UNIVERSITY of MARYLAND
UPPER CHESAPEAKE HEALTH

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November 21, 2018

VIA EMAIL & HAND DELIVERY

Ms. Ruby Potter
ruby.potter@maryland.gov
Health Facilities Coordination Officer
Maryland Health Care Commission
4160 Patterson Avenue
Baltimore, Maryland 21215

Re: Modified Request from Exemption from CON Review to Convert University of Maryland Harford Memorial Hospital to a Freestanding Medical Facility

Dear Ms. Potter:

This letter serves as notice that University of Maryland Upper Chesapeake Medical Center ("UCMC") and University of Maryland Harford Memorial Hospital ("HMH"), as joint applicants, are submitting four copies of a modified request for exemption from Certificate of Need ("CON") review to convert HMH to a freestanding medical facility. One set of full-size sets of project drawings will be provided at a later date. Also enclosed is a CD containing searchable PDF files of the application and exhibits, a WORD version of the application, and native Excel spreadsheets of the MHCC tables.

If you have questions about the information provided above, please contact UM Upper Chesapeake Health System's legal counsel at your convenience:

James Buck
Gallagher, Evelius & Jones LLP
218 North Charles Street, Suite 400
Baltimore, Maryland 21201
410-347-1353
jbuck@gejlaw.com

Please also note that on December 13, 2018, UCMC and HMH have reserved space at the Aberdeen Fire Hall, located at 21 North Rogers Street, Aberdeen, MD 21001, MD 21078, for a public informational hearing, which will begin at 6 pm. At the public informational hearing, UCMC and HMH will address HMH's proposed transition plan, including: (1) job retraining and placement for employees displaced by HMH's conversion to a freestanding medical facility;

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(2) plans for transitioning acute care services previously provided on HMH's campus to residents of the service area; and (3) tentative plans for reuse of HMH's physical plant.

UM Upper Chesapeake Health System looks forward to working with the Maryland Health Care Commission, the Maryland Institute for Emergency Medical Services Systems, the Health Services Resources Cost Review Commission, and other interested stakeholders to effectuate a new and innovative model of health care delivery for the residents of Harford and Cecil Counties.

Please sign and return to our waiting messenger the enclosed acknowledgment of receipt.

Sincerely,

Lyle E. Sheldon FACHE,
President and Chief Executive Officer
UM Upper Chesapeake Health System, Inc.

Enclosures

CC by email without enclosures:

Ben Steffen, Executive Director, Maryland Health Care Commission
Richard L. Alcorta, M.D., FACHE, MIEMSS Acting Co-Executive Director
Patricia S. Gainer, J.D., MIEMSS Acting Co-Executive Director
Paul Parker, Director, Center for Health Care Facilities Planning and Development
Kevin McDonald, Chief, Certificate of Need Program
Suellen Wideman, Esq., Assitant Attorney General
Steve Witman, Senior Vice President and Chief Financial Officer, UM UCHS
Robin Luxon, Vice President, Corporate Planning, Marketing and Business Development, UM UCHS
Aaron Rabinowitz, Esq., Vice President and General Counsel, UM UCHS
Alison G. Brown, MPH, Senior Vice President and Chief Strategy Officer University of Maryland Medical System

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Andrew L. Solberg, A.L.S. Healthcare Consultant Services
James Buck, Gallagher, Evelius & Jones LLP

IN THE MATTER OF CONVERSION	*	
OF UNIVERSITY MARYLAND	*	BEFORE THE
HARFORD MEMORIAL HOSPITAL	*	MARYLAND HEALTH CARE
TO A FREESTANDING MEDICAL	*	COMMISSION
FACILITY	*	

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MODIFIED REQUEST FOR EXEMPTION FROM CERTIFICATE OF NEED REVIEW FOR THE CONVERSION OF UNIVERSITY OF MARYLAND HARFORD MEMORIAL HOSPITAL TO A FREESTANDING MEDICAL FACILITY

University of Maryland Upper Chesapeake Medical Center, Inc. ("UCMC") and University of Maryland Harford Memorial Hospital, Inc. ("HMH") as joint applicants, by the undersigned counsel, seek approval from the Maryland Health Care Commission (the "Commission") to convert HMH to a freestanding medical facility. For the reasons set forth more fully below, UCMC and HMH respectfully request that the Commission grant an exemption from Certificate of Need ("CON") review for the conversion of HMH to a freestanding medical facility and for associated capital expenditures.

BACKGROUND

HMH is an acute care hospital with fifty-four (54) licensed MSGA beds and twenty-eight (28) licensed psychiatric beds located in Havre de Grace. UCMC is a 149-bed licensed acute care hospital, with 138 MSGA beds, 10 obstetrics beds, and 1 pediatric bed located in Bel Air. HMH and UCMC are the sole acute general hospitals located in Harford County. Both HMH and UCMC are owned and operated by the University of Maryland Upper Chesapeake Health System ("UM UCH"), a community based, not-for-profit health system. UM UCH is dedicated

to maintaining and improving the health of the people in the communities it serves through an integrated health delivery system that provides the highest quality of care to all. UM UCH has been affiliated with the University of Maryland Medical System ("UMMS") since 2009, and in late 2013, UM UCH formally merged into UMMS in order to continue its commitment to the growing northeast Maryland area with expanded clinical services, programs and facilities, and physician recruitment. In addition to HMH and UCMC, UM UCH consists of the: (1) Patricia D. and M. Scot Kaufman Cancer Center (an affiliate of the University of Maryland Marlene and Stewart Greenebaum Cancer Center) located on the campus of UCMC; (2) the Klein Ambulatory Care Center located on the campus of UCMC; (3) the Senator Bob Hooper House, a residential hospice facility in Forest Hill; and (4) Upper Chesapeake Medical Services, a physician practice group.

HMH was constructed in phases between 1943 and 1972. Although UM UCH has been committed to maintaining the facility and has undertaken capital expenditures to make infrastructure, clinical equipment, and information technology improvements, the existing physical plant has outlived its useful life. As discussed more fully herein, renovation of the facility is not cost-effective and the nine (9) acre site in downtown Havre de Grace is surrounded by existing developed parcels, limiting a practical opportunity for renovation or expansion. Relocation of HMH as acute general hospital was considered but determined not to be cost effective and was viewed disfavorably by both staff of the Maryland Health Care Commission Staff and the Health Services Cost Review Commission ("HSCRC").

Consistent with local and national healthcare trends and to best promote access to convenient and quality care for the population it serves, UM UCH proposes to transition portions of HMH to a multi-service facility to be located on an approximate 35.63 acre property known as

the Upper Chesapeake Health Medical Campus at Aberdeen ("UC Medical Campus at Aberdeen"), approximately four and four-fifths (4.8) miles from the existing HMH campus and conveniently located near Interstate 95. In accordance with recently enacted legislation and corresponding regulatory changes, UCMC and HMH, as joint applicants, seek to convert HMH to a freestanding medical facility ("FMF") to be developed at the UC Medical Campus at Aberdeen. As described in this request, the proposed project resulting from the conversion of HMH to an FMF is referred to as "UC FMF." Contemporaneous with this modified request for exemption from CON review, UM UCH has filed an application for a Certificate of Need to establish a forty (40) bed special psychiatric hospital to be located on the UC Medical Campus at Aberdeen, which will be located above UC FMF. Additionally, HMH and UCMC, as joint applicants, have also filed a modified Request for Exemption from CON review to relocate MSGA beds from HMH to UCMC and to incur capital expenditures as part of a merger and consolidation of these two facilities.

DISCUSSION

For some time, several acute general hospitals in Maryland have been exploring options to reconfigure and modernize facilities in the face of aging physical plants, declining utilization for acute inpatient admissions, while recognizing the continued need to provide high quality and effective care to the communities they serve. Through legislation, Chapter 420, Acts of 2016 (Senate Bill 707), the General Assembly elected to use the FMF as the preferred facility type for the conversion of acute general hospitals by amending MARYLAND CODE, HEALTH-GENERAL to: (1) authorize a CON exemption process for conversion of an existing hospital to an FMF along with associated capital expenditures; and (2) authorize the HSCRC to regulate rates for outpatient services in an FMF, including observation services and ancillary services needed to

support emergency and observation services. As contemplated by this enactment, acute general hospitals converting to FMFs are authorized to provide a much broader array of services in order to treat patients with more complex and more acute health care needs than the three currently established Maryland FMFs, none of which converted from an acute general hospital. The existing FMFs in Maryland lack many of the capabilities that hospitals converting to FMFs will require to continue to serve the converting hospital's community. Otherwise, hospital conversions to FMFs or hospital closures will leave substantial gaps in health care services needed by communities formerly served by a hospital. This is particularly true with respect to HMH which has served the residents of Harford and Cecil Counties for more than one hundred years.

Pursuant to amended HEALTH-GENERAL § 19-120 and the State Health Plan Chapter for Freestanding Medical Facilities, COMAR 10.24.19 (the "State Health Plan"), an acute general hospital may convert to a freestanding medical facility if it follows certain procedures and demonstrates that: (1) the conversion is consistent with the State Health Plan; (2) the conversion will result in the delivery of more efficient and effective health care services; and (3) the conversion is in the public interest. For the reasons set forth more fully below, the proposed conversion of HMH to UC FMF satisfies each of these criteria. Accordingly, UCMC and HMH request that the Commission grant an exemption from CON review to permit the conversion of HMH to a freestanding medical facility and for associated capital expenditures.

I. COMPREHENSIVE PROJECT DESCRIPTION

HMH's conversion to UC FMF is part of UM UCH's plan to create an optimal patient care delivery system for the future health care needs of Harford and Cecil County residents,

which comprise a population of approximately 360,000. The applicants propose to locate UC FMF on the UC Medical Campus at Aberdeen, an approximate thirty-five (35) acre parcel. The services at UC Medical Campus at Aberdeen will be organized around two (2) main components: (1) UC FMF, an approximate 69,300 gross square feet building located on the first floor; and (2) the Upper Chesapeake Health Behavioral Health Pavilion ("UC Behavioral Health"), an approximate 72,444 gross square feet special psychiatric hospital located on the second floor. The combined total gross square footage of these components is approximately 141,744.[1]

Table 1 below reflects the square footage of both UC FMF and UC Behavioral Health, with shared space allocated 49% to UC FMF and 51% to UC Behavioral Health.

Table 1
Department Gross Square Footage UC FMF and UC Behavioral Health

	UC Behavioral Health	UC FMF	Total
Total Floor Plate Square Footage	59,487	56,849	116,336
Dedicated Departmental Square Footage	59,487	56,849	116,336
Shared Space Allocation	12,597	12,451	25,408
Shared Space Allocation %	51%	49%	100%
Total Gross Departmental Square Feet Consistent with Table B	72,444	69,300	141,744

[1] The overall 69,300 gross square feet allocated to UC FMF includes 56,849 departmental square feet dedicated to UC FMF and a 49% allocation of 25,408 gross square feet of public and administrative space that will be shared between UC FMF and UC Behavioral Health. Accordingly, an additional 12,451 square feet of space to be shared between UC FMF and UC Behavioral Health (49% of 25,408) has been allocated to the proposed project. The allocation of shared space between the UC Behavioral Health and the UC FMF was calculated pro-rata based on the gross square foot size of each facility.

As mentioned above and in accordance with recent statutory changes allowing hospital conversions to FMFs, UM UCH's planned FMF will be much different than the three existing Maryland FMFs. UC FMF will be a fully functional, full service emergency department, open twenty-four (24) hours per day, seven (7) days per week with the capability of caring for patients categorized in EMS priority levels 2 through 4 as well as EMS priority level 1 patients who suffer from either an unsecured airway, who are in *extremis,* or who suffer from a stroke if an accredited Primary or Comprehensive Stroke Facility is greater than 15 additional minutes.[2] UC FMF will have the ability to rapidly transfer those who cannot be definitively cared for at the facility via a dedicated, onsite ambulance unit and ground helipad (located at UC FMF) with proximity to several hospitals and tertiary centers.

UC FMF will include the following features:

1. A main public/ambulatory entry and waiting area with two (2) public toilets;

2. An emergency department (with six (6) triage rooms, 16 standard exam rooms, 2 resuscitation rooms, 2 isolation rooms, 5 patient toilets, and 2 staff toilets) as well as related staff and support spaces, including an ambulance entrance and decontamination facilities;

3. A behavioral health crisis unit with four (4) standard exam rooms, as well as a seclusion room that will be used in for patients who have emotional responses that are poorly modulated and who pose a threat to themselves or others in the unit (including staff) such that temporary seclusion provides an effective means to protect the patient and others while the patient receives medical attention, 2 patient toilets, and related staff and support spaces;

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[2] Until only recently, Maryland Institute for Emergency Medical Services Systems ("MIEMSS") jurisdictional protocols only permitted EMS providers to transport stable patients categorized as priority 3 or 4 who did not need time-critical intervention to the FMFs located at Bowie and Germantown with certain limited exceptions. *See* MIEMSS, The Maryland Medical Protocols for Emergency Medical Services Providers Protocols at 417 (July 1, 2016). Thus, until July 1, 2017, EMS providers were only permitted to transport patients who either did not require medical attention at all or who suffered from non-emergent conditions to two of the three existing FMFs in Maryland. *See* MIEMSS, The Maryland Medical Protocols for Emergency Medical Services Providers Protocols at 35 & 355 (July 1, 2017).

4. An observation suite with twenty-four (24) patient rooms, each having its own private toilet, and related staff and support spaces;

5. A diagnostic imaging suite with x-ray, ultrasound, CT, MRI, and cardiac and vascular ultrasound modalities and related staff and support spaces;[3]

6. A laboratory and pharmacy; and

7. Administration and staff support spaces.

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[3] UC FMF will require an MRI in its imaging department for three main reasons. First, the EMS Acute Stroke Ready pilot program applicable to UC FMF and described more fully below will lead to UC FMF obtaining Acute Stroke Ready Joint Commission Accreditation, which will allow EMS providers to transport patients suspected of stroke to UC FMF. These patients must be within the 4.5-hour window from "last known normal." The AHA/ASA 2013 Guidelines for the Early Management of Patients With Acute Ischemic Stroke Regarding Endovascular Treatment published in coordination between the American Health Association and American Stroke Association ("AHA/ASA Guidelines") require that a facility must offer CT or MRI at all times. For the system to be high reliable, however, there must be a secondary mode of imaging a suspected stroke patient should the CT undergo repair or maintenance. Additionally, when evaluating a patient with a suspected stroke that may qualify for tPA, there are patients that may be a stroke mimic that can be ruled in or out by a diffusion weighted MRI (DW-MRI).

Second, there is a need for an MRI at UC FMF to treat any patient with Transient Ischemic Attack ("TIA") or suspected stroke. MRI is superior to CT to identify acute ischemic stroke as per the AHA/ASA Guidelines in 2010 and 2013. A very large patient population may show a focal neurologic deficit. When this occurs and is transient, it will require an MRI. The emergency department TIA pathway requires an MRI so that clinicians can safely discharge the patient from the emergency department with additional outpatient testing. If discharge from the emergency department is not possible, these patients can be admitted to the observation unit for evaluation that would include an MRI. Lack of an MRI would result in an increase in transfers that would result in observation stays less than 23 hours and would put the stroke patient "in the window" at risk with only one modality to evaluate stroke.

Lastly, back and cervical pain is a common chief complaint for emergency department patients. Some patients will have intractable pain that is resistant to analgesia. In such UC FMF cases, MRI imaging will be performed to determine the reason for the intractable pain and inability to ambulate. Once the anatomy is determined with an MRI, clinicians can focus on analgesia and anti-inflammatories. If a patient has a history of intravenous drug abuse, there is a high risk for an epidural abscess that can only be diagnosed with an MRI of the spine. Lack of an MRI would result in unnecessary transfers for patients that would only require an MRI and no other interventions, while having MRI capability at UC FMF would eliminate unnecessary inter-facility transfers.

Submitted herewith as **Exhibit 2** are drawings of UC FMF's floor plan with the number of treatment spaces in the emergency department, the behavioral health crisis unit, and the observation unit sequentially numbered in each respective department. As reflected on **Exhibit 2**, the "Quiet Room" will be used for family consultation with the emergency department providers and/or chaplain. The "Safe Room" will be used for patients who have experienced a rape, assault, or criminal related injuries and who require appropriate treatment and testing equipment available within this specialty room. Also located in the emergency department is a decontamination area, a room for law enforcement, a separate room for UC FMF's security team, and offices for emergency department physicians and leadership. While not identified for in the design drawings, one of the offices in the emergency department at UC FMF will be used for telemedicine connection to a variety of sites.

Also as reflected on **Exhibit 2**, UC FMF's observation unit includes twenty-four (24) observation rooms comprised of twenty-three (23) standard patient rooms and one (1) isolation suite. The isolation suite includes three (3) sub-rooms including a patient isolation ante room, an isolation toilet, and the actual patient isolation room. The observation isolation suite will be utilized for patients suspected of having an active infection that requires isolation during continued testing and monitoring.

Dietary and dining services will be located on the ground floor, below UC FMF in space to be shared between UC FMF and UC Behavioral Health. Shared public toilets will also be included on the ground floor to serve patients and visitors to both UC FMF and UC Behavioral Health. Also included on the ground floor to be shared between UC FMF and UC Behavioral Health will be administration, information technology, support services, including materials

management and a loading dock, mechanical, electrical, and plumbing spaces, environmental services, medical gas, and linen storage.

UC FMF's emergency department will be staffed by Board Certified Emergency Medicine physicians and nursing staff specializing in emergency medicine with up to forty (40) hours of emergency physician and twelve (12) hours of emergency Advanced Practice Clinicians per day. The observation unit at UC FMF will be staffed by hospitalists. Additionally, the five-bed behavioral health crisis center will be staffed by personnel specializing in the diagnosis and treatment of patients suffering from psychiatric conditions. Specialty services currently not on-site at HMH would remain at UCMC and would be accessible to UC FMF patients via telemedicine. UC FMF will utilize current established clinical protocols and order sets, electronic medical records, technology, and medication administration for the full range of clinical diagnoses.

UC FMF will maintain HMH's EMS Base Station designation to allow communication with EMS providers in transport and the ability to direct patients to the appropriate level of service; such communications are required for all EMS priority 1 and 2 patients before arrival at UC FMF. The EMS Board has also approved a pilot protocol for UC FMF under which UC FMF would obtain accreditation by the Joint Commission as "acute stroke ready." The pilot protocol and acute stroke ready accreditation will allow EMS providers to transport priority 1 stroke patients to UC FMF if a Primary Stroke or Comprehensive Stroke Center is greater than fifteen (15) additional minutes away. Stroke treatment is time sensitive and the applicants believe that the approved EMS pilot protocol and accreditation of UC FMF as "acute stroke ready" is vital to maintaining the level of service needed for the aging population of UC FMF's service area.

The applicants anticipate maintaining nearly the same level of emergency and observation services as currently provided at HMH, with the exception of limited non-stroke EMS priority 1 patients, inpatient acute care beds, and operating room capabilities. Patients requiring these acute levels of service will be transferred from UC FMF to UCMC or other acute facilities as needed. Patients requiring observation stays would be transferred only in the event that UC FMF was at full capacity or the patients' condition deteriorated and warranted an acute care admission or transfer to a tertiary facility. The goal for optimal patient management is to achieve an average two-hour transport time for emergent, high acuity patients requiring a higher level of care. This two-hour window will start from the time a decision to admit a patient has been made and continue until the patient arrives at the receiving facility. The two-hour transport window will be accelerated for patients experiencing life threatening conditions; for example, UC FMF will have accelerated transport protocols for stroke and cardiac patients. For non-emergent transports, a three to four-hour transport window will start from the time the receiving facility confirms bed availability. This transport time is consistent with existing patient boarding times at HMH and UCMC and will include transit time in an ambulance. UC FMF will require time to coordinate placement of most patients in an MSGA unit of the receiving facility before transporting the patient. This optimal transport time will be supported by a dedicated, onsite ambulance unit housed at UC FMF and helicopter ambulance via the on-site helipad if necessary.

Both UC FMF and UC Behavioral Health were designed in accordance with the Facilities Guidelines Institute, Guidelines for Design and Construction of Hospitals 2018 Edition ("FGI Guidelines"), the 2015 National Fire and Protection Association 101 Life Safety Code, and the 2018 International Building Code. More specifically, UC FMF was designed considering the

FGI Guidelines Part 2 – Hospitals, Section 2.2-3 Diagnostic and Treatment Facilities, and Section 2.3 – Specific Requirements for Freestanding Care Facilities.

The FGI Guidelines do not prescribe minimum or maximum ranges of overall program area/square footage, but rather prescribe minimum requirements, including some minimum square footage/clear floor area requirements, based on the functional program for the project. For example, Section 2.2-3.1.3.6 provides requirements for treatment rooms and states, "Single-patient treatment room(s) shall have a minimum clear floor area of 100 square feet." The proposed project currently includes 146 to 152 square feet for the single-bed treatment room. This allows for the patient stretcher and other required furniture such as side chairs and storage for supplies to be accommodated in the room, leaving more than the 100 square feet of clear floor area as required by the FGI Guidelines. The proposed project meets the requirements of the FGI Guidelines while also taking advantage of FGI Guideline provisions allowing for dual-use of certain program spaces, including consultation, conference and charting room, staff space, and building support spaces which will be shared between UC FMF and UC Behavioral Health.

The behavioral health crisis treatment center at UC FMF was designed according to the FGI Guidelines Part 2 – Hospitals, Section 2.2-3 Diagnostic and Treatment Facilities, Section 2.2-3.1.3 Emergency Department; and specifically 2.2-3.1.4.3 Secure Holding Room which states, the secure holding room shall have a minimum clear floor area of 60 square feet with a minimum wall length of 7 feet and a maximum wall length of 11 feet. Accordingly, the proposed project includes treatment rooms in the range of 175 to 180 square feet. Taking into account the patient stretcher within this space, the remaining clear floor area complies with the requirements of FGI Guidelines.

The total project budget is $52,723,779. The proposed project and as well as the other capital projects for which UM UCH and its constituent hospitals have sought approval from the Commission will be funded through a combination of $200 million in tax exempt debt and $3.7 million of interest earned on bond proceeds. The bonds are anticipated to be issued in fiscal year 2020 through the University of Maryland Medical System.

Construction of the proposed project is projected to take place according to the same project schedule as set forth in UC Behavioral Health's CON Application, which the applicants incorporate by reference. Further the same site controls, required approvals, need for utilities as applicable to UC Behavioral Health apply to UC FMF, and the applicants incorporate by reference Sections 10 and 13(B) of UC Behavioral Health's CON Application.

The applicants have provided project drawings, including two copies of full scale drawings, at **Exhibit 2**. UCMC has also completed hospital CON **Tables A**, **B**, **C**, **D**, **E**, **I, J**, and **K**, which are related to UCMC's proposed project and relocation of MSGA beds from HMH to UCMC, as well as the projected utilization and financial performance of UCMC, inclusive of the UC FMF which becomes a department of UCMC beginning in fiscal year 2022. These tables are included with **Exhibit 1**. **Table I** includes utilization projections that reflect both the inpatient and outpatient utilization of UCMC and outpatient emergency department visits, observation cases, and related outpatient ancillary services at UC FMF. Also enclosed with **Exhibit 1**, are **Tables F**, **G**, and **H** that cover the entire utilization and financial performance of all UM UCH hospital facility components, including UCMC and HMH during the period from fiscal year 2015 to fiscal year 2021 and UCMC, UC FMF, and UC Behavioral Health between fiscal years 2022 and 2024. The financial projection assumptions related to revenue, expenses and financial performance underlying Tables G, H, J and K are also provided with Exhibit 1.

Additionally, **Exhibit 1** includes a **Table L** that incorporates the workforce for HMH's emergency department in fiscal year 2017 and UC FMF in fiscal year 2024. Included in the figures are full-time equivalent employees ("FTEs") dedicated to the provision of services to patients when they are in the emergency department.

II. THE CONVERSION OF HARFORD MEMORIAL HOSPITAL TO A FREESTANDING MEDICAL FACILITY IS CONSISTENT WITH THE STATE HEALTH PLAN, COMAR 10.24.19.

The conversion of HMH to a freestanding medical facility is consistent with the State Health Plan Chapter for Freestanding Medical Facilities, COMAR 10.24.19 (the "State Health Plan").

A. Location - COMAR 10.24.19.04(C)(4).

The State Health Plan requires that an FMF established as a result of a general hospital conversion remain on the site of, or immediately adjacent to, the converting general hospital *unless*, among other things, the converting hospital is one of two general hospitals in the jurisdiction, both hospitals belong to the same merged asset system, and the proposed site is within a five-mile radius and in the primary service area of the converting hospital. COMAR 10.24.19.04(C)(4).

UCMC and HMH are both members of UM UCH, a merged asset system, and are the only two general acute hospitals in Harford County. The UC FMF project site, 635 McHenry Road, Aberdeen, Maryland, is within HMH's primary service area (*see* Section II(E) below) and is located approximately four and four-fifths (4.8) miles from HMH in a straight line and five and four-fifths (5.8) miles following public roadways. The proposed project complies with this standard.

B. UCMC's Compliance With COMAR 10.24.10.04(A) – COMAR 10.24.19.04(C)(5)

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF shall demonstrate compliance with applicable general standards in COMAR 10.24.1.0.04A. *See* COMAR 10.24.19.04(C)(5). UCMC complies with each of these standards.

1. Information Regarding Charges

UM UCH's policy, implemented at both UCMC and HMH, relating to transparency in health care pricing complies with this standard and is attached as **Exhibit 3**. This policy will be extended to UC FMF when it opens.

2. Charity Care Policy.

UM UCH's Financial Assistance Policy, implemented at both UCMC and HMH, complies with this standard and is attached as **Exhibit 4**. UCH's Financial Assistance Policy complies with COMAR 10.24.10.04A(2). Section 4(d) on page 6 of UM Upper Chesapeake Health's Financial Assistance Policy (**Exhibit 4**) provides, "[w]ithin two (2) business days following a patient's request for Financial Assistance, application for Medical Assistance, or both, the hospital will make a determination of probable eligibility." This policy will be implemented at UC FMF when it opens.

3. Quality of Care

UC FMF, as a provider-based department of UCMC under 42 C.F.R. § 413.65 and HEALTH-GENERAL § 19-3A-01(3), will comply with requirements issued by the Maryland Department of Health (formerly the Department of Health and Mental Hygiene) for licensure as a freestanding medical facility, be accredited by the Joint Commission, and will comply with all conditions of participation in the Medicare and Medicaid programs.

The Commission has recognized that "subpart (b) of [COMAR 10.24.10.04(A)(3)] is essentially obsolete in that it requires an improvement plan for any measure that falls within the bottom quartile of all hospitals' reported performance on that measure as reported in the most recent Maryland [Hospital Evaluation Performance Guide], which has been reengineered with a different focus, and no longer compiles percentile standings." *In re Dimensions Health Corporation*, Docket No. 13-16-2351, Decision at 19 (Sept. 30, 2016).

UC FMF will be a provider-based department of UCMC. UCMC ranked "better than average" or "average" on fifty (50) of the seventy-two (72) quality measures. For an additional eleven (11) quality measures, UCMC did not have sufficient data to report. UCMC ranked "below average" on only eleven (11) quality measures. Table 2 below, identifies those quality measures for which UCMC was ranked "below average" along with UCMC's corrective action plan:

Table 2
Below-Average Quality Measures and Corrective Action

Quality Measure	Corrective Action Plan
COPD- Chronic Obstructive Pulmonary Disease	
Dying within 30-days after getting care in the hospital for chronic obstructive pulmonary disease (COPD).	As a part of UCMC's Patient and Family Centered Care Oversight Council, a multi-disciplinary COPD Workgroup has been created to focus on transitions of care. There are various scopes of work being implemented by the workgroup. The development of new pathway and order sets are in progress to reduce clinical variation in the COPD management. In addition, UCMC is working to increase patient education through video and pulmonary consults as needed.
Communication	
How often did doctors always communicate well with patients?	UCMC's Patient Experience Plan includes several strategies to improve physician communication including: language of caring

Quality Measure	Corrective Action Plan
	education, direct observations of physician interactions with patients, and structured bedside rounding with physicians and nurses to communicate each patient's plan of care and to answer patient questions.
Were patients always given information about what to do during their recovery at home?	UCMC's Patient Experience Committee as well as the Transition of Care Committee work plans include revision of patient discharge educational materials and the implementation of a new interactive patient engagement system to include patient specific education plans, patient portal registration, and an extensive library of education videos.
Environment	
How often was patients' pain always well-controlled?	UM UCH's Pain Management Steering Committee work plan includes several strategies for improving pain management including pain medication reassessment monitoring, RN education, designated pain management RN specialist and palliative care program. UCMC has also included pain assessment during hourly care rounds and shift hand-off communication.
How often was the area around patients' rooms always kept quiet at night?	UCMC is implementing several strategies to reduce noise including noise stoplights at nurses station to increase staff awareness of noise levels, reducing noise from delivery carts by changing cart wheels, reducing deliveries during night hours ,and implementing "quiet times" at designated times to promote uninterrupted rest.
Wait Times	
How long patients spent in the emergency department before being sent home? How long patients spent in the emergency department before they were seen by a healthcare professional?	In furtherance of UM UCH's fiscal year 2019 strategic objective for efficient care, a process improvement team has been charged to review Emergency Department ("ED") throughput and efficiency. Specifically, the work group will utilize the organization's IMPRV methodology to improve the ED's average length of stay and the times from "door to doctor." Executive oversight for this initiative will be driven through the Patient & Family Centered Care Oversight Committee and performance improvements will be monitored through a

Quality Measure	Corrective Action Plan
	system-wide scorecard.
Heart Attack and Chest Pain	
Patients with heart attack who received aspirin on arrival to the hospital.	UCMC is actively developing a plan to ensure that all patients with heart attack receive aspirin on arrival to the hospital.
Practice Patterns	
Patients who came to the hospital for a scan of their brain and also got a scan of their sinuses.	During FY18, three new CT scanners were installed within UCH (2 at UCMC and one at HMH). All three new scanners have the newest software and X-ray tube technology assuring low dose CT scans. A dose monitoring software, Radimetrics, was also purchased to monitor patient exposures during the CT scans allowing UCH to benchmark and watch for any outliers or trends with dose. During calendar year 2018, January through October measuring period, zero patients underwent CT of the sinus when ordered for a CT of the brain.
Results of Care - Death	
How often patients die in the hospital after bleeding from stomach or intestines.	All-cause mortality is an area of focus on UCMC's fiscal year 2019 Operating Plan. It also constitutes 15% of its Quality Based Reimbursement. A multidisciplinary project team has been deployed to determine both clinical interventions and documentation optimization to better understand the root causes driving any below average performance In addition, under the Safety domain, potentially preventable complications are being tracked, evaluated, and preventive efforts focused on opportunities for improvement.
How often patients die in the hospital after fractured hip.	UM UCH implemented a Geriatric Hip Fracture Program in April 2017. The primary focus of the program is to improve clinical care

Quality Measure	Corrective Action Plan
	for acute hip fractures seen at UM UCMC and UM HMH. Following implementation of the program, there has been a decreases in average length of stay, time from admission to surgery, 30 day readmission rates, and 1 year all-cause mortality. In addition, the Geriatric Hip Fracture program has implemented a process to identify patients with an increased risk of a large bone fracture to provide preventative care coordination.

C. Licensure – COMAR 10.24.19.04(C)(6)

The State Health Plan Chapter requires that applicants demonstrate that the proposed FMF will meet licensure standards established by the Department of Health. UC FMF will meet or exceed licensure standards established by the Department of Health.

D. Financial Assistance and Charity Care – COMAR 10.24.19.04(C)(7)

The State Health Plan requires that applicants seeking to establish an FMF through conversion of an acute general hospital establish and maintain financial assistance and charity care policies at the proposed FMF that match the parent hospital's policies and that comply with COMAR 10.24.10. Submitted as Exhibit 4 is UM UCH's financial assistance policy currently in effect at both UCMC and HMH, which policy complies with COMAR 10.24.10. This same policy as may be updated prior to the proposed opening of UC FMF in 2020 will be established and maintained at the UC FMF.

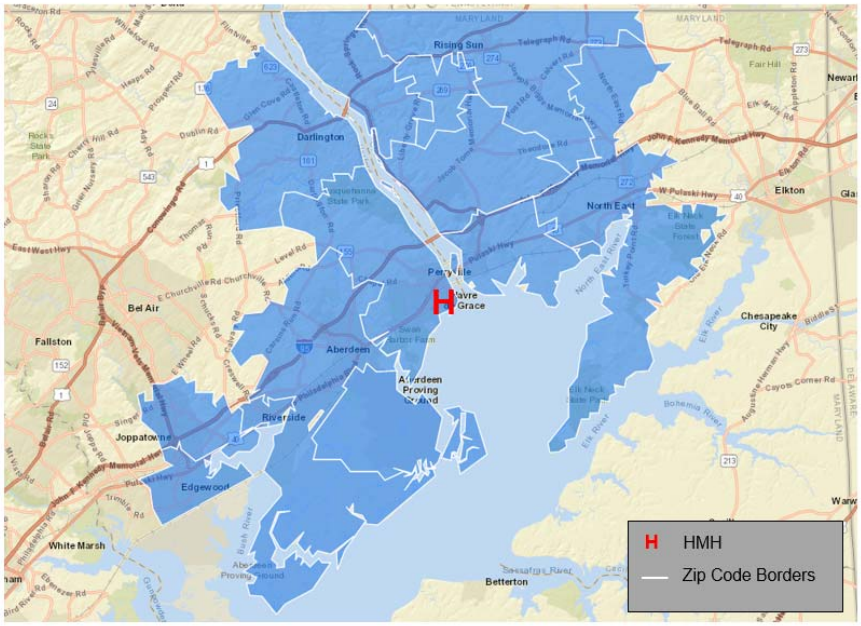
E. ED Visits in HMH's Service Area for the Last Five Years – COMAR 10.24.19.04(C)(8)(a)

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF provide the number of emergency department visits and FMF visits by residents in the converting hospital's service area for at least the most recent five years.

In fiscal year 2018, 85% of HMH's emergency department visits came from residents of thirteen (13) zip codes in Harford and Cecil Counties (i.e., HMH's ED Service Area and UC FMF's Service Area) as listed and depicted in Table 3 below.

Table 3
UC FMF ED Service Area
FY2018

ZIP	City
21001	Aberdeen
21078	Havre De Grace
21904	Port Deposit
21903	Perryville
21040	Edgewood
21911	Rising Sun
21918	Conowingo
21901	North East
21009	Abingdon
21005	Aberdeen Proving Ground
21017	Belcamp
21034	Darlington
21917	Colora



In fiscal year 2018, there were 68,562 visits to Maryland hospital emergency departments by residents of this service area. A combined 70.5% of these emergency department visits were to UCMC (37.8%) and HMH (32.7%) with an additional 16.2% of visits going to Union Hospital of Cecil County and 3.1% going to MedStar Franklin Square Hospital (Table 4).

Table 4
UC FMF Service Area ED Visits
FY2014 – FY2018

Hospital	Historical 2014	2015	2016	2017	2018 (1)	2018 % of Total	2014 - 2018 % Change
UM Upper Chesapeake Medical Center	24,580	26,175	27,051	26,609	25,890	37.8%	5.3%
UM Harford Memorial Hospital	24,289	24,981	24,679	23,424	22,451	32.7%	-7.6%
Union Hospital of Cecil County	11,658	11,558	11,790	11,500	11,128	16.2%	-4.5%
MedStar Franklin Square Hospital	2,974	2,733	2,574	2,279	2,094	3.1%	-29.6%
Johns Hopkins Hospital	986	1,057	1,088	1,216	1,300	1.9%	31.8%
Other Hospitals with less than 1,000 visits	5,284	5,078	5,240	5,523	5,699	8.3%	7.9%
Total	69,771	71,582	72,422	70,551	68,562	100.0%	-1.7%

Note (1): Reflects six months outpatient ED actual experience annualized
Source: St. Paul Computer Center statewide non-confidential utilization data tapes

Utilization of all hospital emergency departments by residents of this service area declined 1.7% between fiscal years 2014 and 2018, yet utilization of the emergency department at UCMC increased by 5.3%. Service area utilization of HMH declined 7.6%.

The applicants also project that UC FMF's "primary service" area will be the same as HMH's primary service area. In fiscal year 2018, 65.5% of HMH's MSGA discharges (primary service area) came from residents of two (2) zip codes in Harford County and two (2) zip codes in Cecil County as listed below in Table 5 below.

Table 5
HMH MSGA Primary Service Area Zip Codes and Discharges
FY2018

Zip Code	Community	County	Discharges	% of Discharges
21001	Aberdeen	Harford	856	26.3%
21078	Havre De Grace	Harford	825	25.4%
21903	Perryville	Cecil	228	7.0%
21904	Port Deposit	Cecil	222	6.8%
	Subtotal 2018 Service Area		2,131	65.5%
	Out of Service Area		1,121	34.5%
	Total MSGA Discharges		3,252	100.0%

In fiscal year 2018, 62.1% of HMH's inpatient psychiatric discharges (primary service area) came from residents of seven (7) zip codes in Harford County as listed in Table 6 below.

Table 6
HMH Psychiatric Primary Service Area Zip Codes and Discharges
FY2018

Zip Codes	Community	County	Discharges	% of Discharges
21001	Aberdeen	Harford	172	15.0%
21040	Edgewood	Harford	129	11.3%
21078	Havre De Grace	Harford	105	9.2%
21014	Bel Air	Harford	85	7.4%
21015	Bel Air	Harford	83	7.3%
21009	Abingdon	Harford	79	6.9%
21017	Belcamp	Harford	57	5.0%
	Subtotal 2018 Service Area		710	62.1%
	Out of Service Area		434	37.9%
	Total Psychiatric Discharges		1,144	100.0%

The creation of UC FMF is critical to ensure that access to emergency services for the service area population continues. Other area hospitals, especially UCMC, would be overwhelmed if UC FMF were not developed to the size and with the capabilities to meet the needs of the service area population. Further, UCMC could not accommodate a significant increase in emergency visits upon conversion of HMH to UC FMF without UCMC's own major capital improvements to its emergency department.

F. Availability and Accessibility of Emergent, Urgent, and Primary Care – COMAR 10.24.19(C)(8)(b)

The State Health Plan requires that that applicants seeking to convert an acute general hospital to an FMF assess the availability and accessibility of emergent, urgent, and primary care services otherwise available to the population to be served, including information on the number and location of other hospital emergency departments, FMFs, and urgent care centers in the service area of the converting hospital or within five miles of any zip code in the service area of the converting hospital.

UC FMF has been designed to provide similar emergency and observation services as has been historically provided at HMH. Through community education and outreach, which UM UCH has been engaged in for some time, UM UCH will make the community aware of the significant capabilities of UC FMF. As noted above, the applicants anticipate that UC FMF will maintain nearly the same level of emergency care services as currently provided at HMH, with the exception of existing EMS protocols prohibiting the transfer of a limited number of non-stroke EMS priority 1 patients.[4] Accordingly, the applicants projected UC FMF's service area and number of emergency department visits based on historical utilization at HMH, excluding non-stroke EMS priority 1 patients. *See* Table 4 above.

Within UC FMF's primary service area, there are no other acute general hospitals or FMFs. The nearest acute general hospitals to the proposed project site are UCMC, which is approximately 12.4 miles by public roadways. Union Hospital of Cecil County and MedStar Franklin Square Hospital are approximately 21.8 and 23.2 miles, respectively, from UC FMF by public roadways.

Within UC FMF's primary service area, the applicants have identified the following urgent care centers and their proximity to UC FMF by roadway travel as set forth in Table 7.

[4] In fiscal year 2016, HMH had a total of 187 EMS transports classified as priority 1, of which approximately 151 would no longer qualify for treatment at UC FMF based on EMS protocols while 36 would qualify for transfer to UC FMF through the EMS pilot protocol. In this same period, HMH had a total of 61 EMS priority 1 transports from Cecil County. In fiscal year 2018, HMH had a total of 208 EMS transports by Harford County EMS units classified as priority 1, of which approximately 160 would no longer qualify for treatment at UC FMF based on EMS protocols while 48 would qualify for transfer to UC FMF through the EMS pilot protocol.

Table 7
Urgent Care Centers in UC FMF's Service Area

Urgent Care Center Name	Address	Proximity to UC FMF	Hours
Patient First	995 Hospitality Way, Aberdeen, MD 21001	0.8 miles	8am-10pm (M-Sunday)
Choiceone Urgent Care	744 S Philadelphia Blvd, Aberdeen, MD 21001	2.7 miles	8am-8pm (M-Sunday)
Medstar Prompt Care	1321 Riverside Pkwy, Belcamp, MD 21017	6 miles	8am-8pm (M-Th) 8am-6pm (F) 8am-2pm (S-S)
MD Immediate Care	504 Lewis St, Havre de Grace, MD 21078	6.1 miles	9am-5pm (M-F) 9am-3pm (S-S)
Total Urgent Care	2120 Emmorton Park Rd, Edgewood, MD 21040	10.4 miles	8am-6pm (M-F) 9am-5pm (S-S)
Infinite Medical Express	1010 Edgewood Road, Edgewood, MD 21040	10.6 miles	9am-10pm (M-Th) 3pm-10pm (F) 9am-5pm (S-S)
Principio Health Center	4863 Pulaski Highway Perryville, Suite 110, MD 21903	11.1 miles	9am-8pm (M-F) 9am-5pm (S-S)
MedStar Express Care Northeast	101 N. East Plaza, North East, MD 21901	14.9 miles	8am-8pm (M-Sunday)
Got A Doc North East	2327 Pulaski Hwy, North East, MD 21901	15.4 miles	8am-8pm (M-Sat.) 9am-5pm (Sunday)

UM UCH has not gathered market intelligence on the use rates of the eight independent urgent care centers identified in Table 7 and does not have information regarding those use rates. UM UCH, however, is involved in a joint venture with ChoiceOne to operate the urgent care center located in Aberdeen. Despite efforts by UM UCH to direct patients with non-emergent medical conditions to urgent care centers as more fully below, the ChoiceOne/UM UCH urgent care center in Aberdeen has received less patient volume than the joint venture partners initially projected. UM UCH is not aware of the entry of new urgent care centers into the area.

UM UCH has implemented a comprehensive community educational campaign focusing on delivering "the right care at the right time and in the right setting" and has presented this

patient education model in multiple community sessions and open door café sessions. UM UCH has developed an educational tool that provides specific clinical presentations that are more appropriate for the urgent care setting versus the emergency department setting. This educational information has been printed in brochures, marketing advertisements, placed on UM UCH's website and on UM UCH's electronic patient/community educational screens throughout both UCMC and HMH. Finally and as an additional educational strategy, UM UCH worked with ChoiceOne Urgent Care to develop and distribute a direct mailing to all patients who had sought care in the emergency departments of either UCMC or HMH whose low acuity care fell within the capabilities of an urgent care center. UM UCH has also begun to use the following graphic as part of its education efforts.

Despite the location of these urgent care centers in HMH's existing primary emergency department service area, which is also UC FMF's projected primary service area, and UM UCH's efforts to educate patients on seeking "the right care at the right time in the right setting," emergency visits at HMH and in UC FMF's projected service area have not declined appreciably. *See* Table 4 above. UM UCH and its member hospitals attribute declining emergency department utilization to significant population health initiatives described in Section II.G below rather than a market shift of emergency department visit volume in the service area to urgent care centers. Indeed, HMH experienced an increase in emergency department visits

between fiscal years 2014 and 2016, even with the presence of urgent care centers in the market. And, the number of emergency department visits from HMH's service area increased 5.3% at UCMC between fiscal years 2014 and 2018. As such, the applicants assume that the presence of urgent care centers will not have an impact on the projection of emergency department visits at the UC FMF.

Moreover, in fiscal year 2017, approximately 32% percent of HMH's emergency department visits occurred between 8 p.m. and 8 a.m. Between these hours, only two of the urgent care centers identified in Table 7 of are open.

Table 8
HMH Emergency Department Visits Between 8 p.m. and 8 a.m.
FY2017

Timeframe	8 a.m. - 8 p.m.	8 p.m. - 8 a.m.	Total
Inpatient Visits	2,727	1,021	3,748
Outpatient Visits	16,666	8,062	24,728
Total Visits	19,393	9,083	28,476
% of Total	*68.1%*	*31.9%*	*100.0%*

Source: HMH FY2017 Internal Utilization

In addition to urgent care centers, UCH is aware of two (2) primary care practices that offer walk in services: (1) Bala Family Practice; and (2) Dr. Andrew Mrowiec's practice. To the applicants' knowledge, there are no additional primary care practices within UC FMF's proposed service area or in the Bel Air area that offer health care services to patients on an unscheduled, walk-in basis.

In sum, there are an ample number of urgent care centers in UC FMF's projected service area and only two primary care practices that offer walk-in services. Despite the presence of these services in HMH's service area, emergency department visits at area hospitals have not declined appreciably. Furthermore, the limited hours of operation of these urgent care centers

does not provide an alternative for patients experiencing emergency medical conditions. The development of UC FMF with the proposed level of beds and ancillary equipment is critical to ensure continued access to emergency and observation services for the service area population.

G. The Proposed Conversion of HMH to a Freestanding Medical Facility is Consistent UM UCH's Community Health Needs Assessment – COMAR 10.24.19.04(C)(8)(c).

The State Health Plan requires than applicants seeking to convert an acute general hospital to an FMF demonstrate that the proposed conversion is consistent with the converting hospital's most recent community health needs assessment.

UM UCH in conjunction with the Harford County Health Department and Healthy Harford completed the most recent Community Health Needs Assessment in July 2018. A copy of the Community Health Needs Assessment is provided as **Exhibit 5**. The Community Health Needs Assessment identified behavioral health, prevention and wellness, and family stability and wellness as the priority health care concerns for Harford County in order of importance. Further, with respect to behavioral health, the Health Resources and Services Administration designated all of Harford County as a Health Professional Shortage Area, meaning "that the need for mental health services far outweighs their availability." (*Id*. at 37.) To this end, UC FMF's proposed five behavioral health treatment spaces, coupled with UM UCH's plan to develop a special psychiatric hospital above UC FMF, is consistent with the Community Health Needs Assessment. The scope of behavioral health services planned for the UC Medical Campus at Aberdeen is intended to strongly support and provide added services to meet the well-recognized need within the community for comprehensive mental health services. As it relates to community addiction needs also addressed in the Community Health Needs Assessment, UM

UCH has maintained a strong collaboration with the Ashley Addiction program as well as with additional community-based providers throughout Harford and Cecil Counties.

UM UCH also promotes and supports optimal health prevention and wellness in the community through population health initiatives and programs which will be supported by UC FMF. In addition to UM UCH's constituent hospitals' traditional medical and surgical capabilities, UM UCH developed community-based care teams in 2016 that conduct in-home interventions for patients with complex, chronic health conditions. The teams are part of the Wellness Action Teams of Cecil and Harford Counties ("WATCH") program. Each WATCH team is comprised of one registered nurse, one social worker, and two community health workers that assess and address barriers to maintain health. The WATCH program was developed in partnership with the Health Department, Office on Aging, and a local Federally Qualified Health Center, among others. The program has the capacity to work with 2,000 clients annually with two teams in Harford County, one that spans the Susquehanna River, and one in Cecil County for a total of four teams. UC FMF will further the efforts of the Watch Program by making administrative and conference room space that is shared between UC FMF and UC Behavioral Health available for use by the Watch team both as a touchdown area between community interventions and for community outreach and education.

