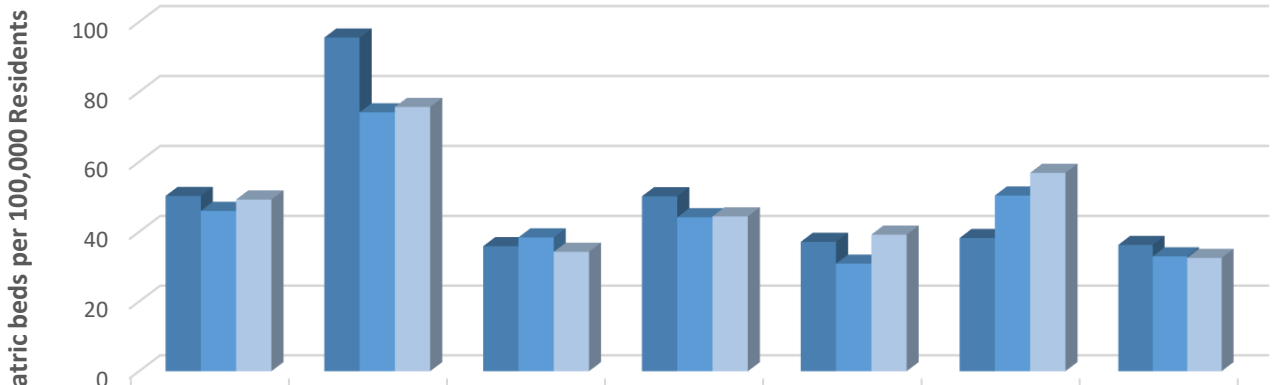
Maryland Bed Capacity Compared to Other States

The number of inpatient psychiatric beds per capita in Maryland has shown a declining trend between 2010 and 2016, which is consistent with the national trend over this period. As shown in Figure 5, between 2010 and 2016, the number of inpatient psychiatric beds in Maryland declined from 35.9 beds per 100,000 residents to 34.3 beds per 100,000 residents. Nationally, inpatient psychiatric bed capacity is reported to have declined from 36.3 beds per 100,000 residents to 32.6 beds per 100,000 residents over the same period. In published rankings of all 50 states, the District of Columbia, and Puerto Rico, Maryland has ranked 26th (2010), 34th (2014), and 26th (2016). In 2014 and 2016, Maryland's inpatient psychiatric bed count per 100,000 residents was higher than the national average, but only by a small margin in 2016. (See Appendix C for a detailed list of states and their psychiatric bed counts for 2010, 2014, and 2016.)

From 2010 to 2016, psychiatric hospital beds per 100,000 residents increased in two of Maryland's bordering states. (See Figure 5.) Both Virginia and West Virginia saw an increase in their ratio of beds per 100,000 population between 2010 and 2016. In Virginia, beds per population increased by six percent, and in West Virginia, the ratio increased nearly 50 percent. In 2016, Washington state had the lowest number of inpatient psychiatric beds per 100,000 residents (13.58), and the District of Columbia had the highest number of inpatient psychiatric beds per 100,00 residents (75.69). Many factors affect the need

for acute psychiatric beds, including the availability of crisis services and other less intensive mental health services.

Figure 5: Psychiatric Beds per 100,000 Residents for Maryland, Nationwide, and Neighboring Jurisdictions



	Delaware	District of Columbia	Maryland	Pennsylvania	Virginia	West Virginia	Nationally
2010	50.24	95.53	35.9	50.16	37.13	38.24	36.26
2014	46	74.15	38.41	44.17	30.9	50.39	32.97
2016	49.23	75.69	34.28	44.42	39.21	56.87	32.55

Source: MHCC staff of analysis of the National Mental Health Services Survey (N-MHSS), Data on Mental Health Treatment Facilities (survey years 2010, 2014, and 2016).

B. Population Use of Psychiatric Hospital Services

Over the past decade, the use of psychiatric hospital beds by Maryland's adult population declined by 5.6 percent, as shown in Table 10. The younger population, including children and adolescents, experienced an increasing use rate. However, adolescents (aged 13 to 17) saw a much greater increase in psychiatric discharge rates. From 2008 to 2017, the adolescent discharge rate increased from 1,008 to 1,273 per 100,000 adolescents, an increase of 26.4 percent. Most of this rate increase occurred between 2008 and 2011, and the use rate stabilized in subsequent years. For children (12 years of age and younger), the use rate increased from 179 discharges per 100,000 children in 2008 to 217 discharges per 100,000 children in 2012, but then declined in subsequent years, with the exception of 2017. For adults, psychiatric discharge rates increased from 2008 through 2011, similar to younger age groups. However, in contrast to the younger age groups, the adult psychiatric discharge rates steadily declined after 2011 and fell below the rates in 2008 beginning in 2014.

Table 10. Psychiatric Discharge Rates per 100,000 Population, from General Hospitals and Private Psychiatric Hospitals, for Maryland Residents by Age Group, CY 2008-CY 2017

Age Group	Discharges Per 100,000 Maryland Residents										Use Rate Change
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Child (0-12)	179	189	204	209	217	201	192	170	175	183	+2.3%
Adolescent (13-17)	1,008	1,199	1,190	1,291	1,294	1,328	1,329	1,318	1,273	1,273	26.4%
Adult (>18)	853	896	896	905	887	869	850	804	802	772	-9.6%
All Ages	**752**	**799**	**801**	**816**	**804**	**790**	**775**	**734**	**731**	**709**	**-5.6%**

Source: MHCC staff analysis of HSCRC discharge abstract data , District of Columbia discharge abstract data, and private psychiatric hospital data, CY 2008 to CY 2017; Population data from the U.S. Census Bureau for 2008 and 2009; Maryland Department of Planning Projections, March 2018.
Note: For the HSCRC and DC data, psychiatric discharges are defined as records with major diagnostic category (MDC) coded for mental diseases and disorders. All records from private psychiatric hospitals are included regardless of the MDC category. The discharge rates do not incorporate discharges from State psychiatric hospitals.

The observation of increasing rates of psychiatric hospitalization in the child and adolescent age groups led staff to examine whether the demand for child and adolescent psychiatric hospitalizations had increased in conjunction with an increase in suicides among those under age 18 or self-inflicted injuries captured by the Health Services Cost Review Commission (HSCRC) discharge abstract data. Based on staff's investigation, staff concluded that access to acute psychiatric services may be a barrier for this population and should be further investigated. Appendix D provides additional information on staff's conclusions and recent trends in suicides and self-harm.

Overall non-State hospital psychiatric bed use declined five percent between 2008 and 2017, as shown in Table 11. Non-State hospital psychiatric bed use averaged 782 per 100,000 population over the three-year period between CY 2008 and CY 2010, and for the most recent three-year average period available, CY 2015 through CY 2017, the average was 725 per 100,000 population. Using the same three-year periods for comparison, the Central region saw the biggest decline in average psychiatric bed use rates (-12.9 percent). Only Southern Maryland had a slight increase in bed utilization (2.2 percent). The Southern Maryland region consistently had the lowest annual rates of utilization between 2008 and 2017, compared to the other regions. The Eastern Shore, Montgomery County, and Western Maryland saw non-State psychiatric hospitalization use rates decrease by -1.8 percent, -6.7 percent, -4.8 percent respectively.

Table 11. Psychiatric Discharge Rates per 100,000 Population, from General Hospitals and Private Psychiatric Hospitals, for Maryland Residents by Health Planning Region, CY 2008-CY 2017

Health Planning Region	Discharges Per 100,000 Maryland Residents										Discharge Rate Change 2008- 2017
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Central	962	999	999	1,013	993	972	923	874	860	844	-12.3%
Eastern Shore	543	600	613	677	679	602	599	583	591	550	+1.3%
Montgomery County	579	646	629	619	608	606	625	604	566	559	-3.4%
Southern	449	498	510	524	505	508	533	463	519	507	+12.7%
Western	782	876	935	956	917	885	878	871	810	788	+0.7%
Maryland	**747**	**797**	**801**	**816**	**804**	**790**	**774**	**734**	**731**	**709**	**-5.0%**

Sources: MHCC staff analysis of HSCRC discharge abstract data, District of Columbia discharge abstract data, and private psychiatric hospital data, CY 2008 to CY 2017; U.S. Census Bureau Intercensal Estimates for 2000 to 2009; and Maryland Department of Planning Projections, March 2018.

Notes: For the HSCRC and DC data, psychiatric discharges are defined as records with major diagnostic category (MDC) coded for mental diseases and disorders. All records from private psychiatric hospitals are included regardless of the MDC category. The discharge rates do not incorporate discharges from State psychiatric hospitals.

The Central Region includes: Anne Arundel, Baltimore, Carroll, Harford and Howard Counties; Baltimore City. The Eastern Shore Region includes: Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico and Worcester Counties. The Southern Region includes: Calvert, Charles, Prince George's and St. Mary's Counties. The Western Region includes: Allegany, Garrett, Frederick and Washington Counties.

Overall, the utilization of psychiatric services in rural Maryland counties declined approximately two percent in the last decade with significant variation among counties, as shown in Table 12. The three rural jurisdictions in the Southern Maryland health planning region (Calvert, Charles, and St. Mary's) all saw double-digit increases; the non-rural jurisdiction in this region saw a smaller increase, under five percent (Table 12). In contrast, three of four Western Maryland jurisdictions, all-rural, saw declining rates of population use. Central Maryland saw declining use in its core of Baltimore City and County. In the other non-rural jurisdictions of this region, Anne Arundel and Howard saw increased use of psychiatric hospitalization, while use rates declined in the rural jurisdictions of Carroll and Harford. On the Eastern Shore, which includes only rural jurisdictions, most of the northern jurisdictions saw declining use; use only increased in the Mid-Shore jurisdictions on the immediate eastern side of the Bay Bridge, Kent and Queen Anne's. All three of the jurisdictions in the southern part of the Eastern Shore region experienced substantially rising use rates (Wicomico, Worcester, Somerset). Montgomery County saw little change in use rates between 2008 and 2017.

Rural jurisdictions saw a more modest decline (two percent) in population use between 2008 and 2017, compared to non-rural jurisdictions (five percent), as shown in Table 12. The drop in utilization for non-rural jurisdiction was driven by decreased use by residents of Baltimore City and Baltimore County. Non-rural jurisdictions have had slightly higher use rates from year-to-year compared to rural jurisdictions.

Table 12. Psychiatric Discharge Rates per 100,000 Population from General Hospitals and Private Psychiatric Hospitals for Maryland Residents by Jurisdiction, CY 2008- CY 2017

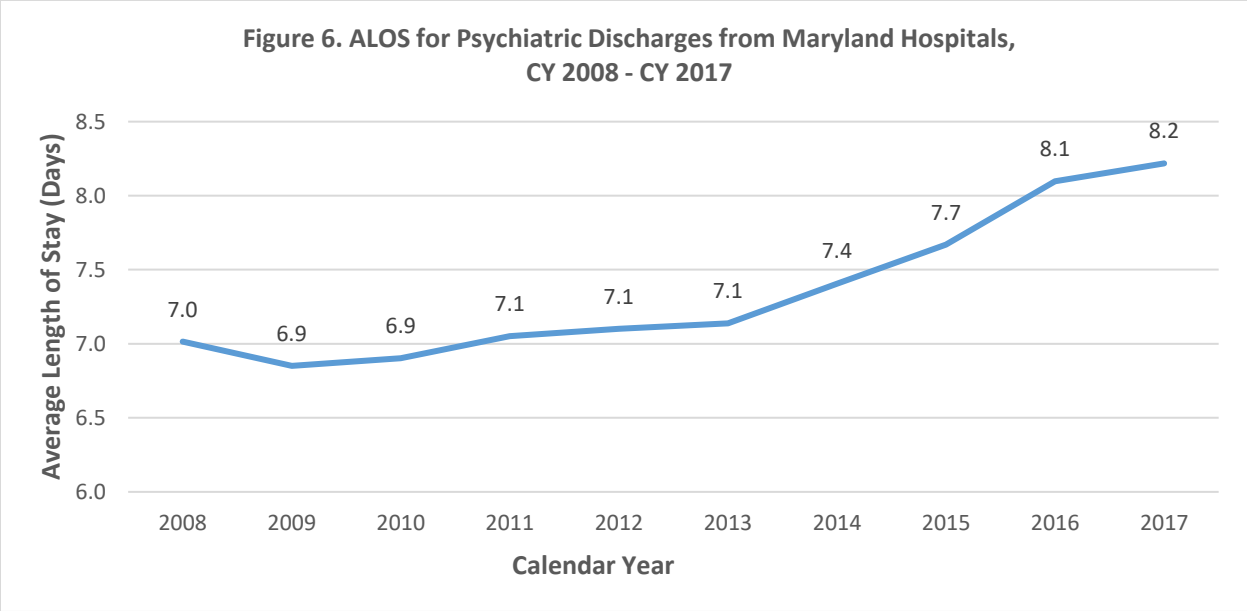
	Jurisdiction	Discharges Per 100,000 Maryland Residents										Discharge Rate Change 2008-2017
		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Non-rural Jurisdictions	Anne Arundel	587	604	610	620	634	642	599	638	601	682	+16.2%
	Baltimore County	910	962	939	945	922	893	886	852	903	875	-3.8%
	Baltimore City	1,626	1,687	1,698	1,733	1,726	1,726	1,597	1,442	1,329	1,239	-23.8%
	Howard	492	522	523	585	587	576	546	533	540	529	+7.5%
	Montgomery	579	646	629	619	608	606	625	604	566	559	-3.4%
	Prince George's	459	513	513	517	508	490	524	421	497	478	+4.2%
	All Non-rural	776	826	817	826	817	806	788	735	729	714	-8.0%
Rural Jurisdictions	Allegany	1,184	1,173	1,408	1,401	1,433	1,353	1,229	1,208	1,258	1,120	-5.4%
	Calvert	494	546	590	641	583	690	629	688	645	649	31.3%
	Caroline	564	700	626	657	588	609	562	576	590	485	-14.0%
	Carroll	931	942	1,033	990	824	719	633	594	606	595	-36.1%
	Cecil	649	648	647	686	771	657	644	677	685	621	-4.4%
	Charles	376	425	444	489	467	440	473	461	452	446	+18.9%
	Dorchester	1,084	1,096	1,074	1,089	1,226	1,010	1,076	1,040	902	693	-36.0%
	Frederick	653	765	864	897	837	779	802	726	656	610	-6.7%
	Garrett	417	448	428	405	320	374	290	347	300	332	-20.4%
	Harford	814	828	821	824	788	739	742	674	727	720	-11.6%
	Kent	367	422	564	667	826	636	536	609	539	490	+33.5%
	Queen Anne's	387	448	397	474	394	356	373	424	425	396	+2.4%
	Somerset	336	375	503	468	515	447	535	350	519	471	+40.0%
	St. Mary's	435	435	504	537	478	598	610	633	692	705	+62.1%
	Talbot	622	629	549	603	663	464	519	557	484	442	-28.9%
	Washington	854	986	910	939	909	927	948	1,048	948	1,015	+19.0%
	Wicomico	487	606	676	840	716	717	651	564	614	617	+26.7%
	Worcester	344	423	443	447	444	403	463	424	456	517	+50.3%
	All Rural	666	718	755	782	741	705	695	678	672	653	-2.0%
	All Jurisdictions	747	797	801	816	804	790	774	734	731	709	**-5.0%**

Sources: MHCC staff analysis of HSCRC discharge abstract data, District of Columbia (DC) discharge abstract data, and private psychiatric hospital discharge data, CY 2008 to CY 2017; U.S. Census Bureau Intercensal Estimates for 2000 to 2009; and Maryland Department of Planning Projections, March 2018.