UM UCH has also entered into a regional partnership with Union Hospital of Cecil County ("UHCC") to address the medical and social needs of high utilizer patients and those with multiple chronic conditions. This regional partnership has deployed people, processes, and technology that identify and support patients in the pursuit of optimal health. The partnership leverages post-discharge clinics and community-based care teams while implementing telehealth programs and a shared, CRISP-hosted, care management documentation system. Patients are

engaged at a post-discharge clinic at UHCC, UM UCH, and/or the WATCH Program. The regional partnership's interventions target Medicare and dual-eligible patients with multiple visits to the hospital and/or two or more chronic conditions. Through the first 24 months of the program, the regional partnership has discovered that patients are more likely to become engaged with the program following a hospital visit. Another benefit of the regional partnership has been the development of numerous community partnerships, including with the local Health Departments and Offices of Aging, Community Action Agency, the United Way, as well as faith-based organizations. This partnership works closely with the UM UCH HealthLink team to develop and deploy chronic disease self-management programs, diabetes prevention, and health screening programs for vulnerable populations in the market.

Beyond the WATCH and Healthlink programs, UM UCH developed a Comprehensive Care Center ("CCC") in 2015 to serve as a high intensity medical and social clinic for high risk patients. The CCC includes a physician and nurse practitioner, nurses, and social workers who work with patients by phone and in a clinic setting for up to 30 days before transitioning them back to primary care practices. This clinic is centrally located at UCMC in Bel Air where there is close proximity to the Diabetes Center, Wound Center, Ashley Addiction Services, and other vital specialty practices also needed to support chronic diseases experienced by Harford County residents. Additionally, a Congestive Heart Failure program and Infectious Disease practice is located within the CCC. The annual referrals to the CCC have doubled to nearly 3,000 annually.

Strategic deployment of technology is also critical to optimizing patients' health in Harford County. UM UCH has successfully implemented a telemedicine program with five of the six skilled nursing facilities in the county. This program allows for emergency department providers to remotely evaluate patients at skilled nursing facilities to potentially prevent

unnecessary trips to the hospital. A pilot program conducted as part of the Commission's grant program showed a 34% reduction in 30-day readmissions. UM UCH intends to deploy this system in all skilled nursing facilities in Harford County in the coming year. Telemedicine services will also be available at UC FMF for specialty services.

UM UCH also has an extensive partnership with CRISP to benefit the communities it serves. The WATCH Program and CCC utilize a CRISP-hosted care management documentation program allowing all providers with the appropriate patient relationship the ability to view patient interactions that occur between office visits. This system also helps different stakeholders understand what other providers are engaged with the patient to avoid duplication of services. Recently, the Harford County Health Department has begun using this system as well, and UM UCH believes that this will enable CRISP to become the closest version of a personal health record for patients since it is not confined to a hospital or ambulatory electronic medical record. UC FMF will continue with UM UCH's collaborative efforts with CRISP.

The previously outlined population health strategies represent a significant investment by UM UCH to not only meet the needs of individuals in the community with chronic conditions but also to improve access to care, seeing patients in their homes as one of many vital strategies. Additionally, UM UCH is planning to renovate the existing office building on the UC Medical Campus at Aberdeen Campus into a medical office building that will house both primary and specialty care physician practices in order to provide access to additional providers in this portion of Harford County.

H. Number and Size of Emergency Treatment Spaces – COMAR 10.24.19.04(C)(8)(d)

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF demonstrate the proposed number and size of emergency treatment spaces and the size of the FMF proposed by the applicant are consistent with applicable guidance included in the most current edition of the *Emergency Department Design: A Practical Guide to Planning for the Future*, (2d. ed. 2016) published by the American College of Emergency Physicians (the "ACEP Guide"), based on reasonably projected visit volume. Further, the State Health Plan requires that an applicant demonstrate that the proposed number of treatment spaces is consistent with the low range guidance in the ACEP Guide, *unless*, based on the particular characteristics of the population to be served, the applicant demonstrates the need for a greater number of treatment spaces. Finally, the State Health Plan requires that an applicant demonstrate that the building gross square footage is consistent with the low range guidance, *unless*, based on the particular characteristics of the population to be served, the applicant demonstrates the need for additional building gross square footage.

1. The Number and Size of UC FMF's Emergency Department Treatment Spaces is Consistent with the ACEP Low Range Guidance.

Table 4, above, reflects emergency department visits to HMH from residents within UC FMF's defined service area. Total emergency department visits at HMH, including emergency department visits from residents outside the defined service area is set forth in Table 9. Total emergency department visits at HMH declined by 6.8% between fiscal years 2014 and 2018 (Table 9).

Table 9
HMH Historical Emergency Department Visits
FY2013 – FY2018

	Emergency Department Visits at HMH					FY14-FY18
	FY2014	FY2015	FY2016	FY2017	FY2018	% Change
Inpatient	3,388	3,472	3,179	3,626	3,583	*5.8%*
Outpatient	25,294	25,870	26,341	24,730	23,160	*-8.4%*
Total	28,682	29,342	29,520	28,356	26,743	*-6.8%*

Source: FY2014-FY2016 = Maryland non-confinential data sets;
FY2017-FY2018 = HSCRC Experience Report data sets

Beginning in fiscal year 2019, emergency department visits at HMH are expected to grow annually with the population. With the closure of HMH in fiscal year 2022 and shift of emergency department visits to UC FMF, the growth in population is offset by the redirection of non-stroke EMS priority level 1 patients from HMH to the nearest acute general hospital. Based on these assumptions, the applicant expects that UC FMF will see 27,348 emergency department visits by fiscal year 2024 (Table 10). Of these visits, 25,440 or approximately 93% will be non-psychiatric visits.

Table 10
HMH and UC FMF Historical and Projected Emergency Department Visits
FY2015 – FY2024

	Historical				Projection						% Change
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY18-FY24
Emergency Department Visits											
HMH											
Inpatient Visits	3,472	3,179	3,626	3,583	3,599	3,615	3,631	-	-	-	*-100.0%*
Outpatient Visits	25,870	26,341	24,730	23,160	23,263	23,366	23,470	-	-	-	*-100.0%*
Total	**29,342**	**29,520**	**28,356**	**26,743**	**26,862**	**26,981**	**27,101**	**-**	**-**	**-**	*-100.0%*
%Change	*2.3%*	*0.6%*	*-3.9%*	*-5.7%*	*0.4%*	*0.4%*	*0.4%*	*-100.0%*	*0.0%*	*0.0%*	
UC FMF											
IP Psych Visits (1)	-	-	-	-	-	-	-	653	656	659	
Outpatient Visits (2)	-	-	-	-	-	-	-	26,453	26,571	26,689	
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**27,106**	**27,227**	**27,348**	
%Change	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*100.0%*	*0.4%*	*0.4%*	
Total	29,342	29,520	28,356	26,743	26,862	26,981	27,101	27,106	27,227	27,348	*2.3%*
%Change	*2.3%*	*0.6%*	*-3.9%*	*-5.7%*	*0.4%*	*0.4%*	*0.4%*	*0.0%*	*0.4%*	*0.4%*	

Note (1): Reflects Behavioral Health patients that will be admitted to UC Behavioral Health on the UCH Medical Campus at Havre de Grace
Note (2): Includes approximately 3,000 patients that were previously admitted at HMH, but will enter UC FMF as outpatients and then be transferred to other hospitals for inpatient admission

Under the current edition of the ACEP Guide, Figure 5.1 estimates treatment space need per emergency department visits in five thousand visit increments, starting at 10,000 visits per year. ACEP Guide at 116. Included in ACEP Guide, Figure 5.1 are also estimates for departmental gross square feet. Excluding psychiatric emergency visits at UC FMF which are separately discussed, UC FMF emergency visits will range between the 25,000 and 30,000 annual visits tiers in the ACEP Guide. At 25,000 annual emergency department visits, the ACEP Guide projects a "low range" need for eighteen (18) treatment spaces in 14,850 departmental gross square feet and a "high range" need for twenty (20) treatment spaces in 17,500 departmental gross square feet. At 30,000 annual emergency department visits, the ACEP Guide "low range" projects a need for twenty-one (21) treatment spaces in 16,800 departmental gross square feet and a "high range" need for twenty-five (25) treatment spaces in 21,875 departmental gross square feet. Excluding triage spaces which are not counted as treatment spaces and the behavioral health crisis treatment unit which is separately addressed, the proposed project

includes twenty (20) emergency department treatment spaces, including eighteen (18) standard exam rooms, two (2) resuscitation rooms, and two (2) isolation rooms, all housed in 15,674 departmental gross square feet. Accordingly, the general emergency department treatment space is within the ACEP Guide's "low range" and "high range" guidelines.

The applicants assume that with the exception of 0.4% of historical visits that originate from northeast Cecil County and a limited number of EMS priority 1, non-stroke patients, the residents of HMH's service area will continue to utilize UC FMF when experiencing emergency health conditions. These utilization projections are supported by UC FMF's plans to implement an Acute Stroke Ready Pilot and MIEMMS protocol changes allowing stable priority 2 and priority 1 stroke patients to be transported to UC FMF. The increase in accessibility to Interstate 95 rather than HMH's landlocked campus in downtown Havre de Grace is also likely to result in an increase in patient walk-ins particularly from Aberdeen due to UC FMF being more readily accessible than HMH. Finally, UM UCH has been educating and will continue to educate the community consistently that approximately 90% of their care can be received on the UC Medical Campus at Aberdeen. The Applicants, therefore, anticipate the community will appropriately seek care at UC FMF when experiencing medical emergencies.

In sum, the number and size of UC FMF's emergency department treatment space is consistent with the ACEP guidance.

2. UC FMF Demonstrates and Need for Five Behavioral Health Crisis Treatment Spaces Which Were Designed in Accordance with the ACEP Guidelines.

The proposed UC FMF also includes five (5) behavioral health crisis treatment spaces adjacent to the general emergency department. The applicants have provided a separate analysis for the emergency department psychiatric visits because the ACEP low range states "under 3%"

of emergency department visits are psychiatric patients and, therefore, "you would probably not define a specialized area in the emergency department for behavioral health patients." ACEP Guide at 111. Because the applicants are planning separate psychiatric treatment space based on the needs of the particular population to be served and more than 3% of its emergency department visits are psychiatric patients, the applicants excluded these treatment spaces from the ACEP low range analysis above because the ACEP low range definition is inapt.

In fiscal year 2017, approximately 7.0% of HMH's emergency department visits were diagnosed with a behavioral health condition. To plan for a small unit, though, it is necessary to size the behavioral health crisis treatment spaces around the peak period of utilization. In fiscal year 2017, HMH experienced an annual peak utilization of 132 emergency psychiatric patients during the 5:00 pm hour. *See* Table 11 below.

Table 11
HMH Peak Hour Psychiatric Emergency Department Visits
FY2017

FY2017	
Hour of Visit	5:00 P.M.
Inpatient Visits	48
Outpatient Visits	84
Total Visits	**132**

Source: HMH FY2017 internal utilization report

Extrapolating the peak period to all hours of the day yields 2,640 emergency psychiatric patients per year. The applicants used an extrapolation at the 5:00 pm hour to ensure a sufficient number of behavioral health treatment spaces to meet peak demand for psychiatric patients who generally have longer lengths of stay. In fiscal year 2017, psychiatric patients had an average visit of 10.9 hours when seen during the 5:00 pm hour as compared to 3.3 hours for non-psychiatric patients over the course of fiscal year 2017. These considerations position the

behavioral health crisis treatment spaces in the ACEP Guide mid-range for the volume of projected behavioral health visits.

The five behavioral health treatment spaces will not be in peak demand all of the time. Psychiatric patients are projected to be 7.0% of UC FMF's emergency department visits. To meet the peak demand, though, there is a need for five (5) behavioral health treatment spaces, including four (4) standard treatment rooms and one (1) isolation room, or twenty percent (20%) of the total twenty-five (25) treatment spaces in the UC FMF emergency department.

Each of the exam rooms is designed to be 175 and 180 square feet and the overall department is 3,497 square feet. Moreover, the overall design of the behavioral health crisis treatment space is consistent with the ACEP Guide recommendations for design of a behavioral health services area within an emergency department. *See* ACEP Guide at 218 – 221.

Combining psychiatric and non-psychiatric visits results in a need for 25 treatment spaces and 19,171 departmental gross square feet for the emergency department, which is still within the ACEP "high range" of 25 treatment spaces and below the ACEP "high range" of 21,875 departmental gross square feet.

UC FMF has demonstrated a need for five behavioral health crisis treatment spaces, and that the size and design meets the need of the particular characteristics of the population to be served.

3. The Overall Size of UC FMF Is Consistent with FGI Design Standards and Applicable ACEP Guidance Based on the Characteristics of the Population to be Served.

Excluding 25,408 departmental square feet of public and administrative space that will be shared between UC FMF and UC Behavioral, UC FMF is designed to be 56,849 departmental square feet. For purposes of financial projections an additional 12,451 square feet of 25,408

gross square feet that will be shared with UC Behavioral Health has been allocated to UC FMF. The proposed project has been allocated a total of 69,300 square feet, which includes the following patient and ancillary services with departmental gross square feet:

a) General Emergency Treatment – 15,674
b) Behavioral Health Crisis – 3,497
c) Observation – 11,907
d) Imaging – 8,455
e) Lab – 1,159
f) Pharmacy – 937
g) Public – 3,914
h) Administration – 6,267

See **Exhibit 1** at **Table B**.

In addressing the overall size of UC FMF and its consistency with ACEP low range guidance, it should be noted that the ACEP Guide indicates that the low, mid, and high ranges are "general guideline[s]" used to set "preliminary benchmarks for sizing emergency departments," which can be adjusted for "each unique emergency department project" and that the size parameters are merely "estimates." *Id*. at 109, 116-117. The low, mid, and high ranges are also not exacting tiers but represent a continuum based on projections. S*ee id.* at 109. Further the ACEP Guide's consideration of a freestanding emergency department does not contemplate such a facility as a replacement for an existing hospital's emergency and observation capacity. On the contrary, the ACEP Guide's discussion of freestanding emergency departments suggests that such facilities may be developed to "decant" or move certain emergency services from an existing crowded main hospital emergency department. *See* ACEP Guide at 260-61. In other words, the ACEP Guide was not written to address acute general hospital conversions to freestanding emergency departments.

The ACEP Guide categorizes emergency department designs into low, mid, and high range using sixteen factors. Among the factors to categorize a facility in the "low range" are: (a) less than 8% of patients will be expected to be admitted to a hospital; (b) the average length of stay is projected to be less than 2.25 hours; (c) patients admitted to the hospital are expected to be transported out of the emergency department in 60 minutes or less after disposition; (d) more than 45% of patients are expected to be classified as ESI 4 and 5 combined; (e) and less than 10% of patients are expected to be older than 65. ACEP Guide at 109-11. Further, the ACEP Guide "low range" design and size standards indicate that facilities in the "low range" would have fewer than three percent (3%) of behavioral health patients and the size and design standards do not account for specialty suites to accommodate behavioral health patients. *Id*. at 111. The ACEP Guide "low range" size and design standards also state that "imaging studies will not be performed within the department, so there is no need to add space for imaging rooms" and only allow for "minimal" administrative offices within the emergency department, which is not possible at a freestanding facility. *Id*. at 111-12. Just as significantly, the ACEP "low range" standards contemplate that "[clinical decision units]/observation space will be located outside of the emergency department and [are] not part of [the] architectural project." *Id*. at 110.

As further reflected in Table 12 below, UC FMF falls within the "high" range of the ACEP Guide for seven (7) of the ACEP range criteria, in the "mid" range for six (6) of the ACEP Guide criteria, and in the "low" range for only three (3) of the ACEP Guide criteria.[5]

[5] It should be noted, however, that the State Health Plan Chapter for Freestanding Medical Facilities, COMAR 10.24.17.04(c)(8)(d)(ii), requires an applicant to "demonstrate that the building gross square footage is consistent with the low range guidance, unless, based on the particular characteristics of the population to be served, the applicant demonstrates the need for additional building gross square footage." The ACEP Guide does not contemplate an observation unit as part of the "architectural project" for an emergency department in the "low

Overall, UC FMF projects to be in the mid-high range based on the ACEP Guide criteria, the projected need for emergency and observation services for the community formerly served by HMH, and for the projected service line requirements.

Table 12
Evaluation of UC FMF ACEP Factors

UC FMF Evaluation of Emergency Department Bed Range							
Bed Range				Evaluation of	UC FMF Count of Low/Mid/High		
Factor	Low	Mid	High	UC FMF Bed Range	Low	Mid	High
Percentage of Admitted Patients	< 8%	12-20%	> 25%	Mid 12%-20%		1	
Length of Stay (LOS)	<2.25 Hours	2.5-3.75 Hours	>4 Hours	Mid (3.6 hours)		1	
Patient Care Spaces	Few	Majority	All	High (All Private)			1
Inner Waiting & Results Waiting Areas	Available	Limited	Pts. Stay in Bay	High (Stay in Bay)			1
Location of Observation Beds	Outside ED	Limited	Inside ED	High (Necessarily In)			1
Boarding of Admitted Pts.	Outside ED	Stay 90-120 Min	Stay Over 150 Min.	High (315 minutes)			1
Turnaround Time Dx Tests	<46 Minutes	60 Minutes	> 90 Minutes	Mid (60-90 minutes)		1	
Percent of Behavioral Health Patients	< 3%	4-6%	>7	Mid (6.8%)		1	
Percent of Non-Urgent Patients	>45%	25-45%	<25%	Mid (29%)		1	
Age of Patient	<10% Age 65+	<10-20% Age 65+	>20% Age 65+	High (22%)			1
Imaging within ED	None	General and CT	Extensive	High (Necessarily In)			1
Family Amenities	None	Limited Consult	Multiple Consult, Grieving	High (multiple rooms)			1
Specialty Components: Geriatrics	None	Area	Module with Support	Low (none)	1		
Specialty Components: Pediatrics	None	Area	Module with Support	Low (none)	1		
Specialty Components: Detention	None	Area	Module with Support	Low (none)	1		
Admin/Teaching Space	Minimal	Moderate	Extensive	Mid (Flight CTRL / Conf.)		1	
Count					3	6	7
% of Total					19%	38%	44%

a) Projected Percentage of Admitted Patients at UC FMF

With respect to the percentage of patients admitted to a hospital, UC FMF projects to be in the mid-range of the ACEP guide based on historic emergency department visits at HMH and

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range," states that "imaging studies will not be performed within the department, so there is no need to add space for imaging rooms." Further, the ACEP Guide only provides for a 1.25 building gross square footage adjustment factor for a "freestanding facility," which factor appears only to account for wall thickness, mechanical penthouses, stair shafts, etc. ACEP Guide at 113. To the extent that UC FMF is classified in the low range for the "location of clinical decision unit (CDU) or observation space" and imaging modalities under Table 5.2 of the ACEP Guide, the observation and imaging departments should be excluded from the demonstration required by COMAR 10.24.17.04(c)(8)(d)(ii). As reflected in Exhibit 1, Table B, UC FMF's observation department is 11,907 gross departmental square feet and the imaging department is 8,455 gross departmental square feet. As a result, the overall size of UC FMF's "emergency department" should be reduced by this amount if the observation and imaging departments are excluded from the emergency department.

projected visits to UC FMF. Starting in fiscal year 2022, patients that were previously admitted at HMH will be treated at UC FMF as outpatients and then transferred to other hospitals for inpatient admissions. In fiscal year 2022, there is a projection of 653 emergency department visits that will result in admission to UC Behavioral Health. An additional 2,938 emergency department visits will be admitted to other hospitals in fiscal year 2022 growing to 2,964 by fiscal year 2024. Emergency department visits that are projected to be admitted as inpatients represent 13.2% of the total projected 27,348 emergency department visits to UC FMF in fiscal year 2024.

UC FMF's projected number of inpatient admissions is consistent with utilization trends at HMH, adjusted to eliminate 2% of inpatient emergency department visits related to non-stroke EMS Priority 1 patients that will not be transported to UC FMF. UC FMF's projection that in fiscal year 2024, 13.2% of emergency patients will be admitted to UC Behavioral Health, UCMC, and other hospitals is below the statewide hospital emergency department admission average of 14.8% inpatient admissions as reported by the Maryland Health Care Commission to the Maryland House Health and Government Operations Committee at a February 10, 2015 hearing.

While the percentage of patients projected for UC FMF exceeds that of existing Maryland FMFs, for the reasons discussed below, UC FMF will be a fundamentally different than the three existing FMFs, Shore Emergency Center at Queenstown, Bowie Health Center, and Germantown Emergency Center. According to the Maryland Health Care Commission's presentation to the Maryland House Health and Government Operations Committee, an average of 5.1% of patients treated in fiscal year 2014 at Maryland's three existing FMFs were admitted as hospital inpatients. Importantly, however, none of the existing FMFs was planned, designed,

equipped, or staffed to serve as a replacement for an existing hospital emergency department. Moreover, each of these existing FMFs is limited in its capacity and ability to serve the acuity of patients currently seen at HMH. No existing FMF in Maryland has observation beds, none is accredited by the Joint Commission as an Acute Stroke Ready Hospital and only one, UM Shore Emergency Center at Queenstown, has an EMS base station.

Perhaps more significant in relation to the admission rates at existing Maryland FMFs, until July 1, 2017, MIEMSS protocols prohibited EMS providers from transporting patients who were experiencing emergency medical conditions to two of the three existing Maryland FMFs. Under MIEMSS protocols, EMS providers could only transport patients who either did not require medical attention at all or who suffered from non-emergent conditions to Bowie Health Center and Germantown Emergency Center. Under a pilot protocol applicable only to UM Shore Emergency Center beginning on July 1, 2014, EMS providers could transport stable Priority 2 patients, defined as patients suffering from a "less serious condition yet potentially life-threatening injury or illness, requiring emergency medical attention but not immediately endangering the patient's life," following a consultation with clinical personnel staffing the base station at Shore Emergency Center at Queenstown. *See* MIEMSS, The Maryland Medical Protocols for Emergency Medical Services Providers Protocols at 268-18, 305 (July 1, 2014). As a result, the number of patients suffering from actual emergency medical conditions treated at existing FMFs in Maryland in fiscal year 2014 was largely limited to walk-in patients. The low acuity of patients seen at the existing Maryland FMFs in fiscal year 2014 certainly drove the low hospital admission rate for patients treated at these facilities as summarized by the Commission in its report.

Effective July 1, 2017, MIEMSS protocols have been updated to permit EMS providers to now transport stable Priority 2 patients to all Maryland FMFs with a required medical consultation via base station communication. *See* MIEMSS, The Maryland Medical Protocols for Emergency Medical Services Providers Protocols at 355 (July 1, 2017). Assuming Maryland FMFs undertake measures to safely and effectively treat stable Priority 2 EMS patients, the expansion of the MIEMSS freestanding pilot protocol to all Maryland FMFs has likely increased the acuity of patients seen at FMFs and also correspondingly increased the percentage of patients admitted for inpatient care. UC FMF is designed and will be staffed to treat such patients. Indeed, as described above, UC FMF will maintain HMH's EMS base station designation in accordance with a pilot program approved by the EMS Board to allow EMS providers to transport priority 1 stroke patients to UC FMF if a Primary Stroke or Comprehensive Stroke Center is greater than fifteen (15) additional minutes away.

In sum, because UC FMF will have been planned, designed, equipped, and staffed to serve as a replacement for an existing hospital and to meet the emergency health care needs of its service area population, UC FMF will treat a greater percentage of high acuity patients who will require admission following emergency treatment than at existing Maryland FMFs. The projected number of patients who will be admitted is based on historic use rates in the service area population and falls within the mid-range of the ACEP Guidelines.

b) Projected ALOS for UC FMF Emergency Visits

The historic emergency department utilization at HMH and projected utilization at UC FMF also falls within the ACEP Guide "mid-range" criteria. An analysis of the average length of stay for emergency department visits at HMH in fiscal year 2017 presents an average of 3.6 hours. *See* Table 13 below.

Table 13
HMH Historical Emergency Department Hours per Visit
FY2017

	FY2017
ED Visits	28,476
Average Minutes per Visit	238.48
Less: Average Minutes from Registration to ED Bay	(21.49)
Average Minutes per Visit in ED Bay	216.98
Average Hours per Visit in ED Bay	3.6

Source: UCHS Internal Utilization Report

UC FMF also projects that 7.0% of UC FMF emergency department visits will be patients suffering from emergency psychiatric conditions; such patients have a much longer visits the emergency department with the average being 10.9 hours at HMH during the 5:00 pm hour. Factoring in the psychiatric patients, the average visit time is expected to average approximately four (4) hours.

c) UC FMF Patient Care Services

In UC FMF's emergency department space programming, the applicants focused on patient and family experience, recognizing that negative patient satisfaction scores are generally associated with small, shared, less private care spaces. Such negative patient satisfaction scores are associated with patient confidentiality concerns as well as infection prevention considerations. The applicants expect that patient satisfaction will be a significant factor in ensuring that the community utilizes UC FMF to its full potential. As a result, UC FMF has been designed with private emergency department treatment spaces, which fall within the ACEP "high range," as opposed to using rapid medical evaluation areas and/or vertical areas, including

patient recliners, three-walled patient areas, or cubicles as contemplated by the ACEP "low range."

d) Inner Waiting Areas and Results Waiting Areas

UC FMF has been designed such that patients will remain in private treatment spaces for their entire visit, which falls within the ACEP Guide "high range" criteria. The applicants do not agree with the author of the ACEP Guide that inner waiting or results waiting spaces in an emergency department are consistent with best practices or better outcomes. Rather, maintaining patients in triage provides benefits with respect to patient to flow. As acuity has risen within hospitals and emergency departments, the safety of inner waiting or results waiting spaces has also been questioned because such spaces do not provide for close patient monitoring.

e) Location of Clinical Decision Unit or Observation Space

As reflected on **Exhibit 2**, the observation unit at UC FMF will be adjacent to the emergency department and is part of the applicant's architectural project consistent with the ACEP Guide "high range" criteria. However, as patients are changed to observation status, they will leave the emergency department treatment space which consideration falls within the ACEP Guide "low range" criterion. To the extent the observation unit is deemed not to be part of the UC FMF emergency department, the overall size of the emergency department should be reduced by 11,907 square feet for purposes of COMAR 10.24.17.04(c)(8)(d)(ii).

f) Boarding Time of Admitted Patients

UC FMF projects to be with the ACEP Guide "high range" for this criteria with an average boarding time for admitted patients projected to be 315 minutes. The goal for optimal patient management is to achieve an average two-hour (120 minute) transport time for emergent,

high acuity patients requiring a higher level of care. This two-hour window will start from the time a decision to admit a patient has been made and continue until the patient arrives at the receiving facility. The two-hour transport window will be accelerated for patients experiencing life threatening conditions; for example, UC FMF will have accelerated transport protocols for stroke and cardiac patients.

For non-emergent transports, a three to four-hour transport window will start from the time the receiving facility confirms bed availability. This transport time is consistent with existing patient boarding times at HMH and UCMC and will include transit time in an ambulance. UC FMF will require time to coordinate placement of most patients in an MSGA unit the receiving facility before transporting the patient. Moreover, UC FMF must still comply with the Emergency Medical Treatment and Labor Act ("EMTALA"), including the requirement to have a prepared room before transporting a patient and confirmation of acceptance from the receiving facility. *See* 42 C.F.R. §489.24(e)(2). UC FMF will not transfer patients to another emergency department unless the patient's condition requires surgery or the patient is suffering from time dependent diagnosis that requires immediate transport.

From a clinical perspective, UC FMF cannot accelerate the boarding time by routing patients awaiting transfer to an inpatient unit to UC FMF's observation unit. Such a practice would not be consistent with the standard of care. The applicants' intend to staff the observation unit at UC FMF with acute care nurse practitioners under the supervision of hospitalists. Patients requiring transfer from UC FMF's emergency department for an acute inpatient admission will necessarily require a higher level of care than will be provided in UC FMF's observation unit.

Therefore, it would be clinically inappropriate to send emergency department patients awaiting an acute inpatient admission to UC FMF's observation unit.[6]

Moreover, from compliance and billing perspectives, admitting patients from the emergency department to the observation unit while the patient is awaiting transfer to an inpatient facility would also be inappropriate. UC FMF's observation unit will not be merely a patient holding area but rather a unit dedicated to ongoing assessment and reassessment to determine whether an inpatient admission is necessary or whether the patient can be safely discharged. Medicare guidance, which is followed by Medicaid and most commercial insurers, defines observation care as:

> a well-defined set of specific, clinically appropriate services, which include ongoing short term treatment, assessment, and reassessment, that are furnished while a decision is being made regarding whether patients will require further treatment as hospital inpatients or if they are able to be discharged from the hospital. Observation services are commonly ordered for patients who present to the emergency department and who then require a significant period of treatment or monitoring in order to make a decision concerning their admission or discharge. Observation services are covered only when provided by the order of a physician or another individual authorized by State licensure law and hospital staff bylaws to admit patients to the hospital or to order outpatient services.

Centers for Medicare and Medicaid Services, *Medicare Claims Processing Manual*, Ch. 4 § 290.1 (Effective Date: 07-01-09) (emphasis added). Because a clinical decision to transfer emergency patients to a higher level of care will have already been made, it would not be appropriate to admit a patient awaiting such a transfer for observation services.

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[6] In certain cases, patients already admitted to UC FMF's observation unit may require an inpatient admission. In such cases, UC FMF's observation unit staff will be supported by UC FMF emergency department physicians as needed to ensure the observation patient receives medically necessary treatment and intervention before the patient can be admitted.

g) Turnaround Time for Diagnostic Tests

The applicants' projected average imaging study turnaround time is presumed to be consistent with historical trends at HMH. In the first through third calendar quarters of 2018, 95.7% of imaging studies during the day and evening shifts had a turnaround time within 60 minutes. For overnight imaging study interpretations, 85.1 % were completed within 60 minutes during the first through third calendar quarters of 2018. For laboratory testing, in fiscal year 2019, 91.6% of HMH's emergency department laboratory tests had a turnaround test result within 40 minutes. Based on these figures, HMH and UC FMF are projected to be within the ACEP Guide "mid-range" for this criterion as reflected on Table 5.2 of the ACEP Guide.

h) Percentage of Behavioral Health Patients

As reflected in the applicants' need analysis for behavioral health treatment spaces above, in fiscal year 2017, an average of 7.0% of HMH's emergency department visits were diagnosed with a behavioral health condition. This projects that UC FMF will be in the mid-to-high range as contemplated by the ACEP Guide.

i) Percentage of Non-Urgent Patients

Based on the historic emergency severity index ("ESI") levels of patients treated at HMH in fiscal year 2018, UC FMF projects to be the ACEP Guide mid-range with approximately 28% of non-urgent patients. *See* Table 14 below.[7]

[7] The percentage of ESI level 4 and 5 patients seen in HMH's emergency department in fiscal year 2018 includes 111 emergency department patients not assigned an ESI severity index classification.

Table 14
HMH FY 2018 ED Visits and Disposition

ESI Treatment Level	ED Discharges	Inpatient Admits	Observation Admits	Grand Total
1	113	139	49	301
2	2,798	2,031	1,232	6,061
3	10,376	1,559	1,460	13,395
4	6,961	84	55	7,100
5	399		1	400
Unclassified	108	2	1	111
	20,755	**3,815**	**2,798**	**27,368**

j) Age of Patients

In fiscal year 2018, patients 65 and older comprised 22.6% of the total number of emergency department visits to HMH, while in fiscal year 2017, patients 65 and older comprised 21.4% of emergency department visits. *See* Table 15 below.

Table 15
HMH Percentage of Emergency Department Patients >= 65
FY 2018 and FY 2017

FY 2018	Patients >= 65	Total Visits	>= 65 % of Ttl
ED Visits	6,178	27,368	22.6%
FY2017	**Patients >= 65**	**Total Visits**	**Patient >= 65 % of Total**
ED Visits	6,097	28,502	21.4%

Source: UCHS internal utilization report

Of the 65 and older patients, in fiscal year 2017, 48.0% arrived to HMH's emergency department by ambulance (Table 16), and in fiscal year 2018, 48.8% arrived to HMH's emergency department by ambulance (Table 17).

Table 16
HMH % of Emergency Department Patients >= 65 Arriving by Ambulance
FY 2017

Age Group	Patient Status	Arrived by Ambulance	Total Cases	% by Ambulance
>= 65	Inpatient	1,277	1,867	68.4%
	Outpatient	1,652	4,230	39.1%
>= 65 Total		**2,929**	**6,097**	**48%**
< 65	Inpatient	663	1,893	35.0%
	Outpatient	3,295	20,512	16.1%
< 65 Total		**3,958**	**22,405**	**17.7%**
Grand Total		**6,887**	**28,502**	**24.2%**

Source: UCHS Internal Utilization Report

Table 17
HMH % of Emergency Department Patients >= 65 Arriving by Ambulance
FY 2018

Age Grouping	Patient Status	Arrived by Ambulance	Total Cases	% by Ambulance
>= 65	Inpatient	1,232	1,849	66.6%
	Outpatient	1,783	4,329	41.2%
>= 65 Total		**3,015**	**6,178**	**48.8%**
< 65	Inpatient	719	1,966	36.6%
	Outpatient	3,387	19,224	17.6%
< 65 Total		**4,106**	**21,190**	**19.4%**

Ambulance transport for nearly fifty percent (50%) of the aged 65 and over population, particularly EMS transport, is expected to limit any patient self-selection of the emergency department to which these patients are transported. Moreover, it is also doubtful that any age patient, much less those aged 65 and over, would be inclined to drive past UC FMF, a full service emergency department, to another hospital further away such as UCMC (12.4 miles),

Union Hospital (21.8 miles) or Franklin Square Medical Center (23.2 miles) in a medical emergency.

As noted by the Commission in its February 2, 2015 Report on the Operations, Utilization, and Financial Performance of Freestanding Medical Facilities, EMS transport protocols are likely contributing factors to low utilization of existing Maryland FMFs by the population aged 65 and older. As set forth above, UC FMF projects that only a limited number of non-stroke priority 1 patients that are currently treated at HMH could not be treated at UC FMF in accordance with revised MIEMSS protocols and the pilot stroke protocol approved for UC FMF. As a result, UC FMF is projected to be in the ACEP Guide "high range" with greater than twenty percent (20%) of emergency department patients aged sixty-five or older.

k) Imaging Facilities within the Emergency Department

With respect to imaging facilities, Table 5.2 of the ACEP Guide "low range" provides, "imaging studies will not be performed within the department, so there is no need to add space for imaging rooms." At UC FMF, an imaging department is a necessary component of the facility to safely and effectively treat emergency and observation patients and is necessarily a part of the construction project. To the extent the imaging unit is deemed not to be part of the UC FMF emergency department, the overall size of the emergency department should be reduced by 8,455 square feet for purposes of COMAR 10.24.17.04(c)(8)(d)(ii).

The imaging unit being developed at UC FMF will be used by both UC FMF patients arriving for urgent and emergent care on an unscheduled basis and for patients at the adjacent special psychiatric hospital requiring such services. UC FMF's imaging unit will not be used for scheduled outpatient use. In the first six (6) months of fiscal year 2018, HMH outpatient

emergency department utilized imaging services as presented below in Table 18. The historical relationship of imaging services to emergency department visits will continue at UC FMF with the exception of nuclear medicine, which will not be offered at UC FMF.

Table 18
Imaging Services Utilized by Outpatient Emergency Department Visits
FY 2018 *(1)*

Service	Outpatient Utilization	% of ED Visits
Emergency Department Visits	23,368	100.0%
Radiology - Diagnostic	10,796	46.2%
CAT Scanner	5,744	24.6%
Electrocardiography	6,504	27.8%
Magnetic Resonance Imaging	542	2.3%
Nuclear Medicine	358	1.5%

Note (1): Reflects annualized 6 months (July 2017 – December 2017) of St. Paul's Non-Confidential Patient Level Data.

With respect to MRI, CT, and ultrasound, the applicants do not project that these imaging modalities will be used as efficiently at UC FMF as they are presently used at HMH, where they serve both emergency department patients and inpatients. However, MRI, CT, and ultrasound are necessary to provide clinically appropriate care to emergency and observation patients at UC FMF. More specifically, MRI is necessary to treatment patients with Transient Ischemic Attack ("TIA") or suspected stroke. Indeed, as described in footnote 3 above, MRI has been shown as superior to CT to identify acute ischemic stroke as per the AHA/ASA Guidelines in 2010 and 2013. Further, as described in footnote 3, CT and MRI are necessary at UC FMF to maintain Acute Stroke Ready Joint Commission Accreditation under the EMS pilot protocol applicable to UC FMF.

l) Family Amenities

As reflected in **Exhibit 2**, UC FMF will have multiple provisions for family consultation and nourishment, which are necessarily a part of UF FMF's construction project and thus fall within the ACEP Guide "high range" for this criterion. The "Quiet Room" as show on **Exhibit 2** will be used for family consultation with the emergency department providers and/or chaplain. The "Rec Room" or reception room in the observation department will accommodate family consultations. Finally, UC FMF will share approximately 25,491 square feet the UC Behavioral Health, which will include family nourishment and waiting areas.

m) Specialty Components – Geriatrics, Pediatrics, and Detention

UC FMF will not have any specialty components for geriatrics, pediatrics, or detention, and therefore has classified each of these criterion within the ACEP "low range."

n) Need for Administrative Space

Because UC FMF is a freestanding facility, it will necessarily need administrative office space in its emergency department, including but not limited to telemedicine and flight control for the on-site helicopter pad. The applicants have therefore placed UC FMF within the ACEP Guide "mid-range" for this criterion.

* * *

In sum, UC FMF falls within the "high" range of the ACEP Guide for seven (7) of the ACEP range criteria, in the "mid" range for six (6) of the ACEP Guide criteria, and in the "low" range for only three (3) of the ACEP Guide criteria. Overall, UC FMF projects to be in the mid-high range based on the ACEP Guide criteria, the projected need for emergency and observation services for the community formerly served by HMH, and for the projected service line

requirements. At the mid-range, projected 27,000 emergency department bed visits equates to a need for 17,404 departmental square feet.

Although the ACEP Guide provides for a 1.25 multiplier as a building square footage adjustment factor for a freestanding facility, this adjustment factor is inadequate given UC FMF's utilization projections, projected patient volumes and acuity levels, and needed specialty programs at UC FMF to serve a community that will lose its acute general hospital. Applying the 1.25 multiplier at the ACEP low range with 30,000 annual emergency visits would result in a facility of only 26,250 building gross square feet at the low range. Although the applicants have sought to demonstrate that the 1.25 multiplier is inapplicable to the proposed UC FMF, the ACEP Guide provides no rationale for the 1.25 multiplier for a freestanding facility nor a description of the services contemplated at such a freestanding facility. At bottom, the 1.25 adjustment factor referenced in the ACEP Guide is nothing more than an adjustment to account for wall thickness, mechanical penthouses, stair shafts, etc. *See* ACEP Guide at 113.

The ACEP Guide 1.25 adjustment factor for a freestanding facility fails to account for the need for an observation suite, imaging and laboratory services, a pharmacy, behavioral health crisis treatment spaces, or extensive administrative space within its square footage recommendations. Nor does the ACEP Guide contemplate the space required to obtain an EMS Base Station designation, to provide telemedicine services, or for a helicopter control room.

Contrary to the ACEP low range, the space programming at UC FMF will necessarily house observation, imaging, lab, and pharmacy, and other ancillary services which are intended to support the diagnostic and treatment needs of patients seen at UC FMF. Each of three distinct patient populations to be treated at UC FMF – general emergency, behavioral health crisis, and observation patients – require access to these ancillary services as a core aspect of their

treatment. The ACEP Guide low range fails to allocate *any* space for existence of these services. Additionally, the imaging, lab, and pharmacy departments at UC FMF will also support UC Behavioral Health's patients needing these services. Therefore, each of these ancillary service departments have been sized in order to support each of the different patient populations to be treated at UC Medical Campus at Aberdeen, ultimately reducing the need for redundant services while seeking economies of scale.

As set forth above with respect to the emergency department treatment spaces and immediately below with respect to the size of the observation treatment spaces, UC FMF was designed in accordance with the 2018 FGI Guidelines to comply with licensing regulations and modern standards of care. Each of these departments either comply with the ACEP low range and any deviations are necessary to provide effective treatment for the population to be served.

Overall, the project design is, however, consistent with the ACEP Guide except where the ACEP Guide conflicts with the FGI Guidelines. For example, UC FMF's imaging department includes the following components and square footage:

a) MRI – 518 square feet, exclusive of the control room;
b) CT – 448 square feet, exclusive of the control room;
c) Diagnostic imaging suite with X-ray – 259 square feet;
d) Two cardio-vascular ultrasound modalities at 458 square feet combined.

The ACEP Guide recommends General Radiology room space at 250 to 325 square feet. ACEP Guide at 165. UC FMF's diagnostic imaging suite and two cardio-vascular ultrasound rooms are consistent with the ACEP Guide design recommendations. The ACEP Guide, however, recommends MRI and CT space at 300 to 325 square feet plus 120 to 150 square feet for the control room. *Id*. These room sizes are inadequate to meet the clear floor space requirements of the FGI Guidelines. For an MRI scan room, FGI Guidelines require a minimum

of 4 feet clearance around all sides of the gantry and recommend the room size be per the equipment manufacturer's recommendations, in addition to making sure certain functions for the entry into the room and resuscitation fall outside of the 5 Gauss line, the limit beyond which ferromagnetic objects are strictly prohibited. Best practice provides space for the maneuvering of a patient stretcher on either side of the gantry, thereby exceeding the stated minimum in the guidelines. Therefore, a 325 square foot MRI room is too small, given the FGI Guideline standards. UC FMF's MRI room has been designed according to best practices and actual design and constructability experience. Similarly, for a CT room, the FGI Guidelines require a minimum of 4 feet clearance around all sides of the gantry and recommend the room size be per the equipment manufacturer's recommendations. Best practice provides space for the maneuvering of a patient stretcher on either side of the gantry, thereby exceeding the stated minimum in the guidelines. Again, UC FMF's CT room has been designed according to best practices and actual design and constructability experience.

In sum, each component of UC FMF is designed according to FGI Guidelines requirements and is consistent with size recommendations found in the ACEP Guide unless such guidance conflicts with the FGI Guidelines required for licensure.

I. The Number and Size of UC FMF's Observation Treatment Spaces is Consistent with the Population to be Served – COMAR 10.24.19.04(C)(8)(e).

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF demonstrate the proposed number and size of observation spaces is consistent with applicable guidance included in the most current edition of the ACEP Guide, based on reasonably projected levels of visit volumes. The ACEP Guide does not provide a projection regarding need for the number of treatment spaces. Instead, the ACEP Guide instructs that its

author "generally program[s] [clinical decision unit or observation] spaces in the range of 900 to 1,100 patients per space annually. Use the lower number if your patients use the [clinical decision unit] for 12+ hours, and use the higher number if your patients use the space for 8 to 12 hours." ACEP Guide at 273.[8] The State Health Plan also states that applicants must demonstrate that the FMF will achieve 1,100 visits per year per observation space (an average of 3 visits per day, per observation bed), *unless*, based on the particular characteristics of the population to be served, the applicants demonstrate the need for a greater number of observation spaces. COMAR 10.24.19.04(C)(8)(e)(i).

1. The Number of Observation Treatment Spaces at UC FMF is Consistent with the Needs of the Population to be Served – COMAR 10.24.19.04(C)(e).

UC FMF projected its service area according to the methodology set forth in Section II.E above. As set forth below, the applicants projected need for observation treatment spaces at UC FMF in accordance with its projected emergency department visits. Between fiscal years 2015 and 2018, observation cases at HMH increased 18.1% (Table 19). In 2018, these patients stayed for an average of 25.9 hours or 1.1 days on average.

[8] Notably, the ACEP's 900 patients per space projection for 12+ hours in observation is internally inconsistent. Even at the lowest length of stay, 12 hours, 900 visits per space projects to 2.46 visits per day, which is impossible.

Table 19
HMH Historical Observation Cases and Hours
FY2015 – FY2018

	Historical				% Change
	FY2015	FY2017	FY2017	FY2018	FY15-FY18
Observation Cases	3,761	3,896	4,019	4,443	*18.1%*
Observation Hours	108,982	112,075	115,522	114,915	*5.4%*
Observation Hours per Case	29.0	28.8	28.7	25.9	*-10.7%*
Observation Days per Case	1.2	1.2	1.2	1.1	*-10.7%*

Between fiscal years 2019 and 2021, observation cases are projected to increase at 0.5% per year associated with population growth. In this same time period, the applicants project a decrease in the number of observation cases at 0.25% annually associated with reductions in potentially avoidable utilization. With the transition of HMH's emergency and observation services to UC FMF in fiscal year 2022, observation patients with stays longer than 48 hours are projected to be transferred to UCMC. Overall, the applicants expect that there will be a 2.9% increase in observation cases at UC FMF in fiscal year 2024 when compared with observation cases at HMH in fiscal year 2018. (Table 20).

Table 20
HMH and UC FMF Historical and Projected Observation Cases
FY2015 – FY2024

	Historical				Projection						% Change
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY18-FY24
Observation Cases											
HMH	**3,761**	**3,896**	**4,019**	**4,443**	**4,458**	**4,474**	**4,491**	**-**	**-**	**-**	
%Change	*2.3%*	*3.6%*	*3.2%*	*10.5%*	*0.3%*	*0.4%*	*0.4%*	*-100.0%*	*0.0%*	*0.0%*	*-100.0%*
UC FMF								**4,516**	**4,543**	**4,571**	
%Change									*0.6%*	*0.6%*	
Total	**3,761**	**3,896**	**4,019**	**4,443**	**4,458**	**4,474**	**4,491**	**4,516**	**4,543**	**4,571**	
%Change		*3.6%*	*3.2%*	*10.5%*	*0.3%*	*0.4%*	*0.4%*	*0.6%*	*0.6%*	*0.6%*	*2.9%*

Determining the average length of stay to apply to the observation patients at HMH through fiscal year 2021 and at the FMF beginning in fiscal year 2022 requires an understanding of the observation hours that can be billed and those hours that are not billed. Per the HSCRC Experience Report dataset, HMH reported 114,915 observation hours in fiscal year 2018 (Table 19). Included in these hours are 23,762 hours related to observation patients that were eventually admitted as an inpatient and 91,153 hours for patients that remained in outpatient status their entire stay. According to billing requirements for those patients that were eventually admitted, only those observation hours that occurred prior to 12:00 am of the day of admission can be billed. This billing requirement severely limits the number of incurred observation hours that are actually reported.

During the 12 months ended August 2018, it was determined that HMH billed 135,672 hours, an 18% increase over the hours billed during the twelve months ended June 2018 (fiscal year 2018). In addition, there were 27,231 hours that were not billed due to their occurrence on the day of admission. Rather than staying in a bed an average of 1.1 days as reported in fiscal year 2018, observation patients actually stayed in beds for an equivalent of 1.5 days (Table 21).