Notes: For the HSCRC and DC data, psychiatric discharges are defined as records with major diagnostic category (MDC) coded for mental diseases and disorders. All records from private psychiatric hospitals are included regardless of the MDC category. The discharge rates do not incorporate discharges from State psychiatric hospitals.

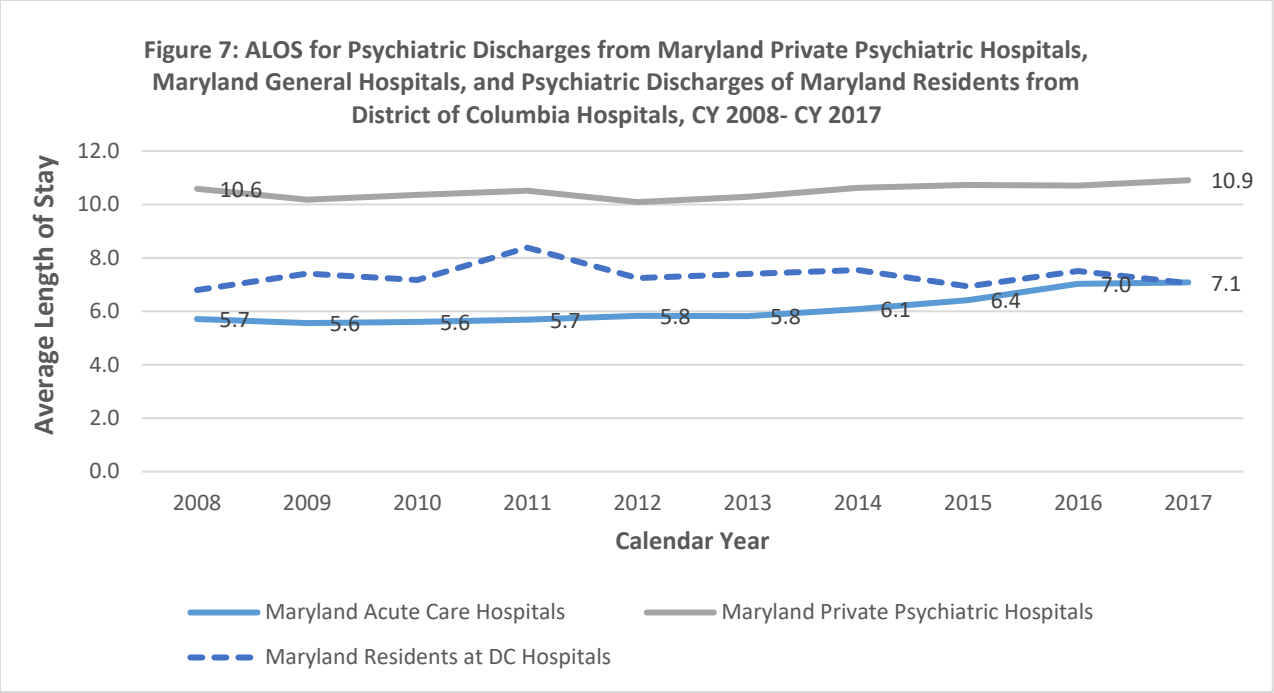
In addition to discharge rates, the other characteristic of hospital use that governs the need for bed capacity is the average length of stay (ALOS) of psychiatric patients. For patients with a primary psychiatric diagnosis discharged from either a private psychiatric hospital or a general hospital, the ALOS has increased in recent years (Figure 6). Between, 2008 and 2013, the ALOS was approximately seven days, and by 2017 the ALOS had increased to approximately eight days.

The ALOS for Maryland residents varies by setting for psychiatric discharges. As shown in Figure 7, the ALOS at private psychiatric hospitals has been consistently longer than the average for acute care general hospitals. In 2008, the ALOS for Maryland residents discharged from a private psychiatric hospital was almost five days longer (10.6 days) than the average for Maryland residents with a psychiatric diagnosis discharged from a general hospital psychiatric unit (5.7 days). The gap in ALOS between the two settings has narrowed in recent years to approximately four days. In 2017, the ALOS for Maryland residents discharged from a private psychiatric hospital was 10.9 days compared to 7.1 days for Maryland residents discharged from a general hospital.



Source: MHCC staff analysis of HSCRC discharge abstract data, CY 2008 to CY 2017.

Notes: Psychiatric discharges are defined as records with major diagnostic category (MDC) coded for mental diseases and disorders. All records from private psychiatric hospitals are included regardless of the MDC category. The discharge rates do not incorporate discharges from State psychiatric hospitals.



Source: MHCC staff analysis of HSCRC and DC discharge abstract data, CY 2008 to CY 2017.

Notes: For the HSCRC and DC data, psychiatric discharges are defined as records with major diagnostic category (MDC) coded for mental diseases and disorders. All records from private psychiatric hospitals are included regardless of the MDC category. The discharge rates do not incorporate discharges from State psychiatric hospitals.

Maryland and U.S. Use Rates

Data reviewed by MHCC staff suggests that Maryland's population uses psychiatric hospital beds at higher rate than the national average, but the psychiatric discharge rate for Maryland residents has been declining (Figure 9), in contrast to a national trend of increasing psychiatric discharge rates (Figure 8). The U.S. use rate ranged from 430 to 470 discharges per 100,000 population between 2008 and 2015, compared to Maryland use rates between approximately 500 and 600 discharges per 100,000 population for the same period. However, the Maryland use rates steadily declined between 2011 and 2017, from 603.6 discharges per 100,000 population to 506.9 discharges per 100,000 population, a drop of 16 percent over that period. MHCC staff obtained a more recent estimate of the number of psychiatric discharges from general hospitals with a primary mental disorder related-diagnosis in 2016[28] and combined this with Census estimates of the national population over age five, to be consistent with the data collection process for the national 2016 statistics[29] and used this information to estimate a national use rate of 498.4 per 100,000 population in 2016. The comparable Maryland estimate that excludes discharges aged five or younger and uses the population over age five as the denominator is 569.7 per 100,000 population in 2016.

[28] Owens PL (AHRQ), Fingar KR (IBM Watson Health), McDermott KW (IBM Watson Health), Muhuri PK (AHRQ), Heslin KC (AHRQ). "Inpatient Stays Involving Mental and Substance Use Disorders, 2016." HCUP Statistical Brief #249. March 2019. Agency for Healthcare Research and Quality, Rockville, MD. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb249-Mental-Substance-Use-Disorder-Hospital-Stays-2016.pdf

[29] U.S. Census Bureau, 2016 American Community Survey 1-Year Estimates. https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_1YR_S0101&prodType=table

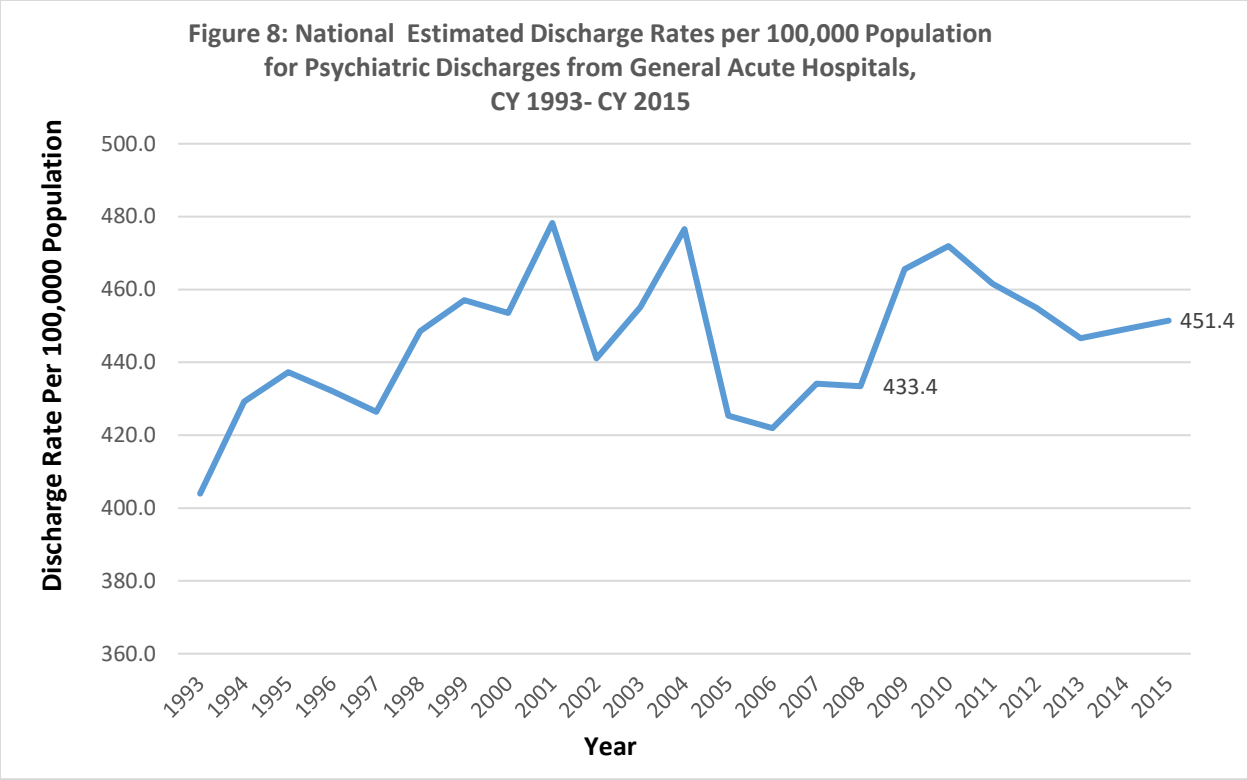
With respect to the ALOS for acute psychiatric patients, only limited comparative national data is readily available. In CY 2016, the national ALOS for discharges with a primary psychiatric diagnosis, as defined by a specific set of ICD-10 codes in the primary diagnosis field was estimated to be 7.2 days[30], a figure that is comparable to 7.0 days for psychiatric discharges from Maryland general hospitals. In 2006, the national ALOS for acute psychiatric patients was 8.2 days[31], which suggests a declining trend in ALOS. However, without additional comparable data for the intervening years, no conclusions may be drawn about the national trend in ALOS for psychiatric discharges. The trend for psychiatric discharges from Maryland general hospitals has been a lengthening ALOS, over a full day longer in 2017 compared to the ALOS in 2008, while ALOS at private psychiatric hospitals has been primarily steady, showing only a slight increase, from 10.6 days to 10.9 days, over the same time period.

A study conducted by the Maryland Hospital Association (MHA) suggests that one factor resulting in longer hospital stays may be discharge delays.[32] MHA commissioned a study to track discharge delays for behavioral health patients and found that two percent of patients in psychiatric units and seven percent in medical units experience discharge delays. Although this is a relatively small percentage of patients, the average delay was 13 days, and the range was one to 100 days, which was the maximum number of days possible given the study period. Additional research could be useful in determining the bases for the observed trends in ALOS for psychiatric discharges.

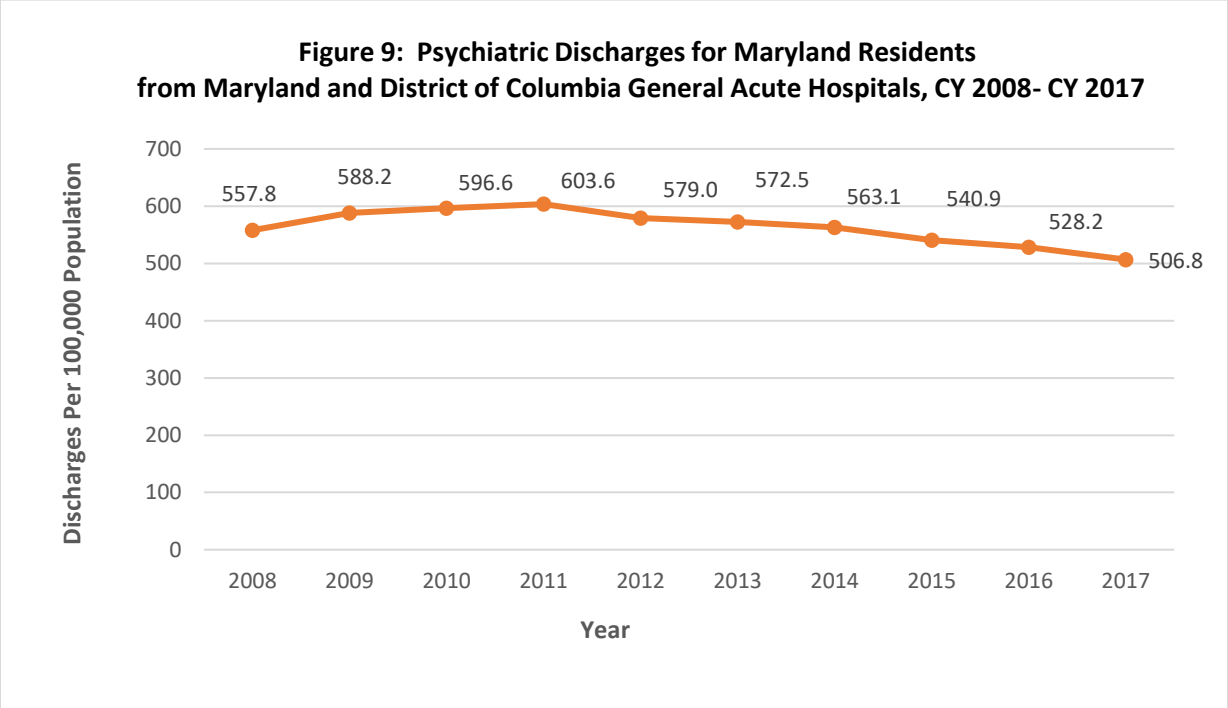
[30] Owens PL (AHRQ), Fingar KR (IBM Watson Health), McDermott KW (IBM Watson Health), Muhuri PK (AHRQ), Heslin KC (AHRQ). "Inpatient Stays Involving Mental and Substance Use Disorders, 2016." HCUP Statistical Brief #249. March 2019. Agency for Healthcare Research and Quality, Rockville, MD. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb249-Mental-Substance-Use-Disorder-Hospital-Stays-2016.pdf

[31] AHRQ. https://www.hcup-us.ahrq.gov/reports/statbriefs/sb62.pdf

[32] Dillon, K., Thomsen, D. "Delays in Hospital Discharges of Behavioral Health Patients: Results from the Maryland Hospital Association Behavioral Health Data Collection." January 2019. https://www.mhaonline.org/docs/default-source/resources/mha-report-jan-2019.pdf?sfvrsn=74b0d40d_2



Source: MHCC analysis of HCUP NIS data with tool available at: https://hcupnet.ahrq.gov/#setup. The records selected have major diagnosis category coded as 19, which is the category for mental health diagnoses. Private and state specialty psychiatric hospitals excluded from the HCUP NIS data.



Source: MHCC staff analysis of HSCRC and DC discharge data for Maryland residents with major diagnosis category 19 for CY 2008- CY 2017, excluding private and state specialty psychiatric hospitals.

Maryland and Other States

Compared to the non-State hospital utilization rates for acute psychiatric services for residents of Virginia, Maryland residents had greater utilization over the period from 2013 through 2017. In Virginia, psychiatric discharges from acute care general hospitals and private psychiatric hospitals ranged from 554 per 100,000 residents in 2013 to 654 per 100,000 residents in 2017, as shown in Table 13. Although the psychiatric discharge rates for Maryland residents (790 per 100,000 residents) was almost 43 percent higher than the rate for Virginia residents in 2013, by 2017 the psychiatric discharge rate for Maryland residents (709 per 100,000 residents) was only approximately eight percent higher. As shown in Figure 10, the trend in Virginia has been an increasing discharge rate, while the trend in Maryland has been a decreasing discharge rate. One explanation for the difference could be a reduction in the number of psychiatric patients treated in state hospitals in Virginia; however, the total number of psychiatric discharges from Virginia state hospitals has also increased over the same time period, from 2,832 discharges to 5,279 discharges. Measured on a population basis, the rate of psychiatric State hospital discharges for Virginia residents was 34.3 per 100,000 residents in 2013 and 62.3 per 100,000 residents in 2017. In Maryland, the corresponding rates for State hospital discharges were 17.4 per 100,000 residents in 2013 and 13.2 per 100,000 residents in 2017. Although Virginia's non-State hospitals indicated higher utilization rates for acute psychiatric services than Maryland and the rate has been increasing, the ALOS has remained fairly consistent, approximately seven days each year, over the period 2013 to 2017 (Table 14). In contrast, the ALOS for Maryland residents increased from seven days in 2013 to 8.1 days in 2017.

Table 13: Comparison of the Number of Discharges per 100,000 Population, CY 2013- CY 2017: Virginia, Pennsylvania, and Maryland

State	Discharges Per 100,000 Residents				
	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017
Virginia	554	612	642	642	654
Pennsylvania	926	920	920	915	907
Maryland	790	774	734	731	709

Sources: MHCC staff analysis of HSCRC and DC discharge abstract data for Maryland (MD) residents; Virginia (VA) hospital discharge data for VA residents provided by Virginia Health Information; Pennsylvania (PA) hospital discharge data for PA residents posted on the Pennsylvania Health Care Cost Containment Council web site; and population estimates for MD, PA, and VA available through the Maryland Department of Planning, U.S. Census, and Weldon Cooper Center.

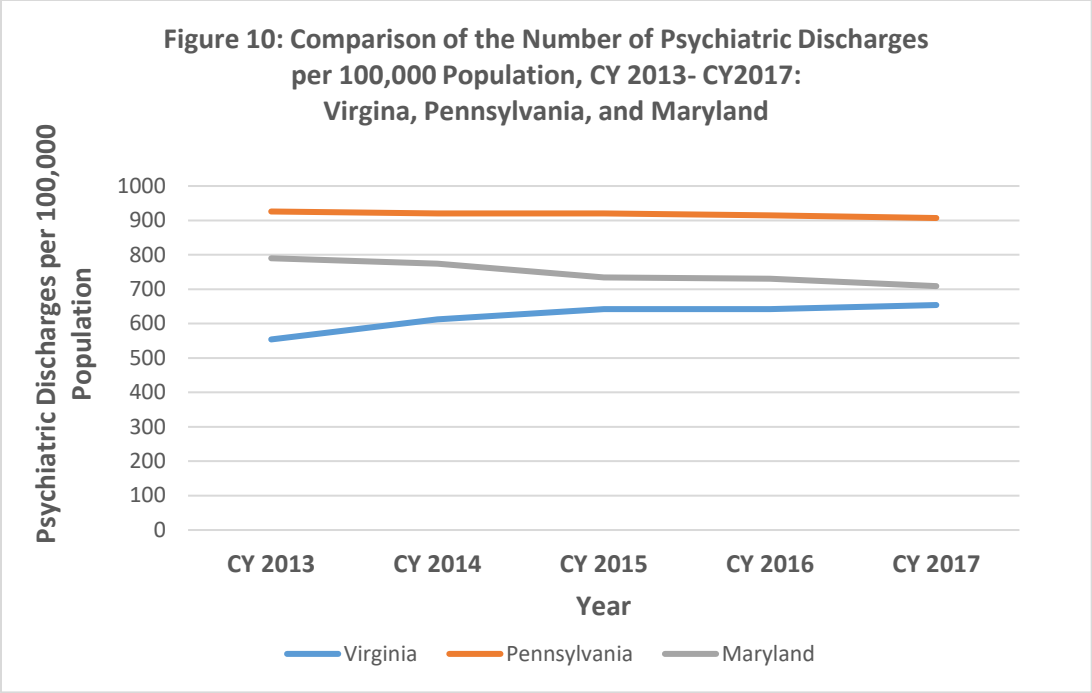


Table 14: Comparison of Annual Length of Stay (ALOS) for Psychiatric Discharges, Among Residents Hospitalized In-State, CY 2013- CY 2017: Virginia, Pennsylvania, and Maryland

State	ALOS in Days				
	CY 2013	CY 2014	CY 2015	CY 2016	CY 2017
Virginia	6.9	6.8	6.9	7.1	7
Pennsylvania	7.9	8.2	8.4	8.4	8.5
Maryland	7	7.3	7.5	7.9	8.1

Sources: MHCC staff analysis of HSCRC and DC discharge abstract data for Maryland (MD) residents; Virginia (VA) hospital discharge data for VA residents provided by Virginia Health Information; Pennsylvania (PA) hospital discharge data for PA residents posted on the Pennsylvania Health Care Cost Containment Council web site.

In Pennsylvania, psychiatric discharges from acute care general hospitals and private psychiatric hospitals for Pennsylvania residents ranged from 907 per 100,000 population in CY 2013 to 926 in 2017, as shown in Table 13. These levels of utilization were approximately 15 percent greater than the level for Maryland residents in 2013 and 31 percent greater in CY 2017. As shown in Figure 10, the rates for psychiatric discharges have been increasing for Pennsylvania residents, while the rates have been declining trend for Maryland residents. The ALOS has been increasing, but not as sharply as in Maryland. In CY 2013, the ALOS for psychiatric discharges of Pennsylvania residents from Pennsylvania hospitals was 7.9 days and increased by just over a half day in CY 2017. In contrast, the ALOS for Maryland residents increased almost twice as much over the same period, increasing from seven days in CY 2013 to 8.1 days in CY 2017.

V. Access to Acute Psychiatric Hospital Services

Access to psychiatric hospital facilities and services may be affected by bed capacity, occupancy levels, the number and location of hospitals, the ability of the patient to pay for services, and the availability of community resources that facilitate access to psychiatric hospitals for patients who need hospitalization. Although hospitalization use rates appear to be declining and, by some measures, the overall level of psychiatric bed capacity, in general, appears adequate, barriers to access may still exist for some persons and communities. Access problems for rural areas, in particular, have been documented.[33]

Geographic Access

Rural communities often have inadequate access to health care and other services.[34] Under state law, 18 of Maryland's 24 jurisdictions are considered rural areas,[35] and 25 percent of Maryland residents live in rural communities.[36] The Maryland Rural Health Administration (MRHA) conducted an assessment of Maryland's rural jurisdictions in 2017 that included convening focus groups with health care consumers and providers and reviewing findings from the Rural Health Care Delivery Work Group convened by MDH. MRHA also analyzed data provided by MDH and other sources. MRHA's final report identified a need for improved access to health care.[37] Health care consumers in rural Maryland specifically identified a lack of behavioral health services as a barrier to access, citing a lack of providers and a proper infrastructure, especially for children and adolescents.[38] Health care providers in rural counties echoed these concerns, identifying behavioral health care services as the top barrier to service availability for rural Maryland.[39]

MRHA's assessment of the needs of rural counties also included reviewing the community health needs assessments that are developed by local county health departments and hospitals systems. In these community health needs assessments, access to behavioral health services was identified by 13 of the 18 rural counties as a priority.[40] Behavioral health services include both substance abuse and treatment of mental health disorders. Specific behavioral health services identified as needed include hospital facilities and beds for those in a behavioral health crisis, social support groups, and practitioners able to provide medication management from current providers.[41] MRHA's assessment notes that social stigmatization of persons receiving behavioral health services and receiving services from local health departments may be barriers for some residents.[42]

Widespread use of telehealth may be one option for increasing access to psychiatric services and reducing health disparities, while delivering psychiatric services more efficiently. The use of telehealth to

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[33] RURAL HEALTH INFORMATION HUB, *Healthcare Access in Rural Communities* (last updated June 9, 2017), *available at* https://www.ruralhealthinfo.org/topics/healthcare-access.
[34] *Id.*
[35] Allegany, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Garrett, Harford, Kent, Queen Anne's, Somerset, St. Mary's, Talbot, Washington, Wicomico, and Worcester counties are all considered rural areas in the Maryland Code. Md. State Finance and Procurement Code Annotated § 2-207.
[36] MD RURAL HEALTH ASS'N, 2018 MARYLAND RURAL HEALTH PLAN 6 (2017), *available at* http://mdruralhealth.org/docs/MDRH-Plan-2018-WEB.pdf.
[37] *Id.* at 8-9.
[38] *Id.* at 12.
[39] *Id.* at 15.
[40] *Id.* at 23.
[41] *Id.*
[42] *Id.*

assess and treat individuals with psychiatric disorders is increasing throughout the U.S., especially in rural and underserved areas where this mode of care serves to overcome shortages of mental health professionals and transportation barriers. Studies have demonstrated that using telemedicine for psychiatric care increases the effectiveness of care[43] through greater levels of collaboration among providers, [44] better coordination of discharge planning, [45]and better access to specialists for ethnic minorities.[46] While telemedicine includes many benefits for patients, implementing a telemedicine program can be challenging. For Maryland, these challenges would likely include ensuring physician licensing for practitioners providing services over state lines, credentialing for telehealth services, technology-related implementation costs, and some payers restrictions on payment for telehealth. [47] The technology required for the provision of telehealth services is expensive.[48] Although telehealth services can potentially reduce the utilization of more expensive psychiatric services, such as inpatient care, it may also be limited in its ability to produce cost savings for providers, given the cost of purchasing and maintaining telehealth equipment.[49]

Financial Access

Historically, insurance coverage for mental health services has been more difficult to access than coverage for physical injuries and somatic health conditions. Federal legislation has attempted to remedy the disparity in coverage. The Mental Health Parity Act of 1996 required parity in annual and lifetime limits for group health plans that include mental health benefits.[50] However, that law does not mandate that mental health benefits be offered in all group health plans or plans purchased on the individual market.[51] In 2008, the Mental Health Parity and Addiction Equity Act expanded parity for insurance coverage of mental health services, specifically addressing treatment limitations, out-of-pocket cost considerations, such as copayments, and in- and out-of-network covered benefits. Like the earlier legislation, it also did not mandate that coverage of mental health services be included in all group and individual health insurance plans.[52]

In 2010, with enactment of the Patient Protection and Affordable Care Act (ACA), greater numbers of insured were enabled to obtain better health insurance. Those protections expanded to the newly

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[43] Donald M. Hilty, Daphne C. Ferrer, Michelle Burke Parish, Barb Johnston, Edward J. Callahan & Peter M. Yellowless, *The Effectiveness of Telemental Health: A 2013 Review,* 19 TELEMEDICINE J. & E-HEALTH, 444-454 (2013).
[44] HEALTH SERV. & RES. ADMIN., Increasing Access to Behavioral Health Care Through Technology (Feb. 2013), *available* at https://www.hrsa.gov/sites/default/files/publichealth/guidelines/BehavioralHealth/behavioralhealthcareaccess.pdf.
[45] McLaren, P., *Telemedicine and Telecare: What Can it Offer Mental Health Services? ADVANCES IN PSYCHIATRIC TREATMENT* vol.9 54-61 (2003).
[46] Amy Novotney, *A New Emphasis on Telehealth*, 42 AM. PSYCHOL. ASS'N, (June 2011), *available* at www.apa.org/monitor/2011/06/telehealth.aspx.
[47] MARYLAND HEALTH CARE COMMISSION, *Telehealth- Implementation: Challenges and Considerations* (last updated Feb. 2, 2017), *available at* http://mhcc.maryland.gov/mhcc/pages/hit/hit_telemedicine/hit_telemedicine_implementation.aspx.
[48] *Id.*
[49] *Id.*
[50] Mental Health Parity Act of 1996, H.R. 4058, 104th Cong. (1996).
[51] *Id.*
[52] Paul Wellston and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008, H.R. 6983, 110th Cong. (2008).

insured beginning in 2014 with the launch of the health insurance exchanges and the expansion of Medicaid extended to gaps in equitable access to mental health services were narrowed.[53] The ACA improved access to mental health services by requiring health plans to cover mental health and substance abuse services.[54]

The ACA has resulted in greater access to care for Maryland residents. The number of Maryland residents lacking health coverage declined from over 14 percent to just under seven percent between 2010 and 2017.[55] Maryland has also achieved success in increasing health coverage for rural residents; Maryland ranked fourth in the nation in rural health coverage gains between 2013 and 2015.[56]

One standard in the Chapter that serves to promote financial access to acute inpatient psychiatric services is the requirement that general acute care hospitals and private psychiatric hospitals provide a level of charity care consistent with other hospitals in its health service area. Financial access is also promoted by HSCRC regulations that require general acute care hospitals to maintain financial assistance policies that meet specific standards.[57]

Evidence of Access Barriers

Wait times in Maryland hospital emergency departments (EDs) have been identified, in recent years, as among the longest in the nation. A report prepared by the Maryland Hospital Association (MHA) attributed this phenomena to ED overcrowding, with increased visits by patients with a primary or secondary behavioral health diagnosis identified as a primary factor contributing to this overcrowding. MHA includes some anecdotal information from hospital CEOs and some multi-year quantitative data from a small sample of general hospitals, profiling the number of ED visits that exceeded 24 hours and the number of patients who were brought to the ED by police. MHA reported that its analysis of 2015 data indicates that behavioral health patients tend to experience significantly longer ED stays than patients presenting to the ED without behavioral health issues. One hospital reported to MHA that behavioral health patients who require transfer to another hospital have an ALOS of 36 hours in the ED, compared to an average ED stay of four hours for non-psychiatric patients. MHCC staff does not have access to data that would allow a broad and detailed analysis of this problem. The time patients spend boarding in EDs is not captured in the HSCRC outpatient or discharge abstract data. However, the MHA report strongly suggests that some psychiatric patients experience substantial difficulty in receiving care on a timely basis, that this problem is common, and that it creates a larger access issue for all patients with respect to timely delivery of hospital ED services.