Table 21
HMH's 2018 Observation ALOS

	2018		
	Inpatient	Outpatient	Total
FY2018 HSCRC Experience Report			
Cases	1,640	2,803	4,443
Hours	**23,762**	**91,153**	**114,915**
ALOS (Days)	0.6	1.4	1.1
HMH Internal Report on Observation Hours for 12 Months Ended August 2018			
Cases	1,624	2,843	4,467
Hours			
Billed	25,752	109,920	135,672
Unbilled	27,231	-	27,231
Total	**52,983**	**109,920**	**162,903**
Unbilled % of Total	*51.4%*	*0.0%*	*16.7%*
ALOS (Days)	1.4	1.6	1.5

Observation and medical patients will continue to overlap in the existing beds until a distinct observation unit is opened in the FMF in fiscal year 2022. As such, it would be double counting to consider the full length of stay for an observation patient while also counting their inpatient days when often times the patients stay in the same bed. When a dedicated observation unit is opened, though in fiscal year 2022, the full length of stay needs to be considered when determining the required number of observation beds. Table 22 presents a continuation of the 1.1 day length of stay through fiscal year 2021, but then increases it in fiscal year 2022 to reflect the unbilled hours. Partially offsetting the increase in length of stay for unbilled hours is a reduction in the length of stay at the FMF for those observation cases with stays that have historically been greater than 48 hours that will be transported to UCMC.

Table 22
HMH and UC FMF Historical and Projected ALOS
FY2015 – FY2024

	Historical				Projection					
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
HMH	**1.21**	**1.20**	**1.20**	**1.08**	**1.08**	**1.08**	**1.08**			
%Change		*-0.7%*	*-0.1%*	*-10.0%*	*0.0%*	*0.0%*	*0.0%*			
UC FMF								**1.25**	**1.25**	**1.25**
%Change								*16.3%*	*0.0%*	*0.0%*

Because the observation beds at HMH are currently comingled with the medical surgical beds at HMH, there is limited concern about not having enough observation beds during peak periods of utilization. The medical surgical beds provide additional capacity which observation patients can utilize. At the FMF, though, there are no adjacent medical surgical beds to handle peak utilization. During the 12 months ended August 2018, the average daily census of observation patients at HMH was 18.6 patients. The peak utilization during this time was 38.4 observation patients.

While observation patients at HMH are staying in beds for a day or more, the ACEP Guide recommends that observation beds accommodate three patients per day (1,100 visits per observation space equals three visits per observation bed, per day). Considering these guidelines to project the need for observation spaces is unreasonable, particularly when historical data and observation use rates are known and projections of observation use at UC FMF can be reasonably projected.[9] To this end, the projected average length of stay of 1.25 days or 30 hours for observation cases at UC FMF is 3.75 times longer than the three (3) stays per day

[9] It should also be noted that the ACEP Guide standard incorporated into the State Health Plan is based on the experience of a single architect, the author of the ACEP Guide, and not a broader data analysis of trends in observation utilization, average observation lengths of stay, or use rate demographics.

contemplated by the ACEP Guide recommendation for programming at 1,100 visits per observation space, per year.

Applying the ACEP Guide author's recommendation of 1,100 observation visits per observation space would result in only four (4) observation spaces at UC FMF, which would be grossly inadequate to serve the needs of the service area population, overwhelm UCMC and other area hospitals with transfers from UC FMF for patients who could otherwise be safely and effectively treated in observation at UC FMF, and result in significant increased costs to the health delivery system in the form of inter-facility ambulance transfers. Such transfers could also jeopardize patient care outcomes and patient satisfaction. Moreover, the increased number of transports resulting from a lack of observation treatment spaces at UC FMF would be certain to burden EMS providers, which have provided support for the proposed project. Though the applicants' discussions with the service area community, the community also expects UC FMF to provide the same level of observation and emergency services as currently provided at HMH.

Rather than using the ACEP Guide to project observation bed need for a hospital converting to an FMF – an idea not at all contemplated by the ACEP Guide – it is more appropriate to project observation bed need at UC FMF similar to MSGA bed need that considers length of stay and occupancy but also considers peak utilization. Based on the assumptions presented above, there is a projected need in fiscal year 2024 of thirty-two (32) observation beds at UC FMF to accommodate peak utilization (Table 23). Unfortunately, the building in which UC FMF will reside has a capacity limit of 24 beds. Based on fiscal year 2018 actual experience, it is expected that observation utilization will exceed the building capacity approximately 14% of the days during the year, requiring inter-facility transfers to UCMC or other area hospitals as appropriate.

Table 23
HMH and UC FMF Historical and Projected Observation Bed Need
FY2015 – FY2024

				Projection		
	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Bed Need						
HMH (1)	16	16	16			
UC FMF (2)				32	32	32
Total	16	16	16	32	32	32
Bed Recommendation (3)				24	24	24

Note (1): Reflects average daily census and 80% occupancy target
Note (2): Reflects peak utilization adjusted for patients staying greater than 48 hours
Note (3): Reflects building capacity

Thus, the number of observation treatment spaces is consistent with the needs of characteristics of the population to be served.

2. The Size of UC FMF's Observation Treatment Spaces is Consistent with Licensing Standards – COMAR 10.24.19.04(C)(8)(e)(ii).

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF demonstrate the size of each observation space at the FMF not exceed 140 square feet, exclusive of any toilet or bathing area incorporated into an individual observation space, *unless* based on the particular characteristics of the population to be served, the applicant demonstrates the need for larger observation spaces. COMAR 10.24.19.04(C)(8)(e)(ii).

The ACEP Guide generally projects a square footage range of 135 to 150 for each observation room. ACEP Guide at 157. However, the ACEP Guide also instructs that, "if you decide to equip the [observation] rooms with standard inpatient hospital beds, you'll need larger rooms – 150 to 160 [square feet]." *Id*. at 271.

Because the projected average length of stay of patients in observation at UC FMF is 1.16 days or 27.8 hours, significantly longer than the ACEP Guide considers, the observation unit has been planned to use standard inpatient hospital beds rather than gurneys. To comply with licensing regulations and modern standards of care, UC FMF has been designed to comply with the 2018 FGI Guidelines. Pursuant to 2014 FGI Guideline 2.2-3.2.2.2, observation beds require a minimum clear floor area of 120 square feet. Further, because the observation rooms may accommodate patients for up to forty-eight (48) hours and there will be no inpatient beds in which to house patients at UC FMF, the observation rooms have been designed to create a comfortable patient stay and to allow visitors. UC FMF's observation rooms have been designed to be between 188 and 265 square feet, exclusive of in room toilet and bathing areas. This size allows for a standard hospital bed in each observation room and other required furniture such as side chairs and storage to be accommodated in the room while satisfying the minimum requirement of 120 square feet of clear floor area. Two of the observation rooms, Rooms 6 and 9< located in the corners of the unit are larger just because of their location where there is additional building structure. Room 9 will be used a bariatric observation room.

The design of UC FMF's observation unit also took into consideration enhanced security, room design to support high quality clinical practice (i.e. medication administration delivery system), and enhanced the patient and family experience:

- Infection Prevention & Control:
  - Provision of individual toilets and showers reduces the incidence of infections
  - Physical separation within the semi-private rooms to enhance infection prevention
- Fall Prevention:
  - Due to the configuration of the rooms staff can see the entire patient room from entry

- Space design supports area for family attendance providing added support to the patient who may be at risk for falls
- Room design provides for a clear path of travel within the room reducing obstacles likely to cause falls
- Bathrooms are configured in close proximity to the head wall decreasing distance patient needs to ambulate to the bathroom reducing likelihood of falls
- Room design includes continuous handrails from the head of the bed to the toilet room reducing the likelihood of falls
- Toilets and showers were designed to minimize fall risk

- Operational Efficiencies:

  - Clear path of travel within the room for efficient patient transfers and transports
  - Design allows for adequate space at each patient zone for mobile lift equipment when needed
  - Design allows staff visibility of the entire room

- Patient Care/Clinical practice enhancements:

  - Standardized head wall provides clear individual patient zone
  - Design provides a physical, visual, and auditory separation between patients enhancing clinical practice (medication zones)

- Patient & Family Experience:
  - Room design allows for a patient's significant other to stay in a recliner chair during their short stay providing additional support the patient may need thereby enhancing their short stay observation experience.

In sum, the size of UC FMF's observation treatment spaces is needed to meet the needs of the population to be served and to comply with licensing standards.

J. Utilization, Revenue, and Expense Projections – COMAR 10.24.19.04(C)(8)(f)

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF provide utilization, revenue, and expense projections for the FMF, along with a comprehensive statement of the assumptions used to develop the projects. UCMC and HMH have completed **Tables A**, **B**, **C**, **D**, **E**, **I, J**, and **K**, which are related to UCMC's proposed project and relocation of MSGA beds from HMH to UCMC, as well as the projected utilization

and financial performance of UCMC, inclusive of the UC FMF which becomes a department of UCMC beginning in fiscal year 2022. These tables are included with **Exhibit 1**. **Table I** includes utilization projections that reflect both the inpatient and outpatient utilization of UCMC and outpatient emergency department visits, observation cases, and related outpatient ancillary services at UC FMF. Also enclosed with **Exhibit 1**, are **Tables F**, **G**, and **H** that cover the entire utilization and financial performance of all UM UCH hospital facility components, including UCMC and HMH during the period from fiscal year 2015 to fiscal year 2021 and UCMC, UC FMF, and UC Behavioral Health between fiscal years 2022 and 2024. The financial projection assumptions related to revenue, expenses and financial performance underlying Tables G, H, J and K are also provided with Exhibit 1. Additionally, **Exhibit 1** includes a **Table L** that incorporates the workforce for HMH's emergency department in fiscal year 2017 and UC FMF in fiscal year 2024. Included in the figures are full-time equivalent employees ("FTEs") dedicated to the provision of services to patients when they are in the emergency department.

1. UC FMF Emergency Department Utilization

The projection of emergency department visits at UC FMF assumes the continuation of emergency services at HMH adjusted for annual population growth from actual experience in fiscal year 2018 through fiscal year 2024 with the following exception. In fiscal year 2022, there is an assumed two percent (2%) reduction in non-behavioral health inpatient projected visits to account for the redirection of non-stroke EMS priority level 1 patients arriving by ambulance who previously would be brought to HMH, but which patients will go to other hospitals with inpatient beds based on drive time and service line. The projected emergency visits are presented in Table 24.

Table 24
HMH and UC FMF Historical and Projected Emergency Department Visits
FY2015 – FY2024

	Historical				Projection						% Change
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY18-FY24
Emergency Department Visits											
HMH											
Inpatient Visits	3,472	3,179	3,626	3,583	3,599	3,615	3,631	-	-	-	*-100.0%*
Outpatient Visits	25,870	26,341	24,730	23,160	23,263	23,366	23,470	-	-	-	*-100.0%*
Total	**29,342**	**29,520**	**28,356**	**26,743**	**26,862**	**26,981**	**27,101**	**-**	**-**	**-**	*-100.0%*
%Change	*2.3%*	*0.6%*	*-3.9%*	*-5.7%*	*0.4%*	*0.4%*	*0.4%*	*-100.0%*	*0.0%*	*0.0%*	
UC FMF											
IP Psych Visits (1)	-	-	-	-	-	-	-	653	656	659	
Outpatient Visits (2)	-	-	-	-	-	-	-	26,453	26,571	26,689	
Total	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**27,106**	**27,227**	**27,348**	
%Change	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*0.0%*	*100.0%*	*0.4%*	*0.4%*	
Total	29,342	29,520	28,356	26,743	26,862	26,981	27,101	27,106	27,227	27,348	*2.3%*
%Change	*2.3%*	*0.6%*	*-3.9%*	*-5.7%*	*0.4%*	*0.4%*	*0.4%*	*0.0%*	*0.4%*	*0.4%*	

Note (1): Reflects Behavioral Health patients that will be admitted to UC Behavioral Health on the UCH Medical Campus at Havre de Grace
Note (2): Includes approximately 3,000 patients that were previously admitted at HMH, but will enter UC FMF as outpatients and then be transferred to other hospitals for inpatient admission

2. UC FMF Observation Utilization

The applicant projects an increase in observation cases based on actual experience through fiscal year 2018. Between fiscal years 2019 and 2021, observation cases are projected to increase annually with population growth. In this same time period, the applicant projects a decrease in the number of observation cases at 0.25% annually associated with reductions in potentially avoidable utilization. With the transition of HMH's observation patients to UC FMF, in fiscal year 2022, the observation patients with stays longer than 48 hours are projected to be transferred to UCMC. Based on these assumptions, the applicant expects that there will be a 2.9% increase in observation cases at UC FMF in fiscal year 2024 as compared with observation cases at HMH in fiscal year 2018. The projected Observation cases are presented in Table 25.

Table 25
HMH and UC FMF Historical and Projected Observation Cases
FY2015 – FY2024

	Historical				Projection						% Change
	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY18-FY24
Observation Cases											
HMH	**3,761**	**3,896**	**4,019**	**4,443**	**4,458**	**4,474**	**4,491**	**-**	**-**	**-**	
%Change	*2.3%*	*3.6%*	*3.2%*	*10.5%*	*0.3%*	*0.4%*	*0.4%*	*-100.0%*	*0.0%*	*0.0%*	*-100.0%*
UC FMF								**4,516**	**4,543**	**4,571**	
%Change									*0.6%*	*0.6%*	
Total	**3,761**	**3,896**	**4,019**	**4,443**	**4,458**	**4,474**	**4,491**	**4,516**	**4,543**	**4,571**	
%Change		*3.6%*	*3.2%*	*10.5%*	*0.3%*	*0.4%*	*0.4%*	*0.6%*	*0.6%*	*0.6%*	*2.9%*

3. Laboratory and Imaging

Laboratory and imaging services are projected to grow and decline in relation to the projection of emergency and observation patients that are presented above.

4. Projected UC FMF Revenue

The presentation of projected revenue in **Tables H** and **K** reflect the utilization projections presented above and the 2018 regulated Global Budget Revenue (GBR) assumptions related to update factors, demographic adjustments, revenue variability, and uncompensated care. These assumptions are included with the tables.

5. Projected UC FMF Staffing and Expenses

The presentation of projected staffing at UC FMF, as presented in **Table L**, reflects the changes in volumes presented above and assumptions related to expense inflation, expense variability with changes in volumes and one-time adjustments to the projection of staffing and expense when HMH closes and UC FMF opens in fiscal year 2022.

6. Projected UC FMF and UCMC Financial Performance

As presented in **Table K**, UC FMF is projected to earn between $671,000 and $1.33 million in net income between fiscal years 2022 and 2024. These earnings will contribute to the overall financial health of UCMC which is projected in **Table H** to include UC FMF between fiscal years 2022 and 2024.

K. The Proposed Construction Costs is Reasonable and Consistent with Industry Experience – COMAR 10.24.19.04(C)(8)(h).

The construction costs are reasonable and consistent with industry experience. The following compares the project costs to the Marshall Valuation Service ("MVS") benchmark.

Marshall Valuation Service
Valuation Benchmark

Type		Hospital
Construction Quality/Class		Good/A
Stories		2
Perimeter		851
Average Floor to Floor Height		15.0
Square Feet		69,300
f.1	Average floor Area	34,650
A. Base Costs		
	Basic Structure	$365.78
	Elimination of HVAC cost for adjustment	0
	HVAC Add-on for Mild Climate	0
	HVAC Add-on for Extreme Climate	0
Total Base Cost		$365.78
Adjustment for Departmental Differential Cost Factors		1.03
Adjusted Total Base Cost		$375.57

B. Additions		
	Elevator (If not in base)	$0.00
	Other	$0.00
Subtotal		$0.00
Total		$375.57
C. Multipliers		
Perimeter Multiplier		0.89877228
	Product	$337.55
Height Multiplier		1.07
	Product	$360.84
Multi-story Multiplier		1.000
	Product	$360.84
D. Sprinklers		
	Sprinkler Amount	$3.20
Subtotal		$364.04
E. Update/Location Multipliers		
Update Multiplier		1.07
	Product	$389.53
Location Multipier		1.01
	Product	$393.42
Calculated Square Foot Cost Standard		**$393.42**

The MVS estimate for this project is impacted by the Adjustment for Departmental Differential Cost Factor. In Section 87 on page 8 of the Valuation Service, MVS provides the cost differential by department compared to the average cost for an entire hospital. The calculation of the average factor is shown below.

Department/Function	BGSF	MVS Department Name	MVS Differential Cost Factor	Cost Factor X SF
ACUTE PATIENT CARE				
Emergency Department (ED)	15,674	Emergency Suite	1.18	18,495
Imaging	8,455	Radiology	1.22	10,315
Observation	11,907	Inpatient Unit	1.06	12,621
Lab	1,159	Laboratories	1.15	1,333
Pharmacy	937	Pharmacy	1.33	1,246
Administration	6,267	Offices	0.96	6,016
Behavioral Health (BH) ED Crisis Unit	3,497	Emergency Suite	1.18	4,126
Public	3,914	Public Space	0.8	3,131
Maintenance	1,436	Mechanical Equipment and Shops	0.7	1,005
Med Gas + Body Hold	641	Mechanical Equipment and Shops	0.7	449
Mechanical	88	Mechanical Equipment and Shops	0.7	62
Public Toilets	585	Public Space	0.8	468
Circulation	1,219	Internal Circulation	0.6	731
Exterior Walls	1,071	Unassigned	0.5	536
Lower Level				
Receiving	281	Storage and Refrigeration	1.6	450
Dietary	863	Dietary	1.52	1,312
Maintenance	3,041	Mechanical Equipment and Shops	0.7	2,129
Maintnenance Staff Lounge and Lockers	366	Employee Facilities	0.8	293
Nursing Staff Lounge and Lockers	326	Employee Facilities	0.8	261
Provider Staff Lounge and Lockers	529	Employee Facilities	0.8	423
Provider Offices	270	Offices	0.96	259
Housekeeping	249	Housekeeping	1.31	326
Storage	855	Storage and Refrigeration	1.6	1,368
Mechanical	1,541	Mechanical Equipment and Shops	0.7	1,079
Public Dining	480	Dining Room	0.95	456
Public Toilets	168	Public Space	0.8	134
Public Conf	419	Public Space	0.8	335
Shared Vertical Circulation	466	Internal Circulation	0.6	280
Shared Exterior Walls	421	Unassigned	0.5	211
Shared Circulation	2,176	Internal Circulation	0.6	1,306
Total	69,300		1.03	71,155

Cost of New Construction

A. Base Calculations	Actual	Per Sq. Foot
Building	$21,662,478	$312.59
Fixed Equipment		$0.00
Site Preparation	$1,993,356	$28.76
Architectual Fees	$2,241,008	$32.34
Permits	$956,053	$13.80
Capitalized Construction Interest	Calculated Below	Calculated Below
Subtotal	$26,852,895	$373.39

However, as related below, this project includes expenditures for items not included in the MVS average.

B. Extraordinary Cost Adjustments

	Project Costs		Associated Cap Interest & Financing
Site Demolition Costs	$28,170	Site	
Storm Drains	$4,848	Site	
Rough Grading	$11,779	Site	
Paving	$161,072	Site	
Exterior Signs on building	$23,040	Site	
Landscaping	$88,661	Site	
Walls	$34,633	Site	
Yard Lighting	$18,564	Site	
Dewatering	$69,266	Site	
Sediment Control & Stabilization	$16,070	Site	
Helipad	$33,926	Site	
Premium for Minority Business Enterprise Requirement	$79,734	Site	
Canopies	$386,080	Building	$87,066
Pneumatic Tube System	$96,000	Building	$21,649
Jurisdictional Hook-up Fees	$608,933	Building	$137,322
Premium for Minority Business Enterprise Requirement	$866,499	Building	$178,941
Jurisdictional Hook-up Fees	$608,933	Permits	
Total Cost Adjustments	$3,136,208		$424,978

Associated Capitalized Interest and Loan Placement Fees should be excluded from the comparison for those items which are also excluded from the comparison. Since only Capitalized Interest and Loan Placement fees relating to the Building costs are included in the MVS analysis, we have only eliminated them for the Extraordinary Costs that are in the Building cost item. This was calculated as follows, using the Canopy as an example: (Cost of the Canopy/Building Cost) X (Building related Capitalized Interest and Loan Placement Fees).

1. Explanation of Extraordinary Costs

Below are the explanations of the Extraordinary Costs that are not specifically mentioned as not being in contained in the MVS average costs in the MVS Guide (at Section 1, Page 3) but that are specific to this project and would not be in the average cost of a hospital project.

Premium for Minority Business Enterprise Requirement – UMMS projects include a premium for Minority Business Enterprises that would not be in the average cost of hospital construction. This premium was projected to be 4%. UMMS consulted with its cost estimators/construction managers on the impact on project budgets of targeting 25% inclusion of MBE subcontractors or suppliers as part of its projects, and their conservative estimate is that it adds 3-4% to the costs, compared to projects that do not include MBE subcontractors or suppliers. This estimate has been confirmed through UMMS' experience with past construction jobs. UMMS now uses this percentage in all of its construction cost estimates.

Eliminating all of the extraordinary costs reduces the project costs that should be compared to the MVS benchmark.

C. Adjusted Project Cost		Per Square Foot
Building	$19,704,966	$284.34
Fixed Equipment	$0	$0.00
Site Preparation	$1,423,593	$20.54
Architectual Fees	$2,241,008	$32.34
Permits	$347,120	$5.01
Subtotal	$23,716,686	$342.23
Capitalized Construction Interest	$3,515,928	$50.73
Total	$27,232,615	$392.97

Building associated Capitalized Interest and Loan Placement Fees were calculated as follows:

Hospital	New	Renovation	Total		
Building Cost	$21,662,478				
Subtotal Cost (w/o Cap Interest)	$26,852,895		$26,852,895		
Subtotal/Total	100.0%	0.0%	Net Interest	Financing	Total
Total Project Cap Interest &Financing [(Subtotal Cost/Total Cost) X Total Cap Interest]	$4,885,163	$0	$4,439,767	$445,396	$4,885,163
Building/Subtotal	80.7%				
Building Cap Interest&Financing	$3,940,906				
Associated with Extraordinary Costs	$424,978				
Applicable Cap Interest & Loan Place.	$3,515,928				

As noted below, the project's cost per square foot is consistent with the MVS benchmark.

MVS Benchmark	$393.42
The Project	$392.97
Difference	-$0.46

III. THE CONVERSION OF HARFORD MEMORIAL HOSPITAL TO A FREESTANDING MEDICAL FACILITY WILL RESULT IN THE DELIVERY OF MORE EFFICIENT AND EFFECTIVE HEALTH CARE SERVICES.

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF demonstrate that the conversion to an FMF will result in the delivery of more efficient and effective health care services including an explanation of why the services proposed for the FMF cannot be provided at other area hospital EDs, FMFs, or other health care facilities, and demonstrate why other less expensive models of care delivery cannot meet the needs of the population to be served. COMAR 10.24.17.04(C)(8)(i).

As an initial matter, in addressing the efficiency and cost effectiveness of health care service delivery, the applicants incorporate by reference UM UCH's response to COMAR 10.24.01.08(G)(3)(c) in support of UM UCH's CON application to establish UC Behavioral Health. Further, an assessment of the availability and accessibility of emergent and urgent care in UC FMF's projected service area is set forth in Section II.F above. In short, there will be no acute general hospitals with emergency departments or other FMFs in UC FMF's projected service area.

While there are nine (9) urgent care centers in UC FMF's service area (*see* Table 7 above), in fiscal year 2018, seventy-one (72%) of HMH's emergency department visits fell within an ESI Treatment Level which could not be successfully transitioned to an urgent care center. This assumes that only patients at ESI Levels 4 and 5 who were discharged from HMH's emergency room could be transitioned to an urgent care center. The remaining 28% represent a patient population who self-selects care at a traditional emergency department rather than an urgent care center. Certainly, there are many factors that drive patient selection for site-of-

service; however, one key factor is a patient's inability to discern the lowest level of care for their presenting need(s). Another factor is the limited hours of operation of urgent care centers.

Moreover, it cannot be disputed that the emergency departments at acute general hospitals in nearest proximity to UC FMF could not absorb the approximate 27,000 emergency visits currently treated at HMH's emergency department and projected for UC FMF. In addition, UCMC would not be in a position to absorb even a significant fraction of this volume of emergency department visits without its own substantial emergency department expansion project and associated capital expenditures.

Table 26
HMH FY 2018 ED Visits and Disposition

ESI Treatment Level	ED Discharges	Inpatient Admits	Observation Admits	Grand Total
1	113	139	49	301
2	2,798	2,031	1,232	6,061
3	10,376	1,559	1,460	13,395
4	6,961	84	55	7,100
5	399		1	400
Unclassified	108	2	1	111
	20,755	**3,815**	**2,798**	**27,368**

Finally, UM UCH has engaged and continues to engage in a number of population health initiatives as described in Section II.G above. Despite these ongoing efforts, the number of emergency department visits from UC FMF's projected service area has not seen an appreciable decline in utilization. *See* Table 26 above.

IV. THE CONVERSION OF HARFORD MEMORIAL HOSPITAL TO A FREESTANDING MEDICAL FACILITY IS IN THE PUBLIC INTEREST.

The State Health Plan requires that applicants seeking to convert an acute general hospital to an FMF demonstrate the conversion is in the public interest, based on an assessment of the converting hospital's long-term viability as a general hospital through addressing such matters as: (i) trends in the hospital's inpatient utilization for the previous five years in the context of statewide trends; (ii) the financial performance of the hospital over the past five years and in the context of the statewide financial performance of Maryland hospitals; (iii) the age of the physical plant relative to other Maryland hospitals and the investment required to maintain and modernize the physical plant; (iv) the availability of alternative sources for acute care inpatient and outpatient services that will no longer be provided on the campus after conversion to a freestanding medical facility; (v) the adequacy and appropriateness of the hospital's transition plan; and (vi) an assessment of the parent hospital's projected financial performance or the projected financial performance of the parent hospital and other health care facilities that share a global budget with the parent hospital.

The conversion of HMH to UC FMF is in the public interest with respect to each of these criteria based on the analyses presented below.

1. The Conversion of HMH to UC FMF is in the Public Interest Based on HMH's Inpatient Utilization for the Previous Five Years in the Context of Statewide Trends.

Table 27 presents a 6.3% decline in HMH's hospital acute inpatient admissions between fiscal years 2013 and 2017. While less than the 10.8% decline in acute care hospital admissions across the State of Maryland, HMH's reduction in admissions has led to the discussion of merging beds with UCMC which is in the public interest.

Table 27
Comparison of HMH Historical Admissions to Statewide Trends
FY2013 – FY2017

	2013	2014	2015	2016	2017	2013-2017 % Change
HMH	4,727	4,693	4,174	4,384	4,429	-6.3%
% Change	*-7.9%*	*-0.7%*	*-11.1%*	*5.0%*	*1.0%*	
Statewide Trend	619,128	581,573	570,988	564,345	551,978	-10.8%
% Change	*-3.4%*	*-6.1%*	*-1.8%*	*-1.2%*	*-2.2%*	

Sources: FY2013 through FY2017 HSCRC Annual Filings

2. The Conversion of HMH to UC FMF is in the Public Interest Based on HMH's Financial Performance Over the Past Five Years and in the Context of the Statewide Financial Performance of Maryland Hospitals.

HMH generated operating margins ranging from 5.0% to 10.5% between fiscal years 2013 and 2017. These operating margins exceed those of the statewide average operating margins which ranged from 1.3% to 3.7% (Table 28). Notwithstanding HMH's operating margins, HMH has outlived the useful life of its physical plant. Continued operation of HMH for the long term would require significant capital improvements with estimated costs of $239.3 million to bring the entire facility to modern standards (updated to a midpoint of construction in 2020). Given the significant capital required to renovate HMH, it would not continue to generate operating margins following any such renovation project.

Table 28
Comparison of HMH Operating Margins to Statewide Financial Performance
FY2013 – FY2017

	Operating Margin (%)				
	2013	2014	2015	2016	2017
HMH	5.0%	10.5%	10.0%	8.3%	5.9%
Statewide Average	1.3%	3.1%	3.7%	3.3%	2.8%

Sources: FY2013 through FY2017 Annual Filings

3. The Conversion of HMH to UC FMF is in the Public Interest Based on the Age of HMH's Physical Plant Relative to Other Maryland Hospitals and the Investment Required to Maintain and Modernize the Physical Plant.

The average age of HMH's physical plant was 18.8 years in 2016. This compares to the statewide average of 10.8 years (Table 29). In a publication by Moody's Investors Service, dated August 28, 2018, it presents the median average age of plant for hospitals that it rates as 11.5 years. The statewide average is consistent with that median while HMH is well above it.

Table 29
Comparison of HMH Average Age of Plant to Statewide Trends
FY2015 – FY2024

	Average Age of Plant (years)				
	2012	2013	2014	2015	2016
HMH	18.3	18.9	16.7	15.7	18.8
Statewide Average	12.0	11.2	12.7	12.0	10.8

Source: Annual Filings

For HMH to achieve the statewide average would require approximately $100 million in capital expenditures to modernize its physical plant. This estimate of capital expenditures

reflects the level of investment in assets with a 25 year useful life that would be required to increase annual depreciation expense to achieve a 10.8 year average age of plant.

4. The Conversion of HMH to UC FMF is in the Public Interest Taking into Consideration the Alternative Sources for Acute Care Inpatient and Outpatient Services That Will no Longer be Provided on the Campus After Conversion to a Freestanding Medical Facility.

The conversion of HMH to UC FMF coupled with the other projects for which the applicants and UM UCH have sought the Commission's approval is in the public interest. As stated above, in conjunction with conversion of HMH to UC FMF, UM UCH has submitted a CON application to establish a forty (40) bed special psychiatric hospital on the campus of UC Medical Campus Aberdeen. The proposed psychiatric hospital's inpatient units are organized into two separate "neighborhoods" to serve male and female patients from young adults (over age 18) to seniors. One fifteen (15) bed neighborhood will be principally dedicated to geriatric psychiatry, while the other neighborhood will contain twenty-five (25) adult non-geriatric psychiatric beds. In addition to inpatient behavioral health services, UC Behavioral will provide a broad array of outpatient services, including a partial hospitalization program, an intensive outpatient program, and a variety of outpatient, ambulatory behavioral health services, which will allow patients to transition through multiple stages of treatment at one centralized location.

UCMC and HMH have also applied for an exemption from CON review to construct a three-story, 78,070 square foot addition above the existing Kaufman Cancer Center at UCMC to accommodate all MSGA beds to be relocated from HMH to UCMC and 77 observation beds to be located in two new dedicated observation units. Upon the conversion of HMH to UC FMF,

the addition at UCMC would open and existing inpatients at HMH would be transferred to UCMC or UC Behavioral Health as appropriate.

UM UCH also plans to renovate an existing medical office building at the UC Medical Campus at Aberdeen to house both primary and specialty care physician practices in order to provide access to additional providers in HMH's historical service area, including: (1) primary and specialty care physicians practices; (2) rehabilitation services (physical, occupational, and speech therapy); (3) outpatient infusion services (currently not offered at HMH); (4) imaging; and (5) laboratory services (draw station). The only existing outpatient services at HMH that will not be provided on the campus of UC Medical Campus at Aberdeen are: (1) outpatient pulmonary function testing; and (2) possibly a sleep study lab.

5. The Conversion of HMH to UC FMF is in the Public Interest Taking into Consideration the Adequacy and Appropriateness of HMH's Transition Plan.

The conversion of HMH to UC FMF is in the public interest taking into consideration the adequacy and appropriateness of the applicants' transition plan. The applicants' transition planning focused around the overarching plan for transitioning emergency and observation services from HMH to UC FMF, the development of the special psychiatric hospital, needed outpatient behavioral health services, the relocation of acute inpatient MSGA beds from HMH to UCMC, and provision of other outpatient services at UC Medical Campus at Aberdeen. This transition plan supports the overarching vision that UM UCH has for its community, which includes creating an optimal patient care delivery system for the future health care needs of both Harford and Cecil County residents. This vision focused on the following:

- Quality and patient satisfaction with a focus on providing care in the right setting at the right time;
- Development of systems of care beyond the walls of a health care facility;

- A comprehensive network of specialty and primary care physicians; and
- Multi-faceted ambulatory services.

The projected timeline for transitioning acute care services will be dependent on the Commission's approval of the special psychiatric facility – UC Behavioral Health, however, the projected timeline for the opening of UC Behavioral Health is the end of calendar year 2020 or early-mid calendar year 2021.

An initial transition plan for job retraining and placement for HMH employees has been started with the early projections of the potential number of employees who will be impacted by the conversion recognizing that there will be retirements as well as traditional employee transitions over the course of the next three or more years. As a component of the applicants' early planning there has been a projection of the full time equivalent needs for UC FMF, UC Behavioral Health, and the expanded acute services at the UCMC. Future planning will include the identification of alternative locations for employment such as within the planned medical office building to be developed at UC Medical Campus at Aberdeen where a wide array of outpatient ambulatory services will be provided in conjunction with primary and specialty care physician practices as well as the expansion of ambulatory surgical services within the community as a component of the overall UM UCH's Vision 2020 project. In addition, UM UCH plans to implement a Workforce Planning workgroup beginning in calendar year 2018. This workgroup will be comprised of multiple internal and external stakeholders including participation from the UM UCH Patient and Family Advisory Committee, the Susquehanna Workforce Network, the Harford County Government, and Harford Community College.

As it relates to preliminary plans for re-use of HMH's physical plant, UM UCH engaged the commercial real estate firm Cushman & Wakefield to provide a comprehensive evaluation of

the property as well as the community and market conditions, in order to assess the potential for successful re-use and/or redevelopment of the site. Through in-depth analysis of demographic and employment trends, extensive community stakeholder interviews, and economic development strategies, Cushman & Wakefield has identified demand drivers that would positively influence both UM UCH's and the City's interests in redevelopment of the property. These drivers have been synthesized into potential development options that could deliver both attractive financial returns and sustainable community benefits. The uses are broadly characterized as a mixed use development in a walkable, town center setting concept.

Cushman & Wakefield has concluded that the site would be attractive to investors and developers as a multi-phase, master-planned development that could provide a significant economic development benefits to the City of Havre de Grace and the surrounding community, and thus achieve the important shared goals for re-use of the property – maximizing financial returns and enhancing the second generation use of the property for the community's benefit.

6. The Conversion of HMH to UC FMF is in the Public Interest Based on an Assessment of UCMC's Projected Financial Performance.

UCMC is projected to generate operating profits in each year of the projection period (Table 30). The assumed retention of HMH's GBR will enable UCMC to absorb the addition of depreciation and interest expenses associated with UC FMF.

Table 30
UCMC Historic and Projected Operating Income
FY2015 – FY2024

UCMC + UC FMF
Financial Performance
FY2017 - FY2024

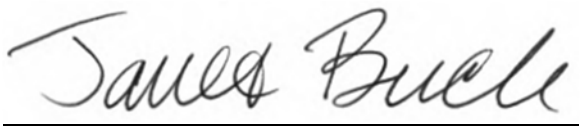
	Historical		Projection ($ in millions)					
	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
Revenue	**$ 300.8**	**$ 306.9**	**$ 280.7**	**$ 282.7**	**$ 290.2**	**$ 368.6**	**$ 379.3**	**$ 390.3**
Expenses	**284.2**	**272.3**	**248.5**	**255.5**	**260.0**	**343.5**	**351.6**	**360.8**
Operating Income	**$ 16.6**	**$ 34.6**	**$ 32.1**	**$ 27.2**	**$ 30.2**	**$ 25.0**	**$ 27.6**	**$ 29.4**

For the reasons set forth above, the conversion of HMH to UC FMF is in the public interest.

CONCLUSION

For all of the reasons set forth above, HMH and UCMC respectfully request that the Commission authorize the conversion of HMH to a freestanding medical facility and associated capital expenditures.

Respectfully submitted,



James C. Buck
Gallagher, Evelius & Jones LLP
218 N. Charles Street, Suite 400
Baltimore, Maryland 21201

Counsel for UM Upper Chesapeake Medical Center, Inc. and
UM Harford Memorial Hospital, Inc.

November 21, 2018

Table of Exhibits

Table of Tables

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

November 19, 2018
Date

Lyle E. Sheldon
President and Chief Executive Officer
University of Maryland Upper
Chesapeake Health System

#600532
011888-0023

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

November 19, 2018
Date

Stephen Witman
Senior Vice President, Chief Financial Officer
University of Maryland Upper Chesapeake Health System

#646235
011888-0023

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

November 19, 2018
Date

Robin Luxon
Senior Vice President, Corporate Planning, Marketing & Business Development
University of Maryland Upper Chesapeake Health System

#600530
011888-0023

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

November 19, 2018
Date

Phillip D. Crocker
Project Manager
University of Maryland Upper
Chesapeake Health System

#600548
011888-0023

I hereby declare and affirm under the penalties of perjury that the facts stated in Sections 10.A., 10.B., 10.C.(1), and 13.B., of this application and its related attachments are true and correct to the best of my knowledge, information, and belief.

November 19, 2018
Date

Paul Muddiman
Vice President
Morris & Ritchie Associates, Inc.

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

November 19, 2018

11/19/18

Date

Ed Anderson
Project Executive
ERDMAN

#600549
011888-0023

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

November 19, 2018
Date

Andrew L. Solberg
A.L.S. Healthcare Consultant Services

#600532
011888-0023

EXHIBIT 1

Table Number	Table Title	Instructions
Table A	Physical Bed Capacity Before and After Project	All applicants whose project impacts any nursing unit, regardless of project type or scope, must complete Table A.
Table B	Departmental Gross Square Feet	All applicants, regardless of project type or scope, must complete Table B for all departments and functional areas affected by the proposed project.
Table C	Construction Characteristics	All applicants proposing new construction or renovation must complete Table C.
Table D	Site and Offsite Costs Included and Excluded in Marshall Valuation Costs	All applicants proposing new construction or renovation must complete Table D.
Table E	Project Budget	All applicants, regardless of project type or scope, must complete Table E.
Table F	Statistical Projections - Entire Facility	Existing facility applicants must complete Table F. All applicants who complete this table must also complete Tables G and H.
Table G	Revenues & Expenses, Uninflated - Entire Facility	Existing facility applicants must complete Table G. The projected revenues and expenses in Table G should be consistent with the volume projections in Table F.
Table H	Revenues & Expenses, Inflated - Entire Facility	Existing facility applicants must complete Table H. The projected revenues and expenses in H should be consistent with the projections in Tables F and G.
Table I	Statistical Projections - New Facility or Service	Applicants who propose to establish a new facility, existing facility applicants who propose a new service, and applicants who are directed by MHCC staff must complete Table I. All applicants who complete this table must also complete Tables J and K.
Table J	Revenues & Expenses, Uninflated - New Facility or Service	Applicants who propose to establish a new facility and existing facility applicants who propose a new service and any other applicant who completes a Table I must complete Table J. The projected revenues and expenses in Table J should be consistent with the volume projections in Table I.
Table K	Revenues & Expenses, Inflated - New Facility or Service	Applicants who propose to establish a new facility and existing facility applicants who propose a new service and any other applicant that completes a Table I must complete Table K. The projected revenues and expenses in Table K should be consistent with the projections in Tables I and J.
Table L	Work Force Information	All applicants, regardless of project type or scope, must complete Table L.

TABLE A. PHYSICAL BED CAPACITY BEFORE AND AFTER PROJECT

INSTRUCTIONS: Identify the location of each nursing unit (add or delete rows if necessary) and specify the room and bed count before and after the project in accordance with the definition of physical capacity noted below. Applicants should add columns and recalculate formulas to address rooms with 3 and 4 bed capacity. NOTE: Physical capacity is the total number of beds that could be physically set up in space without significant renovations. This should be the maximum operating capacity under normal, non-emergency circumstances and is a physical count of bed capacity, rather than a measure of staffing capacity. A room with two headwalls and two sets of gasses should be counted as having capacity for two beds, even if it is typically set up and operated with only one bed. A room with one headwall and one set of gasses is counted as a private room, even if it is large enough from a square footage perspective to be used as a semi-private room, since renovation/construction would be required to convert it to semi-private use. If the hospital operates patient rooms that contain no headwalls or a single headwall, but are normally used to accommodate one or more than one patient (e.g., for psychiatric patients), the physical capacity of such rooms should be counted as they are currently used.

Before the Project							After Project Completion						
Hospital Service	Location (Floor/ Wing)*	Licensed Beds: 7/1/201_	Based on Physical Capacity				Hospital Service	Location (Floor/ Wing)*	Based on Physical Capacity				
			Room Count			Bed Count			Room Count			Bed Count	
			Private	Semi-Private	Total Rooms	Physical Capacity			Private	Semi-Private	Total Rooms	Physical Capacity	
ACUTE CARE							ACUTE CARE						
General Medical/ Surgical*					0	0	General Medical/ Surgical*				0	0	
					0	0					0	0	
					0	0					0	0	
					0	0					0	0	
					0	0					0	0	
SUBTOTAL Gen. Med/Surg*							SUBTOTAL Gen. Med/Surg*						
ICU/CCU					0	0	ICU/CCU				0	0	
Other *(Specify/add rows as needed)*					0	0					0	0	
TOTAL MSGA							TOTAL MSGA						
Obstetrics					0	0	Obstetrics				0	0	
Pediatrics					0	0	Pediatrics				0	0	
Psychiatric					0	0	Psychiatric				0	0	
TOTAL ACUTE		0	0	0	0	0	TOTAL ACUTE		0	0	0	0	
NON-ACUTE CARE							NON-ACUTE CARE						
Dedicated Observation**					0	0	Dedicated Observation**		24		24	24	
Rehabilitation					0	0	Rehabilitation				0	0	
Comprehensive Care					0	0	Comprehensive Care				0	0	
Other *(Specify/add rows as needed)*					0	0	Other *(Specify/add rows as needed)*				0	0	
TOTAL NON-ACUTE							TOTAL NON-ACUTE						
HOSPITAL TOTAL		0	0	0	0	0	HOSPITAL TOTAL		0	0	0	0	

* Include beds dedicated to gynecology and addictions, if unit(s) is separate for acute psychiatric unit

** Include services included in the reporting of the "Observation Center". Service furnished by the hospital on the hospital's promise, including use of a bed and periodic monitoring by the hospital's nursing or other staff, which are reasonable and necessary to determine the need for a possible admission to the hospital as an inpatient; Must be ordered and documented in writing, given by a medical practitioner.

TABLE B. DEPARTMENTAL GROSS SQUARE FEET AFFECTED BY PROPOSED PROJECT

INSTRUCTION: Add or delete rows if necessary. See additional instruction in the column to the right of the table.

DEPARTMENT/FUNCTIONAL AREA	DEPARTMENTAL GROSS SQUARE FEET				
	Current	To be Added Thru New Construction	To Be Renovated	To Remain As Is	Total After Project Completion
Emergency Department (ED)		15,674			15,674
Imaging		8,455			8,455
Observation		11,907			11,907
Lab		1,159			1,159
Pharmacy		937			937
Administration		6,267			6,267
Behavioral Health (BH) ED Crisis Unit		3,497			3,497
Public		3,914			3,914
Maintenance		1,436			1,436
Med Gas + Body Hold		641			641
Mechanical		88			88
Public Toilets		585			585
Circulation		1,219			1,219
Receiving		281			281
Dietary		863			863
Maintenance		3,041			3,041
Maintnenance Staff Lounge and Lockers		366			366
Nursing Staff Lounge and Lockers		326			326
Provider Staff Lounge and Lockers		529			529
Provider Offices		270			270
Housekeeping		249			249
Storage		855			855
Mechanical		1,541			1,541
Public Dining		480			480
Public Toilets		168			168
Public Conf		419			419
Shared Vertical Circulation		466			466
Shared Exterior Walls		421			421
Shared Circulation		2,176			2,176
Exterior Walls		1,071			1,071
Total		69,300			69,300

TABLE C. CONSTRUCTION CHARACTERISTICS

INSTRUCTION: If project includes non-hospital space structures (e.g., parking garges, medical office buildings, or energy plants), complete an additional Table C for each structure.

	NEW CONSTRUCTION	RENOVATION
BASE BUILDING CHARACTERISTICS	**Check if applicable**	
Class of Construction (for renovations the class of the building being renovated)*		
Class A	☑	☐
Class B	☐	☐
Class C	☐	☐
Class D	☐	☐
Type of Construction/Renovation*		
Low	☐	☐
Average	☐	☐
Good	☑	☐
Excellent	☐	☐
Number of Stories	2	

*As defined by Marshall Valuation Service

PROJECT SPACE	**List Number of Feet, if applicable**	
Total Square Footage	**Total Square Feet**	
Lower Level	12,451	
First Floor	56,849	
Second Floor	0	
Third Floor	0	
	0	
Average Square Feet	**34,650**	
Perimeter in Linear Feet	**Linear Feet**	
Lower Level	465	
First Floor	1,237	
Second Floor	0	
Third Floor	0	
	0	
Total Linear Feet	**1,702**	
Average Linear Feet	**1,702**	
Wall Height (floor to eaves)	**Feet**	
Lower Level	15'	
First Floor	15'	
Second Floor		
Third Floor		
Average Wall Height	**15'**	
OTHER COMPONENTS		
Elevators	**List Number**	
Passenger	3	
Freight	1	
Sprinklers	**Square Feet Covered**	
Wet System	69,300	
Dry System		
Other	**Describe Type**	
Type of HVAC System for proposed project	VAV, ducted return, AHUs with chilled and hot water	
Type of Exterior Walls for proposed project	Masonry	

TABLE D. ONSITE AND OFFSITE COSTS INCLUDED AND EXCLUDED IN MARSHALL VALUATION COSTS		
INSTRUCTION: If project includes non-hospital space structures (e.g., parking garges, medical office buildings, or energy plants), complete an additional Table D for each structure.		
	NEW CONSTRUCTION COSTS	**RENOVATION COSTS**
SITE PREPARATION COSTS		
Normal Site Preparation	$1,423,593	
Utilities from Structure to Lot Line		
Subtotal included in Marshall Valuation Costs	**$1,423,593**	
Site Demolition Costs	$28,170	
Storm Drains	$4,848	
Rough Grading	$11,779	
Paving	$161,072	
Exterior Signs on building	$23,040	
Landscaping	$88,661	
Walls	$34,633	
Yard Lighting	$18,564	
Dewatering	$69,266	
Sediment Control & Stabilization	$16,070	
Helipad	$33,926	
Premium for Minority Business Enterprise Requirement	$79,734	
Subtotal On-Site excluded from Marshall Valuation Costs	**$569,763**	
OFFSITE COSTS		
Roads		
Utilities		
Jurisdictional Hook-up Fees		
Other *(Specify/add rows if needed)*		
Subtotal Off-Site excluded from Marshall Valuation Costs	**$0**	
TOTAL Estimated On-Site and Off-Site Costs not included in Marshall Valuation Costs	**$569,763**	**$0**
TOTAL Site and Off-Site Costs included and excluded from Marshall Valuation Service*	**$1,993,356**	**$0**
BUILDING COSTS		
Normal Building Costs	$19,704,966	
Subtotal included in Marshall Valuation Costs	$19,704,966	
Canopies	$386,080	
Pneumatic Tube System	$96,000	
Jurisdictional Hook-up Fees	$608,933	
Premium for Minority Business Enterprise Requirement	$866,499	
Subtotal Building Costs excluded from Marshall Valuation Costs	**$1,957,512**	
TOTAL Building Costs included and excluded from Marshall Valuation Service*	**$21,662,478**	**#REF!**
A&E COSTS		
Normal A&E Costs	$2,241,008	
Subtotal included in Marshall Valuation Costs	**$2,241,008**	
Subtotal A&E Costs excluded from Marshall Valuation Costs	**$0**	
TOTAL A&E Costs included and excluded from Marshall Valuation Service*	**$2,241,008**	**$0**
PERMIT COSTS		
Normal Permit Costs	$347,120	
Subtotal included in Marshall Valuation Costs	**$347,120**	
Jurisdictional Hook-up Fees	$608,933	
Subtotal Permit Costs excluded from Marshall Valuation Costs	**$608,933**	
TOTAL Permit Costs included and excluded from Marshall Valuation Service*	**$956,053**	**$0**

TABLE E. PROJECT BUDGET

INSTRUCTION: Estimates for Capital Costs (1.a-e), Financing Costs and Other Cash Requirements (2.a-g), and Working Capital Startup Costs (3) must reflect current costs as of the date of application and include all costs for construction and renovation. Explain the basis for construction cost estimates, renovation cost estimates, contingencies, interest during construction period, and inflation in an attachment to the application.