While the ED is not the only way patients gain access to inpatient psychiatric care, it is a key point of entry. About half of the discharges from Maryland private psychiatric hospitals and psychiatric units in

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[53] Richard G. Frank, Kirsten Beronio & Sherry A. Glied, *Behavioral Health Parity and the Affordable Care Act*, 13 J. SOC. WORK DISABILITY REHABILITATION , 31-43 (2014), *available* at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4334111/.

[54] AMANDA K. SARATA, CONG. RESEARCH SERV., R41249, MENTAL HEALTH PARITY AND THE PATIENT PROTECTION AND AFFORDABLE CARE ACT OF 2010 (2011).

[55] MARYLAND HEALTH BENEFIT EXCHANGE, ANNUAL REPORT 2018 6, *available at* https://www.marylandhbe.com/wp-content/uploads/2018/11/MHC_AnnualReport_2018.pdf.

[56] MARYLAND HEALTH BENEFIT EXCHANGE, ANNUAL REPORT 2017 4, *available at* https://www.marylandhbe.com/wp-content/uploads/2012/10/2017-Annual-Report.pdf.

[57] COMAR 10.37.10.26A-2

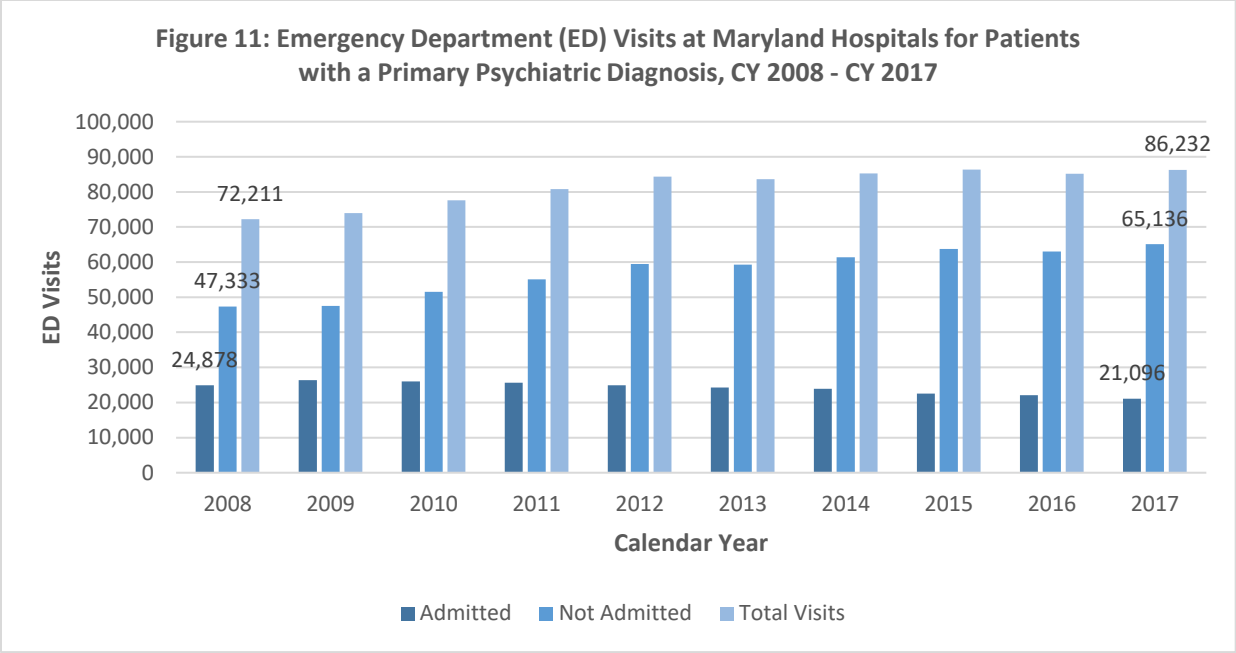
general hospitals are admitted after screening at a hospital emergency department. As shown in Figure 11, the number of ED visits with a primary psychiatric diagnosis that resulted in admission has remained consistent over the last ten years. However, the number of ED visits with a primary psychiatric diagnosis that did not result in admission increased by approximately 19 percent between 2008 and 2017, from 72,211 visits to 86,232 visits (Figure 11). The growth in ED visits with a primary psychiatric diagnosis that did not result in an admission could be related, to some extent, to the boarding of patients in general hospital EDs.

Patients are boarded when no appropriate hospital bed is identified by the hospital as available to admit the patient. Lengthy ED wait times and patient diversion from one hospital to another due to crowded EDs has been a long-standing problem in Maryland.[58] Almost all hospitals in the U.S. (90 percent) board psychiatric patients, with wait times reported to be three times longer than for non-psychiatric patients.[59] Rather than a lack of inpatient psychiatric beds driving the lower rate of admissions from hospital EDs for patients with a primary psychiatric diagnosis, it may also be the case that psychiatric patients are experiencing a marginal improvement in their ability to avoid hospitalization through obtaining access to community resources after presenting at a hospital ED. Achieving a better understanding of this problem is an important objective for MHCC as it updates the Chapter of SHP regulations for psychiatric facilities and services.

In contrast to the trend in ED visits with a primary psychiatric diagnosis, the number of ED visits by Maryland residents for any reason has remained almost unchanged. As shown in Figure 12, the number of ED visits that resulted in a hospital admission for any reason declined by roughly 20 percent from CY 2008 to CY 2017, from 423,785 to 342,698. ED visits for any reason that did not result in a hospital admission increased by approximately five percent during the same period, from 1,584,247 to 1,664,053.

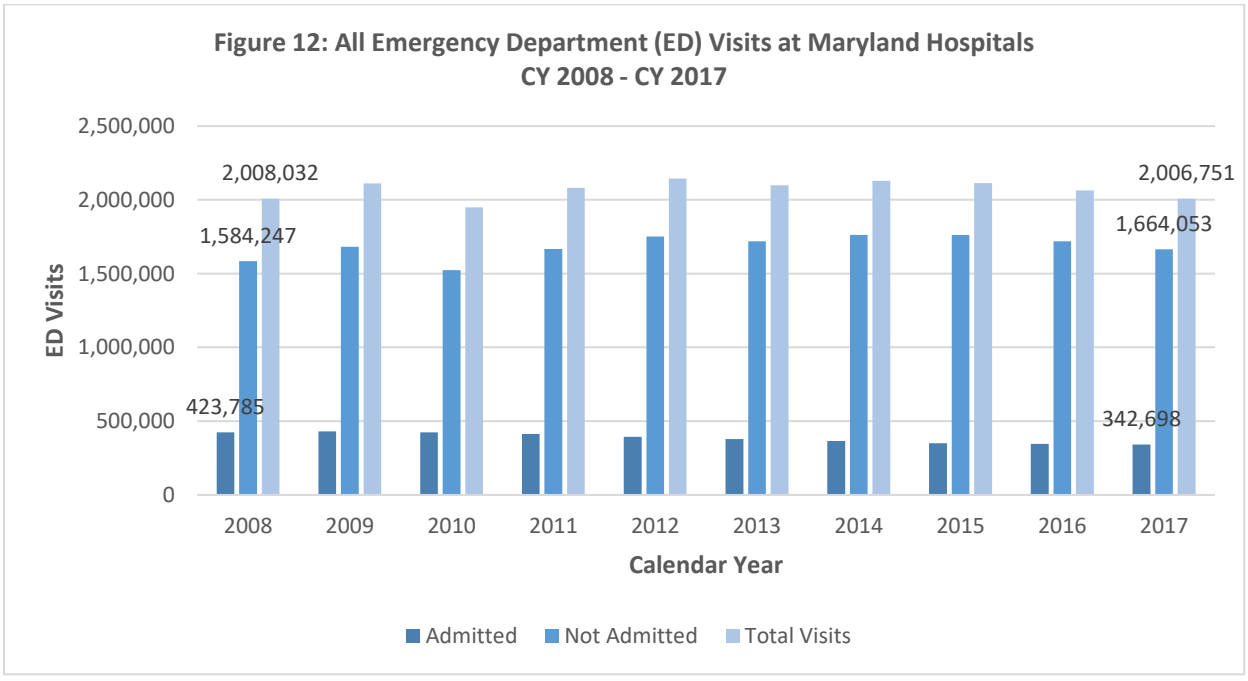
[58] MD INST. OF EMERGENCY MED. SERV. SYS. & HEALTH SERV. COST REVIEW COMM'N. JOINT CHAIRMEN'S REPORT ON EMERGENCY DEPARTMENT OVERCROWDING, (Dec. 2017) [hereinafter MIEMSS], *available at* http://www.miemss.org/home/Portals/0/Docs/LegislativeReports/MIEMSS-HospitalED-Overcrowding-Report_12-2017-FINA.pdf?ver=2018-01-11-145527-537.

[59] *Id.*



Source: MHCC staff analysis of HSCRC discharge abstract and outpatient data, CY 2008 to CY 2017.

Notes: Records included are those with major diagnostic category (MDC) coded for mental diseases and disorders and an emergency room charge.



Source: MHCC staff analysis of HSCRC discharge abstract and outpatient data, CY 2008 to CY 2017.

VI. Other Behavioral Health Services

It is widely recognized that the availability and effective use of a range of mental health services affects the need for inpatient psychiatric care. Because mental disorders can be chronic or take a variety of therapeutic approaches over substantial periods of time to be overcome or managed, to be effective,

a continuum of behavioral health care services must be developed and maintained. Patient care will be optimized if the continuum of facilities and services can by systemized for timely and coordinated transfer of patients and delivery of services along the continuum.

Maryland's mental health care system includes a continuum of services. Maryland's move toward deinstitutionalization has included expanding community programs that allow psychiatric patients to receive treatment in less restrictive environments. At a local level, Maryland has core service agencies and behavioral health authorities that are responsible for managing a full range of treatment services for residents in their locality with serious mental health problems. These core service agencies and behavioral health authorities will be important sources of information and insight regarding the strengths and weaknesses of Maryland's continuum of service and care delivery system for behavioral health. The updated SHP Chapter should guide MHCC decisions on hospital capital investment that address the service gaps and barriers identified by these organizations.

The community programs expanded in Maryland in conjunction with deinstitutionalization that are located at hospitals include partial hospitalization programs (PHP) and intensive outpatient programs (IOP) that are located at general acute care hospitals and private psychiatric hospitals. These programs provide assessment, treatment, habilitation, and rehabilitation services for patients who do not require 24-hour inpatient care.[60] As of June 1, 2017, these programs were offered at 22 general hospitals and four private psychiatric hospitals.[61]

Table 15. Inventory and Utilization of Partial Hospitalization and Intensive Outpatient Psychiatric Services at Maryland Hospitals, 2011-2017

Year	Capacity (Treatment Slots) Available	Average Daily Census	Level of Capacity Used
2011	806	526	65%
2012	875	508	58%
2013	785	484	62%
2014	796	430	54%
2015	813	471	58%
2016	736	486	66%
2017	738	452	61%

Source: Analysis Maryland Health Care Commission. *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, FY 2018).

As shown in Table 15, since 2011 PHP and IOP service capacity declined from 806 treatment slots to 738 treatment slots (-8.4 percent). Patient volume, as measured by the ADC, declined from 526 to 452 (-14.1 percent) over the same period. The level of capacity used, defined as the ratio of ADC to total treatment slots, has been modest, ranging from 54 percent to 66 percent between 2011 and 2017 (Table 15). The overall statewide trend is driven by utilization in the Central Maryland and Montgomery County regions. These two regions accounted for over 76 percent of the State's PHP and IOP ADC in 2017. As shown in Table 16, the average daily census in both regions declined from 2011 to 2017. Over this period, in Montgomery County the ADC declined from 116 to 100, and the ADC in Central Maryland declined from 330 to 244. Two of the other three, more rural, regions saw upticks in demand for these services. The

[60] 2018 REPORT, *supra* note 25.
[61] These programs are not offered at State psychiatric hospitals.

ADC increased from 32 to 59 for Western Maryland and from 8 to 13 for the Eastern Shore. In Southern Maryland, the ADC declined from 40 to 36.

Table 16. Trend in Utilization of Partial Hospitalization and Intensive Outpatient Services in Maryland by Region, 2011 – 2017

Region	Measure	Year						
		2011	2012	2013	2014	2015	2016	2017
Western Maryland	Capacity - Total Slots	53	69	71	84	84	89	89
	Average Daily Census	32	32	54	46	36	56	59
	Level of Capacity Used	60%	46%	76%	55%	43%	63%	66%
Montgomery County	Capacity - Total Slots	157	175	138	130	135	103	137
	Average Daily Census	116	110	90	84	89	83	100
	Level of Capacity Used	74%	63%	65%	65%	66%	81%	73%
Southern Maryland	Capacity - Total Slots	74	74	74	88	88	88	73
	Average Daily Census	40	38	45	38	46	50	36
	Level of Capacity Used	54%	51%	61%	43%	52%	57%	49%
Central Maryland	Capacity - Total Slots	484	521	476	468	481	434	417
	Average Daily Census	330	317	284	244	286	283	244
	Level of Capacity Used	68%	61%	60%	52%	59%	65%	59%
Eastern Shore	Capacity - Total Slots	38	36	26	26	25	22	22
	Average Daily Census	8	11	11	8	14	14	13
	Level of Capacity Used	21%	31%	42%	31%	56%	64%	59%

Source: Maryland Health Care Commission. *Annual Report on Selected Maryland General and Special Hospital Services* (FY 2012, FY 2013, FY 2014, FY 2015, FY 2016, FY 2017, FY 2018).

Shortages of Mental Health Care Professionals in Maryland

The size of the mental health work force affects the ability of patients to access services.[62] The Health Resources and Services Administration (HRSA) calculated the number of mental health professionals in Maryland in a workforce state profile for the years 2008 – 2010. HRSA estimated that there were 63.4 psychologists, 127.5 counselors, and 362.5 physicians per 100,000 working-age population in the state.[63] HRSA also made projections for the supply and demand for select behavioral health practitioners for the years 2013 – 2025 using a Health Workforce Simulation Model. Projections were made for nine types of practitioners: psychiatrists; behavioral health nurse practitioners; behavioral health physicians; clinical, counseling, and school psychologists; substance abuse and behavioral disorders counselors; mental health and substance abuse social workers; mental health counselor; school counselors; and marriage and family therapists.[64] These projections account for increased utilization due to the projected population, expansion of insurance coverage, and current staffing patterns.

[62] CRS, The Mental Health Workforce: A Primer, 1

[63] HRSA (2014). The U.S. Health Workforce- State Profiles Maryland.

[64] HRSA Bureau of Health Workforce (2016). National Projections for Supply and Demand for Selected Behavioral Health Practitioners 2013-2025. https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/research/projections/behavioral-health2013-2025.pdf

MHCC conducted a study, completed in 2014, of the health care work force in Maryland to evaluate the supply and demand for specific health professions, including psychiatrists.[65] This study concluded that, at the state level, the supply of psychiatrists appears adequate to provide a level of care that meets or exceeds the national average level of care. However, this study cautioned that the national average level of care may be inadequate, and the effective supply may be lower because many psychiatrists do not participate with private or public health insurance plans. This study also noted that the supply of psychiatrists is concentrated in Baltimore County, Baltimore City, and Montgomery County, while two counties (Caroline and Kent) lacked any psychiatrists.

HRSA designates Mental Health Professional Shortage Areas (HPSAs) based on the ratios of psychiatrists, advanced practice psychiatric nurses, clinical psychologists, clinical social workers, and marriage and family therapists to the population.[66] HPSAs are given a score between 0 and 25, with a higher score designating a higher provider shortage. As of August 13, 2018, Maryland had 54 mental health professional shortage areas.[67] Nearly 60 percent (32) of those shortage areas have a HPSA score of 13 or higher[68], with nearly 20 percent (6) of those shortage areas having a HPSA score of 19 or higher.[69] Although a shortage of these professionals may not directly affect patients' ability to access acute inpatient psychiatric beds, for some persons with mental illness, access to these professionals enables them to avoid hospitalization or re-hospitalization to treat their mental illness.

VII. State Health Planning for Acute Psychiatric Services

States have developed their own methods for determining psychiatric bed need. The National Association of State Mental Health Program Directors (NASMHPD) found that there is no "evidence-based" target value for how many psychiatric beds are required to appropriately meet the need for psychiatric hospitalization.[70] Some states rely on a formulaic methodology to determine the need for psychiatric hospital beds, an approach taken in Maryland's outdated plan. As would be expected, these methodologies incorporate hospital utilization data and population projections as the basic building blocks of a bed need forecast. Other states primarily use a target service utilization rate to determine bed need. Two states that regulate psychiatric services through CON regulations, Washington and Virginia, have instituted broad temporary waivers of CON requirements for all behavioral health facility projects.[71]

The Chapter contains a 19-step bed need forecast formula that incorporates mental illness prevalence data from the 1980s, social indicators, migration patterns, bed inventories, and length of stay.

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[65] IHS Global Inc. Maryland Health Workforce Study Phase Two Report: Assessment of Health Workforce Distribution and Adequacy of Supply. http://mhcc.maryland.gov/mhcc/pages/apc/apc_workforce/documents/MD_Health_Workforce_Study_Phase_2_Report_pdf.pdf

[66] CRS, The Mental Health Workforce: A Primer, 8

[67] https://datawarehouse.hrsa.gov/topics/shortageAreas.aspx. See also, file:///C:/Users/mramsey/Downloads/Designated%20HPSA%20Detail.pdf.

[68] Mental health professional shortage areas are assigned a score from 0 to 25. The higher the number, the more severe the shortage. (insert citation).

[69] file:///C:/Users/mramsey/Downloads/Designated%20HPSA%20Detail.pdf.

[70] Carol E. Osborn, ESSENTIALS OF STATISTICS IN HEALTH INFORMATION TECHNOLOGY – CHAPTER 1: BASIC STATISTICAL DATA USED IN ACUTE CARE FACILITIES, 7 (Jones & Bartlett, 2008), *available at http://www.jblearning.com/samples/0763750344/45561_CH01.pdf.*

[71] Washington state and West Virginia have both established CON-waivers for psychiatric beds. *See* Wash. Rev. Code § 70.38.260 (2015); W.Va. Code § 16-2D-11(c)(20) (2017).

The Chapter does not allow for an update of the prevalence rates used to develop the bed need forecast without amending the Chapter, an inflexible approach that is no longer used in SHP regulation development. Maryland is the only state among 14 states reviewed by MHCC staff that incorporates estimated rates of mental illness to determine the need for psychiatric beds. This approach may not be as outdated as the age of the Chapter suggests because prevalence rates for mental illness appear to have remained similar over time for adults.[72] However, the demand for acute psychiatric beds has clearly changed over time, with a shift toward treating patients in the community and increasing access to alternatives that mitigate the need for institutional treatment.

While Maryland's incorporation of social indicators suggests a more nuanced approach to determining the appropriate level of need for acute psychiatric beds that is not typical of the approach used by other states with CON regulation of bed supply, collecting and updating such information is cumbersome and costly. In addition, some of the adjustments that could be made would, in all likelihood, be regarded as subjective because evidence only weakly or partially supports the adjustments. Although MHCC staff did not identify a specific state's need methodology for psychiatric beds as a model, staff has concluded that many of the basic parameters common among states should be incorporated into a revised bed need methodology for Maryland that provides a flexible framework for reviewing CON applications and an easier approach to updating the forecast without having to promulgate changes in the regulations themselves. Applicants and interested parties should have an opportunity to present evidence regarding why the bed need methodology fails to adequately identify the need for acute psychiatric services for the patient population that an applicant proposes to serve.

A. Psychiatric Bed Need Forecast Methodologies Used in Other States

MHCC staff reviewed the approaches taken by several other states with CON programs covering psychiatric hospital facilities and services. Eight states use an established formula for determining the net need for psychiatric beds[73] and the following table includes a brief description of the formulas for these states. States use varying forecast horizons and geographic units as a basis for their psychiatric bed need projections. Some states annually determine a net psychiatric bed need for geographic areas and then allow only the identified number of psychiatric beds needed for each age group to be established. This structured approach to forecasting bed need, when coupled with procedural rules that eliminate opportunities for applications to be considered, is a powerful regulatory tool for controlling the supply of psychiatric beds. Other states require the applicant to prove the existence of need in a service area. This approach gives an applicant greater flexibility to demonstrate the need for a project, which may be regarded as advantageous, but it may also result in less certainty about whether a project will be approved. CON regulation can be a litigious process that is difficult to fairly and efficiently administer if perceived to be subjective and unpredictable.

[72] Based on the 2016 National Survey on Drug Use and Health conducted by the Substance Abuse and Mental Health Administration, the prevalence rate of any mental illness among adults is 18.3%, as compared to an estimated rate of 18% in 1990, as cited in the Chapter.

[73] 1) Alabama, *Ala. Code § 410-2-4(2)(a) (Dec. 2015)*; 2) Alaska, *Alaska Certificate of Need Review Standards and Methodologies 10-12 (Dec. 2005)*; 3) Florida, FL 59C-1.040(4)(c) New Hospital Inpatient Psychiatric Services (June 2016); 4) Georgia, *Georgia State Health Plan, Component Plan, Inpatient Psychiatric and Substance Abuse (March 2007)*; 5) Illinois*, 77 Ill. Adm. Code Part 1100.560 (Feb. 2014)*; 6) Michigan, *Certificate of Need (CON) Review Standards for Psychiatric Beds and Services (Dec. 2016)*; 7) North Carolina, *2018 State Medical facilities Plan, Chapter 15: Psychiatric Inpatient Services 371-77 (Jan. 2018)*; and 8) South Carolina, *2018-2019 South Carolinas Health Plan, Psychiatric Services 38-44 (July 2018)*.

Table 17. Formulas Used in Forecasting Psychiatric Bed Need, Selected States

State	Formula	Abbreviations
Alabama	1. $EB_{(non\text{-}government)}$ x $BYP_{(\geq 5\ years\ old)}$ = BN 2. BN – EB = Net Bed Need	ADC = Average Daily Census BN = Beds Needed BYP = Base Year Population EB = Existing Beds PD = Patient Days PYP = Projection Year Population TOR = Target Occupancy Rate UR = Utilization Rate
Alaska	1. $PD_{(for\ preceding\ 3\ years)}/BYP = UR$ 2. (UR x PYP)/365 = ADC 3. $ADC/TOR_{(0.80)}$ = BN 4. BN – EB = Net Bed Need 5. BN x Service Area Share of Population = Net Bed Need $_{(Service\ Area)}$	
Florida	$((PD_{(in\ District)}/BYP)/(365 \times TOR_{(0.75)}))$ = Net Beed Need	
Georgia	1. $PD_{(age\ group)}/BYP_{(age\ group)} = UR_{(age\ group)}$ 2. $UR_{(age\ group)}$ x $PYP_{(age\ group)}$ = $UR_{(projection\ year)}$ 3. $(UR_{(18\text{-}64)}/365) + (UR_{(65+)}/365) + (UR_{(0\text{-}17)}/365)$ = BN 4. BN + Adjustment Factor = $BN_{(adjusted)}$ 5. $BN(adjusted)/TOR_{(0.65\ rural;\ 0.75\ non\text{-}rural;\ 0.70\ teaching\ or\ children's\ hospital)}$ = Total BN 6. Total BN – EB = Net Bed Need	
Illinois	1. $PD_{(base\ year)}/BYP = UR$ 2. UR x $PYP_{(5\ year\ projection)}$ = $PD_{(projection\ year)}$ 3. $PD_{(projection\ year)}/365 = ADC$ 4. $ADC/TOR_{(0.85)}$ = BN 5. BN – EB = Net Bed Need	
Michigan	1. $BYP_{(age\ group\ for\ planning\ area)}$ x $UR_{(age\ group)}$ = PD 2. PD/365 = ADC 3. $ADC/TOR_{(0.75)}$ = BN	
North Carolina	1. $PD_{(base\ year)}$ x PYP = $PD_{(projection\ year)}$ 2. $PD_{(projection\ year)}/366 = ADC$ 3. $ADC/TOR_{(0.75)}$ = BN 4. BN – EB = Net Bed Need	
South Carolina	1. UR x $PYP_{(5\ year)}/365 = ADC_{(projected)}$ 2. $ADC_{(projected)}/TOR_{(0.70)}$ = BN 3. BN – EB = Net Bed Need	

Source: MHCC Analysis of state Certificate of Need requirements.
*In addition to the bed need formula, Illinois has established a minimum bed need of 0.11 beds per 1,000 projected population.

Four states, Mississippi, Tennessee, Oklahoma, and Missouri, use a fixed bed to population ratio to forecast bed need.[74] This is a simple but inflexible method. In order to provide some flexibility for applicants, each of these states allow applicants to demonstrate that the need for their CON projects to

[74] Mississippi uses a set ratio of 0.21 beds per 1,000 population age 18 and older for 2023 (the projection year) and 0.55 beds per 1,000 population aged 7 to 17 for 2023. Mississippi 2018 State Health Plan 48-49 (Aug. 2018), *available at* https://msdh.ms.gov/msdhsite/_static/resources/7758.pdf. Tennessee uses a guideline of 30 beds per 100,000 general population. TENNESSEE DEPT. OF HEALTH, STATE HEALTH PLAN: CERTIFICATE OF NEED STANDARDS AND CRITERIA FOR PSYCHIATRIC INPATIENT SERVICES (2015), *available at* https://www.tn.gov/content/dam/tn/health/documents/Certificate_of_Need_Standards_and_Criteria_for_Psychiatric_Inpatient_Services.pdf. Missouri uses a population-based bed need formula where Net Bed Need = (Projection Year Population (2020) x Community Need Rate of 2,080 psychiatric beds) – Number of beds in the service area. 19 C.S.R. § 60-50.450. And in Oklahoma, the statewide ratio must not exceed 145 beds per 100,000 persons, while the state strives toward an optimal target ratio of 117 beds per 100,000 persons. *See* Okla, Stat. tit. 310 § 635 (Dec. 1991).

expand or establish psychiatric bed capacity cannot be appropriately determined through use of the fixed rate.

Two states, Washington and West Virginia, that have historically regulated psychiatric bed capacity through CON regulation, have recently established temporary waivers that exempt changes in psychiatric hospital bed capacity from CON requirements.[75] MHCC recently endorsed changing the scope of Maryland's CON program by eliminating the requirement for existing facilities licensed to provide psychiatric hospital facilities to obtain a CON to change their bed capacity.[76] This recommendation is based on the perception that more bed capacity may ameliorate the overcrowding of hospital EDs by reducing ED boarding of psychiatric patients. However, this assumes that CON is the reason that hospitals do not develop more psychiatric bed capacity rather than other factors, such as a lack of profitability or difficulties with recruiting and training sufficient staff to operate a larger psychiatric unit. MHCC staff has concluded that these factors partially account for the small number of CON applications filed to establish or expand psychiatric bed capacity.

In some states, one potential downside of removing CON regulation for psychiatric beds is that it may lead to the development of excess bed capacity that in turn leads to excessive use of hospitalization because providers have a financial incentive to keep bed utilization high. However, in Maryland, hospital rates are regulated, and there is much less of a financial incentive to hospitalize psychiatric patients unnecessarily. For Maryland hospitals, the financial downside of removing CON requirements to expand capacity may be unexpected sudden market shifts that negatively impact a hospital's profitability. The potential financial downside may in turn result in less interest in establishing new facilities that would potentially improve access to services.