NOTE: Inflation should only be included in the Inflation allowance line A.1.e. The value of donated land for the project should be included on Line A.1.d as a use of funds and on line B.8 as a source of funds

	FMF	BHH	Total
A. USE OF FUNDS			
1. CAPITAL COSTS			
a. New Construction			
(1) Building	$21,662,478	$19,349,171	$41,011,649
(2) Fixed Equipment			$0
(3) Site and Infrastructure	$1,993,356	$2,108,248	$4,101,604
(4) Architect/Engineering Fees	$2,241,008	$2,083,087	$4,324,095
(5) Permits (Building, Utilities, Etc.)	$956,053	$986,504	$1,942,557
SUBTOTAL	**$26,852,895**	**$24,527,010**	**$51,379,905**
b. Renovations			
(1) Building		$2,476,709	$2,476,709
(2) Fixed Equipment (not included in construction)			$0
(3) Architect/Engineering Fees		$157,921	$157,921
(4) Permits (Building, Utilities, Etc.)		$20,000	$20,000
SUBTOTAL	**$0**	**$2,654,630**	**$2,654,630**
c. Other Capital Costs			
(1) Movable Equipment	$8,410,098	$8,853,903	$17,264,001
(2) Contingency Allowance	$3,526,299	$3,603,554	$7,129,854
(3) Gross interest during construction period	$4,439,767	$4,537,481	$8,977,247
(4) Other (Specify/add rows if needed)			$0
SUBTOTAL	***$16,376,164***	***$16,994,938***	**$33,371,102**
TOTAL CURRENT CAPITAL COSTS	**$43,229,058**	**$44,176,579**	**$87,405,637**
d. *Land Purchase*	**$2,197,329**	**$2,299,294**	**$4,496,623**
e. Inflation Allowance	$1,174,762	$1,204,515	$2,379,278
TOTAL CAPITAL COSTS	**$46,601,150**	**$47,680,387**	**$94,281,538**
2. Financing Cost and Other Cash Requirements			
a. Loan Placement Fees	**$445,396**	**$455,711**	$901,107
b. Bond Discount			$0
c CON Application Assistance			
c1. Legal Fees	**$110,322**	**$110,322**	$220,644
c2. Other (Specify/add rows if needed)	**$884,309**	**$884,309**	$1,768,618
d. Non-CON Consulting Fees			
d1. Legal Fees	**$227,508**	**$227,508**	$455,016
d2. Other (Specify/add rows if needed)	**$1,181,081**	**$1,181,081**	$2,362,163
e. Debt Service Reserve Fund	**$3,274,012**	**$3,349,835**	$6,623,847
f Other (Specify/add rows if needed)			$0
SUBTOTAL	***$6,122,629***	***$6,208,766***	**$12,331,395**
3. Working Capital Startup Costs			$0
TOTAL USES OF FUNDS	***$52,723,779***	***$53,889,154***	***$106,612,933***
B. Sources of Funds			
1. Cash			$0
2. Philanthropy (to date and expected)			$0
3. Authorized Bonds	**$51,716,745**	**$52,859,861**	$104,576,606
4. Interest Income from bond proceeds listed in #3			$0
5. Mortgage			$0
6. Working Capital Loans			$0
7. Grants or Appropriations			
a. Federal			$0
b. State			$0
c. Local			$0
8. Other (Interest Earned on Trusteed Assets)	$1,007,034	$1,029,293	$2,036,327
TOTAL SOURCES OF FUNDS	***$52,723,779***	***$53,889,154***	**$106,612,933**
	Hospital Building	***Other Structure***	***Total***
Annual Lease Costs (if applicable)			
1. Land			$0
2. Building			$0
3. Major Movable Equipment			$0
4. Minor Movable Equipment			$0
5. Other *(Specify/add rows if needed)*			$0

* Describe the terms of the lease(s) below, including information on the fair market value of the item(s), and the number of years, annual cost, and the interest rate for the lease.

TABLE F. STATISTICAL PROJECTIONS - ENTIRE FACILITY (UCMC + UC FMF + HMH + UC BEHAVIORAL HEALTH + OBSERVATION)

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). For sections 4 & 5, the number of beds and occupancy percentage should be reported on the basis of licensed beds. In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Include additional years, if needed in order to be consistent with Tables G and H.					
Indicate CY or FY	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
1. DISCHARGES									
a1. General Medical/Surgical* UCMC	9,082	8,974	8,061	8,241	8,427	8,619	11,404	11,660	11,925
a2. General Medical/Surgical* HMH	2,931	3,034	3,021	3,087	3,155	3,226			
a3. Observation UCMC	11,410	12,127	13,930	13,985	14,043	14,106	14,523	14,618	14,717
a4. Observation UC FMF							5,606	5,606	5,606
a5. Observation HMH	3,896	4,019	4,443	4,458	4,474	4,491			
General MSGA & Observation	**27,319**	**28,154**	**29,455**	**29,770**	**30,099**	**30,442**	**31,534**	**31,884**	**32,249**
b1. ICU/CCU UCMC	814	860	842	860	879	899	1,186	1,212	1,240
b2. ICU/CCU HMH	203	179	175	179	183	187			
Total MSGA	**28,336**	**29,193**	**30,472**	**30,809**	**31,161**	**31,528**	**32,720**	**33,097**	**33,488**
c. Pediatric	94	123	108	107	106	105	121	120	119
d. Obstetric	1,381	1,366	1,296	1,299	1,301	1,304	1,307	1,310	1,312
e1. Acute Psychiatric HMH	1,236	1,233	1,195	1,201	1,207	1,213			
e2. Acute Psychiatric UC Behavioral Health							1,367	1,375	1,385
Total Acute	***31,047***	***31,915***	***33,071***	***33,416***	***33,776***	***34,150***	***35,514***	***35,902***	***36,304***
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL DISCHARGES	***31,047***	***31,915***	***33,071***	***33,416***	***33,776***	***34,150***	***35,514***	***35,902***	***36,304***
2. PATIENT DAYS									
a1. General Medical/Surgical* UCMC	37,389	35,932	32,685	33,441	34,226	35,039	46,125	47,215	48,346
a2. General Medical/Surgical* HMH	13,472	13,246	12,318	12,601	12,896	13,201			
a3. Observation UCMC	12,169	13,243	13,841	13,890	13,941	13,996	22,033	22,177	22,327
a4. Observation UC FMF							7,008	7,008	7,008
a5. Observation HMH	4,670	4,813	4,788	4,802	4,818	4,834	-		
General MSGA & Observation	**67,700**	**67,234**	**63,631**	**64,734**	**65,881**	**67,070**	**75,166**	**76,400**	**77,681**
b1. ICU/CCU UCMC	3,600	3,415	3,342	3,419	3,500	3,583	4,708	4,818	4,933
b2. ICU/CCU HMH	1,515	1,496	1,465	1,499	1,534	1,571			
Total MSGA	**72,815**	**72,145**	**68,439**	**69,653**	**70,914**	**72,224**	**79,874**	**81,219**	**82,614**
c. Pediatric	232	335	234	232	245	251	249	246	244
d. Obstetric	2,806	2,776	2,512	2,517	2,522	2,528	2,533	2,538	2,544
e1. Acute Psychiatric HMH	7,502	7,486	7,737	8,138	8,542	8,609			
e2. Acute Psychiatric UC Behavioral Health							11,421	11,574	11,734
Total Acute	***83,355***	***82,741***	***78,922***	***80,541***	***82,224***	***83,612***	***94,076***	***95,578***	***97,135***
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL PATIENT DAYS	***83,355***	***82,741***	***78,922***	***80,541***	***82,224***	***83,612***	***94,076***	***95,578***	***97,135***

TABLE F. STATISTICAL PROJECTIONS - ENTIRE FACILITY (UCMC + UC FMF + HMH + UC BEHAVIORAL HEALTH + OBSERVATION)

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). For sections 4 & 5, the number of beds and occupancy percentage should be reported on the basis of licensed beds. In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Include additional years, if needed in order to be consistent with Tables G and H.					
Indicate CY or FY	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
3. AVERAGE LENGTH OF STAY (patient days divided by discharges)									
a1. General Medical/Surgical* UCMC	4.1	4.0	4.1	4.1	4.1	4.1	4.0	4.0	4.1
a2. General Medical/Surgical* HMH	4.6	4.4	4.1	4.1	4.1	4.1			
a3. Observation UCMC	1.1	1.1	1.0	1.0	1.0	1.0	1.5	1.5	1.5
a4. Observation UC FMF							1.25	1.25	1.25
a5. Observation HMH	1.2	1.2	1.1	1.1	1.1	1.1			
General MSGA & Observation	2.5	2.4	2.2	2.2	2.2	2.2	2.4	2.4	2.4
b1. ICU/CCU UCMC	4.4	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
b2. ICU/CCU HMH	7.5	8.4	8.4	8.4	8.4	8.4			
Total MSGA	2.6	2.5	2.2	2.3	2.3	2.3	2.4	2.5	2.5
c. Pediatric	2.5	2.7	2.2	2.2	2.3	2.4	2.1	2.1	2.1
d. Obstetric	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
e1. Acute Psychiatric HMH	6.1	6.1	6.5	6.8	7.1	7.1			
e2. Acute Psychiatric UC Behavioral Health							8.4	8.4	8.5
Total Acute	2.7	2.6	2.4	2.4	2.4	2.4	2.6	2.7	2.7
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL AVERAGE LENGTH OF STAY	2.7	2.6	2.4	2.4	2.4	2.4	2.6	2.7	2.7
4. NUMBER OF LICENSED BEDS									
a1. General Medical/Surgical* UCMC	128	123	112	114	117	120	158	162	165
a2. General Medical/Surgical* HMH	45	44	41	42	43	44			
a3. Observation UCMC	42	46	48	48	48	48	76	76	77
a4. Observation UC FMF							24	24	24
a5. Observation HMH	16	17	16	16	17	17			
General MSGA & Observation	**231**	**230**	**217**	**221**	**225**	**228**	**258**	**262**	**266**
b1. ICU/CCU UCMC	14	14	14	14	14	14	17	17	17
b2. ICU/CCU HMH	6	6	6	6	6	7			
Total MSGA	**251**	**250**	**237**	**241**	**245**	**249**	**275**	**278**	**283**
c. Pediatric	1	1	1	1	1	1	1	1	1
d. Obstetric	10	10	10	10	10	10	10	10	10
e1. Acute Psychiatric HMH	26	26	26	28	29	29			
e2. Acute Psychiatric UC Behavioral Health							40	40	40
Total Acute	***288***	***287***	***274***	***280***	***285***	***289***	***326***	***329***	***334***
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL LICENSED BEDS	***288***	***287***	***274***	***280***	***285***	***289***	***326***	***329***	***334***

TABLE F. STATISTICAL PROJECTIONS - ENTIRE FACILITY (UCMC + UC FMF + HMH + UC BEHAVIORAL HEALTH + OBSERVATION)

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). For sections 4 & 5, the number of beds and occupancy percentage should be reported on the basis of licensed beds. In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Include additional years, if needed in order to be consistent with Tables G and H.					
Indicate CY or FY	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
5. OCCUPANCY PERCENTAGE ***IMPORTANT NOTE:** Leap year formulas should be changed by applicant to reflect 366 days per year.*									
a1. General Medical/Surgical* UCMC	80.2%	79.8%	80.2%	80.2%	80.1%	80.1%	80.0%	80.1%	80.2%
a2. General Medical/Surgical* HMH	82.0%	82.5%	82.3%	82.2%	82.2%	82.2%			
a3. Observation UCMC	79.4%	78.9%	79.0%	79.3%	79.6%	79.9%	79.4%	79.9%	79.4%
a4. Observation UC FMF							80.0%	80.0%	80.0%
a5. Observation HMH	80.0%	79.9%	80.0%	80.2%	80.0%	79.8%			
General MSGA & Observation	80.4%	80.2%	80.3%	80.4%	80.4%	80.5%	79.9%	80.0%	80.0%
b1. ICU/CCU UCMC	70.5%	66.8%	65.4%	66.9%	68.5%	70.1%	75.9%	80.0%	80.0%
b2. ICU/CCU HMH	69.2%	68.3%	66.9%	68.5%	70.0%	61.5%			
Total MSGA	**79.6%**	**79.1%**	**79.1%**	**79.3%**	**79.5%**	**79.3%**	**79.6%**	**80.0%**	**80.0%**
c. Pediatric	63.6%	91.8%	64.1%	63.6%	67.1%	68.7%	68.1%	67.5%	66.9%
d. Obstetric	76.9%	76.0%	68.8%	69.0%	69.1%	69.3%	69.4%	69.5%	69.7%
e1. Acute Psychiatric HMH	79.1%	78.9%	81.5%	79.6%	80.7%	81.3%			
e2. Acute Psychiatric UC Behavioral Health							78.2%	79.3%	80.4%
Total Acute	**79.4%**	**79.0%**	**78.9%**	**78.9%**	**79.2%**	**79.2%**	**79.1%**	**79.6%**	**79.7%**
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL OCCUPANCY %	**79.4%**	**79.0%**	**78.9%**	**78.9%**	**79.2%**	**79.2%**	**79.1%**	**79.6%**	**79.7%**
6. OUTPATIENT VISITS									
a1. Emergency Department UCMC (Total)	65,251	64,502	61,445	61,812	62,181	62,553	63,041	63,418	63,797
a2. Emergency Department UC FMF (Total)							27,106	27,227	27,348
a3. Emergency Department HMH (Total)	29,520	28,356	26,743	26,862	26,981	27,101			
b1. Same-day Surgery Cases UCMC	5,890	5,678	5,621	5,652	5,685	5,719	5,753	5,791	5,830
b2. Same-day Surgery Cases HMH	1,169	1,210	1,234	1,240	1,246	1,252			
c1. Laboratory RVUs UCMC	11,182,649	12,048,570	11,494,331	10,945,039	11,228,867	11,453,817	14,782,750	15,082,236	15,392,589
c2. Laboratory RVUs HMH	2,803,257	2,695,784	2,487,416	2,554,276	2,599,157	2,645,591			
c3. Laboratory RVUs UC Behavioral Health							1,804,190	1,828,452	1,853,615
d1. Imaging RVUs UCMC	1,772,683	1,905,329	1,809,354	1,722,888	1,767,567	1,802,977	2,326,993	2,374,136	2,422,989
d2. Imaging RVUs HMH	590,035	615,566	582,398	598,053	608,561	619,433			
d3. Imaging RVUs UC Behavioral Health							495,722	502,356	509,234
e. Psych Emergency Department									
f1. Outpatient Psych Clinic HMH	5,052	5,646	5,759	5,874	5,992	6,111			
f2. Outpatient Psych Clinic UC Behavioral Health							6,234	6,358	6,485
g1. Intensive Outpatient Psych Program HMH	1,190	1,443	1,362	1,286	1,214	1,146			
g2. Intensive Outpatient Psych Program UC Behavioral Health							1,593	1,625	1,658
h1. Partial Hospitalization Program HMH				1,300	2,600	2,600			
h2. Partial Hospitalization Program UC Behavioral Health							3,900	5,200	5,200
TOTAL OUTPATIENT VISITS	***16,456,696***	***17,372,083***	***16,475,662***	***15,924,282***	***16,310,051***	***16,628,300***	***19,517,282***	***19,896,799***	***20,288,744***
7. OBSERVATIONS**									
a1. Number of Patients UCMC	11,410	12,127	13,930	13,985	14,043	14,106	14,523	14,618	14,717
a2. Number of Patients UC FMF							5,606	5,606	5,606
a3. Number of Patients HMH	3,896	4,019	4,443	4,458	4,474	4,491			
b1. Hours UCMC	292,060	317,843	332,191	333,349	334,589	335,915	528,801	532,243	535,846
b2. Hours UC FMF							168,192	168,192	168,192
b3. Hours HMH	112,075	115,522	114,915	115,254	115,620	116,014			

* Include beds dedicated to gynecology and addictions, if separate for acute psychiatric unit.

** Services included in the reporting of the "Observation Center", direct expenses incurred in providing bedside care to observation patients; furnished by the hospital on the hospital's premises, including use of a bed and periodic monitoring by the hospital's nursing or other staff, in order to determine the need for a possible admission to the hospitals as an inpatient. Such services must be ordered and documented in writing, given by a

TABLE G. REVENUES & EXPENSES, UNINFLATED - UPPER CHESAPEAKE HEALTH SYSTEM

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Table H should reflect inflation. Projected revenues and expenses should be consistent with the projections in Table F. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Add columns if needed in order to document that the hospital will generate excess revenues over total expenses consistent with the Financial Feasibility standard.				
Indicate CY or FY	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
1. REVENUE								
a. Gross patient services revenue	540,220	558,961	538,479	536,269	537,497	537,055	539,283	541,526
Gross Patient Service Revenues	***$ 540,220***	***$ 558,961***	***$ 538,479***	***$ 536,269***	***$ 537,497***	***$ 537,055***	***$ 539,283***	***$ 541,526***
c. Allowance For Bad Debt	14,027	14,080	14,266	14,200	14,237	13,706	13,773	13,839
d. Contractual Allowance	75,402	85,596	93,732	95,854	96,016	99,960	100,241	100,524
e. Charity Care	14,970	14,471	6,536	6,499	6,516	5,812	5,842	5,872
Net Patient Services Revenue	***$ 435,821***	***$ 444,814***	***$ 423,945***	***$ 419,716***	***$ 420,727***	***$ 417,577***	***$ 419,427***	***$ 421,291***
f. Other Operating Revenues (Specify/add rows if needed)	271	3,093	3,255	2,955	2,955	2,843	2,843	2,843
NET OPERATING REVENUE	***$ 436,092***	***$ 447,908***	***$ 427,200***	***$ 422,671***	***$ 423,682***	***$ 420,420***	***$ 422,271***	***$ 424,134***
2. EXPENSES								
a. Salaries & Wages (including benefits)	$ 244,970	$ 234,694	$ 246,185	247,564	$ 247,714	$ 243,607	$ 243,542	$ 244,210
b. Contractual Services	13,253	10,071	10,029	10,180	10,328	8,558	8,700	8,840
c. Interest on Current Debt	8,150	9,808	9,523	9,271	8,964	8,643	8,313	8,030
d. Interest on Project Debt	-	-	-	-	-	8,961	8,794	8,619
e. Current Depreciation	22,137	22,922	23,591	22,634	23,518	23,042	23,979	24,980
f. Project Depreciation	-	-	-	-	-	7,438	7,438	7,438
g. Current Amortization	-	-	-	-	-	-	-	-
h. Project Amortization	-	-	-	-	-	-	-	-
i. Supplies	83,351	84,045	64,830	66,164	67,476	66,901	67,795	68,717
j. Other Expenses (Purchased Services and Other Expenses)	58,623	65,064	55,238	54,902	52,043	49,875	49,329	48,821
TOTAL OPERATING EXPENSES	***$ 430,484***	***$ 426,605***	***$ 409,396***	***$ 410,714***	***$ 410,043***	***$ 417,024***	***$ 417,890***	***$ 419,655***
3. INCOME								
a. Income From Operation	**$ 5,608**	**$ 21,303**	**$ 17,804**	**$ 11,957**	**$ 13,640**	**$ 3,396**	**$ 4,381**	**$ 4,480**
b. Non-Operating Income	18,640	17,578	10,085	8,487	7,815	9,075	9,513	10,135
SUBTOTAL	***$ 24,248***	***$ 38,881***	***$ 27,889***	***$ 20,443***	***$ 21,455***	***$ 12,471***	***$ 13,893***	***$ 14,615***
c. Income Taxes	-	-	-	-	-	-	-	-
NET INCOME (LOSS)	***$ 24,248***	***$ 38,881***	***$ 27,889***	***$ 20,443***	***$ 21,455***	***$ 12,471***	***$ 13,893***	***$ 14,615***

TABLE G. REVENUES & EXPENSES, UNINFLATED - UPPER CHESAPEAKE HEALTH SYSTEM

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Table H should reflect inflation. Projected revenues and expenses should be consistent with the projections in Table F. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Add columns if needed in order to document that the hospital will generate excess revenues over total expenses consistent with the Financial Feasibility standard.				
Indicate CY or FY	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
4. PATIENT MIX								
a. Percent of Total Revenue								
1) Medicare	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%
2) Medicaid	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
3) Blue Cross	11.8%	11.8%	11.8%	11.8%	11.8%	11.8%	11.8%	11.8%
4) Commercial Insurance	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%
5) Self-pay	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
6) Other	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
TOTAL	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***
b. Percent of Patient Days								
Total MSGA								
1) Medicare	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%
2) Medicaid	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
3) Blue Cross	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
4) Commercial Insurance	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
5) Self-pay	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
6) Other	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
TOTAL	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***

Table G – Key Financial Projection Assumptions for UM Upper Chesapeake Health System (Excludes HSCRC Annual Update Factors & Expense Inflation)

Projection is based on the Upper Chesapeake Health System FY2019 projected results, including Upper Chesapeake Medical Center, Harford Memorial Hospital, Upper Chesapeake Medical Services, Upper Chesapeake Health System (Parent entity) and several other entities that comprise the majority of UCHS with assumptions identified below.	
Projection period reflects FY2019 – FY2024	
Volumes	- Refer to COE Table F, including assumptions, and Need Assessment section of the application for volume methodology and assumptions
Patient Revenue • Gross Charges o Update Factor	- Based on each entity's FY2019 projected operating results. Removed where appropriate
o Demographic and Other Rate Adjustment	- Based on each entity's FY2019 projected operating results.
o Variable Cost Factor	- Based on each entity's FY2019 projected operating results.
• Revenue Deductions	
o Contractual Allowances	- Based on each entity's FY2019 projected operating results.
o Charity Care	- Based on each entity's FY2019 projected operating results.
o Allowance for Bad Debt	- Based on each entity's FY2019 projected operating results.
Other Revenue	- Based on each entity's FY2019 projected operating results.
Expenses • Inflation	- 0.0% increase per year
o Salaries and Benefits	- 0.0%
o Professional Fees	- 0.0%
o Supplies	- 0.0%
o Purchased Services	- 0.0%
o Other Operating Expenses	- 0.0%
• Expense Volume Driver	- For the hospital entities, identified at the cost center level and varies based on cost center level statistics and key volume drivers.
• Expense Variability with Volume Changes	
o Salaries and Benefits	- Ranges from 10% for overhead departments to 100% for inpatient nursing units
o Professional Fees	- 0% for all cost centers except inpatient nursing (50%) and Laboratory (100%)
o Supplies & Drugs	- Ranges from 0% for overhead departments to 100% for the Emergency Department
o Purchased Services	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
o Other Operating Expenses	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
• Other Operating Expenses	- Beginning in FY2019 and F2020, 340B savings is assumed at UCMC, however the savings is offset by the increased cost of the implementation of the following systems: electronic medical records (EPIC), human resource module (Lawson), and time and attendance system (Kronos). - At UCMC beginning in FY2019, a $3.6M performance improvement plan is assumed with an incremental $900k of performance improvement per year assumed throughout the projection period. - At Upper Chesapeake Medical Services (physicians) a $72k performance improvement plan is assumed beginning in FY2019, increasing to a $766k cumulative performance improvement plan by FY2024.
• Interest Expense – Existing Debt	- Continued amortization of existing debt and related interest expense: - 4.75% interest on $55.3M 2008C Series bonds - 4.75% interest on $118.5M 2011 B&C Series bonds - 3.6% interest on $50.0M 2011A Series bonds
• Interest Expense – New Debt (Project Related)	- 4.5% interest on $200.0M bonds over 30 years
• Depreciation and Amortization	- Average life of 26 years on $183M (less land and debt service reserve fund) of construction project expenditures and 10 years on routine capital expenditures
Routine Capital Expenditures	- Total $146.5M of routine and other (non project related) capital spend over the projection period.

TABLE H. REVENUES & EXPENSES, INFLATED - UPPER CHESAPEAKE HEALTH SYSTEM

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Table G should reflect current dollars (no inflation). Projected revenues and expenses should be consistent with the projections in Table F and with the costs of Manpower listed in Table L. Manpower. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable. Specify the sources of non-operating income.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Add columns if needed in order to document that the hospital will generate excess revenues over total expenses				
Indicate CY or FY	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
1. GROSS REVENUE								
a. Gross Patient Service Revenues	$ 540,220	$558,961	$ 538,479	$549,140	$563,606	$576,659	$592,947	$609,704
Gross Patient Service Revenues	***540,220***	***$ 558,961***	***$ 538,479***	***$ 549,140***	***$ 563,606***	***$ 576,659***	***$ 592,947***	***$ 609,704***
b. Allowance For Bad Debt	$ 14,027	$ 14,080	$ 14,266	$ 14,541	$ 14,928	$ 14,717	$ 15,143	$ 15,582
c. Contractual Allowance	75,402	85,596	93,732	98,154	100,681	107,331	110,216	113,180
d. Charity Care	14,970	14,471	6,536	6,655	6,833	6,240	6,423	6,611
Net Patient Services Revenue	***435,821***	***$ 444,814***	***$ 423,945***	***$ 429,789***	***$ 441,164***	***$ 448,370***	***$ 461,165***	***$ 474,331***
e. Other Operating Revenues (Specify/add rows if needed)	271	3,093	3,255	2,985	3,014	2,929	2,959	2,988
NET OPERATING REVENUE	***436,092***	***$ 447,908***	***$ 427,200***	***$ 432,774***	***$ 444,179***	***$ 451,299***	***$ 464,124***	***$ 477,320***
2. EXPENSES								
a. Salaries & Wages (including benefits)	$ 244,970	$ 234,694	$ 246,185	$ 253,258	$ 259,240	$ 260,805	$ 266,732	$ 273,616
b. Contractual Services	13,253	10,071	10,029	10,485	10,957	9,352	9,792	10,248
c. Interest on Current Debt	8,150	9,808	9,523	9,271	8,964	8,643	8,313	8,030
d. Interest on Project Debt						8,961	8,794	8,619
e. Current Depreciation	22,137	22,922	23,591	22,634	23,518	23,042	23,979	24,980
f. Project Depreciation						7,438	7,438	7,438
g. Current Amortization								
h. Project Amortization								
i. Supplies	83,351	84,045	64,830	68,149	71,585	73,104	76,304	79,662
j. Other Expenses (Specify/add rows if needed)	58,623	65,064	55,238	56,000	54,146	52,927	53,395	53,903
TOTAL OPERATING EXPENSES	***$ 430,484***	***$ 426,605***	***$ 409,396***	***$ 419,796***	***$ 428,409***	***$ 444,272***	***$ 454,748***	***$ 466,495***
3. INCOME								
a. Income From Operation	***$ 5,608***	***$ 21,303***	***$ 17,804***	***$ 12,977***	***$ 15,769***	***$ 7,027***	***$ 9,376***	***$ 10,825***
b. Non-Operating Income	18,640	17,578	10,085	8,487	7,815	9,075	9,513	10,135
SUBTOTAL	***$ 24,248***	***$ 38,881***	***$ 27,889***	***$ 21,464***	***$ 23,585***	***$ 16,102***	***$ 18,889***	***$ 20,960***
c. Income Taxes	-	-	-	-	-	-	-	-
NET INCOME (LOSS)	***$ 24,248***	***$ 38,881***	***$ 27,889***	***$ 21,464***	***$ 23,585***	***$ 16,102***	***$ 18,889***	***$ 20,960***

TABLE H. REVENUES & EXPENSES, INFLATED - UPPER CHESAPEAKE HEALTH SYSTEM

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Table G should reflect current dollars (no inflation). Projected revenues and expenses should be consistent with the projections in Table F and with the costs of Manpower listed in Table L. Manpower. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable. Specify the sources of non-operating income.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Add columns if needed in order to document that the hospital will generate excess revenues over total expenses				
Indicate CY or FY	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
4. PATIENT MIX								
a. Percent of Total Revenue								
1) Medicare	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%	47.1%
2) Medicaid	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%	11.5%
3) Blue Cross	11.8%	11.8%	11.8%	11.8%	11.8%	11.8%	11.8%	11.8%
4) Commercial Insurance	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%	25.4%
5) Self-pay	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
6) Other	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%	3.5%
TOTAL	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***
b. Percent of Patient Days								
1) Medicare	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%	63.4%
2) Medicaid	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%	9.5%
3) Blue Cross	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%	7.2%
4) Commercial Insurance	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%	16.3%
5) Self-pay	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
6) Other	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%	3.3%
TOTAL	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***	***100.0%***

Table H - Key Financial Projection Assumptions for UM Upper Chesapeake Health System(Includes HSCRC Annual Update Factors & Expense Inflation)

Projection is based on the Upper Chesapeake Health System FY2019 projected results, including Upper Chesapeake Medical Center, Harford Memorial Hospital, Upper Chesapeake Medical Services, Upper Chesapeake Health System (Parent entity) and several other entities that comprise the majority of UCHS with assumptions identified below.

Projection period reflects FY2020 – FY2024

Volumes	- Refer to CON Table F, including assumptions, and Need Assessment section of the application for volume methodology and assumptions
Patient Revenue	
• Gross Charges	
o Update Factor	- Based on each entity's FY2019 projected operating results.
o Demographic and Other Rate Adjustment	- Based on each entity's FY2019 projected operating results.
o Variable Cost Factor	- Based on each entity's FY2019 projected operating results.
• Revenue Deductions	
o Contractual Allowances	- Based on each entity's FY2019 projected operating results.
o Charity Care	- Based on each entity's FY2019 projected operating results.
o Allowance for Bad Debt	- Based on each entity's FY2019 projected operating results.
Other Revenue	
Other Revenue	- Based on each entity's FY2019 projected operating results.
Expenses	
• Inflation	
o Salaries and Benefits	- 2.3%
o Professional Fees	- 3.0%
o Supplies	- 3.0%
o Purchased Services	- 3.0%
o Other Operating Expenses	- 2.0%
• Expense Volume Driver	- For the hospital entities, identified at the cost center level and varies based on cost center level statistics and key volume drivers.
• Expense Variability with Volume Changes	
o Salaries and Benefits	- Ranges from 10% for overhead departments to 100% for inpatient nursing units
o Professional Fees	- 0% for all cost centers except inpatient nursing (50%) and Laboratory (100%)
o Supplies & Drugs	- Ranges from 0% for overhead departments to 100% for the Emergency Department
o Purchased Services	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
o Other Operating Expenses	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
• Other Operating Expenses	- Beginning in FY2019 and F2020, 340B savings is assumed at UCMC, however the savings is offset by the increased cost of the implementation of the following systems: electronic medical records (EPIC), human resource module (Lawson), and time and attendance system (Kronos). - At UCMC beginning in FY2019, a $3.6M performance improvement plan is assumed with an incremental $900k of performance improvement per year assumed throughout the projection period. - At Upper Chesapeake Medical Services (physicians) a $72k performance improvement plan is assumed beginning in FY2019, increasing to a $766k cumulative performance improvement plan by FY2024.
• Interest Expense – Existing Debt	- Continued amortization of existing debt and related interest expense: - 4.75% interest on $55.3M 2008C Series bonds - 4.75% interest on $118.5M 2011 B&C Series bonds - 3.6% interest on $50.0M 2011A Series bonds
• Interest Expense – Project Debt	- 4.5% interest on $200.0M bonds over 30 years
• Depreciation and Amortization	- Average life of 26 years on $183M (less land and debt service reserve fund) of construction project expenditures and 10 years on routine capital expenditures
Routine Capital Expenditures	- Total $146.5M of routine and other (non project related) capital spend over the projection period.

TABLE I. STATISTICAL PROJECTIONS - ENTIRE UC FMF

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). For sections 4 & 5, the number of beds and occupancy percentage should be reported on the basis of licensed beds. In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Include additional years, if needed in order to be consistent with Tables G and H.					
Indicate CY or FY	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
1. DISCHARGES									
a1. General Medical/Surgical*									
a2. Observation UC FMF							5,606	5,606	5,606
General MSGA & Observation							**5,606**	**5,606**	**5,606**
b. ICU/CCU									
Total MSGA							**5,606**	**5,606**	**5,606**
c. Pediatric									
d. Obstetric									
e. Acute Psychiatric									
Total Acute							***5,606***	***5,606***	***5,606***
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL DISCHARGES							***5,606***	***5,606***	***5,606***
2. PATIENT DAYS									
a1. General Medical/Surgical*									
a2. Observation UC FMF							7,008	7,008	7,008
General MSGA & Observation							**7,008**	**7,008**	**7,008**
b. ICU/CCU									
Total MSGA							**7,008**	**7,008**	**7,008**
c. Pediatric									
d. Obstetric									
e. Acute Psychiatric									
Total Acute							***7,008***	***7,008***	***7,008***
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL PATIENT DAYS							***7,008***	***7,008***	***7,008***
3. AVERAGE LENGTH OF STAY (patient days divided by discharges)									
a1. General Medical/Surgical*									
a2. Observation UC FMF							1.25	1.25	1.25
General MSGA & Observation							1.25	1.25	1.25
b. ICU/CCU									
Total MSGA							1.25	1.25	1.25
c. Pediatric									
d. Obstetric									
e. Acute Psychiatric									
Total Acute							1.25	1.25	1.25
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL AVERAGE LENGTH OF STAY							1.25	1.25	1.25

TABLE I. STATISTICAL PROJECTIONS - ENTIRE UC FMF

INSTRUCTION: Complete this table for the entire facility, including the proposed project. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). For sections 4 & 5, the number of beds and occupancy percentage should be reported on the basis of licensed beds. In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Two Most Recent Years (Actual)		Current Year Projected	Projected Years (ending at least two years after project completion and full occupancy) Include additional years, if needed in order to be consistent with Tables G and H.					
Indicate CY or FY	**FY 2016**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
4. NUMBER OF LICENSED BEDS									
a1. General Medical/Surgical*									
a2. Observation UC FMF							24	24	24
General MSGA & Observation							**24**	**24**	**24**
b. ICU/CCU									
Total MSGA							**24**	**24**	**24**
c. Pediatric									
d. Obstetric									
e. Acute Psychiatric									
Total Acute							***24***	***24***	***24***
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL LICENSED BEDS							***24***	***24***	***24***
5. OCCUPANCY PERCENTAGE *IMPORTANT NOTE: *Leap year formulas should be changed by applicant to reflect 366 days per year.*									
a1. General Medical/Surgical*									
a2. Observation UC FMF							80.0%	80.0%	80.0%
General MSGA & Observation							80.0%	80.0%	80.0%
b. ICU/CCU									
Total MSGA							**80.0%**	**80.0%**	**80.0%**
c. Pediatric									
d. Obstetric									
e. Acute Psychiatric									
Total Acute							**80.0%**	**80.0%**	**80.0%**
f. Rehabilitation									
g. Comprehensive Care									
h. Other (Specify/add rows of needed)									
TOTAL OCCUPANCY %							**80.0%**	**80.0%**	**80.0%**
6. OUTPATIENT VISITS									
a. Emergency Department UC FMF (Total)							27,106	27,227	27,348
b. Same-day Surgery Cases									
c. Laboratory RVUs							1,597,178	1,618,657	1,640,932
d. Imaging RVUs							488,098	494,629	501,401
e. Other (Specify/add rows of needed)									
TOTAL OUTPATIENT VISITS							***2,112,382***	***2,140,512***	***2,169,681***
7. OBSERVATIONS**									
a1. Number of Patients UCMC									
a2. Number of Patients UC FMF							5,606	5,606	5,606
b1. Hours UCMC									
b2. Hours UC FMF							168,192	168,192	168,192

* Include beds dedicated to gynecology and addictions, if separate for acute psychiatric unit.

** Services included in the reporting of the "Observation Center", direct expenses incurred in providing bedside care to observation patients; furnished by the hospital on the hospital's premises, including use of a bed and periodic monitoring by the hospital's nursing or other staff, in order to determine the need for a possible admission to the hospitals as an inpatient. Such services must

TABLE J. REVENUES & EXPENSES, UNINFLATED - NEW FACILITY OR SERVICE

INSTRUCTION: After consulting with Commission Staff, complete this table for the new facility or service (the proposed project). Table J should reflect current dollars (no inflation). Projected revenues and expenses should be consistent with the projections in Table I and with the costs of Manpower listed in Table L. Manpower. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable. Specify the sources of non-operating income.

	Projected Years (ending at least two years after project completion and full occupancy) Add years, if needed in order to document that the hospital will generate excess revenues over total expenses consistent with the Financial Feasibility standard.						
Indicate CY or FY	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
1. REVENUE							
a. Inpatient Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
b. Outpatient Services	-	-	-	-	38,074	38,403	38,734
Gross Patient Service Revenues	***$ -***	***$ -***	***$ -***	***$ -***	***$ 38,074***	***$ 38,403***	***$ 38,734***
c. Allowance For Bad Debt	-	-	-	-	2,760	2,784	2,808
d. Contractual Allowance	-	-	-	-	5,052	5,096	5,140
e. Charity Care	-	-	-	-	-	-	-
Net Patient Services Revenue	***$ -***	***$ -***	***$ -***	***$ -***	***$ 30,262***	***$ 30,523***	***$ 30,786***
f. Other Operating Revenues (Specify)	-	-	-	-	170	168	167
NET OPERATING REVENUE	***$ -***	***$ -***	***$ -***	***$ -***	***$ 30,432***	***$ 30,691***	***$ 30,953***
2. EXPENSES							
a. Salaries & Wages (including benefits)	$ -	$ -	$ -	$ -	$ 18,805	$ 18,738	$ 18,774
b. Contractual Services	-	-	-	-	-	-	-
c. Interest on Current Debt	-	-	-	-	422	406	392
d. Interest on Project Debt	-	-	-	-	2,621	2,572	2,521
e. Current Depreciation	-	-	-	-	-	-	-
f. Project Depreciation	-	-	-	-	2,135	2,171	2,278
g. Current Amortization	-	-	-	-	-	-	-
h. Project Amortization	-	-	-	-	-	-	-
i. Supplies	-	-	-	-	2,142	2,165	2,189
j. Other Expenses (Purchased Services, Professional Fees and Other Expense)	-	-	-	-	3,771	3,757	3,742
TOTAL OPERATING EXPENSES	***$ -***	***$ -***	***$ -***	***$ -***	***$ 29,896***	***$ 29,808***	***$ 29,896***
3. INCOME							
a. Income From Operation	**$ -**	**$ -**	**$ -**	**$ -**	**$ 536**	**$ 883**	**$ 1,057**
b. Non-Operating Income	-	-	-	-	-	-	-
SUBTOTAL	***$ -***	***$ -***	***$ -***	***$ -***	***$ 536***	***$ 883***	***$ 1,057***
c. Income Taxes	-	-	-	-	-	-	-
NET INCOME (LOSS)	***$ -***	***$ -***	***$ -***	***$ -***	***$ 536***	***$ 883***	***$ 1,057***

TABLE J. REVENUES & EXPENSES, UNINFLATED - NEW FACILITY OR SERVICE

INSTRUCTION: After consulting with Commission Staff, complete this table for the new facility or service (the proposed project). Table J should reflect current dollars (no inflation). Projected revenues and expenses should be consistent with the projections in Table I and with the costs of Manpower listed in Table L. Manpower. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable. Specify the sources of non-operating income.

	Projected Years (ending at least two years after project completion and full occupancy) Add years, if needed in order to document that the hospital will generate excess revenues over total expenses consistent with the Financial Feasibility standard.						
Indicate CY or FY	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
4. PATIENT MIX							
a. Percent of Total Revenue							
1) Medicare					32.4%	32.4%	32.4%
2) Medicaid					27.8%	27.8%	27.8%
3) Blue Cross					9.7%	9.7%	9.7%
4) Commercial Insurance					21.0%	21.0%	21.0%
5) Self-pay					2.4%	2.4%	2.4%
6) Other					6.7%	6.7%	6.7%
TOTAL	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***100.0%***	***100.0%***	***100.0%***
b. Percent of Emergency Department Visits							
Total MSGA							
1) Medicare					22.6%	22.6%	22.6%
2) Medicaid					35.3%	35.3%	35.3%
3) Blue Cross					9.6%	9.6%	9.6%
4) Commercial Insurance					19.9%	19.9%	19.9%
5) Self-pay					3.3%	3.3%	3.3%
6) Other					9.4%	9.4%	9.4%
TOTAL	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***100.0%***	***100.0%***	***100.0%***

Table J – Key Financial Projection Assumptions for the Upper Chesapeake Freestanding Medical Facility (Does not include HSCRC Annual Update Factors & Expense Inflation)

Projection is based on the Harford Memorial Hospital (HMH) FY2019 projected results with assumptions identified below.	
Projection period reflects FY2022 – FY2024	
Volumes	- Refer to COE Table I, including assumptions, and Need Assessment section of the application for volume methodology and assumptions
Patient Revenue	
• Gross Charges	
o Update Factor	- 0.00% annual increase
o Demographic and Other Rate Adjustment	- Remains constant at 0.43% per year
o Variable Cost Factor	- UC FMF volume shifting at 100% VCF before the addition of retained revenue for capital
o Other	- Removed assessments and quality from HMH rates and changed the mark-up based on HMH FY2016 OP PDA payer mix and actual FY2016/FY2017 UCC
• Revenue Deductions	
o Contractual Allowances	- Based on FY2018 HMH actual contractual allowances for HMH Behavioral Health, ED, and Observation Services and remains constant at 8.9% of gross revenue per year
o Charity Care	- Based on FY2018 actual charity care for HMH Behavioral Health, ED, and Observation Services and remains constant at 4.4% of gross revenue per year - No overfunding or underfunding of UCC
o Allowance for Bad Debt	- Based on FY2018 actual bad debt for HMH Behavioral Health, ED, and Observation services and remains constant at 7.25% of gross revenue per year - No overfunding or underfunding of UCC
Other Revenue	
o Cafeteria Revenue	- 0.0% increase per year
Expenses	
• Inflation	- 0.0% weighted average annual increase that reflects the following:
o Salaries and Benefits	- 0.0%
o Professional Fees	- 0.0%
o Supplies	- 0.0%
o Purchased Services	- 0.0%
o Other Operating Expenses	- 0.0%
• Expense Volume Driver	- Identified at the cost center level and varies based on cost center level statistics and key volume drivers.
• Expense Variability with Volume Changes	
o Salaries and Benefits	- Ranges from 10% for overhead departments to 100% for inpatient nursing units
o Professional Fees	- 0% for all cost centers except inpatient nursing (50%) and Laboratory (100%)
o Supplies & Drugs	- Ranges from 0% for overhead departments to 100% for the Emergency Department
o Purchased Services	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
o Other Operating Expenses	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
• Other Operating Expenses	- Additional adjustments totaling approximately $3.0M were made to reduce other operating expenses and UCHS overhead allocations to reflect specific services at UC FMF and a smaller facility.
• Interest Expense – Existing Debt	- 4.8% allocation of the following UCHS debt: - 4.75% interest on $55.3M 2008C Series bonds - 5.75% interest on $118.5M 2011 B&C Series bonds - 3.6% interest on $50.0M 2011A Series bonds
• Interest Expense – Project Debt	- 4.5% interest on $51.8M bonds over 30 years
• Depreciation and Amortization	- Average life of 26 years on $46.3M of construction project (land and debt service reserve fund are not depreciated) expenditures and 10 years on routine capital expenditures
Routine Capital Expenditures	- $0.3M in FY2022, growing to $1.2M in FY2023 and $2.4M in FY2024

TABLE K. REVENUES & EXPENSES, INFLATED - NEW FACILITY OR SERVICE

INSTRUCTION: After consulting with Commission Staff, complete this table for the new facility or service (the proposed project). Table K should reflect inflation. Projected revenues and expenses should be consistent with the projections in Table I. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Projected Years (ending at least two years after project completion and full occupancy) Add years, if needed in order to document that the hospital will generate excess revenues over total expenses consistent with the Financial Feasibility standard.						
Indicate CY or FY	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**
1. REVENUE							
a. Inpatient Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
b. Outpatient Services	-	-	-	-	40,405	41,568	42,766
Gross Patient Service Revenues	***$ -***	***$ -***	***$ -***	***$ -***	***$ 40,405***	***$ 41,568***	***$ 42,766***
c. Allowance For Bad Debt	-	-	-	-	2,929	3,014	3,100
d. Contractual Allowance	-	-	-	-	5,361	5,516	5,675
e. Charity Care	-	-	-	-	-	-	-
Net Patient Services Revenue	***$ -***	***$ -***	***$ -***	***$ -***	***$ 32,114***	***$ 33,039***	***$ 33,990***
f. Other Operating Revenues (Specify/add rows of needed)	-	-	-	-	180	182	184
NET OPERATING REVENUE	***$ -***	***$ -***	***$ -***	***$ -***	***$ 32,294***	***$ 33,221***	***$ 34,174***
2. EXPENSES							
a. Salaries & Wages (including benefits)	$ -	$ -	$ -	$ -	$ 20,133	$ 20,523	$ 21,034
b. Contractual Services	-	-	-	-	-	-	-
c. Interest on Current Debt	-	-	-	-	422	406	392
d. Interest on Project Debt	-	-	-	-	2,621	2,572	2,521
e. Current Depreciation	-	-	-	-	-	-	-
f. Project Depreciation	-	-	-	-	2,135	2,171	2,278
g. Current Amortization	-	-	-	-	-	-	-
h. Project Amortization	-	-	-	-	-	-	-
i. Supplies	-	-	-	-	2,340	2,437	2,537
j. Other Expenses (Purchased Services, Professional Fees and Other Expense)	-	-	-	-	3,972	4,027	4,081
TOTAL OPERATING EXPENSES	***$ -***	***$ -***	***$ -***	***$ -***	***$ 31,624***	***$ 32,134***	***$ 32,844***
3. INCOME							
a. Income From Operation	***$ -***	***$ -***	***$ -***	***$ -***	***$ 671***	***$ 1,087***	***$ 1,330***
b. Non-Operating Income	-	-	-	-			
SUBTOTAL	***$ -***	***$ -***	***$ -***	***$ -***	***$ 671***	***$ 1,087***	***$ 1,330***
c. Income Taxes	-	-	-	-			
NET INCOME (LOSS)	***$ -***	***$ -***	***$ -***	***$ -***	***$ 671***	***$ 1,087***	***$ 1,330***

TABLE K. REVENUES & EXPENSES, INFLATED - NEW FACILITY OR SERVICE

INSTRUCTION: After consulting with Commission Staff, complete this table for the new facility or service (the proposed project). Table K should reflect inflation. Projected revenues and expenses should be consistent with the projections in Table I. Indicate on the table if the reporting period is Calendar Year (CY) or Fiscal Year (FY). In an attachment to the application, provide an explanation or basis for the projections and specify all assumptions used. Applicants must explain why the assumptions are reasonable.