B. Value of Using CON to Regulate Acute Psychiatric Services

Many stakeholders expressed support for continued CON regulation during the CON modernization study that culminated with the release of the Report in December 2018. Stakeholders saw value in CON for promoting equitable access to services, preventing the entry of undesirable actors and the expansion of poor quality programs, avoiding the development of unnecessary expensive capacity, and shielding providers from the risks associated with sudden, unexpected changes in the market and substantial shifts in market share.

CON can serve as a "gatekeeper" when used to regulate market entry of new providers, assuring that, over the long term, all or most of the organizations involved in providing psychiatric hospital services in Maryland are committed to providing quality services with integrity and a willingness to serve all patients in need. In recent years, SHP regulations have begun incorporating the use of quality measures as important features of CON regulation. There are several quality measures used by CMS to promote high quality programs that are publicly reported and that could be explicitly used to determine whether existing Maryland providers should be allowed to expand capacity or whether a provider outside of Maryland should be allowed to establish a psychiatric hospital in Maryland too. The current list of measures includes hours of physical restraint use, hours of seclusion use, screening for metabolic

[75] Washington state and West Virginia have both established CON-waivers for psychiatric beds. *See* Wash. Rev. Code § 70.38.260 (2015); W.Va. Code § 16-2D-11(c)(20) (2017).

[76] Modernization of the Maryland Certificate of Need Program: Final Report http://mhcc.maryland.gov/mhcc/pages/home/workgroups/documents/CON_modernization_workgroup/Final%20Report/con_modernization_workgroup_final_report_20181221.pdf

disorders, alcohol and other drug use disorder treatment provided or offered at discharge, and 30-day all-cause unplanned readmission following psychiatric hospitalization.

The CMS readmissions measure for psychiatric discharges is new and information on it has not yet been publicly reported. However, MHCC staff requested information on psychiatric discharges that, within 30-days of discharge, resulted in another psychiatric admission for both Maryland residents and all patients served in Maryland hospitals by age group (children, adolescents, and adults). For Maryland residents, the rate of readmissions across all three age groups appears to have increased between CY 2014 and CY 2017, but the trend appears to have leveled off, based on the readmission rates for CY 2016 and CY 2017 (Table 18).

Table 18. Readmission Rates for Maryland Residents per 100 Psychiatric Discharges

	Year			
Age Group	**CY 2014**	**CY 2015**	**CY 2016**	**CY 2017**
Children (0 to 12)	7.2	9.5	10.1	10.0
Adolescents (13 to 17)	4.6	7.7	7.7	8.1
Adult (18 and over)	11.0	12.0	12.3	11.9
All Ages	10.1	11.4	11.7	11.4

Sources: HSCRC analysis of the number of psychiatric readmissions for Maryland residents; MHCC analysis of HSCRC discharge data and HSCRC counts for psychiatric readmissions.
Note: Only psychiatric discharges that led to readmissions with major diagnostic category coded for mental diseases and disorders are counted.

Based on the most recent publicly available data downloaded from the CMS web site, Maryland is above the national average with respect to hours of physical restraint use, (0.63 hours per 1,000 psychiatric bed days compared to the national average of 0.44 hours).[77] For hours of seclusion, Maryland performed better than the national average (0.23 hours per 1,000 psychiatric bed days compared to the national average of 0.59 hours).

In addition to the role of CON in promoting more equitable access and influencing quality, CON is intended to promote the provision of cost-effective care. This is usually thought of as being achieved by developing only the capacity needed. Hospital bed capacity and the other ancillary and support space needed for a hospital program is expensive to develop and expensive to operate. Unit costs should be lower when appropriately scaled hospital capacity can be operated at high levels of use. CON regulation is sometimes regarded as having the positive effect of making development less risky and, thus, a way of encouraging the development of facilities and services that are not financially lucrative.

CON regulation is sometimes viewed negatively by those believe that it reduces competition and some of the potential positive outcomes of competition, such as lower costs and higher quality. For those who believe that reduced competition primarily has negative consequences, CON is also seen as an unnecessary cost to the health care system.

[77] MHCC staff analysis of data available for download from CMS web site for CY 2016.

VIII. Standards in Chapter for Psychiatric Services

As previously mentioned, the Chapter includes standards for evaluating CON applications that are organized under six categories: availability, accessibility, cost, quality, continuity, and acceptability. MHCC staff's analysis of each CON standard in the Chapter follows with a review of each standard, and in some cases, a recommendation for modifying or eliminating a standard.

A. Availability

There are twelve standards in the Chapter that pertain to the availability of inpatient acute psychiatric services. (See Appendix A for a full listing of current standards.) These standards address the need for acute psychiatric services, the provision of emergency psychiatric care, and physical and programmatic requirements. MHCC staff has identified four of these standards, Standards 1a – 1d, as outdated in recent CON reviews.[78]

Standard 1a requires that applicants use the psychiatric bed need projection methodology specified in the Chapter. (For a detailed description of the methodology, refer to Appendix B.) As explained in Section VII, this methodology is outdated. In the absence of a more contemporary and usable psychiatric bed need forecasting methodology, MHCC has utilized COMAR 10.24.01.08G(3)(b) as a basis for evaluating the need for additional psychiatric bed capacity and undertaken its own analysis based on hospital service areas and capacity.[79] MHCC staff has concluded that a service-area based approach to evaluating the need for additional psychiatric capacity should guide development of an updated forecast methodology, if a codified methodology is included in an update of the Chapter. MHCC staff recommends that stakeholders discuss whether a bed need methodology should be included in the Chapter or, alternatively, whether the Chapter should include a set of minimum requirements that applicants must meet to demonstrate the need for additional psychiatric bed capacity.

Standard 1b requires that a CON applicant document compliance with any delicensing requirements in the SHP or the Hospital Capacity Plan. No delicensing requirements are included in the SHP, and the Hospital Capacity Plan is no longer produced. Standard 1c requires that an applicant for the State hospital conversion bed need have a written agreement with the "Mental Hygiene Administration" (now the BHA). The "hospital conversion bed need" refers to a measure used to assist in the deinstitutionalization of patients served State psychiatric hospitals, through estimating the equivalent number of beds needed in the private sector to offset the use of beds in State psychiatric hospitals. When these standards were last updated, the State was moving towards reducing the use of State psychiatric hospitals. As of August 2018, BHA reported to MHCC staff that State psychiatric beds primarily serve forensic patients and are not used for acute psychiatric patients who may be served in non-State hospitals. Consequently, standards 1b and 1c are irrelevant to the current CON process for adding or establishing psychiatric bed capacity. MHCC staff recommends removing these standards from the Chapter.

[78] Since 2011, there have been five CON applications for the relocation, expansion, or establishment of psychiatric services.

[79] COMAR 10.24.01.08G(3)(b) instructs that if there is no applicable analysis in the SHP, that 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 standards."

Standard 1d provides a preference to CON applicants who sign an agreement with the Mental Hygiene Administration (BHA) that states the applicant will screen, evaluate, and treat patients who would otherwise be admitted to a State psychiatric hospital. In addition, the applicant must agree that all patients seeking admission to the applicant's facility will be admitted and not transferred to a State psychiatric hospital, unless the facility documents that the patient cannot be treated in the facility. MHCC staff recommends that the workgroup consider whether this standard is needed because it appears BHA does not allow the use of State hospitals for patients that may be served in non-State hospitals and may not need agreements with hospitals to enforce this policy.

Standards 2a, 2b, and 2c require that an acute general hospital with a psychiatric unit provide round-the-clock psychiatric emergency treatment, be designated by MDH to perform evaluations of persons brought in on emergency petitions, and have both emergency holding bed capabilities and a seclusion room.[80] Standards 3a, 3b, and 3c require that: inpatient acute psychiatric programs provide comprehensive services, including chemotherapy and social services; inpatient child and adolescent acute psychiatric services be provided by a multidisciplinary team in separate physical environments and that treatment is consistent with the needs of each age group; and all acute general hospitals provide psychiatric consultation services either directly or through contractual arrangements. These standards have been applied to recent CON applications and remain relevant to the CON process. However, the standards of the Joint Commission for inpatient acute psychiatric programs may be partially or fully consistent with the intent of these standards. One Joint Commission standard requires that psychiatric hospital provides psychological services, social work services, psychiatric nursing, and therapeutic activities; therapeutic activities must be appropriate to the needs and interest of patients and directed at restoring and maintaining optimal levels of physical and psychosocial functioning. A requirement for Joint Commission accreditation may eliminate the need to include some of these standards in the CON review process. MHCC staff recommends that the workgroup review these standards and consider how to minimize the number of standards, while still ensuring the provision of effective care for psychiatric patients.

Standard 4a requires a separate CON for each age group for which service is provided (child, adolescent, and adult), including the conversion of psychiatric beds from one age category to another. Standard 4b requires that an applicant proposing to serve multiple age groups physically separate age groups and provide distinct programs for each age group. In June of 2018, MHCC received a petition from the University of Maryland Medical Center (UMMC), seeking to amend Standard 4a by adding language that would allow existing acute psychiatric care providers to convert child acute psychiatric beds to acute adolescent psychiatric beds without requiring a CON. UMMC sought this amendment due to "great difficulty locating inpatient beds for adolescent patients who present for inpatient psychiatric treatment at UMMC" and that are boarded in the UMMC's ED until an adolescent psychiatric bed is available. MHCC staff responded to this request by posting the petition for public comment.

Three of the four mental health care providers that submitted comments on the petition expressed concerns about the proposed policy change. MedStar Health commented that the amendment may have "unintended implications" on other services regulated by MHCC and questioned whether the requested change in policy would be better than the existing policy. MedStar also suggested that a needs assessment could identify whether there is insufficient psychiatric bed capacity for adolescents. Sheppard Pratt Health System expressed concern about the way in which psychiatric beds from a merged asset

[80] The Chapter notes that a hospital may be exempted by DHMH from the requirements in 2b and 2c as provided for in Health General §10-620(d)(2).

health system might be redeployed and negatively affect existing acute general hospital psychiatric units that treat adolescents. Calvert Health expressed a concern that the amendment would harm small and independent organizations through a loss of business, because it would allow large providers to easily convert beds. Johns Hopkins Health System agreed with the proposed amendment, but provided no rationale for its support. Although BHA did not submit comments in response to the petition, BHA staff expressed opposition to this amendment when contacted by MHCC staff in August 2018. MHCC staff recommends that the workgroup consider the proposed amendment and public comments submitted, to determine what changes to Standard 4a, if any, should be incorporated in an updated Chapter.[81]

B. Accessibility

There are five standards in the Chapter that pertain to accessibility. These standards address the services required upon patient admission, quality assurance documentation for special populations, denial of services, uncompensated care requirements, and geographic availability of services. None of these standards have been identified as outdated by MHCC staff. However, MHCC staff recommends that the workgroup review these standards and consider how to minimize the number of standards, while still ensuring the provision of effective care for psychiatric patients.

Standard 5 requires that after a patient requests admission to an acute psychiatric inpatient facility, the following services must be available: intake screening and admission; arrangements for transfer to a more appropriate facility for care if medically indicated or necessary to evaluate or treat the patient's psychiatric problem; and emergency treatment. This standard may not be needed if Medicare participation and Joint Commission accreditation are required, based on MHCC staff's review of these requirements. Medicare Conditions of Participation require that, for psychiatric hospitals, a psychiatric evaluation be completed within 60 hours of a patient's admission.[82] The Joint Commission accreditation for behavioral health services requires that, when the organization does not directly provide treatment or services to the patient, referrals are made and documented in case records.[83]

Standard 6 requires that there are separate written quality assurance measures and protocols for special populations. Special populations include children, adolescents, patients with a secondary diagnosis of substance abuse, and geriatric patients. While Medicare Conditions of Participation do not specifically require separate written quality assurance measures and protocols for special populations, a hospital is required to have quality assurance measures and protocols for all patients, generally.[84] MHCC staff recommends that the workgroup review this standard to determine if separate quality assurance measures are needed for each patient population served or whether it is sufficient to require Medicare participation.

Standard 7 prohibits the denial of admission to a psychiatric facility based solely on a patient's legal status rather than clinical criteria. Legal status in this standard refers to a person's immigration status (citizen, legal immigrant, or illegal immigrant). MHCC staff recommends removing this standard because

[81] The states of Florida and Michigan separate inpatient psychiatric care into two age categories (1) adults and (2) children and adolescents. FL 59C-1.040(3)(c); Michigan Certificate of Need (CON) Review Standards for Psychiatric Beds and Services.
[82] 42 CFR Sec. 482.61.
[83] THE JOINT COMMISSION, BEHAVIORAL HEALTH CTS.03.01.07: *When Individuals Served Need Additional Care, Treatment, or Services Not Offered by the Organization, Referrals are made and documented in the clinical/case record*.
[84] 42 CFR Sec. 482.21.

other SHP chapters do not include analogous standards. The workgroup should consider whether access to acute psychiatric services poses a particular problem for non-citizens compared to other types of hospital services.

Standard 8 requires that all acute general hospitals and private freestanding psychiatric hospitals provide a percentage of uncompensated care for acute psychiatric patients similar to that provided at other acute general hospitals in the health planning area where the facility is located.[85] Standard 8 holds CON applicants accountable for providing a level of uncompensated care similar to other hospitals in the same health planning area. MHCC staff recommends that the workgroup consider what constitutes a similar level of uncompensated care and whether it is appropriate to have the same expectations for acute general hospitals and private freestanding psychiatric hospitals with respect to uncompensated care.

Standard 9 allows an acute child psychiatric patient to be admitted to a general pediatric bed if no child acute psychiatric beds are available within a 45-minute drive time. Standard 9 also notes that in the Western Maryland region, the drive time access standard for acute inpatient psychiatric services is the same as for other regions for adults (30 minutes) and slightly longer for pediatric patients (45 minutes versus 30 minutes).[86] MHCC staff recommends that the workgroup consider whether the current drive time standards are needed and, if needed, whether they should be modified or reformulated.[87]

C. Cost

There are two standards that pertain to the cost of the provision of acute psychiatric services. One standard establishes minimum levels of bed occupancy before expansion of services is allowed, and the other standard establishes a benchmark for determining whether the cost of services is acceptable. The purpose of these standard is to ensure that acute psychiatric beds are utilized at cost-effective levels, prior to allowing for the expansion of psychiatric bed capacity.

Standard 10 requires that psychiatric facilities meet certain bed occupancy standards as a prerequisite to expanding psychiatric bed capacity. These occupancy requirements are based on the number of beds at the psychiatric facility. Facilities with fewer beds have lower occupancy requirements.

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[85] Uncompensated care refers to both bad debt and charity care. The HSCR ensures that the cost of uncompensated care is shared across all Maryland hospitals, by building a statewide pool into the rate structure for Maryland hospitals. *See* HEALTH SERV. COST REVIEW COMM., FINAL RECOMMENDATIONS FOR THE UNCOMPENSATED CARE POLICY FOR RATE YEAR 2018 (July 12, 2017), *available at* https://www.mhaonline.org/docs/default-source/advocacy/regulatory/hscrc/newsbreak-links/final-rec-on-ucc-for-fy-2018.pdf?sfvrsn=2. The design is intended to be budget neutral for individual hospitals, neither rewarding a hospital that provides more uncompensated care than predicted nor penalizing a hospital that provides less uncompensated care than predicted. In addition, HSCRC's policies are designed to promote patient access to care for those who cannot afford it.

[86] The section of the SHP with General Plan Standards, which describes the applicable drive-time standards for specific hospital services when a different standard is not incorporated into a SHP chapter, provides that acute inpatient psychiatric services must be no more than 30 minutes away for 90% of the population under normal driving conditions, except in Western Maryland.

[87] For example, in South Carolina, "psychiatric beds are planned for and located within 60 minutes' travel time for the majority of the State's residents. *See*, South Carolina Dept. of Health & Environmental Control, 2018-2019 South Carolina Health Plan 39 (2018), *available at* https://www.scdhec.gov/sites/default/files/docs/Health/docs/StateHealthPlan/2018-2019%20SC%20HEALTH%20PLAN.pdf.

MHCC staff identified the occupancy standard for expansion as outdated in a recent CON review because the levels of expected occupancy are too high given the ALOS has decreased significantly compared to the ALOS two decades ago. In addition, this approach could allow gaming of the system by enabling existing providers to eliminate the opportunity for new providers by keeping their occupancy rates below the threshold used to evaluate whether a new provider may be approved. MHCC staff recommends removing this standard or modifying it to lower the occupancy rate thresholds and reduce the potential for gaming the system.

Standard 11 requires that private psychiatric hospitals applying for a CON for acute psychiatric bed capacity must document that the age-adjusted average total cost for an acute psychiatric admission is not more than the age-adjusted average total cost per acute psychiatric admission in psychiatric units of acute care general hospitals in the same health planning area. MHCC staff recommends that the workgroup consider whether this standard is still necessary.

D. Quality

There are three quality standards in the Chapter. These standards address the staffing requirements for facilities that provide acute inpatient psychiatric services. MHCC staff has not identified any of these standards as outdated. However, the workgroup should consider whether removing these standards and instead requiring Medicare participation is an effective way to maintain quality of care for patients.

Standard 12a requires that a qualified psychiatrist supervise the provision of acute inpatient psychiatric services. As a condition of Medicare participation, the inpatient psychiatric services of a hospital must be under the supervision of a clinical director, service chief, or equivalent who is qualified to provide the leadership required for an intensive treatment program.[88] In addition, the director of inpatient psychiatric care must meet the training and experience requirements for examination by the American Board of Psychiatry and Neurology or the American Osteopathic Board of Neurology and Psychiatry.[89] If Medicare participation is required, then the requirements included in this standard are already covered by the standards for Medicare participation, and the CON standard may be eliminated without lowering quality standards.

Standard 12b requires that staffing for acute psychiatric programs include therapists for patients without a private therapist and aftercare coordinators to facilitate referrals and further treatment, and that staffing covers a seven day per week treatment program. Standard 12c requires that child and adolescent acute psychiatric units include staff who have experience and training in child and adolescent acute psychiatric care, respectively. These two standards address very basic and minimal features of an acute psychiatric program. Similarly, the conditions of Medicare participation for staffing are general, referring to meeting the needs of patients and providing an adequate number of registered nurses, licensed practical nurses, and mental health workers to provide nursing care necessary for each patient. However, there are also education requirements for the director of psychiatric nursing services and the director of the social work department. MHCC staff recommends that the workgroup consider eliminating Standards 12b and 12c, if the Medicare conditions of participation are deemed adequate by the

[88] 42 CFR 482.62(b)
[89] 42 CFR 482.62(b)(1)

workgroup. The Joint Commission requires applicants to comply with Medicare conditions of participation for staffing.[90]

E. Continuity

Standard 13 requires that facilities providing acute psychiatric care have policies governing discharge planning and referrals between the program and a full range of other services including inpatient, outpatient, long-term care, aftercare treatment programs, and alternative treatment programs. These policies are required to be available for review by appropriate licensing and certifying bodies. Discharge planning is important to ensure that the patient has the resources and support necessary to minimize a decline in psychiatric well-being after the patient's discharge.[91] There are not analogous policy requirements in the Medicare conditions of participation. However, Medicare conditions of participation require that hospitals have an individual comprehensive treatment plan for each patient that, among other things, adequately justifies the diagnosis, treatment, and rehabilitation services provided.[92]

Hospitals should already have an incentive to provide adequate discharge planning in order to avoid patient readmissions. HSCRC tracks patient readmissions for all hospitals and has agreed to meeting specific targets for readmissions as part of the new payment model agreement with the Centers for Medicare and Medicaid Services. MHCC staff recommends that the workgroup review this standard and determine whether a requirement for policies governing discharge planning and referrals is necessary. Alternatively, a standard that incorporates a hospital's track record for readmissions generally or specifically for psychiatric patients may be more useful for incentivizing hospitals to provide quality care and engage in discharge planning.

F. Acceptability

Standard 14 requires that an applicant obtain letters of acknowledgement from the local and State mental health advisory council, the local community mental health center, the Department of Health, and the city or county mental health department. While this serves as reasonable preliminary information to gather concerning the acceptability of a project to a community, it may fail to adequately quantify the likely impact of a proposed project on the mental health services currently being provided in the community. MHCC staff recommends that the workgroup consider modifying this standard or adding another standard to ensure that the Commission fully understands the impact of the proposed project.[93]

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[90] THE JOINT COMMISSION, HOSPITAL LD.04.03.01: *The Hospital Complies with Law and Regulation*, EP16.

[91] Hamzah M. Alghzawi, *Psychiatric Discharge Process*, 2012 INT'L SCHOLARLY RES. NETWORK (2012), *available at* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3671711/pdf/ISRN.PSYCHIATRY2012-638943.pdf.

[92] 42 CFR 482.61

[93] For example, Oklahoma State Department of Health requires that the overall mean occupancy rate of 75 percent in the service area before a new psychiatric facility can be established or an existing psychiatric facility can be expanded. *See* Okla. Stat. tit. 310 § 635 (Dec. 1991).

Appendix A: Summary of Standards in the Chapter for Psychiatric Services Standards and MHCC's Staff's Recommendations

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
Availability			
COMAR 10.24.07 Standard 1a	The projected maximum bed need for child, adolescent, and adult acute psychiatric beds is calculated using the Commission's statewide child, adolescent, and adult acute psychiatric bed need projection methodologies specified in this section of the State Health Plan. Applicants for Certificates of Need must state how many child, adolescent, and adult acute psychiatric beds they are applying for in each of the following categories: net acute psychiatric bed need, and/or state hospital conversion bed need.	MHCC staff recommends that the need for additional psychiatric capacity be based on existing service areas and market share analysis rather than the current health planning regions. needed.	Determined to be outdated.
COMAR 10.24.07 Standard 1b	A Certificate of Need applicant must document that it has complied with any delicensing requirements in the State Health Plan or in the Hospital Capacity Plan before its application will be considered.	MHCC staff recommends removing this standard from the Chapter.	Determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
COMAR 10.24.07 Standard 1c	The Commission will not docket a Certificate of Need application for the "state hospital conversion bed need" as defined, unless the applicant documents written agreements with the Mental Hygiene Administration. The written agreements between the applicant and the Mental Hygiene Administration will specify: i. the applicant's agreement to screen, evaluate, diagnose and treat patients who would otherwise be admitted to state psychiatric hospitals. These patients will include: the insured and underinsured, involuntary, Medicaid and Medicare recipients; ii. that an equal or greater number of operating beds in state facilities which would have served acute psychiatric patients residing in the jurisdiction of the applicant hospital will be closed and delicensed, when the beds for the former state patients become operational; iii. that all patients seeking admission to the applicant's facility will be admitted to the applicant's facility and not be transferred to the state psychiatric hospital unless the applicant documents that the patient cannot be treated in its facility; and iv. that the applicant and the Mental Hygiene Administration (MHA) will be responsible for assuring financial viability of the services, including the payment of bad debt by DHMH as specified in the written agreement between MHA and the applicant.	MHCC staff recommends removing this standard from the Chapter.	Determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
COMAR 10.24.07 Standard 1d	Preference will be given to Certificate of Need applicants applying for the "net adjusted acute psychiatric bed need", as defined, who sign a written agreement with the Mental Hygiene Administration as described in part (i) and (iii) of Standard AP 1c.	MHCC staff recommends removing this standard.	Determined to be outdated.
COMAR 10.24.07 Standard 2a	All acute general hospitals with psychiatric units must have written procedures for providing psychiatric emergency inpatient treatment 24 hours a day, 7 days a week with no special limitations for weekends or late night shifts. (Unless otherwise exempted by DHMH as provided by Maryland law Health General Article Sec. 10-620(d)(2)).	MHCC staff recommends that the workgroup review this standard.	Not determined to be outdated.
COMAR 10.24.07 Standard 2b	Any acute general hospital containing an identifiable psychiatric unit must be an emergency facility, designated by the Department of Health and Mental Hygiene to perform evaluations of persons believed to have a mental disorder and brought in on emergency petition. (Unless otherwise exempted by DHMH as provided by Maryland law Health General Article Sec. 10-620(d)(2)).	MHCC staff recommends maintaining this standard.	Not determined to be outdated.
COMAR 10.24.07 Standard 2c	Acute general hospitals with psychiatric units must have emergency holding bed capabilities and a seclusion room. (Unless otherwise exempted by DHMH as provided by Maryland law Health General Article Sec. 10-620(d)(2)).	MHCC staff recommends maintaining this standard.	Not determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
COMAR 10.24.07 Standard 3a	Inpatient acute psychiatric programs must provide an array of services. At a minimum, these specialized services must include: chemotherapy, individual psychotherapy, group therapy, family therapy, social services, and adjunctive therapies, such as occupational and recreational therapies	MHCC staff recommends removing this standard, but requiring accreditation by the Joint Commission or other accreditation agencies with equivalent standards.	Not determined to be outdated.
COMAR 10.24.07 Standard 3b	In addition to the services mandated in Standard 3a, inpatient child and adolescent acute psychiatric services must be provided by a multidisciplinary treatment team which provides services that address daily living skills, psychoeducational and/or vocational development, opportunity to develop interpersonal skills within a group setting, restoration of family functioning and any other specialized areas that the individualized diagnostic and treatment process reveals is indicated for the patient and family. Applicants for a Certificate of Need for child and/or adolescent acute psychiatric beds must document that they will provide a separate physical environment consistent with the treatment needs of each age group.	MHCC staff recommends removing this standard, but requiring accreditation by the Joint Commission or other accreditation agencies with equivalent standards.	Not determined to be outdated.
COMAR 10.24.07 Standard 3c	All acute general hospitals must provide psychiatric consultation services either directly or through contractual arrangements.	MHCC staff recommends removing this standard, but requiring accreditation by the Joint Commission or other accreditation agencies with equivalent standards.	Not determined to be outdated.
COMAR 10.24.07 Standard 4a	A Certificate of Need for child, adolescent or adult acute psychiatric beds shall be issued separately for each age category. Conversion of psychiatric beds from one of these services to another shall require a separate Certificate of Need.	MHCC staff recommends that the workgroup consider the proposed amendment and public comments submitted, to determine what changes to Standard 4a, if any, should be incorporated in an updated Chapter.	Not determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
COMAR 10.24.07 Standard 4b	Certificate of Need applicants proposing to provide two or more age specific acute psychiatric services must provide that physical separations and clinical/programmatic distinctions are made between the patient groups.	MHCC staff recommends removing this standard, but requiring accreditation by the Joint Commission or other accreditation agencies with equivalent standards.	Not determined to be outdated.
Accessibility			
COMAR 10.24.07 Standard 5	Once a patient has requested admission to an acute psychiatric inpatient facility, the following services must be made available: i. intake screening and admission; ii. arrangements for transfer to a more appropriate facility for care if medically indicated; or iii. necessary evaluation to define the patient's psychiatric problem and/or iv. emergency treatment	MHCC staff recommends that the work group review this standard.	Not determined to be outdated.
COMAR 10.24.07 Standard 6	All hospitals providing care in designated psychiatric units must have separate written quality assurance programs, program evaluations and treatment protocols for special populations including: children, adolescents, patients with secondary diagnosis of substance abuse, and geriatric patients, either through direct treatment or referral.	MHCC staff recommends that the work group consider whether this standard should reference additional special populations or be modified to require written quality assurance measures for all patients.	Not determined to be outdated.
COMAR 10.24.07 Standard 7	An acute general or private psychiatric hospital applying for a Certificate of Need for new or expanded acute psychiatric services may not deny admission to a designated psychiatric unit solely on the basis of the patient's legal status rather than clinical criteria.	MHCC staff recommends that the work group consider whether this standard should be amended to provide clarity that the only reason to deny admission to a psychiatric facility is inability of the facility to provide the appropriate level of care.	Not determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
COMAR 10.24.07 Standard 8	All acute general hospitals and private freestanding psychiatric hospitals must provide a percentage of uncompensated care for acute psychiatric patients which is equal to the average level of uncompensated care provided by all acute general hospitals located in the health service area where the hospital is located, based on data available from the Health Services Cost Review Commission for the most recent 12 month period.	MHCC staff recommends that the work group review this standard.	Not determined to be outdated.
COMAR 10.24.07 Standard 9	If there are no child acute psychiatric beds available within a 45 minute travel time under normal road conditions, then an acute child psychiatric patient may be admitted, if appropriate, to a general pediatric bed. These hospitals must develop appropriate treatment protocols to ensure a therapeutically safe environment for those child psychiatric patients treated in general pediatric beds. <u>Accessibility: Variant LHPA Standard</u> (Western Maryland) One-way travel time by care for 90 percent of the population from the jurisdiction(s) where acute psychiatric bed need is identified should be within 30 minutes for adults and 45 minutes for children and adolescents. (This standard supersedes the 1983-1988 State health Plan Overview Standards 1a and 1b.)	MHCC staff recommends that the work group evaluate whether the current drive time standards are reasonable.	Not determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
Cost			
COMAR 10.24.07 Standard 10	Expansion of existing adult acute psychiatric bed capacity will not be approved in any hospital that has a psychiatric unit that does not meet the following occupancy standards for two consecutive years prior to formal submission of the application. <u>Psychiatric Bed Range (PBR Occupancy Standards</u> PBR < 20 80% 20 ≤ PBR < 40 85% PBR ≥ 40 90%	MHCC staff recommends that the work group consider whether the occupancy standard should be modified to account for the bed capacity of a facility, and whether other factors should be considered in setting occupancy standards, such as the population to be served or geographic location.	Determined to be outdated.
COMAR 10.24.07 Standard 11	Private psychiatric hospitals applying for a Certificate of Need for acute psychiatric beds must document that the age-adjusted average total cost for an acute (≤30 days) psychiatric admission is no more than the age-adjusted average total cost per acute psychiatric admission in acute general psychiatric units in the local health planning area.	MHCC staff recommends removing this standard.	Not determined to be outdated.
COMAR 10.24.07 Standard 12a	Acute inpatient psychiatric service must be under the clinical supervision of a qualified psychiatrist.	MHCC staff recommends that the work group consider whether the criteria for a qualified psychiatrist should include specific training or board certification.	Not determined to be outdated.
COMAR 10.24.07 Standard 12b	Staffing of acute psychiatric programs should include therapists for patients without a private therapist and aftercare coordinators to facilitate referrals and further treatment. Staffing should cover a seven day per week treatment program.	MHCC staff recommends that the work group consider whether additional staff requirements for other behavioral health providers should be included.	Not determined to be outdated.
COMAR 10.24.07 Standard 12c	Child and/or adolescent acute psychiatric units must include staff who have experience and training in child and/or adolescent acute psychiatric care, respectively.	MHCC staff recommends that the work group review this standard.	Not determined to be outdated.