	Projected Years (ending at least two years after project completion and full occupancy) Add years, if needed in order to document that the hospital will generate excess revenues over total expenses consistent with the Financial Feasibility standard.						
Indicate CY or FY	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
4. PATIENT MIX							
a. Percent of Total Revenue							
1) Medicare					32.4%	32.4%	32.4%
2) Medicaid					27.8%	27.8%	27.8%
3) Blue Cross					9.7%	9.7%	9.7%
4) Commercial Insurance					21.0%	21.0%	21.0%
5) Self-pay					2.4%	2.4%	2.4%
6) Other					6.7%	6.7%	6.7%
TOTAL	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***100.0%***	***100.0%***	***100.0%***
b. Percent of Emergency Department Visits							
1) Medicare					22.6%	22.6%	22.6%
2) Medicaid					35.3%	35.3%	35.3%
3) Blue Cross					9.6%	9.6%	9.6%
4) Commercial Insurance					19.9%	19.9%	19.9%
5) Self-pay					3.3%	3.3%	3.3%
6) Other					9.4%	9.4%	9.4%
TOTAL	***0.0%***	***0.0%***	***0.0%***	***0.0%***	***100.0%***	***100.0%***	***100.0%***

Table K – Key Financial Projection Assumptions for Upper Chesapeake Freestanding Medical Facility (Includes HSCRC Annual Update Factors & Expense Inflation)

Projection is based on the Harford Memorial Hospital (HMH) FY2019 projected results with assumptions identified below.	
Projection period reflects FY2022 – FY2024	
Volumes	- Refer to COE Table I, including assumptions, and Need Assessment section of the application for volume methodology and assumptions
Patient Revenue	
• Gross Charges	
o Update Factor	- 2.3% increase in FY2022 and 2.50% annual increase in FY2023 & FY2024
o Demographic and Other Rate Adjustment	- Remains constant at 0.43% per year
o Variable Cost Factor	- UC FMF volume shifting at 100% VCF before the addition of retained revenue for capital
o Other	- Removed assessments and quality from HMH rates and changed the mark-up based on HMH FY2016 OP PDA payer mix and actual FY2016/FY2017 UCC
• Revenue Deductions	
o Contractual Allowances	- Based on FY2018 HMH actual contractual allowances for HMH Behavioral Health, ED, and Observation Services and remains constant at 8.9% of gross revenue per year
o Charity Care	- Based on FY2018 actual charity care for HMH Behavioral Health, ED, and Observation Services and remains constant at 4.4% of gross revenue per year - No overfunding or underfunding of UCC
o Allowance for Bad Debt	- Based on FY2018 actual bad debt for HMH Behavioral Health, ED, and Observation services and remains constant at 7.25% of gross revenue per year - No overfunding or underfunding of UCC
Other Revenue	
o Cafeteria Revenue and Other Operating Revenue	- 1.0% increase per year
Expenses	
• Inflation	
o Salaries and Benefits	- 2.3%
o Professional Fees	- 3.0%
o Supplies	- 3.0%
o Purchased Services	- 3.0%
o Other Operating Expenses	- 2.0%
• Expense Volume Driver	- Identified at the cost center level and varies based on cost center level statistics and key volume drivers.
• Expense Variability with Volume Changes	
o Salaries and Benefits	- Ranges from 10% for overhead departments to 100% for inpatient nursing units
o Professional Fees	- 0% for all cost centers except inpatient nursing (50%) and Laboratory (100%)
o Supplies & Drugs	- Ranges from 0% for overhead departments to 100% for the Emergency Department
o Purchased Services	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
o Other Operating Expenses	- Ranges from 0% for overhead departments to 50% for certain ancillary departments
• Other Operating Expenses	- Additional adjustments totaling approximately $3.0M were made to reduce other operating expenses and UCHS overhead allocations to reflect specific services at UC FMF and a smaller facility
• Interest Expense – Existing Debt	- 4.8% allocation of the following UCHS debt: - 4.75% interest on $55.3M 2008C Series bonds - 5.75% interest on $118.5M 2011 B&C Series bonds - 3.6% interest on $50.0M 2011A Series bonds
• Interest Expense – Project Debt	- 4.5% interest on $51.8M bonds over 30 years
• Depreciation and Amortization	- Average life of 26 years on $46.3M of construction project (land and debt service reserve fund are not depreciated) expenditures and 10 years on routine capital expenditures
Routine Capital Expenditures	- $0.3M in FY2022, growing to $1.2M in FY2023 and $2.6M in FY2024

TABLE L. WORKFORCE INFORMATION

INSTRUCTION: List the facility's existing staffing and changes required by this project. Include all major job categories under each heading provided in the table. The number of Full Time Equivalents (FTEs) should be calculated on the basis of 2,080 paid hours per year equals one FTE. In an attachment to the application, explain any factor used in converting paid hours to worked hours. Please ensure that the projections in this table are consistent with expenses provided in uninflated projections in Tables F and G.

	CURRENT ENTIRE FACILITY			PROJECTED CHANGES AS A RESULT OF THE PROPOSED PROJECT THROUGH THE LAST YEAR OF PROJECTION (CURRENT DOLLARS)			OTHER EXPECTED CHANGES IN OPERATIONS THROUGH THE LAST YEAR OF PROJECTION (CURRENT DOLLARS)			PROJECTED ENTIRE FACILITY THROUGH THE LAST YEAR OF PROJECTION (CURRENT DOLLARS) *	
Job Category	**Current Year FTEs**	**Average Salary per FTE**	**Current Year Total Cost**	**FTEs**	**Average Salary per FTE**	**Total Cost** *(should be consistent with projections in Table G, if submitted).*	**FTEs**	**Average Salary per FTE**	**Total Cost**	**FTEs**	**Total Cost** *(should be consistent with projections in Table J)*
1. Regular Employees											
Administration *(List general categories, add rows if needed)*											
Medical Staff Administration										0.5	$33.75
Quality & Health Information Management										3.3	$193.75
Fiscal Services										0.9	$62.34
Spirituality										0.1	$5.91
Patient Accounting										1.8	$90.23
Centralized Scheduling										1.4	$53.73
Admitting										7.2	$160.74
MIS										2.4	$215.00
Telecommunications										0.2	$16.58
Administration										0.4	$96.45
Safety										0.2	$15.55
Nursing Administration										1.6	$191.47
Hospital Education										1.0	$94.48
Quality Management										0.7	$53.63
Readmission										1.2	$94.59
Clinical Resource Management										1.0	$94.81
Distribution										1.2	$40.11
Volunteers										0.3	$16.03
Human Resources										0.7	$54.36
Healthlink										0.1	$4.72
Performance Improvements										0.8	$85.39
HC Epidemiology & Infection Control										0.2	$13.79
Guest Services										0.3	$16.17
Purchasing										0.5	$29.70
Risk Management										0.3	$27.49
General Hospital										3.3	$178.99
Total Administration			$0			$0			$0	31.3	$1,939.75

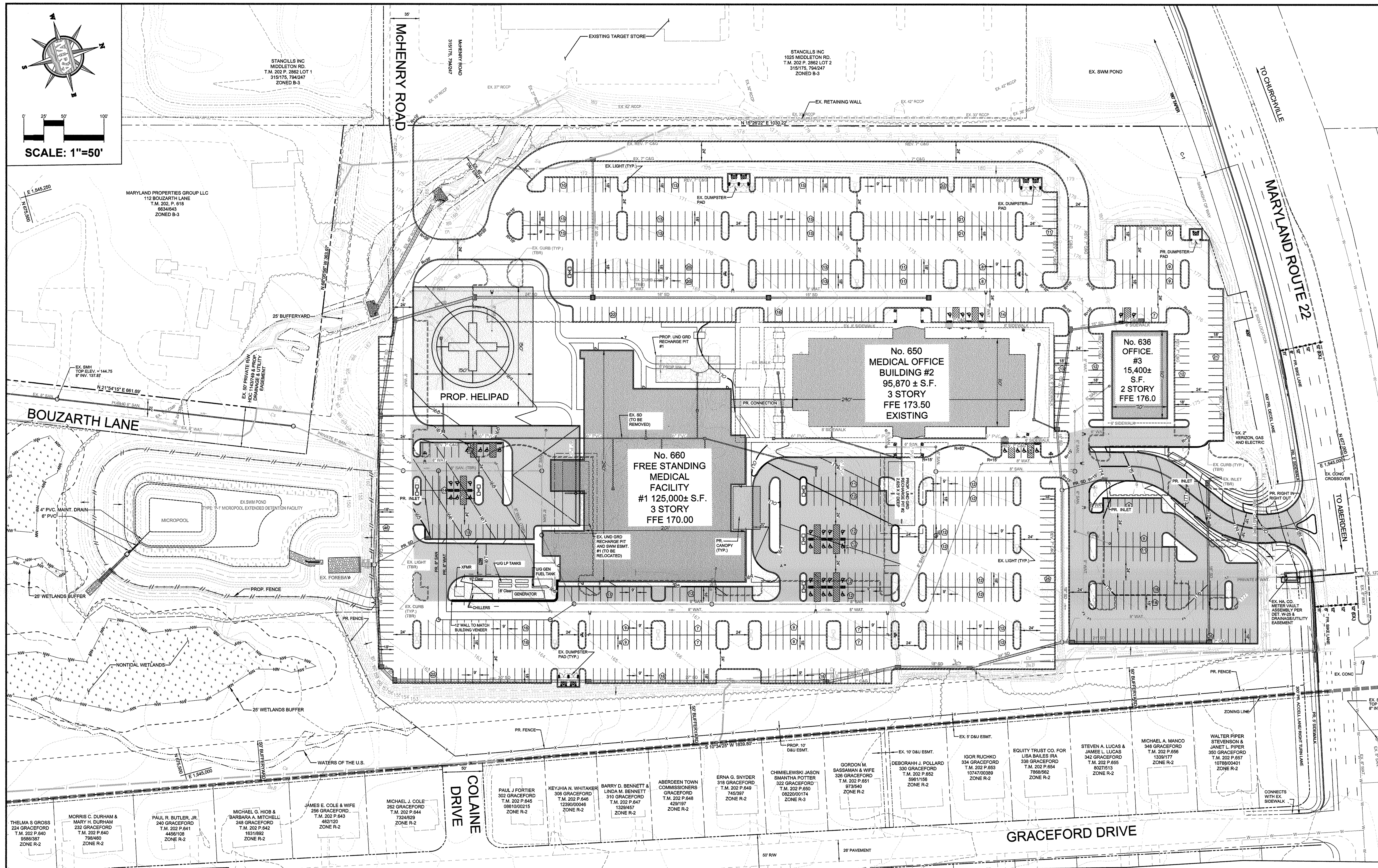
TABLE L. WORKFORCE INFORMATION

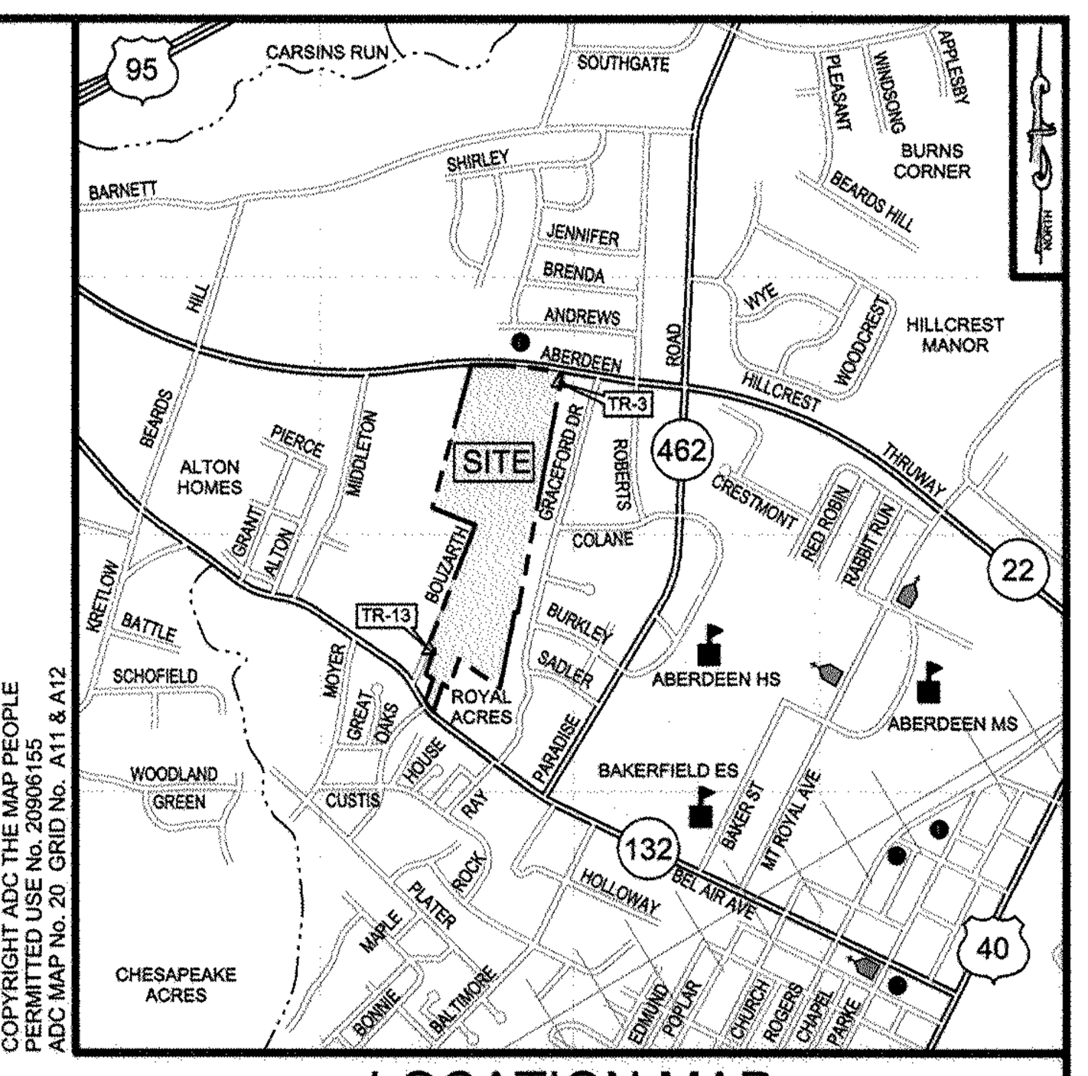
Direct Care Staff *(List general categories, add rows if needed)*										
Observation			$0			$0			$0	18.1	$1,090.35
Emergency Department			$0			$0			$0	65.9	$5,607.45
IV Therapy			$0			$0			$0	0.7	$62.44
Pharmacy			$0			$0			$0	5.2	$488.96
Respiratory Therapy			$0			$0			$0	4.7	$360.88
Speech Therapy			$0			$0			$0	0.1	$10.00
Physical Therapy			$0			$0			$0	3.1	$225.63
Occupational Therapy			$0			$0			$0	1.0	$112.79
Radiology			$0			$0			$0	16.3	$1,133.70
General Ultrasound			$0			$0			$0	2.1	$197.50
Nuclear Medicine			$0			$0			$0	1.8	$179.50
Cat Scan			$0			$0			$0	5.9	$495.66
MRI			$0			$0			$0	1.9	$175.54
Imaging Support RN			$0			$0			$0	0.5	$55.95
Cardiovascular Institute			$0			$0			$0	2.2	$78.67
Cardiovascular Ultrasound			$0			$0			$0	6.9	$533.72
Electroencephalography			$0			$0			$0	0.3	$16.14
Laboratory			$0			$0			$0	16.3	$1,022.85
Total Direct Care			$0			$0			$0	153.1	$11,847.75
Support Staff *(List general categories, add rows if needed)*										
Nutritional Services			$0			$0			$0	15.6	$595.96
Plant Operations			$0			$0			$0	3.7	$230.76
Bio Med			$0			$0			$0	1.5	$80.40
Environmental Services			$0			$0			$0	10.0	$313.67
Security			$0			$0			$0	7.7	$284.82
Print Shop			$0			$0			$0	0.1	$7.26
Total Support			$0			$0			$0	38.6	$1,512.87

TABLE L. WORKFORCE INFORMATION

REGULAR EMPLOYEES TOTAL			$0			$0			$0	223.0	$15,300.37
2. Contractual Employees											
Administration *(List general categories, add rows if needed)*											
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
Total Administration			$0			$0			$0	0.0	$0
Direct Care Staff *(List general categories, add rows if needed)*											
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
Total Direct Care Staff			$0			$0			$0	0.0	$0
Support Staff *(List general categories, add rows if needed)*											
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
			$0			$0			$0	0.0	$0
Total Support Staff			$0			$0			$0	0.0	$0
CONTRACTUAL EMPLOYEES TOTAL			$0			$0			$0	0.0	$0
Benefits *(State method of calculating benefits below)*:											**$ 3,473**
22.7% of Salaries											
TOTAL COST	***0.0***		***$0***	***0.0***		***$0***	***0.0***		***$0***		***$18,774***

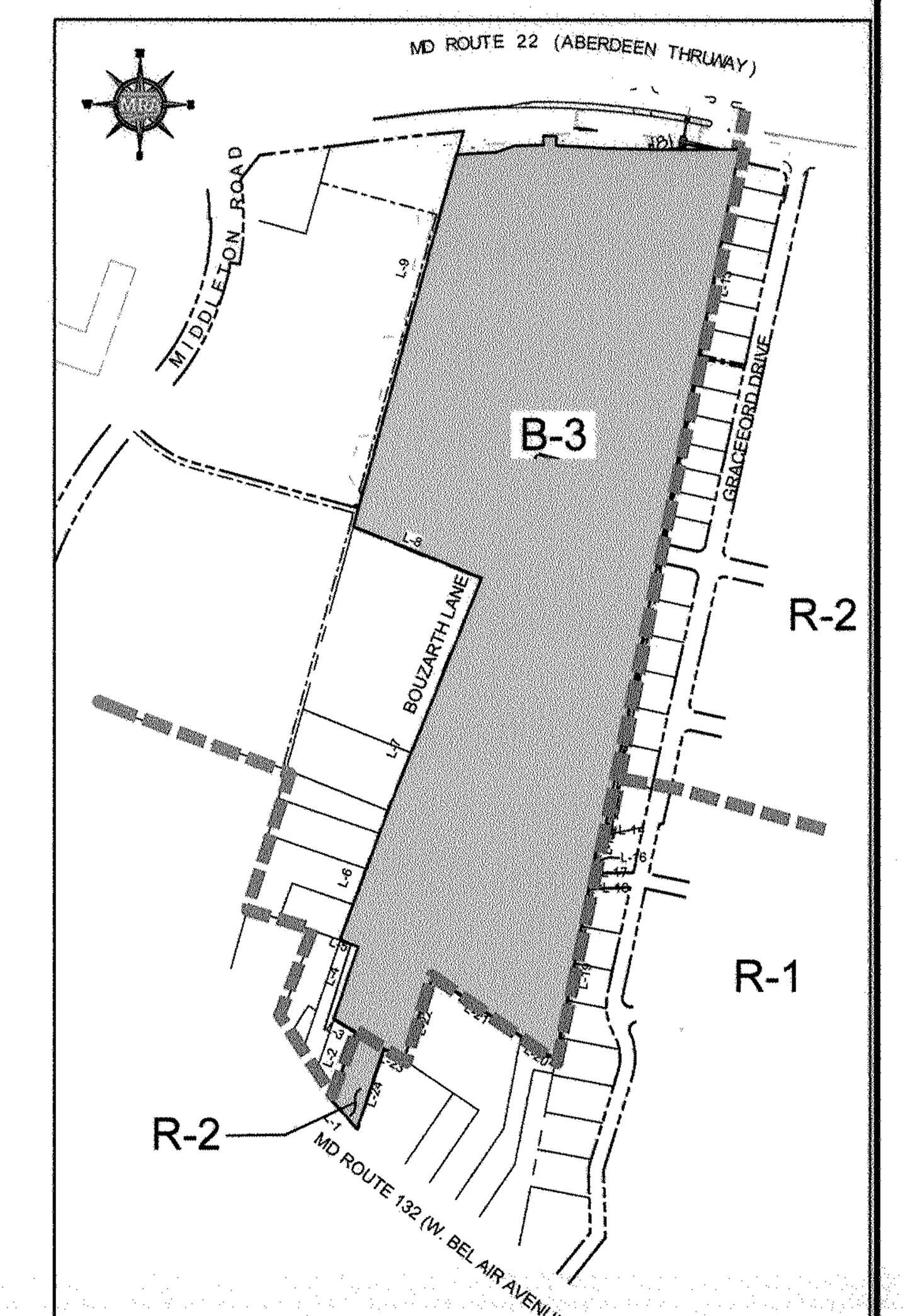
EXHIBIT 2





LOCATION MAP

SCALE: 1" = 1,500'



SITE LIMITS

SCALE: 1" = 400'

PLAN VIEW

SCALE: 1" = 50'

LINE TABLE

LINE	ANGLE	DISTANCE	LINE	ANGLE	DISTANCE
L1	N 41°14'36" W	99.61'	L13	S 10°34'25" W	1839.80'
L2	N 18°50'39" E	190.58'	L14	S 78°48'14" W	26.25'
L3	N 58°32'12" W	66.35'	L15	S 11°01'20" W	100.07'
L4	N 18°42'50" E	200.20'	L16	N 88°51'32" E	4.00'
L5	N 68°43'13" W	51.74'	L17	S 10°52'52" W	41.99'
L6	N 20°11'52" E	364.04'	L18	S 88°03'17" W	4.01'
L7	N 21°54'15" E	661.69'	L19	S 10°58'16" W	459.49'
L8	N 68°05'56" W	363.97'	L20	N 55°27'41" W	105.89'
L9	N 15°26'22" E	1030.22'	L21	N 55°27'41" W	285.46'
L10	N 70°50'34" E	100.57'	L22	S 18°41'00" W	234.89'
L11	S 87°45'00" E	143.88'	L23	N 60°22'59" W	60.67'
L12	S 87°29'05" E	69.69'	L24	S 18°21'31" W	223.19'

CURVE TABLE

CURVE	DELTA	RADIUS	ARC	CHORD BEARING	CHORD	TANGENT
C-1	2°21'56"	2177.83'	89.92'	N86°21'30"E	89.91'	44.96'
C-2	8°44'59"	2208.83'	337.31'	S85°35'04"E	336.98'	168.98'

SOILS DATA

SYMBOL	SOIL SERIES	SLOPE	HYDRIC	HIGHLY ERODIBLE	PRIME AGRICULTURAL	SEPTIC LIMITATIONS	HYDROLOGIC CLASSIFICATION
BeB	BELTSVILLE	2-5%	LIMITED	YES	NO	YES	C
Cx	CUT/FILL LAND	-	NO	NO	NO	NO	C
DcB	DELANCO	3-8%	LIMITED	YES	YES	YES	C
En	ELKTON	-	YES	YES	NO	YES	D
MkB	MATAPEAKE	2-5%	NO	YES	YES	NO	B
Sa	SAND/GRAVEL	-	LIMITED	NO	NO	NO	A

OWNER

SIGNED: scott zoj DATE: 10/17/18

PROPOSED WASTERWATER/WATER USE CALCULATIONS

WASTEWATER FLOW PROJECTION

BUILDING	AREA	CALCULATION		AVG. DAILY
#1	125,000 SF	FIXTURE COUNT	=	7,470 GPD
#2	95,870 SF	[95,870 SF] x [.09 GPD/SF]	=	8,628 GPD
#3	15,400 SF	[15,400 SF] x [.09 GPD/SF]	=	1,386 GPD
			TOTAL =	17,484 GPD

WATER FLOW PROJECTION

BUILDING	AREA	CALCULATION		AVG. DAILY (ADD)	MAX. DAILY (MDD)
#1	125,000 SF	FIXTURE COUNT	=	7,993 GPD x 1.6 =	12,789 GPD
#2	95,870 SF	[95,870 SF] x [.09 GPD/SF]	=	8,628 GPD x 1.6 =	13,805 GPD
#3	15,400 SF	[15,400 SF] x [.09 GPD/SF]	=	1,386 GPD x 1.6 =	2,218 GPD
				TOTAL =	28,812 GPD

LEGEND

EXISTING ZONING LINE	EXISTING ELECTRIC
EXISTING CURB (TO REMAIN)	EXISTING VERIZON
EXISTING CURB (TO BE REMOVED)	EXISTING GAS
PROPOSED CURB	PROPOSED EDGE OF PAVEMENT/CURBLINE
PROPOSED FENCE	RIGHT-OF-WAY (R/W) LINE
EXISTING 1' INTERVAL CONTOUR	BOUNDARY/PROPERTY LINE
EXISTING 5' INTERVAL CONTOUR	PROPOSED BUILDING
BUILDING	PROPOSED 1' CONTOUR
NEW PARKING AREA	PROPOSED 5' CONTOUR
EXISTING WOODY VEGETATION	PROPOSED STORM DRAIN AND INLET
EX. ADJOINING PROPERTY LINE	EX. STORM DRAIN, INLET & MANHOLE
SOILS LINE AND DESIGNATION	PROP. WATER LINE & FIRE HYDRANT
WATERS OF THE U.S.	PROP. SANITARY SEWER & MANHOLE
LIMIT OF 25' NONTIDAL WETLANDS BUFFER	EX. LIGHT POLE
LIMIT OF NONTIDAL WETLANDS	PR. LIGHT POLE
EXISTING WATER LINE	EX. SIDEWALK
EXISTING SANITARY SEWER	PR. SIDEWALK
EXISTING EASEMENT	

NOTE: ALL UTILITES ARE CONSIDERED EXISTING UNLESS LABELED PR. FOR PROPOSED

SITE DATA:

1. CONTRACT PURCHASER: UCH / UMMS REAL ESTATE TRUST, 520 UPPER CHESAPEAKE DRIVE, SUITE 405, BEL AIR, MARYLAND 21014, CONTACT: MS. ROBIN LUXON
2. OWNER: MERRITT PROPERTIES, LLC, 2066 LORD BALTIMORE DRIVE, BALTIMORE, MARYLAND 21244, CONTACT: MR. DAN PALLACE, P.E.

SITE ADDRESS: 635-660 McHENRY RD, ABERDEEN, MD 21001-0000

3. PROPERTY INFORMATION: T.M. 202 PARCEL: 620
   LOT 1: 635-660 McHENRY RD 34.94 ± AC. ZONED B-3 HIGHWAY COMMERCIAL DISTRICT
   LOT 2: 641 W. BEL AIR AVE. 17,635 ± SF. ZONED R-2 MEDIUM DENSITY RESIDENTIAL DISTRICT
4. PROJECT AREA: 35.63 AC. (BASED ON ALTA SURVEY)
5. EXISTING USE: DEVELOPED-EXISTING VACANT OFFICE BUILDING AND PARKING
6. PROPOSED USE:

PRODUCT TYPE	BLDG. HT.	GROSS S.F.	TOTAL S.F.
FREESTANDING MEDICAL FACILITY (FMF) #1	48'	125,000±	
EXISTING MEDICAL OFFICE #2	48'	95,870±	
OFFICE #3	30'	15,400±	236,270±

7. PARKING:
   REQUIRED (PER ZONING CODE):
   FMF: 1 P.S. / INPATIENT AND/OR OUTPATIENT BED (90) PLUS 2 SPACES PER 3 EMPLOYEES ON THE LARGEST WORK SHIFT (125) PLUS 1 SPACE PER STAFF DOCTOR (10) = 225 P.S.
   MEDICAL OFFICE: 1 P.S. / 300 S.F. @ 95,870 S.F. = 320 P.S.
   OFFICE: 1 P.S. / 300 S.F. @ 15,400 S.F. = 52 P.S.
   TOTAL: 597 P.S. (MIN. # OF ACCESSIBLE SPACES REQUIRED = 12 P.S.)

   *PROPOSED SEATING & EMPLOYEE TOTALS ARE ESTIMATES AND MAY VARY.

   PROVIDED:
   FMF: 609 P.S.
   MED OFFICE: 320 P.S.
   OFFICE: 100 P.S.
   TOTAL: 1,029 P.S.
8. THERE IS NO 100-YEAR FEMA FLOODPLAIN AS EVIDENCED BY THE FEMA 'FIRM' MAP PANEL NO. 24025C0193 E; EFFECTIVE DATE: APRIL 19, 2016.
9. THE SITE BOUNDARY WAS PREPARED BY MORRIS & RITCHIE ASSOCIATES, INC ON JULY 8, 2010.
10. THE SITE IS NOT LOCATED IN THE CHESAPEAKE BAY CRITICAL AREA.
11. THERE IS NO KNOWN PLANT AND WILDLIFE HABITAT OF STATE OR FEDERAL IMPORTANCE ON-SITE.
12. THERE ARE NO KNOWN HISTORICAL AREAS PRESENT ON SITE.
13. A) STORM WATER MANAGEMENT (SWM) WAS DESIGNED, AND APPROVED UNDER THE 2000 MDE REGULATIONS, AND IS GRAND FATHERED FROM THE 2007 REGULATIONS.
    B) THE APPROVED ABERDEEN CORPORATE PARK IMPERVIOUS= 12.3 ± AC. THE UCH SITE PLAN IMPERVIOUS = 12.2 ±AC. THEREFORE, THE EXISTING SWM POND REQUIRES NO REVISIONS.
    C) THE EXISTING UNDERGROUND RECHARGE PIT IS TO BE RELOCATED AS SHOWN ON THE SITE PLAN.
14. PUBLIC WATER AND SANITARY SEWER IS PROVIDED BY THE CITY OF ABERDEEN. ALL EXISTING AND PROPOSED ON-SITE UTILITIES SHALL BE PRIVATELY OWNED AND MAINTAINED.

SITE DATA (CONT'D):

15. ALL OPEN SPACE, STORMWATER MANAGEMENT FACILITIES, ROADS, AND ON-SITE UTILITIES SHALL BE MAINTAINED BY OWNER / DEVELOPER.
16. THE WETLAND LIMITS SHOWN HEREWITH ARE FROM A WETLAND DELINEATION COMPLETED BY MCCARTHY AND ASSOCIATES, INC. IN FEBRUARY 2009.
17. EXACT DIMENSIONS AND LOCATIONS OF PROPOSED SIGNAGE ARE TO BE DETERMINED BY FINAL DESIGN.
18. LANDSCAPE SUMMARY:
    PARKING LOT AREA: 10.37± AC. X 10% LANDSCAPE AREA = 1.037 AC. REQUIRED
    1,016 SPACES @ 1 TREE / 10 SPACES = 102 TREES PLANTED
    PER THE CODE OF THE CITY OF ABERDEEN, SECTION 142-25 (8). SEE THE FINAL LANDSCAPE PLAN FOR DETAILS.
    BUFFERYARD: 10' MIN. PLANTING STRIP ALONG PROPERTY LINE TO SCREEN INCOMPATIBLE USES
    A COMBINATION OF EXISTING VEGETATION TO REMAIN AND PROPOSED PLANTINGS IS PROVIDED ALONG PROPERTY LINES AT A MINIMUM OF 10' IN WIDTH, AND TYPICAL OF 50' IN WIDTH ADJACENT TO RESIDENTIAL USES.
    PER THE CODE OF THE CITY OF ABERDEEN, SECTION 142-30. SEE THE FINAL LANDSCAPE PLAN FOR DETAILS.
19. A SITE LANDSCAPING AND LIGHTING PLAN, AND FOREST CONSERVATION PLAN WILL BE PROVIDED DURING FINAL DESIGN. (10 % OF THE REQUIRED PARKING AREAS SHALL BE LANDSCAPED. PLEASE REFER TO THE ABERDEEN DEVELOPMENT CODE, CHAPTER 235 SECTION 30. LANDSCAPING, LIGHTING, AND BUFFER YARDS.
20. A SIGNAGE PLAN WILL BE PROVIDED AT FINAL DESIGN.
21. FINAL LOCATIONS FOR FIRE HYDRANTS, VALVES, WATER AND SEWER LINES, PUMPING STATIONS, SHALL BE DETERMINED ON THE CONSTRUCTION PLANS.

DATE	REVISIONS

CITY OF ABERDEEN
DEPARTMENT OF PUBLIC WORKS - CITY ENGINEER
APPROVED: Tark Vikd DATE: 10/25/2018

CITY OF ABERDEEN
DEPARTMENT OF PUBLIC WORKS - DIRECTOR
APPROVED: Kyle Torste DATE: 10/25/2018

CITY OF ABERDEEN
PLANNING COMMISSION - CHAIRMAN
APPROVED: [signature] DATE: 11/1/18

CITY OF ABERDEEN
PLANNING & COMMUNITY DEVELOPMENT - DIRECTOR
APPROVED: Phyllis Grover DATE: 11/1/18

CITY OF ABERDEEN
MAYOR
APPROVED: [signature] DATE: 11/5/2018

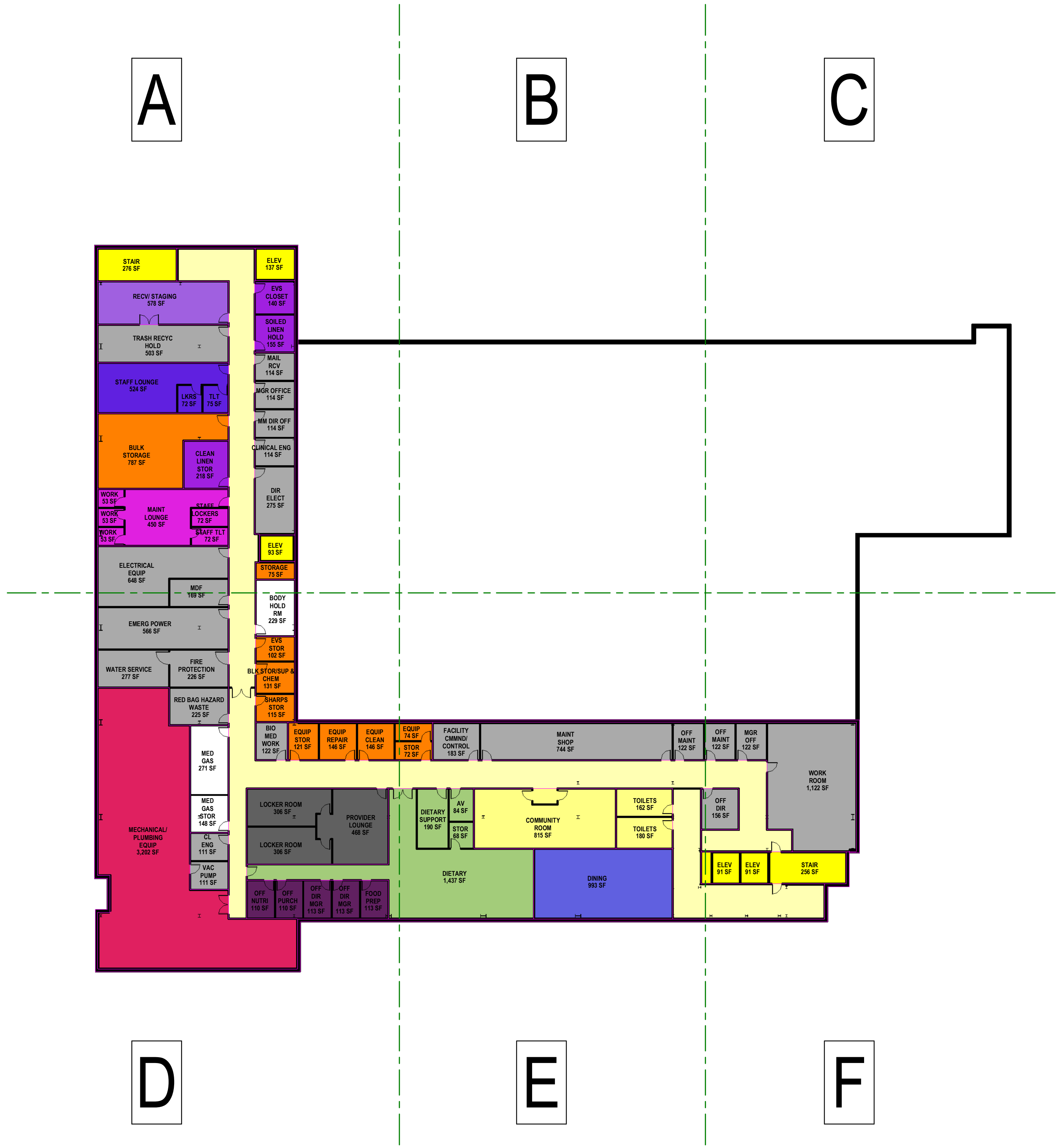
CONTRACT PURCHASER / DEVELOPER
SIGNED: Lyle E. [signature] DATE: 10.17.18

PROFESSIONAL CERTIFICATION
"I (JEFF MATTHAI) HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. EXPIRATION DATE: 7-27-19"

MORRIS & RITCHIE ASSOCIATES, INC.
ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS & LANDSCAPE ARCHITECTS
3445-A BOX HILL CORPORATE CENTER DRIVE
ABINGDON, MARYLAND 21009
PHONE (410) 515-9000
FAX (410) 515-9002

PRELIMINARY SITE PLAN SHEET
FOR
UNIVERSITY OF MARYLAND UPPER CHESAPEAKE HEALTH
ABERDEEN CORPORATE PARK
CITY OF ABERDEEN
2ND ELECTION DISTRICT — HARFORD COUNTY, MARYLAND

JOB NO:	15402X2
SCALE:	1" = 50'
DATE:	10/16/2018
DRAWN BY:	SFQ
DESIGN BY:	PTM / JEM
REVIEW BY:	JEM
SHEET:	1 OF 1



LOWER LEVEL DEPARTMENT AREAS

NOT TO SCALE

AREA SF	DEPARTMENTS
4,441	CIRCULATION
1,762	DIETARY
6,206	ENGINEERING AND MAINTENANCE
508	HOUSEKEEPING
748	MAINT LOUNGE/LKR
3,144	MECH
665	NURSE LOUNGE/LKR
1,080	PROVIDER LOUNGE/LKR
550	PROVIDER OFFICES
979	PUBLIC DINING
855	PUBLIC SPACE
342	PUBLIC TOILETS
572	RECEIVING
859	SHARED EXTERIOR WALL
1,745	STORAGE
951	VERTICAL CIRCULATION

ERDMAN

One Erdman Place P.O. Box 44975
Madison, Wisconsin 53717
Phone: (608) 410-8000
FAX: (608) 410-8500

Architectural Services Provided By:
ERDMAN ARCHITECTURE, LLC
COA# AX010514

Architect of Record

UNIVERSITY OF MARYLAND -

UPPER CHESAPEAKE HEALTH MEDICAL CAMPUS

NOT FOR CONSTRUCTION

No.	Description	Date
	Document Release	

Drn:Author Chk:Checker

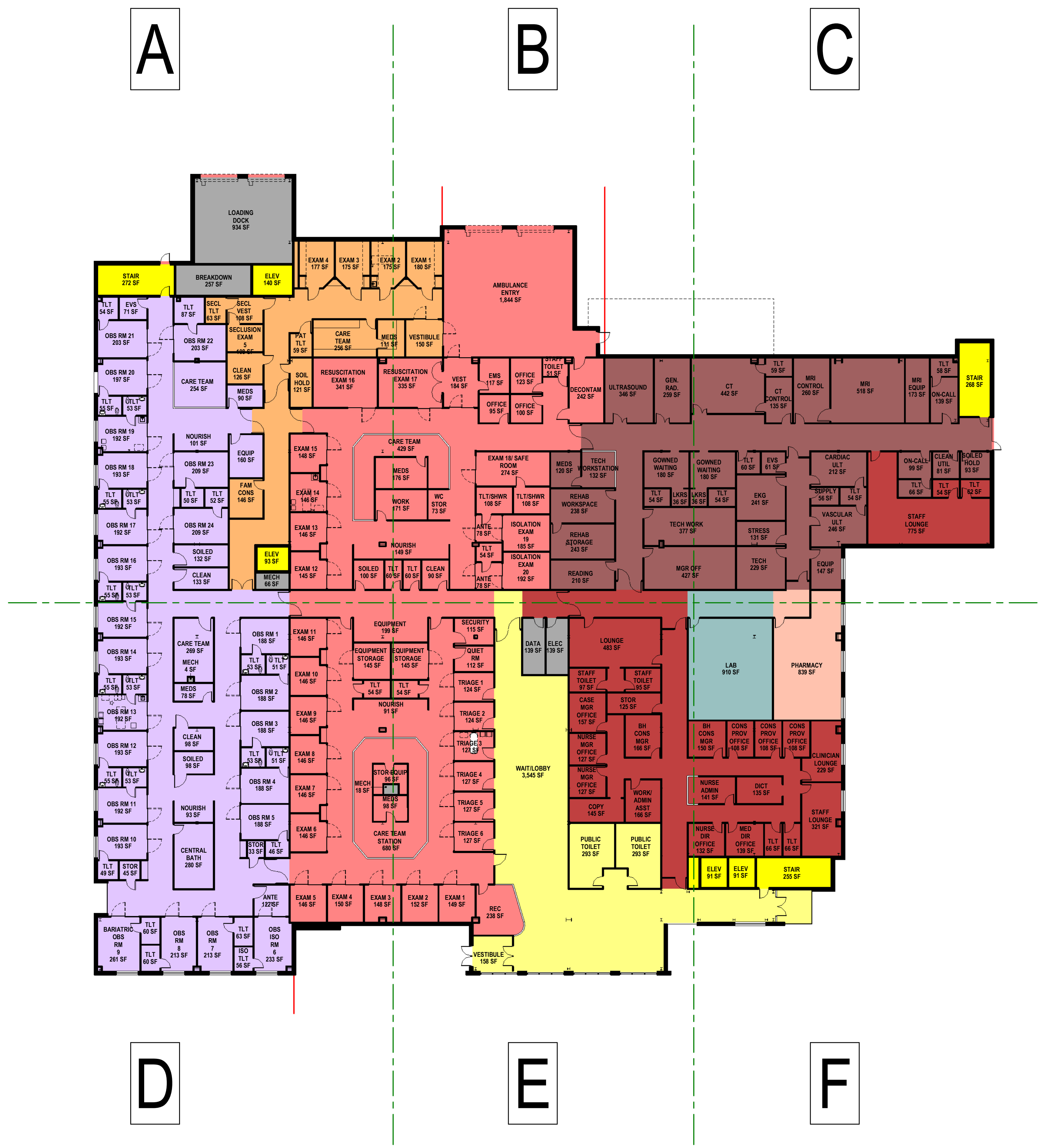
Sheet Name
LOWER LEVEL DEPARTMENT AREAS

Scale: 1/16" = 1'-0"

Sheet Number
A100B

ABERDEEN, MD

JOB #654100



FIRST FLOOR DEPARTMENT AREAS

NOT TO SCALE

AREA SF	DEPARTMENTS
6,267	ADMIN
3,497	BEHAVIORAL HEALTH CRISIS CENTER
15,674	EMERGENCY SERVICES
1,436	ENGINEERING AND MAINTENANCE
1,071	EXTERIOR WALL
8,455	IMAGING
1,159	LABORATORY
11,907	OBSERVATION
937	PHARMACY
3,914	PUBLIC SPACE
1,219	VERTICAL CIRCULATION

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COA# AX010514

Architect of Record

UNIVERSITY OF MARYLAND - UPPER CHESAPEAKE HEALTH MEDICAL CAMPUS

NOT FOR CONSTRUCTION

No.	Description	Date
16	CON SUBMITTAL	06/05/18
15	CON SUBMITTAL	05/18/18
14	CON SUBMITTAL	04/09/18
11	CON SUBMITTAL	07/19/17
10	DRAFT CON SUBMITTAL	07/14/17
9	DRAFT CON SUBMITTAL	06/08/17
7	CON DRAFT DOCUMENTS	05/05/17

Document Release

Drn:Author Chk:Checker

Sheet Name
FIRST FLOOR DEPARTMENT AREAS

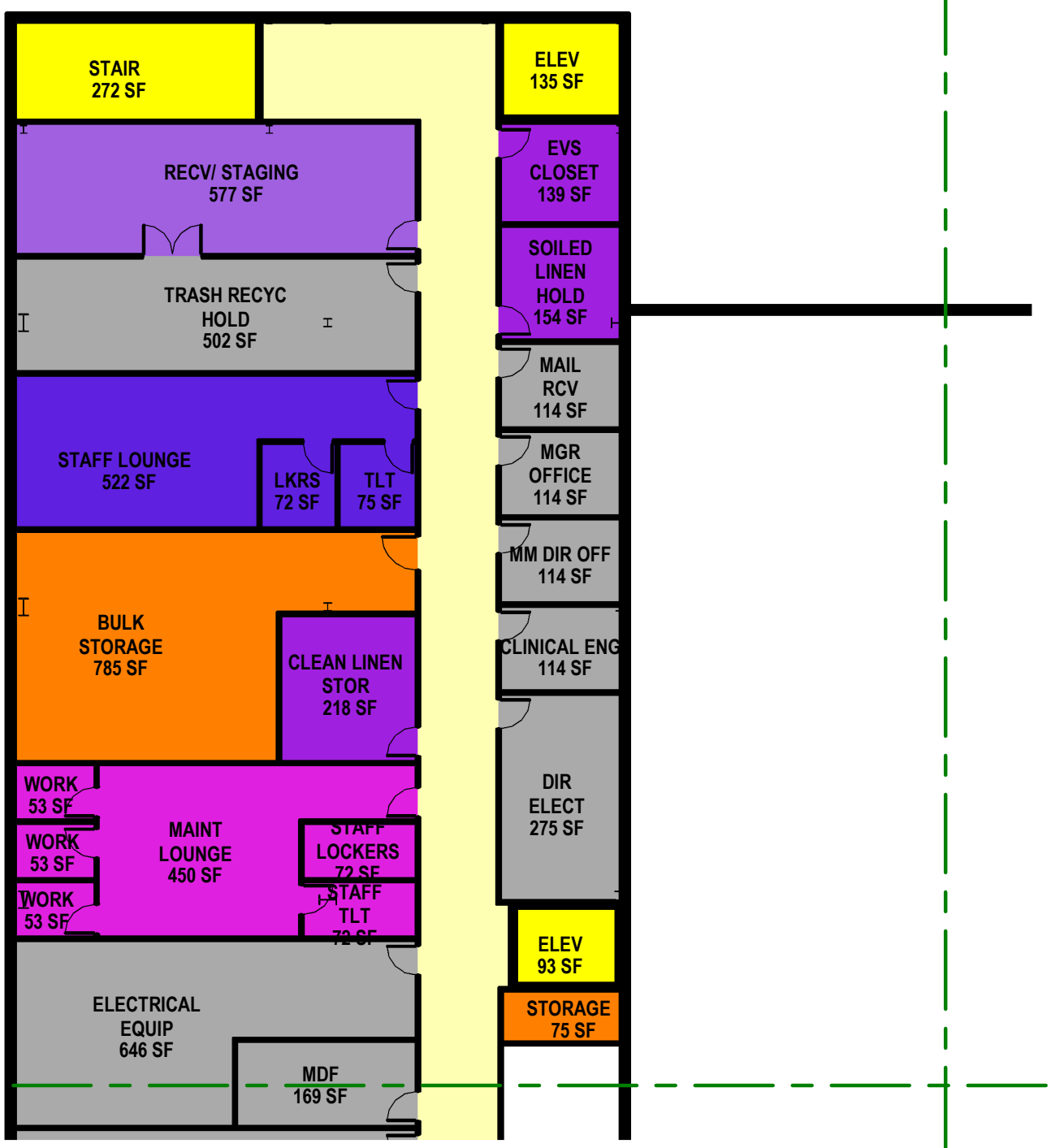
Scale: 1/16" = 1'-0"

Sheet Number
A101B

ABERDEEN, MD

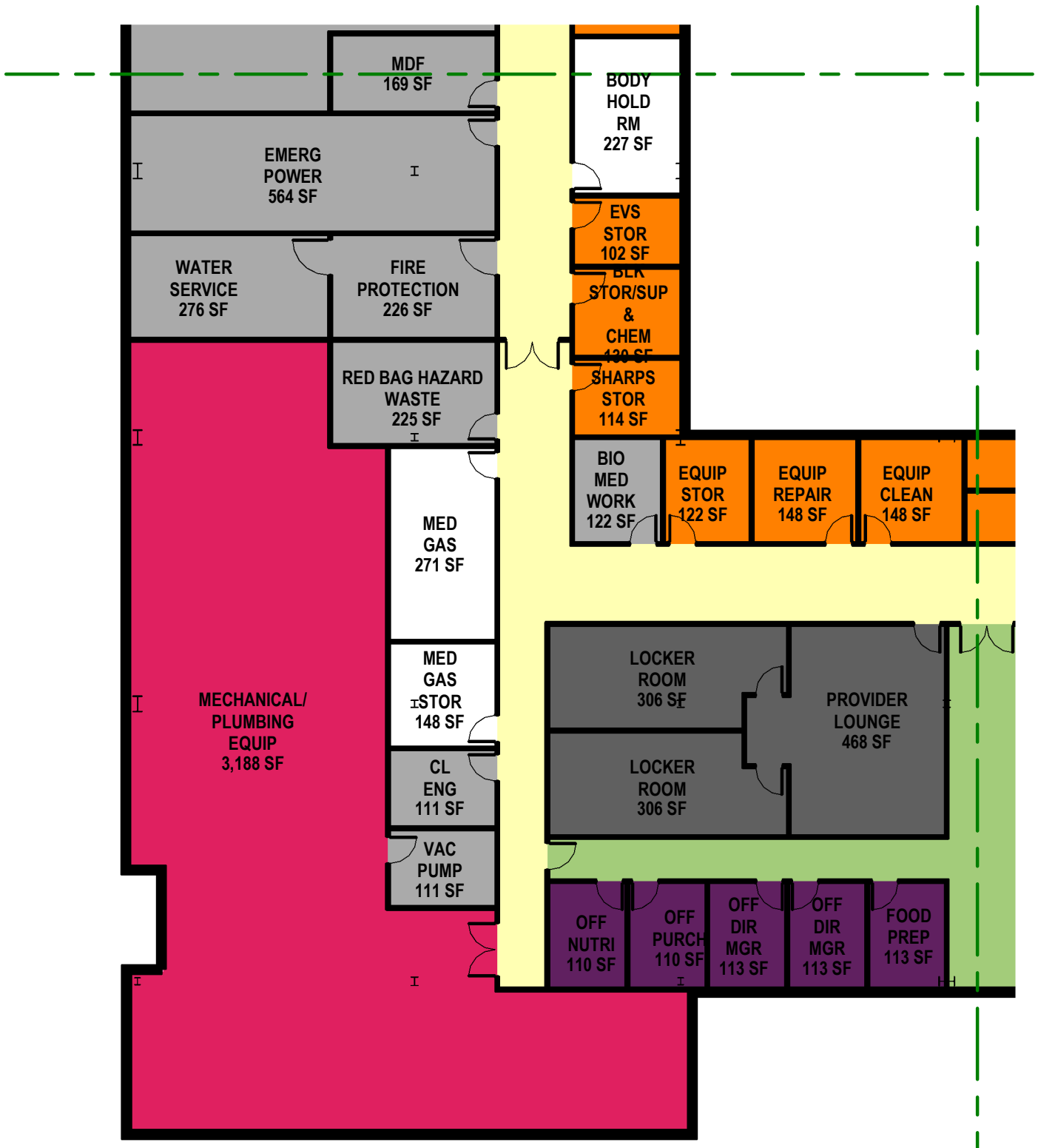
JOB #654100

A



LOWER LEVEL - 11x17 A

SCALE: 1/16" = 1'-0"



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LOWER LEVEL - 11x17 D

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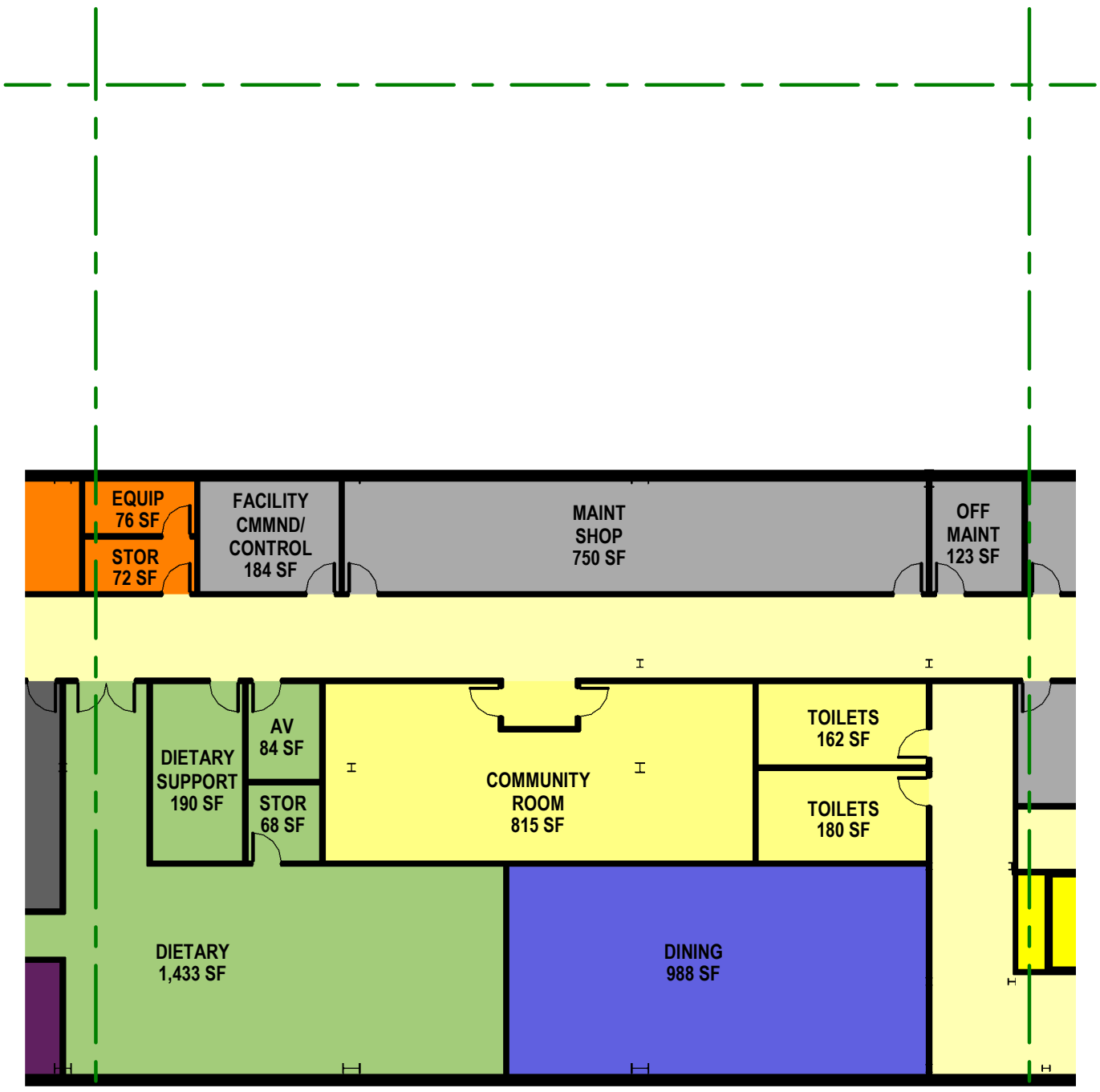

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LOWER LEVEL - 11x17 E

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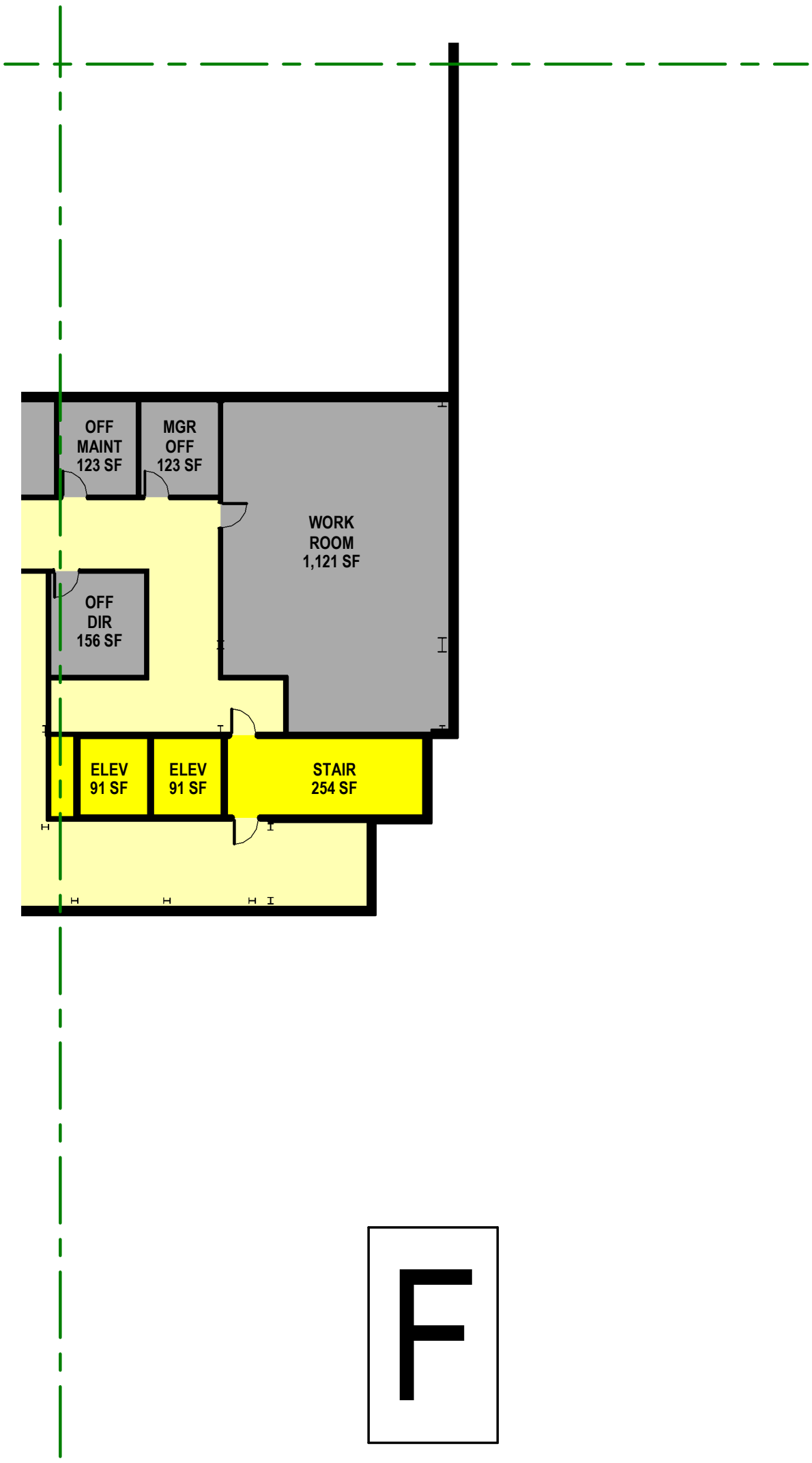

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LOWER LEVEL - 11x17 F

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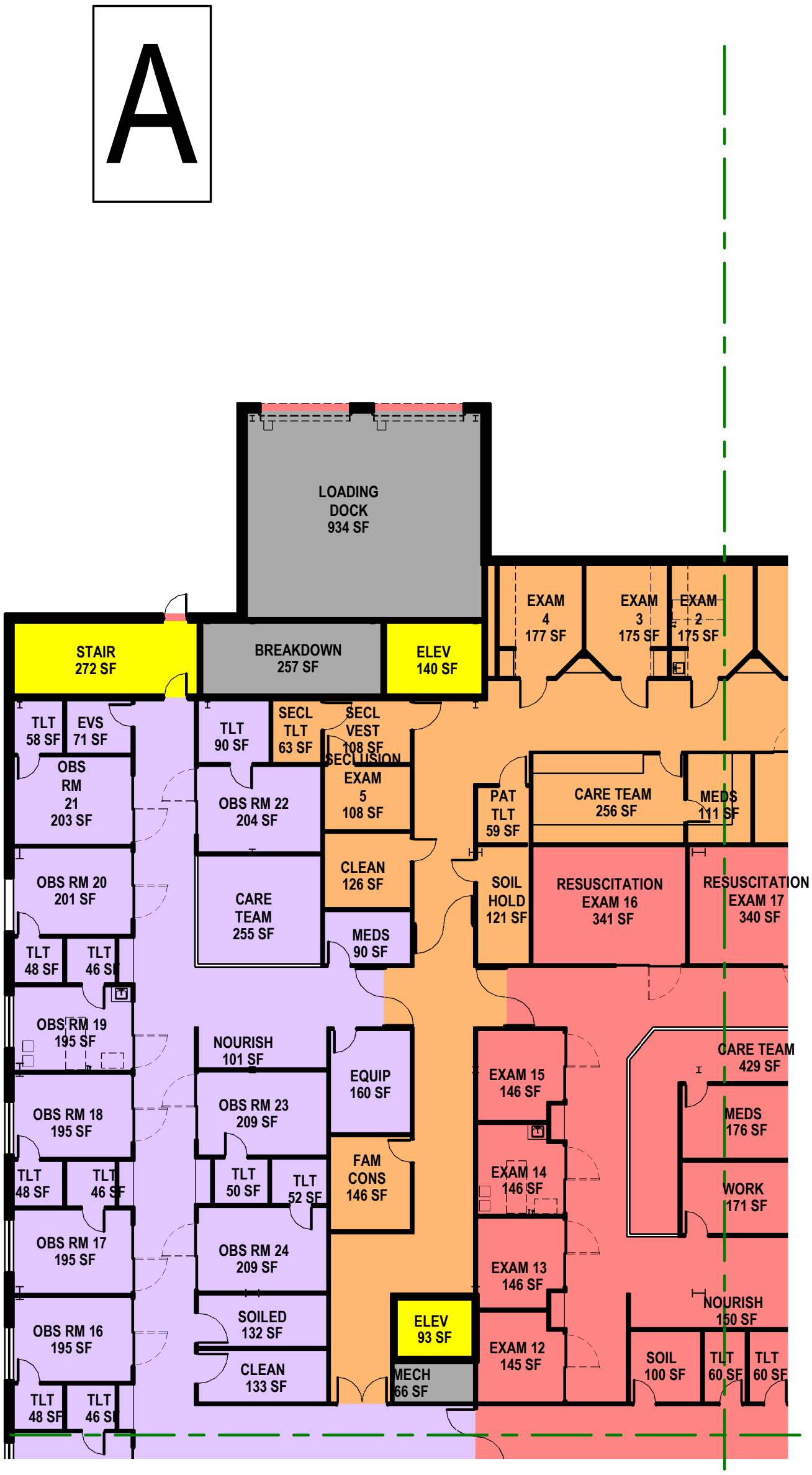
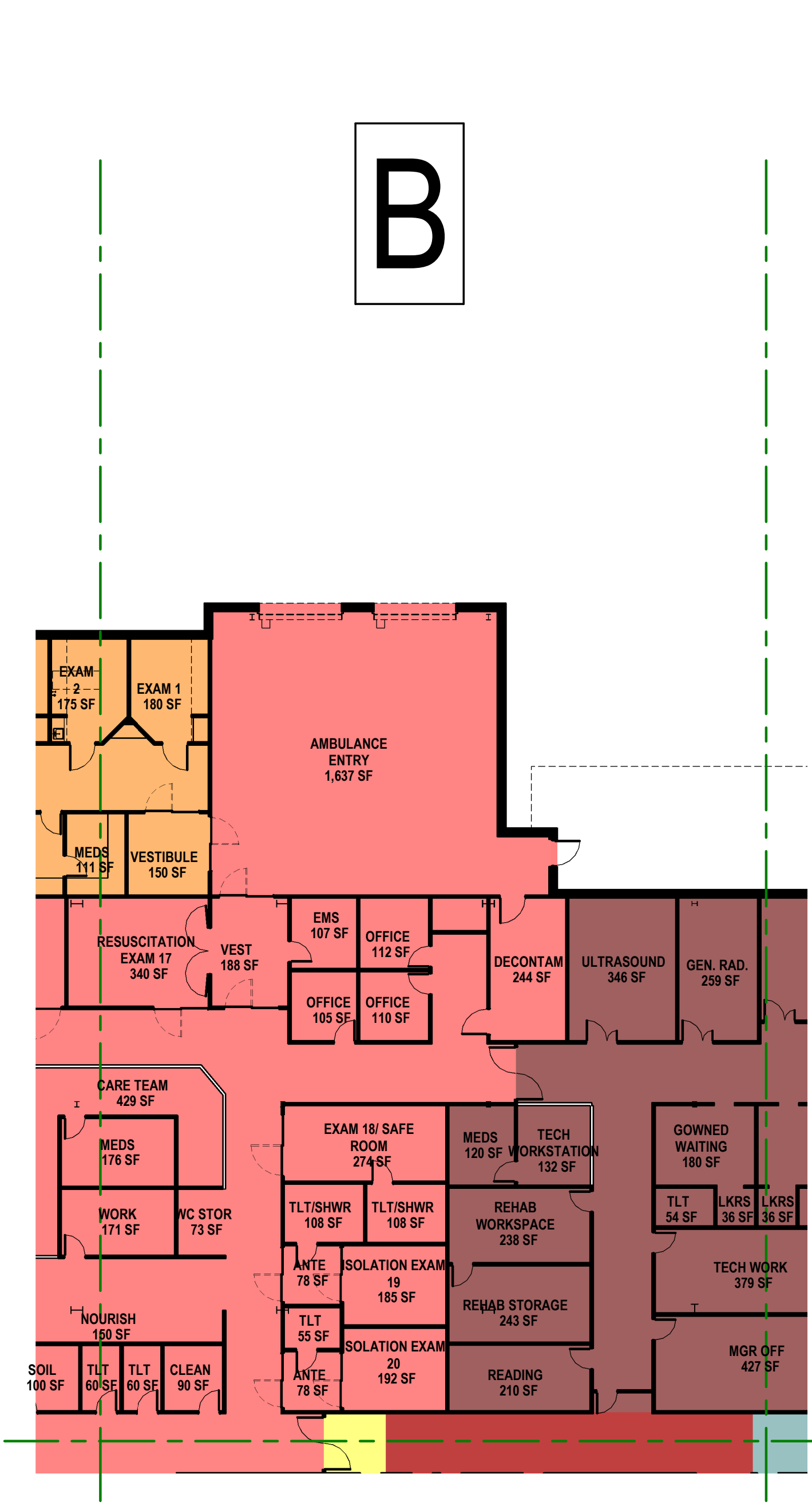
A



FIRST FLOOR PLAN - 11x17 A

SCALE: 1/16" = 1'-0"

B



FIRST FLOOR PLAN - 11x17 B

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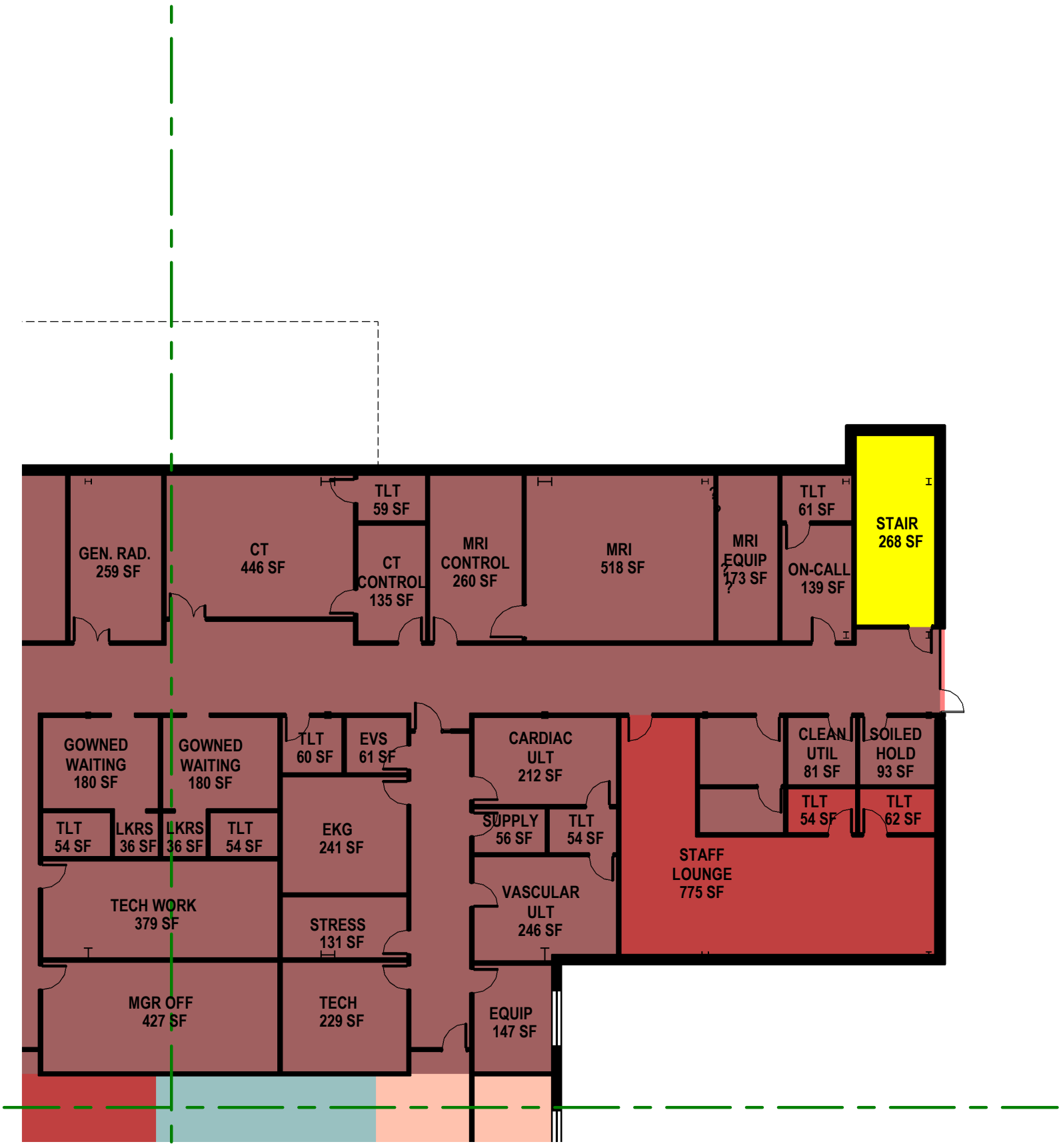
C



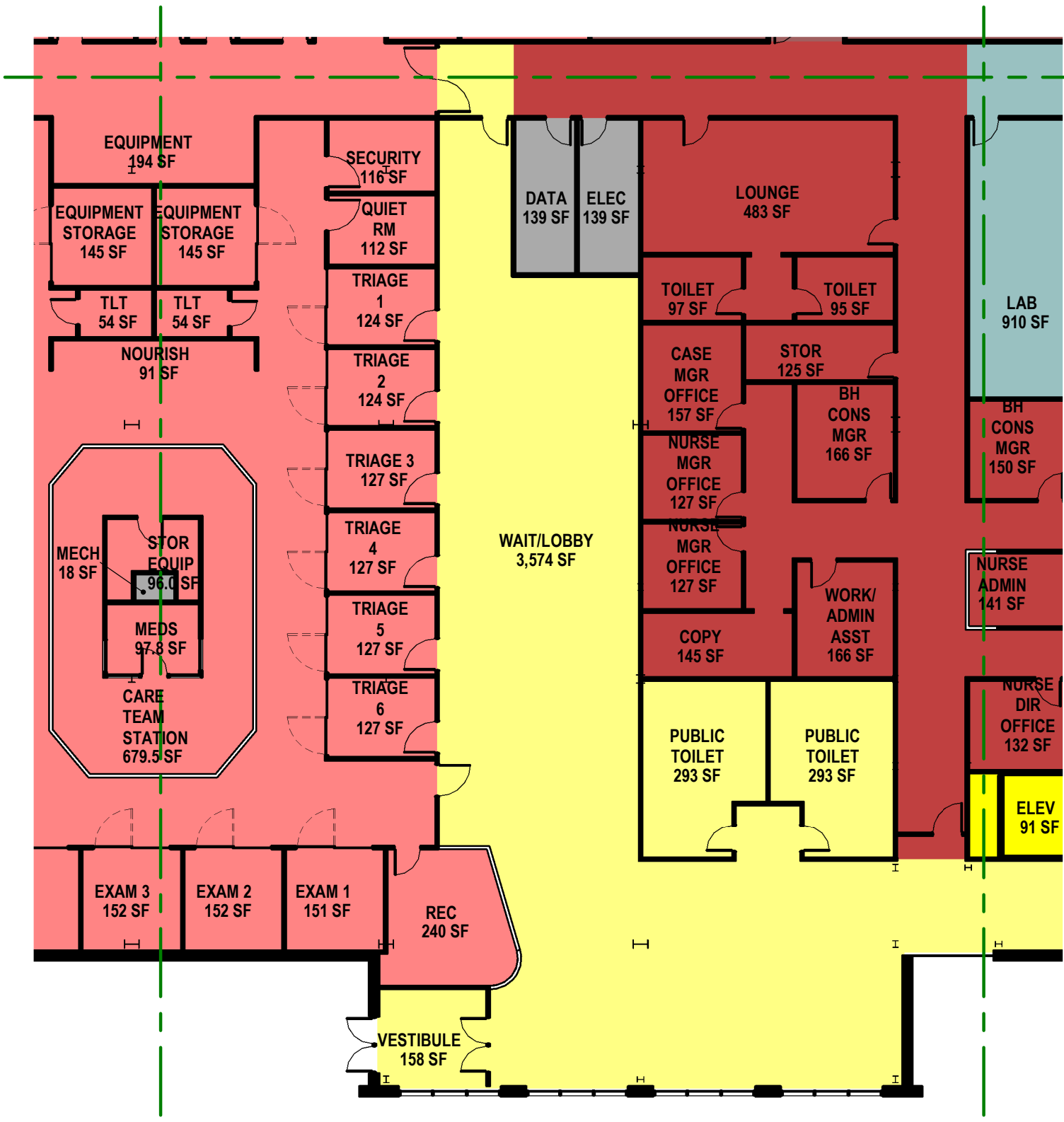
FIRST FLOOR PLAN - 11x17 C

SCALE: 1/16" = 1'-0"

D

FIRST FLOOR PLAN - 11x17 D

SCALE: 1/16" = 1'-0"



E

FIRST FLOOR PLAN - 11x17 E

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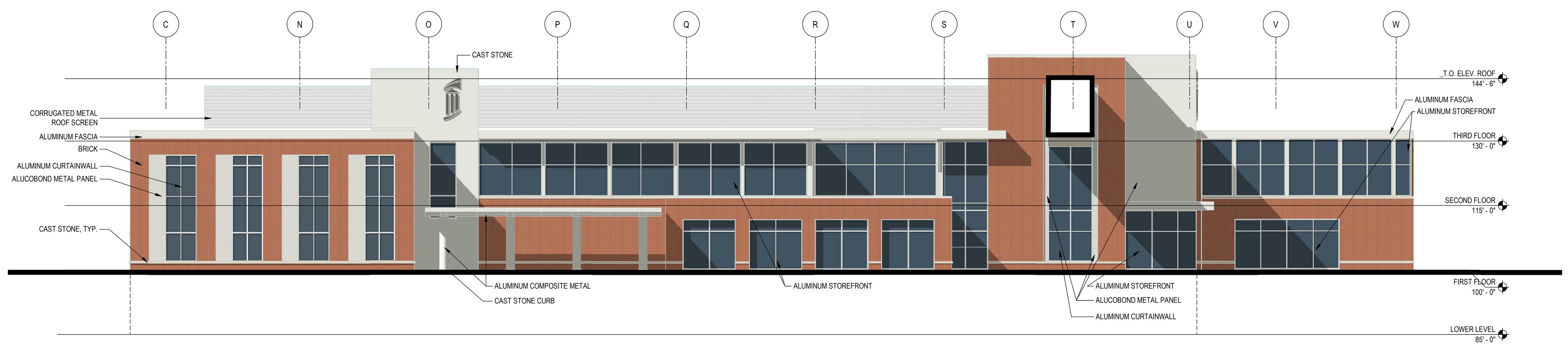
F

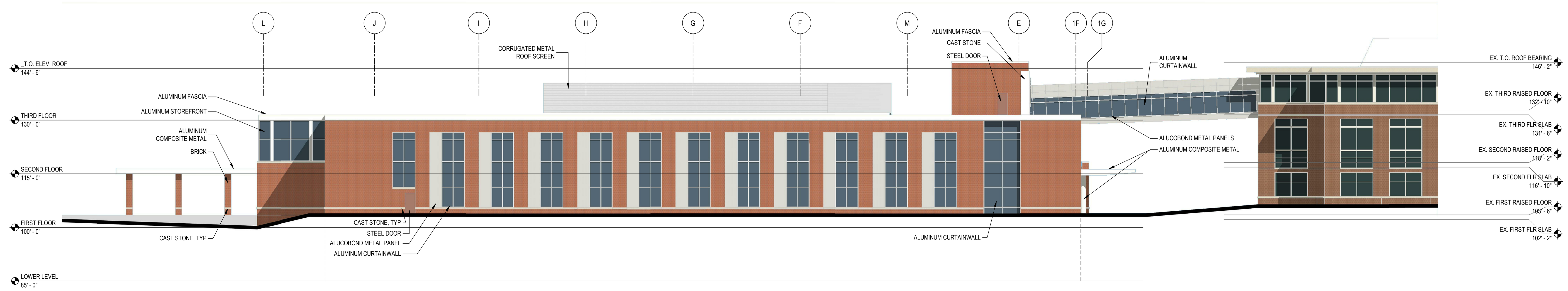
FIRST FLOOR PLAN - 11x17 F

SCALE: 1/16" = 1'-0"



1 NORTH ELEVATION

SCALE: 1/16" = 1'-0"



2 EAST ELEVATION

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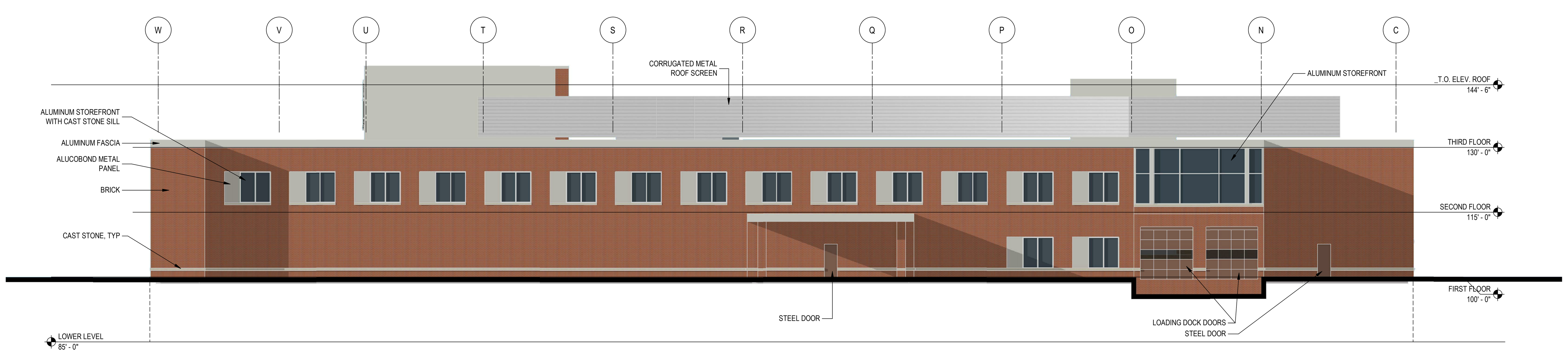
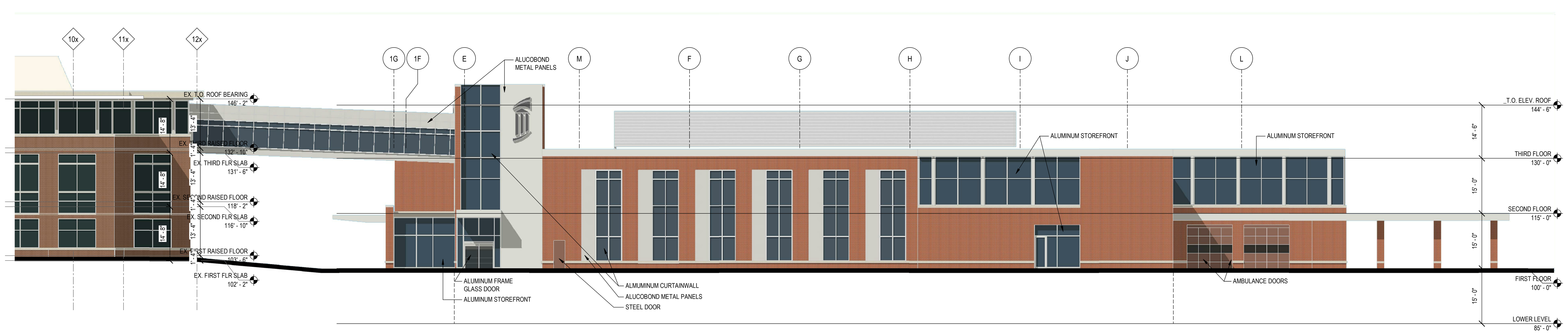


3 SOUTH ELEVATION

SCALE: 1/16" = 1'-0"



4 WEST ELEVATION

SCALE: 1/16" = 1'-0"

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Architect of Record

UNIVERSITY OF MARYLAND -

UPPER CHESAPEAKE HEALTH MEDICAL CAMPUS

NOT FOR CONSTRUCTION

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15	CON SUBMITTAL	05/18/18
14	CON SUBMITTAL	04/09/18
11	CON SUBMITTAL	07/19/17
9	DRAFT CON SUBMITTAL	06/08/17
8	SCOPE PRICING	05/15/17
4	PROJECT ANALYSIS (CON) ROUND TWO	07/31/15
3	PROJECT ANALYSIS (CON)	06/05/15

Document Release

Drn:BHEBERT Chk:Checker

Sheet Name
EXTERIOR ELEVATIONS

Scale: 1/16" = 1'-0"

Sheet Number
A105
ABERDEEN, MD
JOB #654100

EXHIBIT 3

Upper Chesapeake Health

Subject: Estimate of Charges

Origin Date: 1/7/11

Approved by: _____

Craig Willig, Vice President of Finance

To provide for transparency in health care pricing

Policy

Upper Chesapeake Health (UCH) shall publicly disclose, on a continuous basis, price estimates for such items, products, services, or procedures in accordance with current Legislation.

Manner of Disclosure

- Shall be made in an open and conspicuous manner;
- Shall be made available at the point of service, in print, and on the Internet; and
- UCH provides estimated charges for the most commonly used inpatient, outpatient, and ancillary services. The information is reviewed semi-annually by the Director of Reimbursement and updated when appropriate.

The amounts are estimates of charges for hospital procedures and services only.

Procedures

UCH promptly responds to individual requests for current charges for specific services/procedures.

- Patients seeking estimates of procedures/services that are not listed on the UCH Common Procedure chart will be encouraged to call the Cashier (443-643-1663).
- The UM Upper Chesapeake Health website will include a listing of current rates for common services; to be updated semi-annually
- If the Cashier is unable to provide the estimate, the Director of Reimbursement will be consulted.
- An estimate will be provided within three business days of receiving the request.

All Patient Accounting, Patient Access, Guest Services, and Administrative Personnel are knowledgeable of the process for providing estimates of charges.

DEVELOPER:

Patient Access, UCH

Reviewed / Revised: 7/1/17

ORIGIN DATE: 1/2011

NEXT REVIEW DATE: 7/2018

EXHIBIT 4

Upper Chesapeake Health

Subject: Financial Assistance Policy

Effective Date: 01/2013

Approved by: _____

Joseph E. Hoffman, Sr. VP CFO

_____

Board of Directors

To provide financial relief to patients unable to meet their financial obligation to Upper Chesapeake Health.

1. **Policy**
    a. This policy applies to Upper Chesapeake Health (UCH). UCH is committed to providing financial assistance to persons who have health care needs and are uninsured, underinsured, ineligible for a government program, or otherwise unable to pay, for medically necessary care based on their individual financial situation.
    b. It is the policy of UCH to provide Financial Assistance (FA) based on indigence or high medical expenses (Medical Financial Hardship program) for patients who meet specified financial criteria and request such assistance. The purpose of the following policy statement is to describe how applications for FA should be made, the criteria for eligibility, and the steps for processing applications.
    c. UCH will post notices of availability at appropriate intake locations as well as the Patient Accounting Office. Notice of availability will also be sent to patients on patient bills. Signs will be posted in key patient access areas. A Patient Billing and Financial Assistance Information Sheet will be provided before discharge and will be available to all patients upon request. A written estimate of total charges, excluding the emergency department, will be available to all patients upon request.
    d. FA may be extended when a review of a patient's individual financial circumstances has been conducted and documented. This may include a

review of the patient's existing medical expenses and obligations, including any accounts having gone to bad debt.

e. Payments made for care received during the financial assistance eligibility window that exceed the patients determined responsibility will be refunded if that amount exceeds $5.00
    i. Collector notes, and any other relevant information, are deliberated as part of the final refund decision; in general refunds are issued based on when the patient was determined unable to pay compared to when the payments were made
    ii. Patients documented as uncooperative within 30 days after initiation of a financial assistance application are ineligible for a refund
f. UCH retains the right in its sole discretion to determine a patient's ability to pay. All patients presenting for emergency services or diagnosed-cancer care will be treated regardless of their ability to pay, except as noted under 2. d. iv. below.

2. Program Eligibility

a. Consistent with our mission to deliver compassionate and high quality healthcare services and to advocate for those who do not have the means to pay for medically necessary care, UCH strives to ensure that the financial capacity of people who need health care services does not prevent them from seeking or receiving care. To further the UCH commitment to our mission to provide healthcare to the surrounding community, UCH reserves the right to grant financial assistance without formal application being made by our patients.
b. Specific exclusions to coverage under the FA program include the following:
    i. Physician charges are excluded from UCH's FA policy. Patients who wish to pursue FA for physician related bills must contact the physician directly
    ii. Generally, the FA program is not available to cover services that are 100% denied by a patient's insurance company; however, exceptions may be made on a case by case basis considering medical and programmatic implications
    iii. Unpaid balances resulting from cosmetic or other non-medically necessary services
c. Patients may become ineligible for FA for the following reasons:
    i. Refusal to provide requested documentation or provide incomplete information

ii. Have insurance coverage through an HMO, PPO, Workers Compensation, Medicaid, Motor Vehicle or other insurance programs that deny access to UCH due to insurance plan restrictions/limits
iii. Refusal to be screened for other assistance programs prior to submitting an application to the FA program

d. Determination for Financial Assistance eligibility will be based on assets, income, and family size. Please note the following:
   i. Liquid assets greater than $15,000 for individuals, and $25,000 for families will disqualify the patient for 100% assistance.
   ii. Equity of $150,000 in a primary residence will be excluded from the calculation for determination of financial assistance; and
   iii. Retirement assets, regardless of balance, to which the IRS has granted preferential tax treatment as a retirement account, including but not limited to, deferred compensation plans qualified under the IRS code or nonqualified deferred compensation plans will not be used for determination of financial assistance.
   iv. Non-citizens/non-residents of the United States may only qualify for Financial Assistance under these circumstances: 1. an initial visit for emergency care or 2. if qualified for presumptive Medical Assistance upon inpatient admission or prior to outpatient treatments for cancer care, and only after a determination by the Financial Counselor/Director of Patient Accounting and/or V.P. of Finance. See the Upper Chesapeake Health Self Pay Billing policy for criteria for beginning outpatient cancer care for these patients.

e. Patients who indicate they are unemployed and have no insurance coverage shall be required to submit a FA application unless they meet Presumptive FA (see section 3 below) eligibility criteria. If a patient qualifies for COBRA coverage, the patient's financial ability to pay COBRA insurance premiums shall be reviewed by the Financial Counselor and recommendations shall be made to Senior Leadership. Individuals with the financial capacity to purchase health insurance shall be encouraged to do so, as a means of assuring access to health care services and for their overall personal health.
f. Free medically necessary care will be awarded to patients with family income at or below 200 percent of the Federal Poverty Level (FPL).
g. Reduced-cost, medically necessary care will be awarded to low-income patients with family income between 200 and 300 percent of the FPL

h. If a patient requests the application be reconsidered after a denial determination made by the Financial Counselor, the Director of Patient Accounting will review the application for final determination.
i. Payment plans can be offered for all self-pay balances by our Self Pay Vendor. Payment plans are available to uninsured patients with family income between 200 to 500 FPL.

3. Presumptive Financial Assistance

a. Patients may also be considered for Presumptive Financial Assistance eligibility with proof of enrollment in one of the programs listed below. There are instances when a patient may appear eligible for FA, but there is no FA form on file. Often there is adequate information provided by the patient or through other sources, which could provide sufficient evidence to provide the patent with FA. In the event there is no evidence to support a patient's eligibility for FA, UCH reserves the right to use outside agencies or information in determining estimated income amounts for the basis of determining financial assistance eligibility and potential reduced care rates. Once determined, due to the inherent nature of presumptive circumstances, the only financial assistance that can be granted is a 100-percent write-off of the account balance. Presumptive FA eligibility shall only cover the patient's specific date of service. Presumptive eligibility may be determined on the basis of individual life circumstances that may include:
    i. Active Medical Assistance pharmacy coverage
    ii. Special Low Income Medicare Beneficiary (SLMB) coverage (covers Medicare Part B premiums)
    iii. Primary Adult Care coverage (PAC)
    iv. Homelessness
    v. Medical Assistance and Medicaid Managed Care patients for services provided in the ED beyond coverage of these programs
    vi. Maryland Public Health System Emergency Petition (EP) patients (balance after insurance)
    vii. Participation in Women, Infants and Children Program (WIC)
    viii. Supplemental Nutritional Assistance Program (SNAP)
    ix. Eligibility for other state or local assistance programs
    x. Deceased with no known estate
    xi. Determined to meet eligibility criteria established under former State Only Medical Assistance Program
    xii. Households with children in the free or reduced lunch program
    xiii. Low-income household Energy Assistance Program

xiv. Self-Administered Drugs (in the outpatient environment only)
xv. Medical Assistance Spenddown amounts

b. Specific services or criteria that are ineligible for Presumptive FA include:
   i. Purely elective procedures (e.g. cosmetic procedures) are not covered under the program
   ii. Uninsured patients seen in the ED under EP will not be considered under the presumptive FA program until the Maryland Medicaid Psych program has been billed

4. Procedures

a. The Financial Counselor will complete an eligibility check with the Medicaid program to verify whether the patient has current coverage
b. The Financial Counselor will consult via phone or meet with patients who request FA to determine if they meet preliminary criteria for assistance.
   i. To facilitate this process each applicant must provide information about family size and income. To help applicants complete the process, we will provide an application that will let them know what paperwork is required for a final determination of eligibility
   ii. All applications will be tracked and after eligibility is determined, a letter of final determination will be submitted to the patient
   iii. Patients will have fifteen days to submit required documentation to be considered for eligibility. The patient may re-apply to the program and initiate a new case if the original timeline is not adhered to. The financial assistance application process will be open up to at least 240 days after the first post-discharge patient bill is sent.
c. There will be one application process for UCH. The patient is required to provide a completed FA application. In addition, the following may be required:
   i. A copy of their most recent Federal Income Tax Return (if married and filing separately, then also a copy of spouse's tax return)
   ii. Proof of disability income (if applicable)
   iii. A copy of their three most recent pay stubs (if employed) or other evidence of income of any other person whose income is considered part of the family income
   iv. A Medical Assistance Notice of Determination (if applicable)
   v. Proof of U.S. citizenship or lawful permanent residence status (green card)
   vi. Reasonable proof of other declared expenses may be taken in to consideration

vii. If unemployed, reasonable proof of unemployment such as statement from the Office of Unemployment Insurance, a statement from current source of financial support, etc.
viii. A Verification of No Income Letter (if there is no evidence of income)
ix. Three most recent bank statements

Written request for missing information will be sent to the patient. Where appropriate, oral submission of needed information will be accepted.

d. A patient can qualify for FA either through lack of sufficient income, insurance or catastrophic medical expenses. Within two (2) business days following a patient's request for Financial Assistance, application for Medical Assistance, or both, the hospital will make a determination of probable eligibility. Completed applications will be forwarded to the Manager of Patient Accounting who will determine approval for adjustments up to $10,000. Adjustments of $10,000 or greater will be forwarded to the V.P. of Finance for an additional approval.
e. Once a patient is approved for FA, eligibility will be extended to the following accounts:
    i. All accounts in an FB (Final Billed) status
    ii. All accounts in a BD (Bad Debt) status that were transferred within one year of the service date of the oldest FB account being adjusted using the current application
    iii. All future visits within 6 months of the application date
f. Social Security beneficiaries with lifelong disabilities may become eligible for FA indefinitely and may not need to reapply
g. UCH does not report debts owed to credit reporting agencies.
h. In rare cases, accounts may warrant Extraordinary Collection Actions (ECAs). Once an account has met the following criteria, the account is closed by the collection agency as "uncollectible" and forwarded back to Patient Accounting for review to establish grounds for legal action. UCH reserves the right to place a lien on a patient's income, residence and/or automobile. This only occurs after all efforts to resolve the debt have been exhausted.