Standard	Current Language	MHCC Staff Recommendation	Determined to be Outdated in any of the most recent CON review?
Continuity			
COMAR 10.24.07 Standard 13	Facilities providing acute psychiatric care shall have written policies governing discharge planning and referrals between the program and a full range of other services including inpatient, outpatient, long-term care, aftercare treatment programs, and alternative treatment programs. These policies shall be available for review by appropriate licensing and certifying bodies.	MHCC staff recommends that the work group review this standard.	Not determined to be outdated.
Acceptability			
COMAR 10.24.07 Standard 14	Certificate of Need applications for either new or expanded programs must include letters of acknowledgement from all of the following: i. the local and state mental health advisory council(s); ii. the local community mental health center(s); iii. the Department of Health [ ]; and iv. the city/county mental health department (s) Letters from other consumer organizations are encouraged.	MHCC staff recommends that the work group consider modifying this standard or adding another standard to ensure that the Commission fully understands the impact of the proposed project.	Not determined to be outdated.

Appendix B. Maryland State Health Plan Inpatient Acute Psychiatric Bed Need Methodology

Steps	Abbreviations
1. Estimate overall prevalence of mental illness in child (0-12), adolescent (12-17), and adult (≥18) Maryland residents. a. $Population_{(adults)} \times .18^{*} = PMI_{(adults)}$ b. $Population_{(children/adolescents)} \times .2575^{*} = PMI_{(children/adolescents)}$ c. $PMI_{(adults)} + PMI_{(children/adolescents)} = PMI_{(all\ age\ groups)}$ d. $PMI_{(all\ age\ groups)} \times SIC = NMH$	ALOS = Average length of stay BN = Bed need EB = Existing beds IMA^{Φ} = In-migration Discharge
2. Estimate the number of Maryland residents under 18 (children and adolescents) and over 18 (adults) needing acute psychiatric mental health care. a. NMH x ratio of adults in $PMI_{(all\ age\ groups)} = NMH_{(adults)}$ b. NMH x ratio of children/adolescents in $PMI_{(all\ age\ groups)} = NMH_{(children/adolescents)}$ c. $NMH_{(adults)} \times .6597^{*} = NPI_{(adults)}$; $NPI_{(adults)} \times .0449^{*} = NAC_{(adults)}$ d. $NMH_{(children/adolescents)} \times .6597^{*} = NPI_{(children/adolescents)}$; $NPI_{(children/adolescents)} \times .0449^{*} = NAC_{(children/adolescents)}$	MAN = Migration Adjusted Need NAC = Persons needing acute psychiatric hospitalization NMH = Number of Marylanders needing mental health services in 1990
3. Adjust for in- and out-migration. a. $NAC_{(adults)} + IMA_{(adults)} - OMA_{(adults)} = MAN_{(adults)}$ b. $NAC_{(children/adolescents)} + IMA_{(children/adolescents)} - OMA_{(children/adolescents)} = MAN_{(children/adolescents)}$	NPI = Persons needing psychiatric intervention OMA^{Ψ} = Out-migration Discharge
4. Calculate bed need. a. $MAN_{(adults)} \times ALOS = PD_{(adult)}$ b. $MAN_{(children/adolescents)} \times ALOS = PD_{(children/adolescents)}$ c. $(PD_{(adult)}/365) \times OR_{(.85)} = BN_{(adult)}$ d. $(PD_{(children/adolescents)}/365) \times OR_{(.85)} = BN_{(children/adolescents)}$	OR = Occupancy Rate PD = Patient days PMI = Prevalence of mental illness
5. Adjust bed need for a normal migration factor in and out of the regions within Maryland.	SIC = Social indicator composite score
6. Calculate Net Bed Need. a. $BN_{(adult)} - EB_{(adult)}$ = Net Bed Need b. $BN_{(children/adolescents)} - EB_{(children/adolescents)}$ = Net Bed Need	
7. Calculate net adjusted acute psychiatric bed need for children, adolescents and adults, individually.	
8. For adults and children/adolescent age groups, add the state hospital conversion bed need to the net bed to obtain the total adjusted net acute psychiatric bed need.	
9. Apply the Health Service Area bed allocation plans.	

* Graduate Medical Education National Advisory Council (GMENAC)projection

$^{\Psi}$ The out-migration projections are only made for out-migration to DC and Virginia.

Appendix C. Inpatient Psychiatric Beds per 100,000 Residents

Inpatient* Psychiatric Beds per 100,000 Residents for All States, the District of Columbia, and Puerto Rico, 2010, 2014, 2016

2016 Ranking	State/Jurisdiction	Beds per 100,000 Residents, 2016	2014 Ranking	Beds per 100,000 Residents, 2014	2010 Ranking	Beds per 100,000 Residents, 2010
1	Washington	13.6	**19**	27.3	**31**	41.5
2	South Dakota	15.8	**1**	16.0	**46**	54.4
3	Puerto Rico	16.5	**--**	--	**3**	23.5
4	Colorado	20.8	**4**	22.8	**1**	16.6
5	Iowa	21.0	**13**	26.2	**17**	31.4
6	California	21.7	**7**	23.5	**9**	26.8
7	Minnesota	21.7	**10**	24.7	**6**	24.9
8	Georgia	24.2	**2**	19.0	**15**	30.3
9	Hawaii	25.3	**16**	26.9	**16**	30.6
10	Texas	25.6	**5**	23.4	**12**	27.4
11	Vermont	25.8	**18**	27.0	**47**	55.0
12	Arizona	26.3	**9**	24.6	**5**	24.4
13	Oregon	26.4	**8**	24.3	**11**	27.3
14	Michigan	26.7	**15**	26.8	**14**	29.7
15	North Carolina	26.7	**14**	26.7	**13**	27.5
16	South Carolina	27.2	**21**	29.9	**10**	27.0
17	New Hampshire	27.6	**22**	30.0	**34**	43.4
18	Nebraska	27.9	**37**	42.4	**36**	46.5
19	Wisconsin	29.1	**3**	21.2	**7**	25.5
20	Nevada	29.5	**5**	23.4	**2**	23.3
21	Ohio	30.0	**11**	25.3	**18**	31.9
22	Florida	30.2	**25**	33.9	**20**	33.5
23	Oklahoma	30.3	**42**	45.1	**38**	47.8
24	New Mexico	32.0	**32**	37.8	**4**	23.8
	All States & Jurisdictions	32.6		33.0		36.3
25	Idaho	33.3	**27**	35.6	**24**	35.7
26	Maryland	34.3	**34**	38.4	**26**	35.9
27	Alabama	35.3	**20**	29.8	**25**	35.7
28	Maine	35.7	**36**	40.4	**32**	42.5
29	Tennessee	36.0	**26**	34.2	**21**	33.6
30	Illinois	37.0	**24**	33.9	**23**	35.1
31	Utah	37.0	**12**	25.5	**8**	26.0
32	Connecticut	37.0	**38**	42.5	**33**	43.3
33	Virginia	39.2	**23**	30.9	**28**	37.1
34	Alaska	41.8	**30**	37.7	**22**	34.9
35	New York	42.3	**48**	55.2	**45**	54.4
36	Indiana	42.5	**39**	42.7	**30**	40.7
37	New Jersey	43.9	**40**	43.1	**48**	56.0
38	Pennsylvania	44.4	**41**	44.2	**41**	50.2
39	Rhode Island	45.7	**47**	51.7	**37**	47.3
40	Kentucky	46.0	**31**	37.8	**40**	50.0
41	Massachusetts	46.1	**28**	36.5	**27**	36.4
42	Montana	48.2	**33**	38.2	**19**	32.1

Inpatient* Psychiatric Beds per 100,000 Residents for All States, the District of Columbia, and Puerto Rico, 2010, 2014, 2016

2016 Ranking	State/Jurisdiction	Beds per 100,000 Residents, 2016	2014 Ranking	Beds per 100,000 Residents, 2014	2010 Ranking	Beds per 100,000 Residents, 2010
43	Kansas	48.46	**35**	39.87	**39**	49.15
44	Delaware	49.23	**44**	46.00	**42**	50.24
45	Louisiana	50.79	**45**	47.41	**44**	53.66
46	Arkansas	51.64	**43**	45.33	**35**	46.21
47	Mississippi	54.40	**49**	55.24	**50**	79.55
48	Wyoming	55.22	**29**	36.69	**49**	64.32
49	West Virginia	56.87	**46**	50.39	**29**	38.24
50	Missouri	57.59	**50**	59.52	**43**	53.54
51	North Dakota	72.40	**17**	26.94	**51**	94.59
52	D.C.	75.69	**51**	74.15	**52**	95.53

Source: MHCC staff of analysis of the National Mental Health Services Survey (N-MHSS): 2016, Data on Mental Health Treatment Facilities

*Inpatient beds include both acute and longer-term beds "specifically designated" for providing mental health treatment.

States that border Maryland

-- In survey year 2014 the National Mental Health Services Survey presented one cumulative bed count for Puerto and all other U.S. territories.

** Data includes all known specialty health facilities at the beginning of each data collection period. Response rates for years 2010, 2014, and 2016 are 91, 88, and 91 percent, respectively.

*** Bed count for each survey year excludes Department of Defense military treatment facilities, IHS-administered or tribally operated facilities, private practitioners or small group practices not licensed as a mental health clinic or center, and jails or prisons.

Appendix D. A Note on Child and Adolescent Use of Psychiatric Hospital Inpatient Services, Suicide, and Self-Inflicted Injury

The number of suicides among young persons under age 18 in Maryland has been fairly consistent between 2008 and 2017, between 12 and 14 deaths. In 2009, there were a reported 21 suicide deaths in this age group and a second spike in 2017, based on preliminary data, 26 deaths. The recent higher number of deaths could be an indicator that access and availability of psychiatric services for the younger population should be more closely examined, when viewed in the context of limited hospital space, a small number of sites, and some observed increase in the hospital use rate. The unexpected deaths of children under 18, including suicides, are referred by the Office of the Chief Medical Examiner to local child fatality review teams. In addition, a Maryland Child Fatality Review Team (MSCFRT) reviews the statewide data and makes recommendations to State agencies. MHCC staff reviewed the annual legislative reports from the MSCFRT that include data for the time period 2005 through 2016. Only the 2017 report included recommendations related to mental health services for children.[94] The 2017 report recommended increased screening among health care and behavioral health providers to ensure that at-risk youth receive proper treatment and management across all systems of care, using validated mental health screening tools. It also recommended improved data collection on suicide deaths that includes sexual orientation, gender identity, socioeconomic status, living situation, and other potential factors.

Although suicidal ideation is not the only reason a person may be hospitalized in a psychiatric bed, it is one reason for it, and data on trends in suicide rates, as well as self-harm, are captured in the HSCRC discharge abstract. MHCC staff analyzed the HSCRC discharge abstract data for the period 2010 through 2017. (See the following table.) Overall, for all ages, we found a significant decline in the number of discharges for the three-year period 2015 through 2017 (an average of 3,822 discharges) when compared to the period 2010 to 2012 (4,502). However, for children, the number of discharges increased between 2012 and 2013, from 12 discharges to 23, and the discharge count also doubled between 2016 and 2017, from 19 to 36. Looking at the same time periods, the adolescent discharge count showed a slight upward trend but does not display the steady upward trend seen for children. This data reinforces the concerns noted in the preceding paragraph. Although the MSCFRT legislative reports through 2016 did not indicate that access to acute inpatient psychiatric services is a factor in the higher recent number of suicides or the hospital discharge trends, MHCC staff will seek additional feedback on this issue from work group members and stakeholders. There was variability in the number of adolescent discharges with a diagnosis of self-harm. The highest number of these discharges occurred in 2014, a total of 318, and the lowest number of discharges in 2010, but the discharges in 2016 and 2017 were both lower compared to all other years except 2010.

[94] Maryland State Child Fatality Review Team. "2017 Legislative Report." <https://phpa.health.maryland.gov/documents/Maryland-State-Child-Fatality-Review-Team-2017-Annual-Legislative-Report.pdf>

Table D. Discharges with Indication of Self-Inflicted Injury by Age Group, CY 2010- CY 2017

Age Group	Year							
	2010	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**
Child (0-12)	8	12	12	23	22	24	19	36
Adolescent (13-17)	192	257	258	243	318	287	214	231
Adult (>18)	4,494	4,692	4,320	4,256	3,764	3,739	3,835	3,891
All Ages	**4,694**	**4,961**	**4,590**	**4,522**	**4,104**	**4,050**	**4,068**	**4,158**

Source: MHCC staff analysis of HSCRC discharge abstract data. All records with at least one diagnosis indicating self-harm are counted, and records with a diagnosis in the field for "E-codes."
Notes: Discharge rates do not include discharges from State psychiatric hospitals.