    Criteria:

    i. The debt is valid
    ii. The account is equal to or greater than 120 days old
    iii. Patient refuses to acknowledge the debt
    iv. Upon review and investigation, we have determined liquid assets are available (checking, savings, stocks, bonds or money market accounts)

v. The VP of Finance must authorize legal action

Action will be preceded by notice 30 days prior to commencement. Availability of financial assistance will be communicated to the patient and a presumptive eligibility review will occur prior to any action being taken.

5. Financial Hardship

a. Financial Hardship is a separate, supplemental determination of Financial Assistance and may be available for patients who otherwise do not qualify for Financial Assistance under the primary guidelines of this policy
b. Financial Hardship Assistance is defined as facility charges incurred at UCH owned hospitals or physician practices for medically necessary treatment by a family household that exceeds 25% of the family's annual income. Family annual income must be less than 500% of the Federal Poverty Limit
c. Once a patient is approved for Financial Hardship Assistance, coverage may be effective starting with the first qualifying date of service and the following twelve (12) months
d. Financial Hardship Assistance may cover the patient and the immediate family members living in the same household. Each family member may be approved for the reduced cost and eligibility period for medically necessary treatment.
e. Coverage will not apply to elective or cosmetic procedures.
f. In order to continue in the program after the expiration of an eligibility period, each patient (family member) must reapply to be considered.
g. Patients who have been approved for the program should inform UCH of any changes in income, assets, expenses or family (household) status within 30 days of such changes
h. All other eligibility, ineligibility and procedures for the primary Financial Assistance program criteria apply for the Financial Hardship Assistance, unless otherwise stated

DEVELOPER:

Patient Financial Counselor, UCH

Reviewed / Revised: 04/2016

ORIGIN DATE: 10/2010

Upper Chesapeake Health

Subject: Financial Assistance Policy

Effective Date: 03//2018

Approved by: _____

Steve Witman, Sr. VP CFO

_____

Board of Directors

To provide financial relief to patients unable to meet their financial obligation to Upper Chesapeake Health.

1. **Policy**
    a. This policy applies to Upper Chesapeake Health (UCH). UCH is committed to providing financial assistance to persons who have health care needs and are uninsured, underinsured, ineligible for a government program, or otherwise unable to pay, for medically necessary care based on their individual financial situation.
    b. It is the policy of UCH to provide Financial Assistance (FA) based on indigence or high medical expenses (Medical Financial Hardship program) for patients who meet specified financial criteria and request such assistance. The purpose of the following policy statement is to describe how applications for FA should be made, the criteria for eligibility, and the steps for processing applications.
    c. UCH will post notices of availability at appropriate intake locations as well as the Patient Accounting Office. Notice of availability will also be sent to patients on patient bills. Signs will be posted in key patient access areas. A Patient Billing and Financial Assistance Information Sheet will be provided before discharge and will be available to all patients upon request. A written estimate of total charges, excluding the emergency department, will be available to all patients upon request.
    d. FA may be extended when a review of a patient's individual financial circumstances has been conducted and documented. This may include a

review of the patient's existing medical expenses and obligations, including any accounts having gone to bad debt.

e. Payments made for care received during the financial assistance eligibility window that exceed the patients determined responsibility will be refunded if that amount exceeds $5.00
    i. Collector notes, and any other relevant information, are deliberated as part of the final refund decision; in general refunds are issued based on when the patient was determined unable to pay compared to when the payments were made
    ii. Patients documented as uncooperative within 30 days after initiation of a financial assistance application are ineligible for a refund
f. UCH retains the right in its sole discretion to determine a patient's ability to pay. All patients presenting for emergency services or diagnosed-cancer care will be treated regardless of their ability to pay, except as noted under 2. d. iv. below.

2. Program Eligibility

a. Consistent with our mission to deliver compassionate and high quality healthcare services and to advocate for those who do not have the means to pay for medically necessary care, UCH strives to ensure that the financial capacity of people who need health care services does not prevent them from seeking or receiving care. To further the UCH commitment to our mission to provide healthcare to the surrounding community, UCH reserves the right to grant financial assistance without formal application being made by our patients.
b. Specific exclusions to coverage under the FA program include the following:
    i. Physician charges are excluded from UCH's FA policy. Patients who wish to pursue FA for physician related bills must contact the physician directly. For a list of physicians providing emergency and other medically necessary care in the hospital facility, whose services are not covered under this policy, please visit our website or contact our Financial Assistance Department at (443) 843-5092.
    ii. Generally, the FA program is not available to cover services that are 100% denied by a patient's insurance company; however, exceptions may be made on a case by case basis considering medical and programmatic implications
    iii. Unpaid balances resulting from cosmetic or other non-medically necessary services

c. Patients may become ineligible for FA for the following reasons:
    i. Refusal to provide requested documentation or provide incomplete information
    ii. Have insurance coverage through an HMO, PPO, Workers Compensation, Medicaid, Motor Vehicle or other insurance programs that deny access to UCH due to insurance plan restrictions/limits
    iii. Refusal to be screened for other assistance programs prior to submitting an application to the FA program
d. Determination for Financial Assistance eligibility will be based on assets, income, and family size. Please note the following:
    i. Liquid assets greater than $15,000 for individuals, and $25,000 for families will disqualify the patient for 100% assistance.
    ii. Equity of $150,000 in a primary residence will be excluded from the calculation for determination of financial assistance; and
    iii. Retirement assets, regardless of balance, to which the IRS has granted preferential tax treatment as a retirement account, including but not limited to, deferred compensation plans qualified under the IRS code or nonqualified deferred compensation plans will not be used for determination of financial assistance.
    iv. Non-citizens/non-residents of the United States may only qualify for Financial Assistance under these circumstances: 1. an initial visit for emergency care or 2. if qualified for presumptive Medical Assistance upon inpatient admission or prior to outpatient treatments for cancer care, and only after a determination by the Financial Counselor/Director of Patient Accounting and/or V.P. of Finance. See the Upper Chesapeake Health Self Pay Billing policy for criteria for beginning outpatient cancer care for these patients.
e. Patients who indicate they are unemployed and have no insurance coverage shall be required to submit a FA application unless they meet Presumptive FA (see section 3 below) eligibility criteria. If a patient qualifies for COBRA coverage, the patient's financial ability to pay COBRA insurance premiums shall be reviewed by the Financial Counselor and recommendations shall be made to Senior Leadership. Individuals with the financial capacity to purchase health insurance shall be encouraged to do so, as a means of assuring access to health care services and for their overall personal health.
f. Free medically necessary care will be awarded to patients with family income at or below 200 percent of the Federal Poverty Level (FPL).

g. Reduced-cost, medically necessary care will be awarded to low-income patients with family income between 200 and 300 percent of the FPL
h. If a patient requests the application be reconsidered after a denial determination made by the Financial Counselor, the Director of Patient Accounting will review the application for final determination.
i. Payment plans can be offered for all self-pay balances by our Self Pay Vendor. Payment plans are available to uninsured patients with family income between 200% to 500% of the FPL.

3. Presumptive Financial Assistance

a. Patients may also be considered for Presumptive Financial Assistance eligibility with proof of enrollment in one of the programs listed below. There are instances when a patient may appear eligible for FA, but there is no FA form on file. Often there is adequate information provided by the patient or through other sources, which could provide sufficient evidence to provide the patent with FA. In the event there is no evidence to support a patient's eligibility for FA, UCH reserves the right to use outside agencies or information in determining estimated income amounts for the basis of determining financial assistance eligibility and potential reduced care rates. Once determined, due to the inherent nature of presumptive circumstances, the only financial assistance that can be granted is a 100-percent write-off of the account balance. Presumptive FA eligibility shall only cover the patient's specific date of service. Presumptive eligibility may be determined on the basis of individual life circumstances that may include:
    i. Active Medical Assistance pharmacy coverage
    ii. Special Low Income Medicare Beneficiary (SLMB) coverage (covers Medicare Part B premiums)
    iii. Homelessness
    iv. Medical Assistance and Medicaid Managed Care patients for services provided in the ED beyond coverage of these programs
    v. Maryland Public Health System Emergency Petition (EP) patients (balance after insurance)
    vi. Participation in Women, Infants and Children Program (WIC)
    vii. Supplemental Nutritional Assistance Program (SNAP)
    viii. Eligibility for other state or local assistance programs
    ix. Deceased with no known estate
    x. Determined to meet eligibility criteria established under former State Only Medical Assistance Program
    xi. Households with children in the free or reduced lunch program

xii. Low-income household Energy Assistance Program
xiii. Self-Administered Drugs (in the outpatient environment only)
xiv. Medical Assistance Spenddown amounts

b. Specific services or criteria that are ineligible for Presumptive FA include:
   i. Purely elective procedures (e.g. cosmetic procedures) are not covered under the program
   ii. Uninsured patients seen in the ED under EP will not be considered under the presumptive FA program until the Maryland Medicaid Psych program has been billed

4. Procedures

a. The Financial Counselor will complete an eligibility check with the Medicaid program to verify whether the patient has current coverage
b. The Financial Counselor will consult via phone or meet with patients who request FA to determine if they meet preliminary criteria for assistance.
   i. To facilitate this process each applicant must provide information about family size and income. To help applicants complete the process, we will provide an application that will let them know what paperwork is required for a final determination of eligibility
   ii. All applications will be tracked and after eligibility is determined, a letter of final determination will be submitted to the patient
   iii. Patients will have fifteen days to submit required documentation to be considered for eligibility. The patient may re-apply to the program and initiate a new case if the original timeline is not adhered to. The financial assistance application process will be open up to at least 240 days after the first post-discharge patient bill is sent.
c. There will be one application process for UCH. The patient is required to provide a completed FA application. In addition, the following may be required:
   i. A copy of their most recent Federal Income Tax Return (if married and filing separately, then also a copy of spouse's tax return)
   ii. Proof of disability income (if applicable)
   iii. A copy of their three most recent pay stubs (if employed) or other evidence of income of any other person whose income is considered part of the family income
   iv. A Medical Assistance Notice of Determination (if applicable)
   v. Proof of U.S. citizenship or lawful permanent residence status (green card)

vi. Reasonable proof of other declared expenses may be taken in to consideration
vii. If unemployed, reasonable proof of unemployment such as statement from the Office of Unemployment Insurance, a statement from current source of financial support, etc.
viii. A Verification of No Income Letter (if there is no evidence of income)
ix. Three most recent bank statements

Written request for missing information will be sent to the patient. Where appropriate, oral submission of needed information will be accepted.

d. A patient can qualify for FA either through lack of sufficient income, insurance or catastrophic medical expenses. Within two (2) business days following a patient's request for Financial Assistance, application for Medical Assistance, or both, the hospital will make a determination of probable eligibility. Completed applications will be forwarded to the Manager of Patient Accounting who will determine approval for adjustments up to $10,000. Adjustments of $10,000 or greater will be forwarded to the Director of Patient Financial Services and the V.P. of Finance for an additional approval.
e. Once a patient is approved for FA, eligibility will be extended to the following accounts:
    i. All accounts in an AR (Accounts Receivable) status
    ii. All accounts in a BD (Bad Debt) status that were transferred within one year of the service date of the oldest AR account being adjusted using the current application
    iii. All future visits within 6 months of the application date
f. Social Security beneficiaries with lifelong disabilities may become eligible for FA indefinitely and may not need to reapply
g. UCH does not report debts owed to credit reporting agencies.
h. In rare cases, accounts may warrant Extraordinary Collection Actions (ECAs). Once an account has met the following criteria, the account is closed by the collection agency as "uncollectible" and forwarded back to Patient Accounting for review to establish grounds for legal action. UCH reserves the right to place a lien on a patient's income, residence and/or automobile. This only occurs after all efforts to resolve the debt have been exhausted.

    Criteria:

    i. The debt is valid
    ii. The account is equal to or greater than 120 days old
    iii. Patient refuses to acknowledge the debt

iv. Upon review and investigation, we have determined liquid assets are available (checking, savings, stocks, bonds or money market accounts)
v. The VP of Finance must authorize legal action

Action will be preceded by notice 30 days prior to commencement. Availability of financial assistance will be communicated to the patient and a presumptive eligibility review will occur prior to any action being taken.

5. Financial Hardship

a. Financial Hardship is a separate, supplemental determination of Financial Assistance and may be available for patients who otherwise do not qualify for Financial Assistance under the primary guidelines of this policy
b. Financial Hardship Assistance is defined as facility charges incurred at UCH owned hospitals or physician practices for medically necessary treatment by a family household that exceeds 25% of the family's annual income. Family annual income must be less than 500% of the Federal Poverty Limit
c. Once a patient is approved for Financial Hardship Assistance, coverage may be effective starting with the first qualifying date of service and the following twelve (12) months
d. Financial Hardship Assistance may cover the patient and the immediate family members living in the same household. Each family member may be approved for the reduced cost and eligibility period for medically necessary treatment.
e. Coverage will not apply to elective or cosmetic procedures.
f. In order to continue in the program after the expiration of an eligibility period, each patient (family member) must reapply to be considered.
g. Patients who have been approved for the program should inform UCH of any changes in income, assets, expenses or family (household) status within 30 days of such changes
h. All other eligibility, ineligibility and procedures for the primary Financial Assistance program criteria apply for the Financial Hardship Assistance, unless otherwise stated
i. See Attachment A for the sliding scale reduced cost of care.

6. Amounts Generally Billed

a. An individual who is eligible for assistance under this policy for emergency or other medically necessary care will never be charged more than the amounts generally billed (AGB) to an individual who is not eligible for

assistance. The charges to which a discount will apply are set by the State of Maryland's rate regulation agency (HSCRC) and are the same for all payers (i.e. commercial insurers, Medicare, Medicaid or self-pay).

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NEXT REVIEW DATE: 03/2019

1/23/2018

% discount	MAX/MIN	Family 1	Family 2	Family 3	Family 4	Family 5	Family 6	Family 7	Family 8
Fed Pov Guideline		$12,140.00	$16,460.00	$20,780.00	$25,100.00	$29,420.00	$33,740.00	$38,060.00	$42,380.00
MHA Guidelines now at 200% of FPL									
100%	up to	$ 24,280.00	$ 32,920.00	$ 41,560.00	$ 50,200.00	$ 58,840.00	$ 67,480.00	$ 76,120.00	$ 84,760.00
90%	Min	$ 24,281.00	$ 32,921.00	$ 41,561.00	$ 50,201.00	$ 58,841.00	$ 67,481.00	$ 76,121.00	$ 84,761.00
	Max	$ 26,708.00	$ 36,212.00	$ 45,716.00	$ 55,220.00	$ 64,724.00	$ 74,228.00	$ 83,732.00	$ 93,236.00
80%	Min	$ 26,709.00	$ 36,213.00	$ 45,717.00	$ 55,221.00	$ 64,725.00	$ 74,229.00	$ 83,733.00	$ 93,237.00
	Max	$ 27,922.00	$ 37,858.00	$ 47,794.00	$ 57,730.00	$ 67,666.00	$ 77,602.00	$ 87,538.00	$ 97,474.00
70%	Min	$ 27,923.00	$ 37,859.00	$ 47,795.00	$ 57,731.00	$ 67,667.00	$ 77,603.00	$ 87,539.00	$ 97,475.00
	Max	$ 29,136.00	$ 39,504.00	$ 49,872.00	$ 60,240.00	$ 70,608.00	$ 80,976.00	$ 91,344.00	$ 101,712.00
60%	Min	$ 29,137.00	$ 39,505.00	$ 49,873.00	$ 60,241.00	$ 70,609.00	$ 80,977.00	$ 91,345.00	$ 101,713.00
	Max	$ 30,350.00	$ 41,150.00	$ 51,950.00	$ 62,750.00	$ 73,550.00	$ 84,350.00	$ 95,150.00	$ 105,950.00
50%	Min	$ 30,351.00	$ 41,151.00	$ 51,951.00	$ 62,751.00	$ 73,551.00	$ 84,351.00	$ 95,151.00	$ 105,951.00
	Max	$ 31,564.00	$ 42,796.00	$ 54,028.00	$ 65,260.00	$ 76,492.00	$ 87,724.00	$ 98,956.00	$ 110,188.00
40%	Min	$ 31,565.00	$ 42,797.00	$ 54,029.00	$ 65,261.00	$ 76,493.00	$ 87,725.00	$ 98,957.00	$ 110,189.00
	Max	$ 32,778.00	$ 44,442.00	$ 56,106.00	$ 67,770.00	$ 79,434.00	$ 91,098.00	$ 102,762.00	$ 114,426.00
30%	Min	$ 32,779.00	$ 44,443.00	$ 56,107.00	$ 67,771.00	$ 79,435.00	$ 91,099.00	$ 102,763.00	$ 114,427.00
	Max	$ 33,992.00	$ 46,088.00	$ 58,184.00	$ 70,280.00	$ 82,376.00	$ 94,472.00	$ 106,568.00	$ 118,664.00
20%	Min	$ 33,993.00	$ 46,089.00	$ 58,185.00	$ 70,281.00	$ 82,377.00	$ 94,473.00	$ 106,569.00	$ 118,665.00
	Max	$ 35,206.00	$ 47,734.00	$ 60,262.00	$ 72,790.00	$ 85,318.00	$ 97,846.00	$ 110,374.00	$ 122,902.00
10%	Min	$ 35,207.00	$ 47,735.00	$ 60,263.00	$ 72,791.00	$ 85,319.00	$ 97,847.00	$ 110,375.00	$ 122,903.00
	Max	$ 36,420.00	$ 49,380.00	$ 62,340.00	$ 75,300.00	$ 88,260.00	$ 101,220.00	$ 114,180.00	$ 127,140.00

EXHIBIT 5

COMMUNITY HEALTH NEEDS ASSESSMENT

JULY 2018

Public Health
Prevent. Promote. Protect.
Harford County Health Department

University of Maryland
Upper Chesapeake Health

Healthy Harford
LIVE WELL. BE WELL.

Index

"Your zip code is a better predictor of your health than your genetic code..."

Melody Goodman, Assistant Professor, Washington University

Executive Summary

The Harford County Community Health Needs Assessment is a reflective assessment of the health status of Harford County. Assessments are an important component of meeting local community health needs and are used to inform decisions about public health strategies to improve the health, safety, and environment for Harford County residents. This assessment builds on previous efforts to identify and quantify public health concerns. It is a collaborative process that reports health indicator statistics and community stakeholder input in order to identify and prioritize our community health needs, areas for health improvement, and resources that can be mobilized to improve community health.

The Community Health Needs Assessment describes the health status of Harford County residents, as individuals and as population groups, and provides population comparisons to residents of Maryland and to the nation as a whole. It also examines trends in health indicators of County residents over time, highlights racial and geographic disparities, and identifies areas of poverty and at-risk populations which will provide a basis for public health planning. Data in this assessment comes from a variety of National and State sources, including, but not limited to, the United States Census Bureau, Maryland State Health Improvement Plan, Maryland Vital Statistics, the Maryland Behavioral Risk Factor Surveillance Survey, the Injuries in Maryland report, and national County Health Rankings.

The Harford County Community Health Needs Assessment (CHNA) is a compilation of secondary statistical data, key informant feedback, an online community survey, and focus group input. This assessment reflects the current status of the medical and social determinants of health for Harford County residents, and provides qualitative feedback on key health issues. Based on information provided in this report, the Harford County Local Health Improvement Coalition (LHIC) and the University of Maryland Upper Chesapeake Health (UMUCH) have prioritized the following health concerns in order of importance: **Behavioral Health, Prevention and Wellness, and Family Stability and Wellness**.

Harford County Profile: Harford County is a relatively well educated affluent community located northwest of the city of Baltimore. With a population of close to a quarter million people, Harford County has grown from a primarily agricultural community to a more suburban environment whose main employers include: the Department of Defense Aberdeen Proving Ground and supporting contractors, the University of Maryland Upper Chesapeake Health, and local government/schools. The typical profile of a Harford County resident is a white (79.8%), employed (64.1%), high school graduate

(92.8%), who drives themselves to work (83.4%). Overall, while indicators of education and employment depict a prosperous community, persistent pockets of poverty exist both geographically, and along racial and gender lines. In Harford County, black households have a lower median income when compared to white; blacks are more than twice as likely to be poor; and women earn disproportionately lower incomes than men, presenting a particular poverty issue for female-headed households. Given the high rate of people who own cars, public transportation for those without access to vehicles remains a persistent problem.

Key Findings Regarding the Prioritization of Behavioral Health, Prevention and Wellness, and Family Stability and Wellness

Behavioral Health (Mental Health/Addictions): The suicide rate of a community is considered to be a key indicator of its mental health status. Harford County's rate of 12.3 per 100,000 population far exceeds the 9.2 rate for the state of Maryland. According to the Maryland Behavioral Risk Factor Surveillance System (BRFSS) for 2013-2015, 21% of Harford County residents have been diagnosed with depressive disorder, compared to 16.1% for the state. In addition, 18.2% of high school students reported that they have seriously considered attempting suicide. While approximately 96% of Harford County residents are insured, there is a notable lack of mental health care providers to meet community
needs. As such the Health Resources and Service Administration has designated all of Harford County as a Health Professional Shortage Area (HPSA) for mental health services.

Since 2007 the number of drug and alcohol-related intoxication deaths has more than doubled in both Maryland and Harford County. The numbers of drug-related law enforcement incidents and overdose calls have also increased dramatically since 2011, by 57% and 95% respectively. Another indicator of the severity of the addiction problem in Harford County is the number of substance-exposed newborns (SEN) born in the community. Between 2000 and 2016, Harford County has experienced an eightfold increase in the rate of hospital encounters for newborns with maternal drug/alcohol exposure. This not only indicates an increase in substance abuse but also a lack of treatment access.

Prevention and Wellness: As a whole, Harford County residents have access to a better food environment and greater access to exercise opportunities when compared to the state and the nation, however despite greater opportunities to engage in healthy behaviors regarding nutrition and exercise, Harford County adults are just as likely or more likely to be obese or overweight (72.4%) and physically inactive (26.3%) as the rest of the State. In addition, tobacco use is high among both adults (20.7%) and youth (16.9%) which correlates with high rates of chronic obstructive pulmonary disease (COPD) and lung cancer. Even more concerning is the high rate of students reporting they currently use electronic vapor products (24.6%), and the total percentage of students (32.1%) using any type of tobacco product (burned, smokeless, or electronic). Obesity, insufficient physical exercise, and tobacco use are some of the biggest drivers of preventable chronic diseases and increased risk for many health conditions. Obesity, often a symptom of diet and exercise, can have a tremendous impact on health and wellbeing.

Black adults were almost twice as likely to be obese than white adults, and adults without a high school diploma were almost twice as likely to be obese than their college graduate counterparts. As such minority and low-income families are disproportionately negatively affected.

The top five causes of death in Harford County are cancer, heart disease, chronic obstructive pulmonary disease, stroke, and accidents which are consistent with the state and the nation. The role of accidents as the fifth leading cause of death is a relatively new phenomenon that could likely be attributed to the growing opioid epidemic and accidental overdoses, as well as an aging population.

Family Stability and Wellness: While the majority of babies in Harford County are born into married families (69.4%) to mothers over the age of 20 (96.5%), there are significant ethnic and racial disparities. Most concerning is the significantly higher number of low birth weight babies born to black women (12.1%) as compared to white (7.6%), and the 2.5 times higher rate of infant mortality for black babies (14.4 per 1,000 births) as compared to white (4.8 per 1,000 births).

The percentage of mothers receiving prenatal care in the first trimester in Harford County is 71.%, however when broken down along racial and ethnic lines the percentage of non-white mothers receiving prenatal care in the first trimester is significantly lower. According to 2016 Maryland Vital Statistics, 74.8% of white women received prenatal care in the first trimester, while only 59.7% of black women and 60.3% of Hispanic women did. The lack of prenatal care and the potentially negative health outcomes for newborns can have long-lasting detrimental developmental effects, including school readiness and long-term health complications.

While Harford County's violent crime and property crime rate are much lower than the state rate, crime and the resulting incarceration disproportionally affect low-income areas. In Harford County, the city of Aberdeen, one of the community's lowest income areas, has a significantly higher rate of overall and violent crime rate than the surrounding municipalities.

This community assessment is a result of the shared goal of the partnership and the dedication of University of Maryland Upper Chesapeake Health, Harford County Health Department, and Healthy Harford to create a healthier Harford County.

Acknowledgments and Overview

University of Maryland Upper Chesapeake Health

Mission
University of Maryland Upper Chesapeake Health is dedicated to maintaining and improving the health of the people in its communities through an integrated health delivery system that provides high-quality care to all. University of Maryland Upper Chesapeake Health is committed to service excellence as it offers a broad range of healthcare services, technology and facilities. It will work collaboratively with its communities and other health organizations to serve as a resource for health promotion and education.

Vision
The Vision of University of Maryland Upper Chesapeake Health is to become the preferred, integrated healthcare system creating the healthiest community in Maryland.

The University of Maryland Upper Chesapeake Health (UMUCH) is a community based, integrated, non-profit health system. The vision of UMUCH is to become the preferred, integrated healthcare system creating the healthiest community in Maryland. UMUCH is dedicated to maintaining and improving the health of the people in northeastern Maryland through an integrated health delivery system that provides high-quality care to all. Their commitment to service excellence is evident through a broad range of healthcare services, technologies, and facilities. They work collaboratively with the community and other health organizations to serve as a resource for health promotion and education.

Presently, UMUCH is the leading healthcare system and second largest private employer in Harford County, employing 3,500 team members and over 650 medical staff physicians.

Major centers and services include two acute care hospitals – UM Upper Chesapeake Medical Center in Bel Air and UM Harford Memorial Hospital in Havre de Grace. As part of the Bel Air campus, UMUCH also operates the Klein Ambulatory Care Center, two medical offices, and the Patricia D. and M. Scot Kaufman Cancer Center. UMUCH also owns and operates the Senator Bob Hooper House Hospice Center, provides community outreach, health screenings and educational programs through the HealthLink Community Outreach.

A combined facility to treat mental health and opioid addiction issues is expected to open Summer 2018 in Bel Air. The Behavioral Health Crisis Center will offer walk-in crisis services, a 24/7 call/triage center and, eventually, residential crisis beds.

As part of Vision 2020, UMUCH is moving towards replacing the downtown Havre de Grace UM Harford Memorial Hospital with a new modern freestanding medical facility, an expanded Behavioral Health Pavilion and psychiatric specialty hospital on their 97-acre property off of I95 and Rt 155. Included in this vision is the expansion of medical/surgical beds above the Kaufman Cancer Center as well as additional parking on the Bel Air campus.

Harford County Health Department

Public Health
Prevent. Promote. Protect.
Harford County Health Department

The Harford County Health Department (HCHD) is the local operating arm of the Maryland Department of Health (MDH). As such, it is governed by State rules but reports locally to the Harford County Council, which functions as the Harford County Board of Health. The health department's mission is to protect and promote the health, safety, and environment of the citizens of Harford County through community assessment, education, collaboration and assurance of services. Employing over 170 employees, the health department provides services in Havre de Grace, Aberdeen, Bel Air, and Edgewood. The health department is responsible for the delivery of a wide range of preventive health care, clinical services, and environmental health services to citizens living in Harford County. Its six major bureaus include:

1. Administration
2. Behavioral Health
3. Care Coordination
4. Clinical Health
5. Environmental Health
6. Family Health

Healthy Harford

Healthy Harford
LIVE WELL. BE WELL.

Healthy Harford is the healthy communities initiative of Harford County, dedicated to the health and wellness of the northern Chesapeake community. Founded in 1993 as a non-profit 501c3 by leaders from University of Maryland Upper Chesapeake Health, the Harford County Health Department, and Harford County Government, Healthy Harford is a coalition of local government agencies, businesses, non-profits, and citizens dedicated to improving the health of Harford County residents through education, policy changes, improvements in the built environment, increased access to care, and improved care coordination for people with chronic illness.

Healthy Harford's mission is to inspire and empower healthy people, healthy families, and healthy communities in mind, body, and spirit, with a focus of improving health and wellness in the Harford County region by promoting healthy lifestyles, building community partnerships, and proving care coordination.

Methodology

The CHNA was comprised of both quantitative and qualitative research components. A brief synopsis of the research components is included below with further details provided throughout the document.

Quantitative Data: Existing Secondary Data

A Statistical Secondary Data Profile depicting population and household statistics, education, and economic measures, morbidity rates, incident rates, and other health statistics for the Harford County community was compiled from publicly available sources. It should be noted that the availability of and lag time of secondary data may present some research limitations.

Harford County Community Health Survey

An online Community Survey of Harford County residents was conducted between October 2017 and February 2018. The survey was designed to assess health status, health risk and behaviors, preventative health practices, and health care access primarily related to chronic disease and injury. A total of 1,741 resident surveys were completed, representing the geographical, gender, and ethnic diversity of the community.

Qualitative Data: Community Forum and Focus Groups

In order to gain a better understanding of the Harford County community, qualitative data was collected via the Local Health Improvement Coalition (LHIC) Community Forum meeting, as well as through a series of targeted focus groups.

At the October 2017 LHIC Community Forum meeting twenty-eight stakeholder organizations representing diverse community interests discussed health and social determinants. These stakeholders provided particular insight into the challenges facing the medically under-served, low income, marginalized, and minority populations.

In addition, four focus groups were convened to gather the input of targeted groups. These focus groups included members of faith-based organizations; Emergency Medical System (EMS) personnel; participants from the EpiCenter (a community center in a predominantly low-income minority community); and residents living with chronic disease.

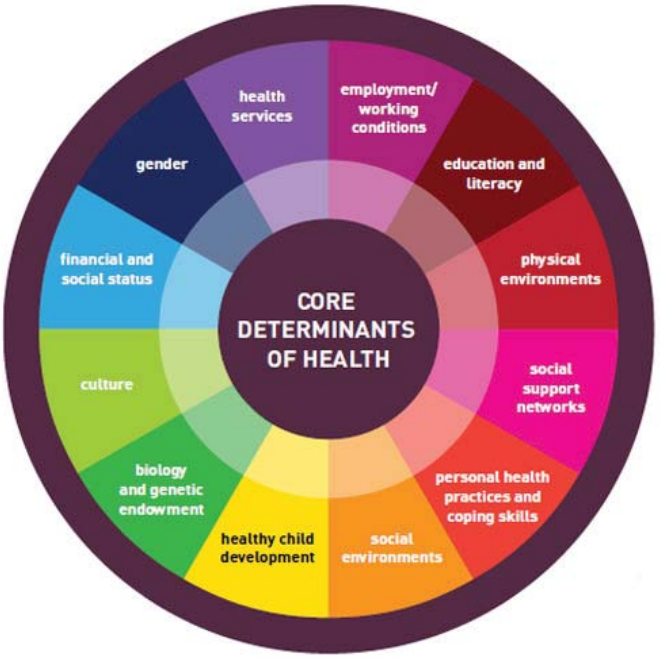
Local Planning Initiatives

Local Health Improvement Coalition (LHIC)

In an effort to improve the health of all Marylanders, the Maryland Department of Health (MDH), through the office of Population Health Improvement, launched the State Health Improvement Process (SHIP). This initiative focuses on health priorities, both statewide and in each jurisdiction, and provides a framework for accountability, local action, and public engagement. SHIP measures are aligned with the national Healthy People 2020 objectives established by the Department of Health and Human Services, and target state goals set by the MDH.

Using the SHIP framework, each of the 24 Maryland jurisdictions is responsible for convening a Local Health Improvement Coalition (LHIC) comprised of community stakeholders to determine local health priorities. The Harford County Health Department is the local LHIC lead entity for Harford County.

In October of 2017, 28 stakeholder organizations from the Harford County community met at Harford Community College to evaluate community health goals for the next 3 to 5 years. In a half day Community Forum focusing on current health statistics, social determinants of health and their community impact, and current community challenges, three health priorities emerged: Behavioral Health, Chronic Disease Prevention/Wellness, and Family Health/Resiliency. LHIC Workgroups addressing these priorities were formed, and these groups will develop and implement the new Harford County Local Health Action Plan for addressing these priorities.



Harford County Fast Facts

Measure	Harford	Maryland
Median Age	40.3	38.3
Only English spoken at home	93.1%	82.4%
Married and living together	56.4%	47.7%
Average family size	3.17	3.26
Median household income	$81,052	$76,067
Mean household income	$96,509	$100,071
Female householder no husband	11.3%	14.3%
People in poverty	7.7%	9.9%
Female headed households with children under 5 in poverty	44.3%	29.9%
Unemployment rate	6.0%	6.7%
Drive alone to work	83.4%	73.7%
Mean travel time to work	31.6 minutes	32.4 minutes
Have health insurance	95.4%	91.9%
Top causes of mortality	Cancer Heart Disease COPD	Heart Disease Cancer Stroke
Low birth weight babies for white mothers	6.4%	6.6%
Low birth weight babies for African American mothers	12.1%	12.1%
Lyme Disease rate per 100,000	69.4	21.2
Suicide rate per 100,000	12.3	9.2
Age-adjusted death rate for all causes per 100,000	732.0	706.7
Adult that currently smoke	20.7%	15.1%
Percentage of high school graduates	92.8%	89.6%
Percentage of college graduates	34.5%	38.4%

Demographic Profile

The demographic composition of Harford County's population is critical to understanding the health of the community because characteristics such as age, gender, race, and ethnicity all have an impact on people's health. The distribution of these characteristics across the county is helpful in determining the number and types of resources that are needed to ensure the optimum health and well-being of the population.

Population

In 2016, the total population of Harford County was estimated to be 249,776, which was an increase of 2.0% from 2010 (244,826). The county is located in the northeastern part of the state, with the towns and cities of varying sizes, wealth, and diversity. Bel Air is Harford's county seat, home to roughly 10,109 residents, or 4% of the county's population. The cities of Aberdeen and Havre de Grace each make up 6% and 5%, respectively. The remaining 75% of the county's population is mostly distributed along the Route 40 corridor and in rural parts of the county. The table below illustrates the change in population size for Maryland, Harford County, and selected zip codes.

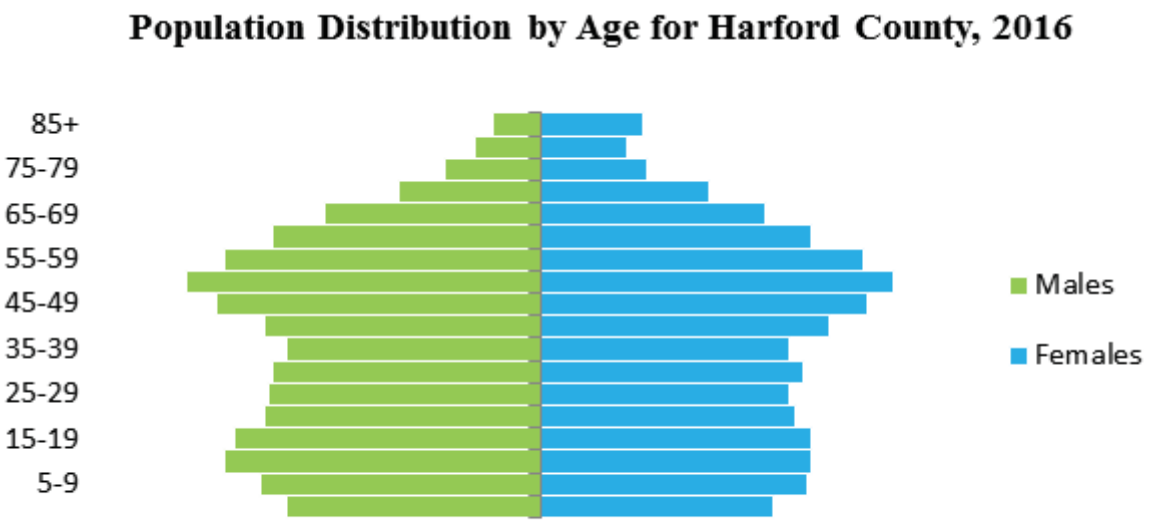
Change in Population Size 2012-2016, Maryland and Harford County

	2010 Population	2016 Population	Change in Population
Maryland	5,773,552	5,959,902	↑ 3.2%
Harford County	244,826	249,776	↑ 2.0%
Edgewood (21040)	24,420	24,590	↑ 0.7%
Aberdeen (21001)	21,487	24,470	↑ 13.9%
Havre de Grace (21078)	17,603	17,844	↑ 1.4%

Source: US Census Bureau, American Community Survey 5-Year Estimates

Age Distribution

Data on age can be used to determine the distribution of age-appropriate services throughout the county, such as those specifically designed for children or seniors. The population pyramid below provides a breakdown of Harford County residents by age and sex. The median age in Harford County is 38.6 for males and 41.3 for females, with the age category containing the largest percentage of the population being adults ages 50-54. The distribution of the population pyramid is close to the distribution of age and sex in the United States, although the county has a slightly lower percentage of younger people and a higher percentage of middle-aged adults.



Source: US Census Bureau, American Community Survey 5-Year Estimates

Racial and Ethnic Diversity

Data on the racial and ethnic diversity of a population can help healthcare organizations create culturally competent health care services and deliverables. For example, 6.9% of Harford County residents reported speaking a language other than English at home. Race is also a social determinant of health and is a contributing factor to health inequities.

The table below illustrates the substantial variation in the levels of racial and ethnic diversity across Harford County. While whites make up the majority of Harford County's population, the percentages of African Americans and Hispanic/Latino residents are increasing in both Edgewood and Aberdeen. Since 2010, the populations of these two zip codes have started to more closely reflect the demographics found across the state of Maryland, while the racial composition of Havre de Grace has remained relatively stable over time.

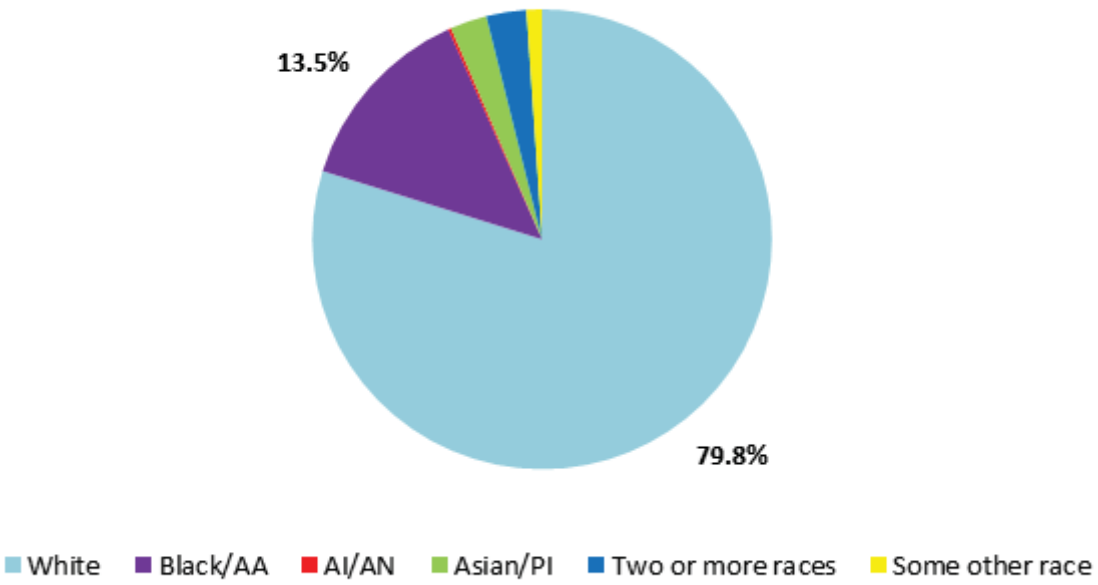
Race/Ethnicity Distribution for Maryland, Harford County, and Selected Zip Codes

Race/Ethnicity	Maryland	Harford	Edgewood	Aberdeen	HdG
White	57.2%	79.8%	48.3%	60.3%	77.0%
Black/African American	29.6%	13.5%	40.6%	30.6%	15.3%
American Indian/ Alaska Native	0.3%	0.2%	0.1%	0.3%	0.4%
Asian/Pacific Islander	6.1%	2.6%	1.0%	3.6%	4.2%
Two or More Races	3.1%	2.8%	5.8%	3.8%	2.8%
Hispanic/Latino	9.2%	10.0%	7.4%	5.8%	3.3%

**Hispanic/Latino respondents can be of any race*

Source: US Census Bureau 2012-2016 ACS Demographic and Housing Estimates

2016 Racial/Ethnic Distribution in Harford County



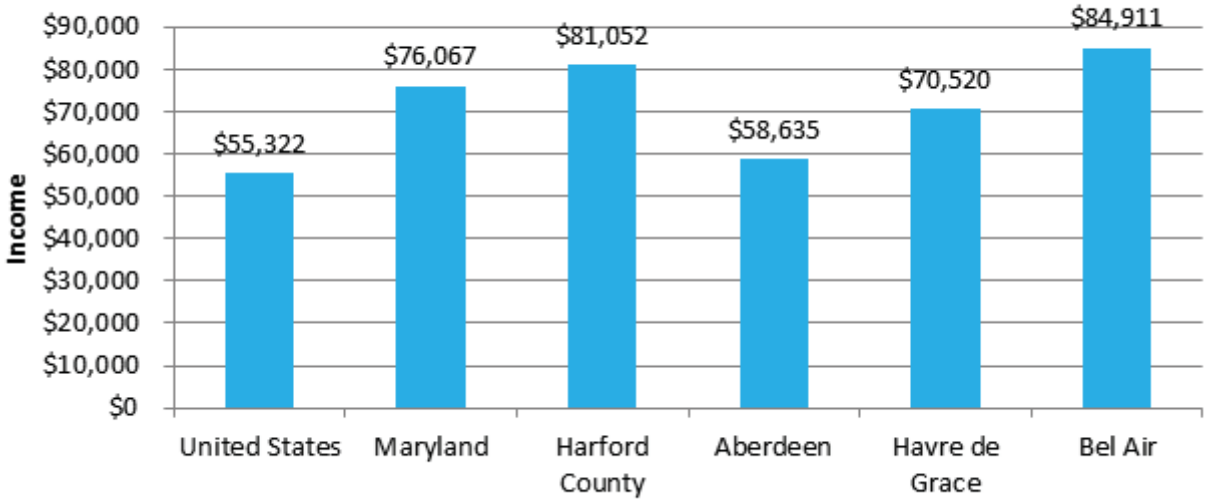
Source: US Census Bureau 2012-2016 ACS Demographic and Housing Estimates

Social & Physical Environment

Income and Poverty

When compared to the United States, Maryland is a wealthy state, with a median household income ($76,067), well above the nation's ($53,889). Harford County is one of Maryland's wealthier jurisdictions, with a median household income of $81,052. However, the county's higher income is not distributed equally across the county: the three municipalities in Harford County have vastly different median incomes, with the city of Aberdeen having the lowest ($58,635), followed by Havre de Grace ($70,520) and Bel Air ($84,911) (U.S. Census Bureau, 2016 American Community Survey 5-year estimates).

Median Household Income: United States, Maryland, Harford County, and Selected Zip Codes 2012-2016



Source: U.S. Census Bureau, 2012-2016 American Community Survey

Percentages provided in the 2008-2010 American Community Survey, 3-year estimates (U.S. Census Bureau) indicate that the poverty rate in Harford County families has increased, climbing from 4% to 6%, in line with an increase in Maryland's poverty rate (5.7% to the recent estimate of 7%) (U.S. Census Bureau, 2016 American Community Survey 5-year estimates).

Harford County poverty rates for White and Black families are starkly different: the percentage of families with a householder who is White has an estimated poverty level of 5.1% while families with a Black or African American householder has a poverty level of 14.3% (U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates).

Percentage of families whose income in the past 12 months is below the poverty level for Maryland, Harford, and Selected Zip Codes 2012-2016

Jurisdiction	Percent
Maryland	6.8%
Harford County	5.8%
Aberdeen	10.2%
Bel Air	2.8%
Havre de Grace	5.9%

Source: U.S. Census Bureau, 2012-2016 American Community Survey

The disparity in household incomes in Harford County and the cities of Aberdeen and Havre de Grace is consistent with the percentage of families whose income is below the poverty level. Both in Maryland and in Harford County, poverty rates are highest in families headed by a female and for families with related children under 18 years of age. Harford County has a slightly higher poverty rate among families with a female head when compared to Maryland, and a slightly lower rate for people age 65 and over. Poverty rates for families are distributed unequally across the county, with almost a third of families with a female head and close to one-quarter of related children below the poverty level in Aberdeen. The poverty rates in Harford County are reflected in the percentage of families receiving food stamps, with Aberdeen having the highest percentage of families and the town of Bel Air having the lowest.

Households with Food Stamp/SNAP Benefits in Past 12 Months for Maryland, Harford and Selected Zip Codes, 2012-2016

Jurisdiction	Percentage
Maryland	11.1%
Harford County	8.7%
Aberdeen	17.5%
Bel Air	4.2%
Havre de Grace	11.7%

Source: U.S. Census Bureau, 2016 American Community Survey

The percentage of households in Harford County receiving food stamps has increased by 3% since the 2008-2010 American Community Survey; 3-year estimates (U.S. Census Bureau) reported that 5% of Harford County households were food stamp recipients, consistent with the increase in the poverty level in the County.

Education and Employment

Harford County Public School District has 54 schools, including 7 Title I elementary schools, with the mission to ensure academic achievement for at-risk students attending schools in high poverty areas. All 7 are located in the southern portion of the County: three in Aberdeen, and one each in Edgewood, Havre de Grace, Joppa, and Abingdon (http://www.hcps.org/schools/).

Harford County Public Schools had a total of 37,448 students in the 2016-2017 school year. The high school graduation rate was 89.09%, slightly higher than Maryland's rate of 87.61% (http://reportcard.msde.maryland.gov/). According to Schooldigger, an organization that calculates school rankings based on test scores released by the Maryland Department of Education, Harford County Public Schools ranked 7th best out of the 24 public school systems in Maryland in 2016. This was a drop from 5th best in 2015 (https://www.schooldigger.com/go/MD/districtrank.aspx).

In 2016, 92.8 % of people 25 years and over in Harford County had at least graduated from high school and 34.5% had a bachelor's degree or higher. An estimated 7.2% did not complete high school. In comparison, in the town with the highest level of poverty, Aberdeen, an estimated 12.4% did not complete high school, and only 21.3% had college degrees.

2016 Percent Educational Attainment of Population 25 Years and Over, Harford County and Selected Zip Codes

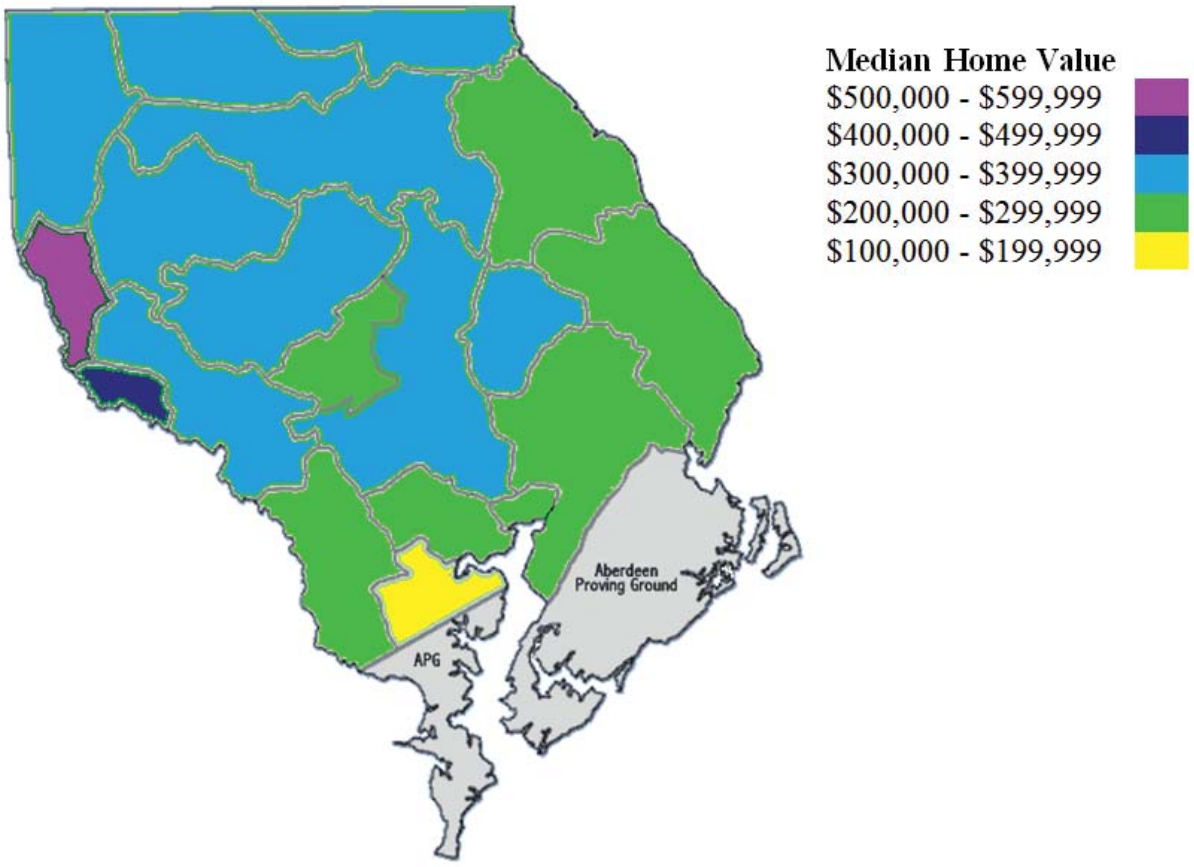
Educational Attainment	Harford	Aberdeen	Edgewood	HdG
Less than High school diploma	7.2	12.4	11.0	9.8
High school diploma or equivalency	27.8	32.7	34.7	27.4
Some college, no degree	22.4	26.6	28.5	20.5
Associate's degree	8.1	7.0	9.0	6.6
Bachelor's degree	20.7	13.9	10.4	20.6
Graduate or Professional degree	13.8	7.4	6.3	15.1

Source: U.S. Census Bureau, 2012-2016 American Community Survey

In Harford County, 64.1% of the population age 16 and over was employed; 31.0% were not currently in the labor force. An estimated 74.6% of the people employed were private wage and salary workers; 21% were federal, state, or local government workers; and 4.3% were self-employed in their own (not incorporated) business (U.S. Census Bureau, 2012-2016 American Community Survey).

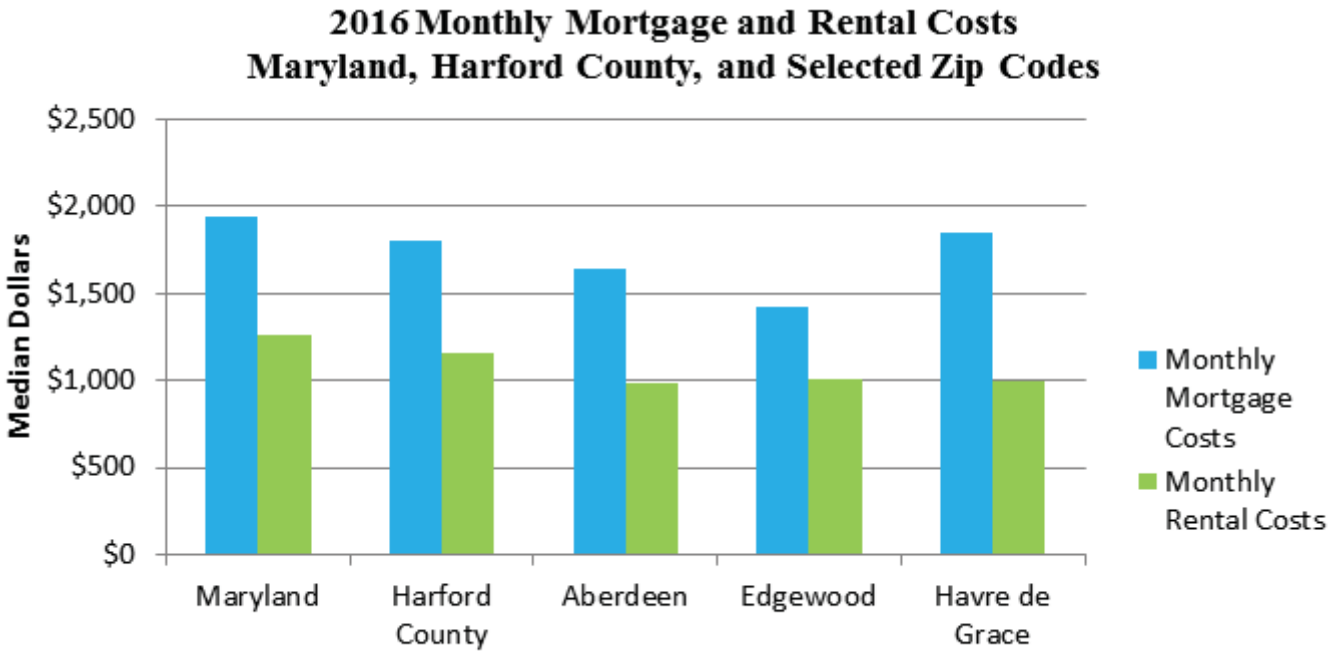
Housing and Transportation

While the median value of homes in Harford County ($278,500) is only slightly less than Maryland's ($286,900), the difference when considering housing prices by zip code is dramatic. Prices range from below the state value in the Edgewood area, where the median home value is $162,900, to well above the state in the Monkton area, where the median home costs $563,300. The following map shows median home values by zip code.



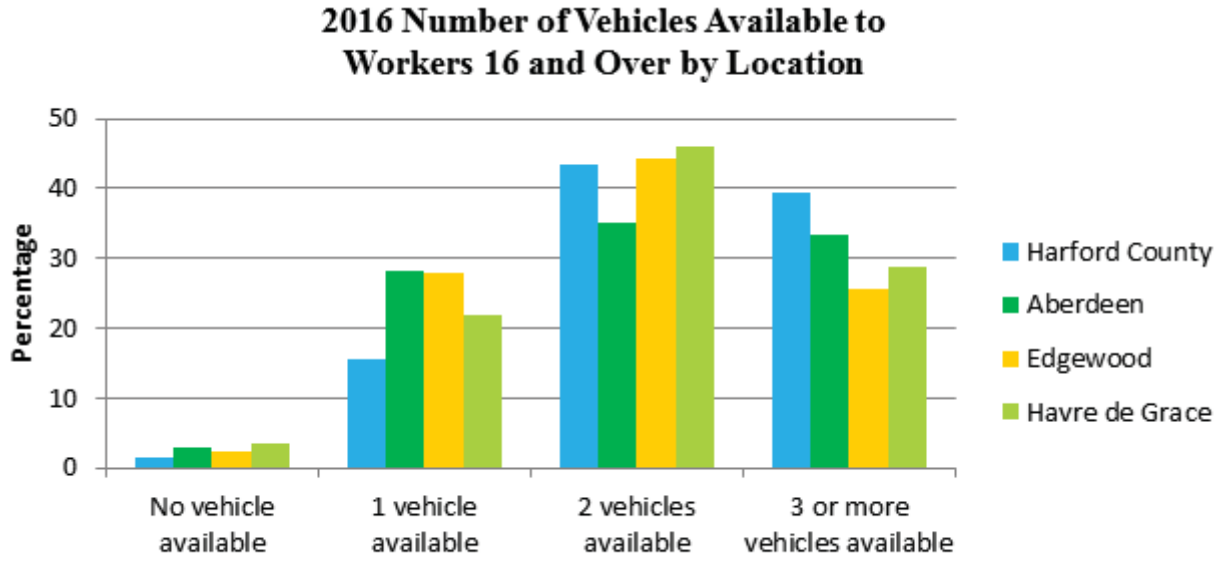
Source: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, Median Value

Rental costs must also be taken into account when assessing the housing landscape of a community. The following table shows monthly mortgage and rental costs for Maryland, Harford County, and selected zip codes from the U.S. Census Bureau.



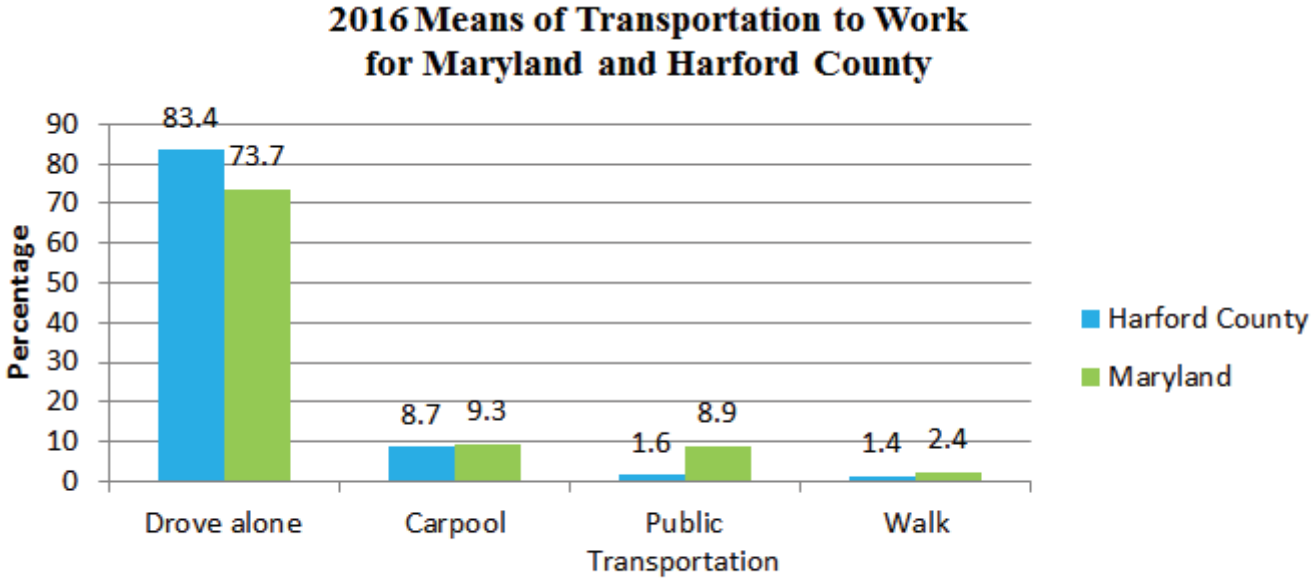
Source: U.S. Census Bureau, 2016 American Community Survey 5-Year Estimates

Transportation is also a concern in many parts of the county, especially for seniors, youth, and low-income individuals in the rural areas of northern Harford County. Amenities such as shopping, entertainment, and health services are often far away, and there are few public transportation options. The bus service has limited hours and routes making it difficult for those without cars to access them. Data show that 1.6% of residents in the county have no access to a vehicle, with that number reaching 3.4% in Havre de Grace. The table below shows vehicle availability for households in select zip codes for the county.



Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

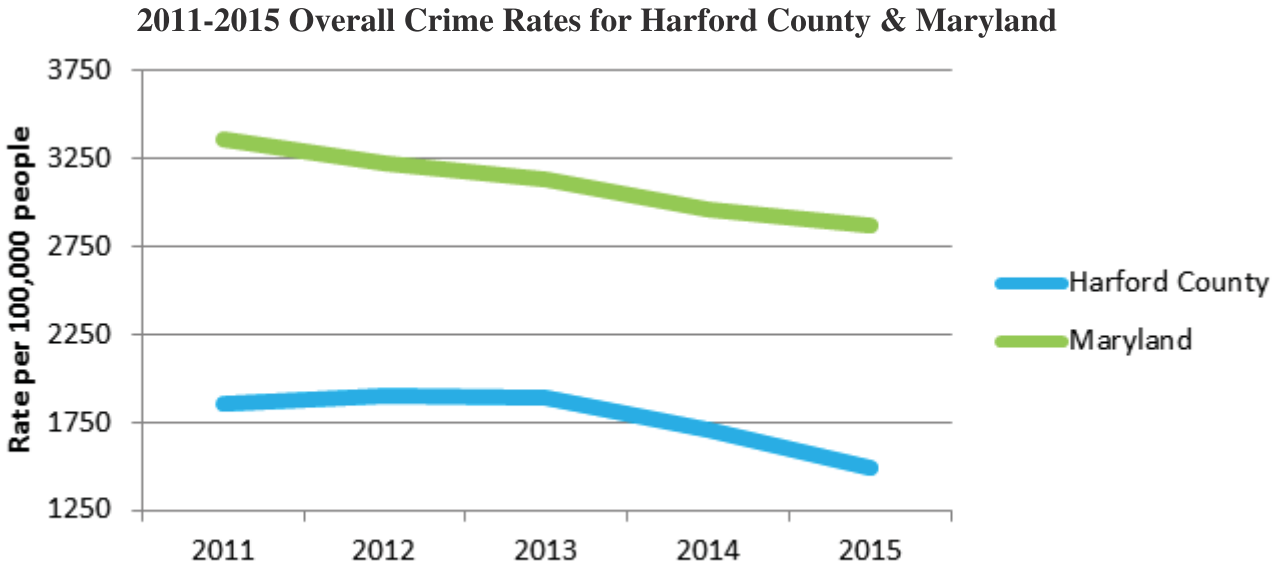
In addition, 45% of county residents work outside of Harford County, either in a different Maryland county or another state. The following table shows means of transportation to work for Maryland and Harford County. Notice that 83.8% of residents drove alone to work and only 9.1% carpooled. With limited availability of public transport throughout the county, only 1.7% of residents use public transportation when compared to 9% of Maryland residents.



Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates

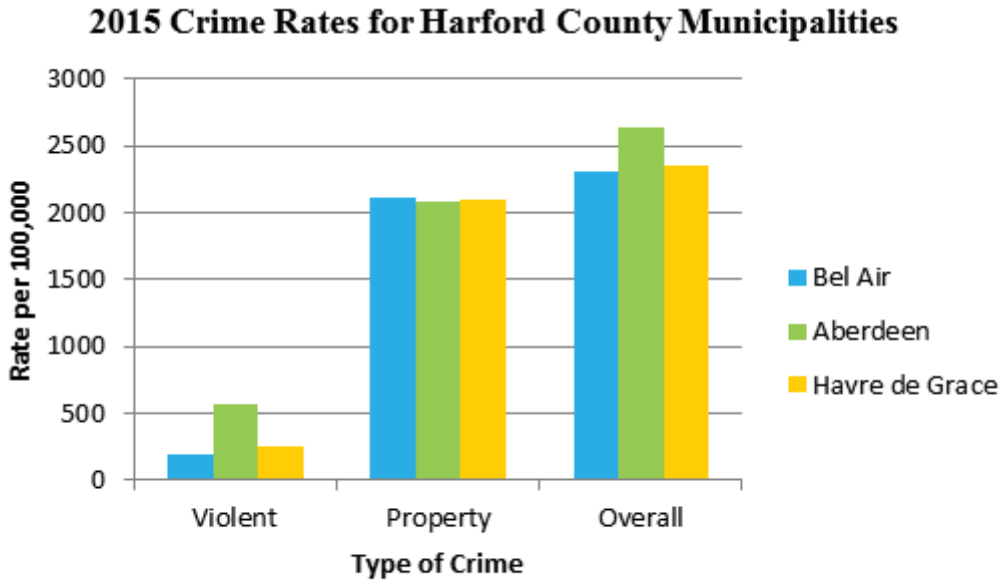
Crime

In 2015, Harford County had an annual violent crime rate of 239 per 100,000 people, which is much lower than Maryland's rate of 471. Similarly, the rate of property crime in Harford County was lower than the state's at 1,257 per 100,000 when compared to 2,395. The chart below shows the overall crime rates in both Harford County and Maryland; both have been decreasing since 2011.



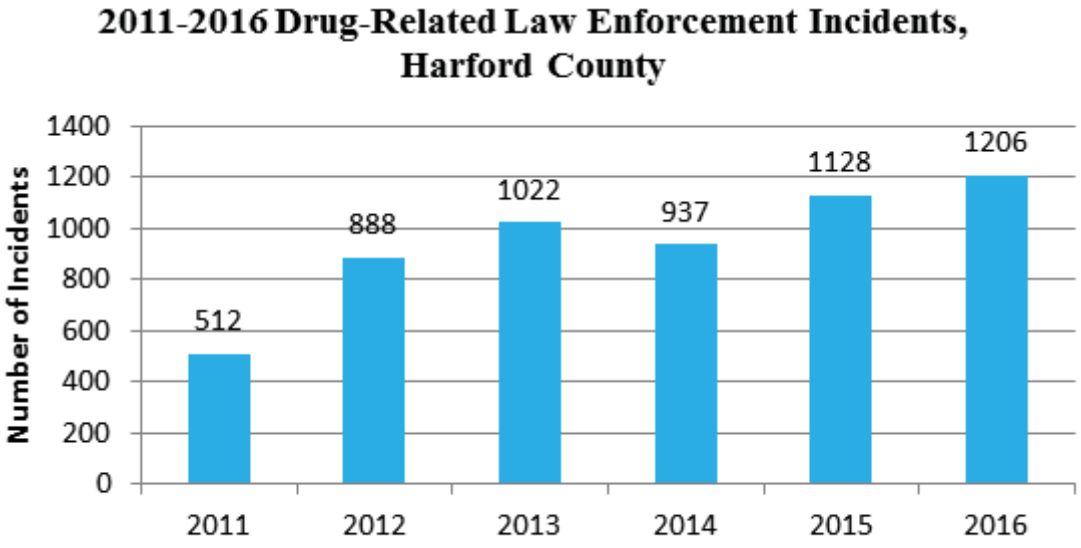
Source: Maryland Crime Data from the Governor's Office of Crime Control & Prevention

The chart below shows the violent, property, and overall crime rates for the towns of Bel Air, Aberdeen, and Havre de Grace. The violent and overall crime rates in Aberdeen are significantly higher than the county's as a whole (565), illustrating the inequity in living conditions for families residing in this area.



Source: Maryland Crime Data from the Governor's Office of Crime Control & Prevention

Despite the dramatic decreases in both violent crime and property crime in Harford County and throughout the state, the number of drug-related incidents reported by the Harford County Sheriff's Office has increased by 136% from 2011 to 2016. This growing trend has shifted the focus of law enforcement to combat the drug crisis in Harford County.



Source: Harford County Sheriff's Office Incident Dataset (Socrata)

Access to Healthy Foods and Recreational Opportunities

In Harford County, most residents have access to grocery stores where healthy foods are available. According to the 2017 County Health Rankings, which provides a measure of "Limited Access to Healthy Foods," 97% of residents live close to a grocery store, with only 3% or an estimated 8,400 people having limited access to healthy food. This measure is based on the percentage of the population that is low income and does not live close to a grocery store. While access to grocery stores is not a problem for most Harford County residents, many families require assistance in purchasing foods: 8.2 % or 91,727 of households in Harford County received food stamps from the Supplemental Nutrition Assistance Program in 2015 (U.S. Census, Fact Finder). Of these, 31,422 were families with children under 18 and 33,941 were families with one or more people in the household 60 years or older.

A more pressing issue for a small percentage of Harford County residents is having an inadequate amount of food or "food insecurity" at some time during each year. Food insecurity is the USDA's measure of lack of access, at times, to enough food for an active, healthy life for all household members and limited or uncertain availability of nutritionally adequate foods. Per the USDA Food Environment Atlas, households experiencing food insecurity experience this condition, on average, in seven months of the year. It is estimated that in 2015 the food insecurity rate for the Harford County population was 8.4% or 20,990 people. This is less than Maryland's rate of 11.4%. In Harford County, the weekly food budget shortfall for food insecure people was $17.38 per person, per week in 2015. In summary, most Harford County residents have access to grocery stores to purchase healthy foods. However, a number of these residents face food insecurity at some time during the year, with healthy foods out of reach.

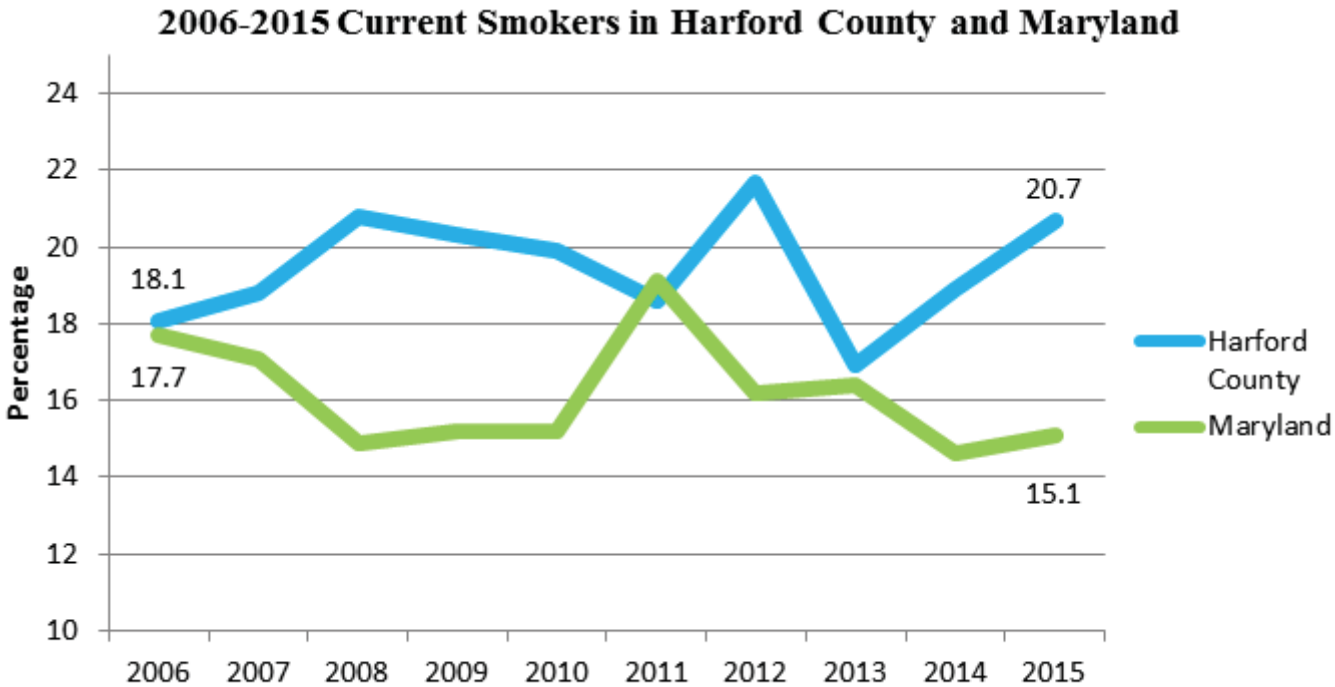
To help Harford County residents keep active, the County's Department of Parks and Recreation maintains 12 community centers, 7 senior activity centers, and over 25 parks and open spaces. The department sponsors a number of programs for adults, preschoolers, youth and families and also works with members of the general community through 20 Recreation Councils in the development of programs. Healthy Harford, a non-profit organization, was established a number of years ago to promote health and wellness in the county, providing opportunities for the public to participate in physical activities by sponsoring and advertising various events. Most recently, Healthy Harford worked with county partners to promote the Harford County parks; the program was based on a Healthy Parks/Healthy People program designed by the National Parks Department to reframe the role of parks and public lands as an emerging, powerful health prevention strategy.

Healthy behaviors can help to prevent and protect people from getting diseases and also to maintain or improve overall health and wellbeing. Healthy behaviors are estimated to affect 40% of health outcomes and make up the most significant factor influencing the health of individuals. Practicing good behaviors enhances health, while harmful behaviors may lead to disease, injury or death.

Health Behaviors

Tobacco Use

According to the 2015 Behavioral Risk Factor Surveillance Survey (BRFSS), 20.7% of Harford County adults reported that they currently smoked cigarettes every day or some days. Adults with annual incomes less than $15,000 were 5.7 times more likely to smoke than those with income at or above $75,000 in 2014. Educational attainment also contributed to smoking rates: adults without a high school diploma were 9.7 times more likely to smoke than college graduates according to the 2014 BRFSS. The graph below outlines smoking rates over the past ten years for Harford County and Maryland.



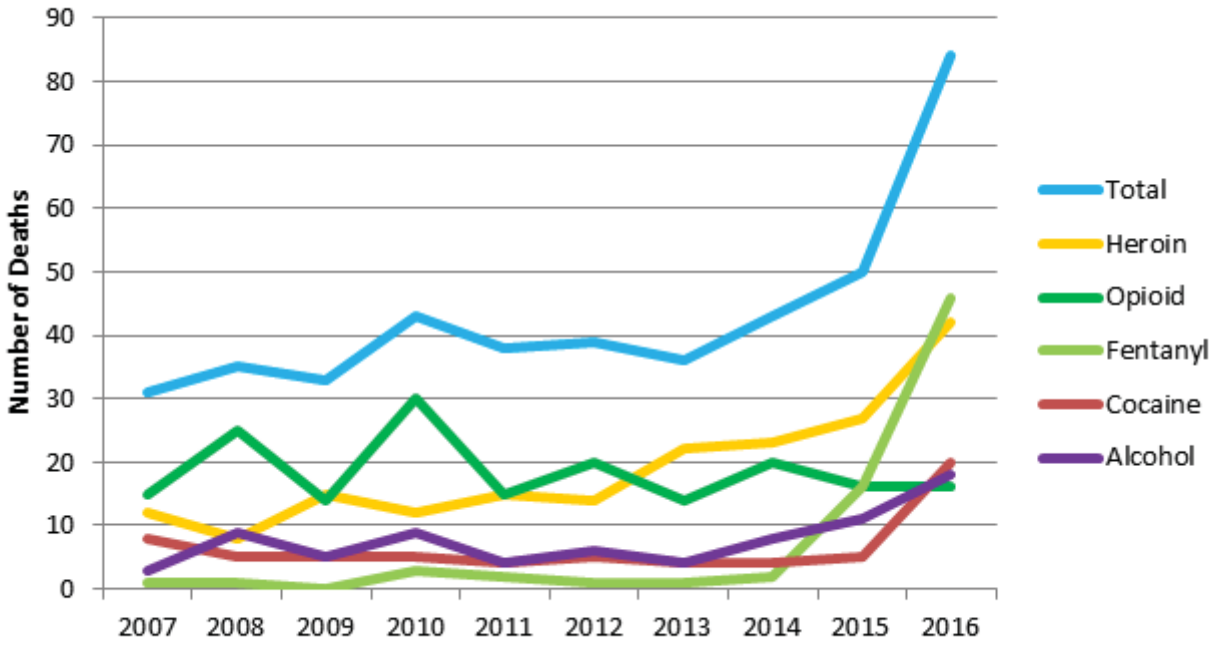
Source: 2006-2015 Maryland BRFSS

School-aged students were considered smokers if they smoked at least 1 cigarette or cigar in the past 30 days. The 2016 Youth Risk Behavior Surveillance System Survey (YRBS) found that the percentage of current smokers in Harford County high schools was 9.3% when compared to 16.9% in 2014. While this rate has decreased over time, the percentage of students reporting that they currently use electronic vapor products exceeded the number of current smokers at 14.3% according to the 2016 YRBS. The percentage of students using any type of tobacco products (cigarette, smokeless tobacco, cigar, or electronic vapor products) was 21.9% (2016 YRBS).

Alcohol and Substance Abuse

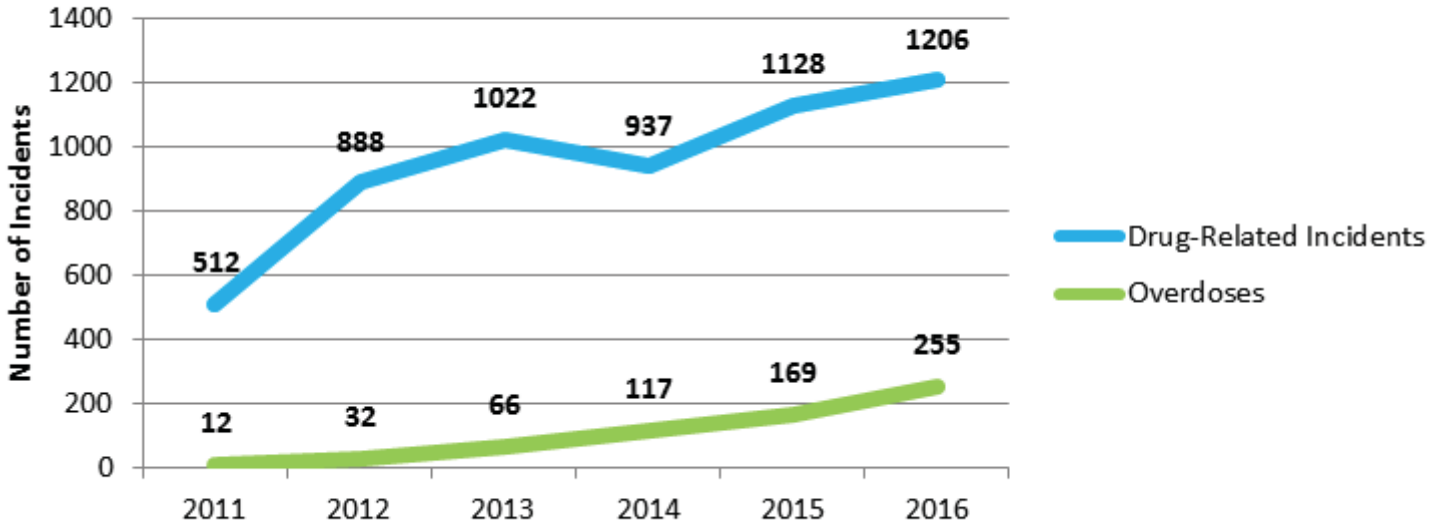
Since 2007 the number of drug and alcohol-related intoxication deaths has more than doubled in both Maryland and Harford County. The graph below shows the number of intoxication deaths by substance for Harford County, including heroin, opioids, fentanyl, cocaine, alcohol, and all deaths. Notably, heroin and fentanyl have caused the largest increase in intoxication deaths due to the increasingly volatile nature of the chemicals being mixed into the local drug supply. The numbers of drug-related law enforcement incidents and overdose calls have also increased dramatically since 2011 by 57% and 95%, respectively, which can be seen in the 2011-2016 data in the graph below.

2007-2016 Intoxication Deaths by Substance, Harford County



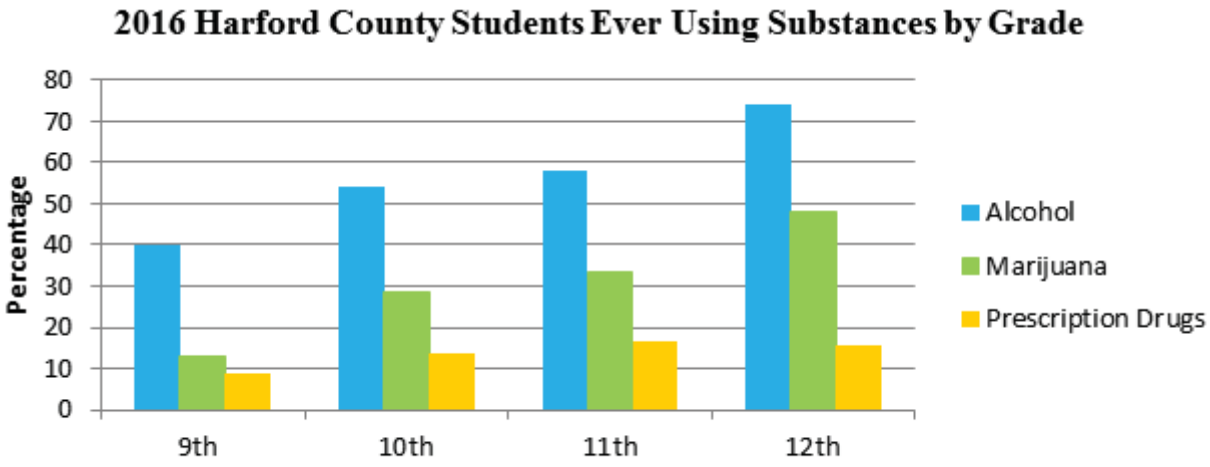
Source: Maryland Department of Health, Drug- and Alcohol-Related Intoxication Deaths in Maryland, 2016

2011-2016 Drug-Related Law-Enforcement Incidents and Overdoses Harford County, 2011 - 2016



Source: Harford County Sheriff's Office Crime Reports, 2011-2016

In BRFSS data for 2013-2015, 14.6% of Harford County adults reported binge drinking in the past month and 5.5% reported being chronic drinkers (1-2 or more drinks per day), both of which are close to the state percentages. The percentage of high school students reporting binge drinking was higher than the adult's: 15.6% of Harford County high school students reported being binge drinkers in 2016. The graph below shows alcohol and substance use by grade for high school students.



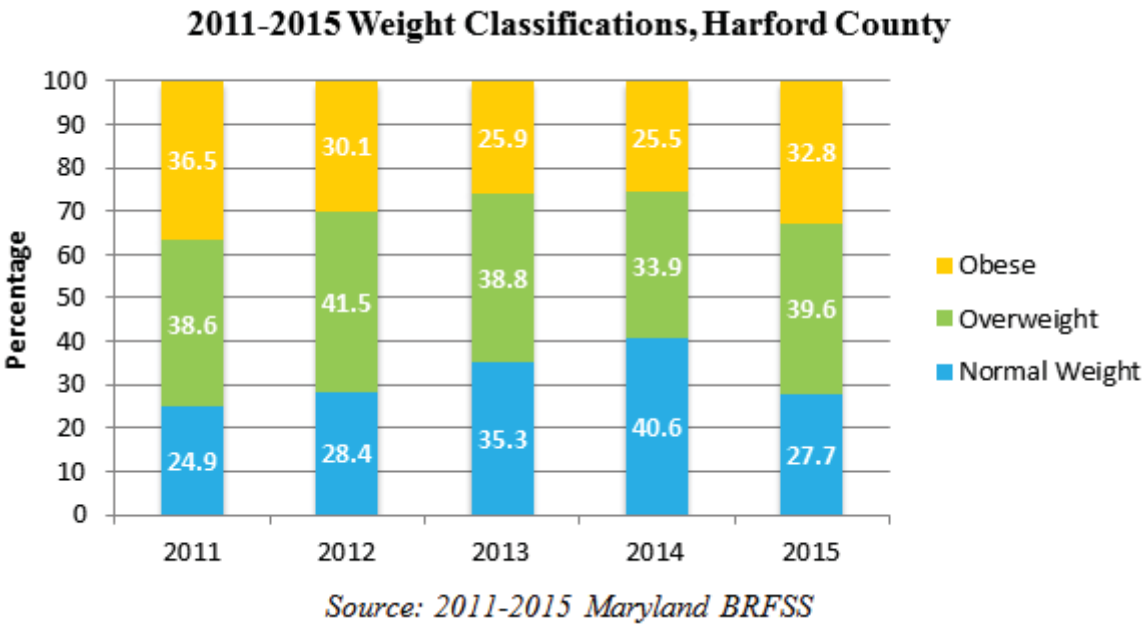
Source: 2016 Maryland Youth Risk Behavior Survey (YRBS)

Healthy Eating, Active Living, and Obesity

Diet and exercise habits have a tremendous impact on health and wellbeing. Data from the 2013-2015 BRFSS indicate that only 65.9% of Harford County adults consume one or more servings of fruits per day and only 76.8% consume one or more servings of vegetables daily. Both percentages mirrored the state as a whole for fruit and vegetable consumption.

Physical activity was also recorded during the same years and showed that 73.7% of adults reported engaging in some form of leisure time physical activity throughout the week. While this percentage does not indicate whether the respondents got the recommended 150 minutes of exercise each week, it is encouraging to see such a high percentage of adults participating in physical exercise. The state's percentage was slightly higher at 76.5%.

According to the 2015 BRFSS, Harford County's obesity rate was 32.8%, which was higher than the state's (28.9%). Several factors were shown to increase a person's chance of obesity including income, race, and educational attainment. Black adults were almost twice as likely to be obese when compared to white adults, a disparity that is much more evident in Harford County than the state as a whole (2015 BRFSS). Adults without a high school diploma were also almost twice as likely to be obese than their college graduate counterparts. Adults making over $75,000 annually were slightly less likely to be obese than adults making less than $15,000. The graph below shows obesity, overweight, and normal weight trends between 2011 and 2015.



Source: 2011-2015 Maryland BRFSS

Health Outcomes

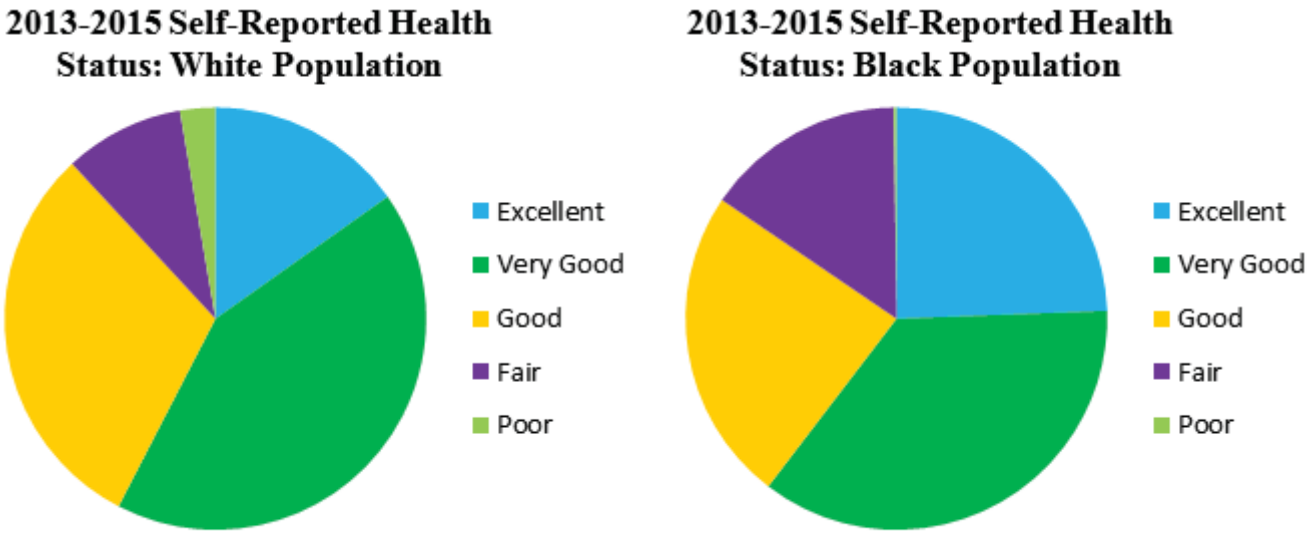
The Health Outcomes section of this report provides an overview of the health conditions of Harford County residents by exploring perceived health status, the leading causes of death and hospitalization, chronic and communicable disease, injury, mental health, and maternal and child health. The combination of these outcomes paints the picture of how the health behaviors outlined in the previous section manifest in a community.

Perceived Health Status

In the 2013-2015 BRFSS, respondents were asked to rank their overall health from poor to excellent. The survey indicated that the 40.8% of Harford County residents consider their health to be very good, which is above the state average (34.3%). However, Maryland respondents as a whole were more likely to identify as being in excellent health (21.4%) than Harford County respondents (16.9%). The graph below shows the percentage of perceived health status for each ranking.

Source: 2013-2015 Maryland BRFSS

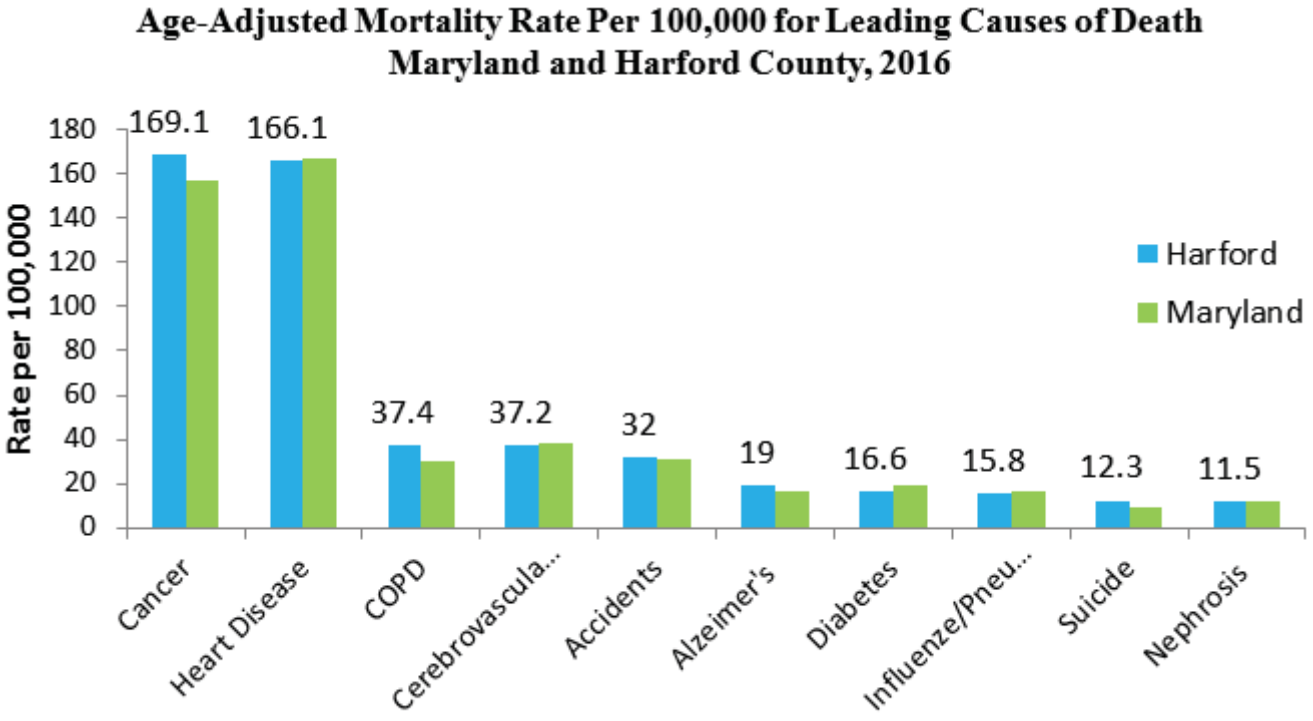
The same data indicated that Harford County's white non-Hispanic and black non-Hispanic populations have differences in perceived health status, with 56.6% of whites reporting very good or excellent health status as compared 60.4% of blacks. The white population had a higher percentage reporting good health (30.5%) than the black population (24.1%), and a lower percentage reporting fair health (9.2%) compared to the black responses (15.3%).



Source: 2013-2015 Maryland BRFSS

Leading Causes of Death and Hospitalization

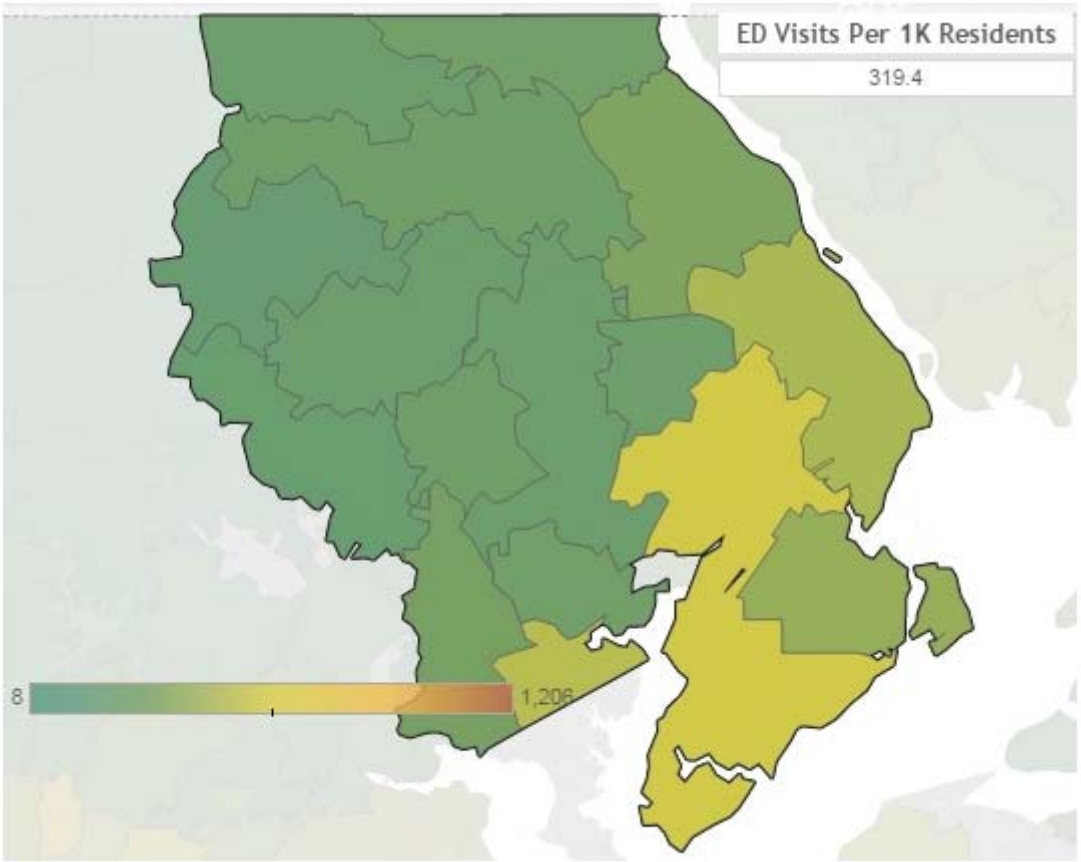
Data from the Maryland Vital Statistics Administration indicate that the top three leading causes of death in Maryland include heart disease, cancer, and cerebrovascular disease (stroke). The role of accidents as the fourth leading cause of death is a relatively new phenomenon that could likely be attributed to the growing opioid epidemic and accidental overdoses. Harford County's leading causes of death do not mirror the state's. The county's three leading causes of death include cancer, heart disease, and chronic obstructive pulmonary disease (COPD). The graph below includes age-adjusted mortality rates per 100,000 for the leading causes of death in both Maryland and Harford County. In addition, between 2014 and 2016 the number of years of potential life lost in Harford County was 5,800 per 100,000 population when compared to 6,500 for the state of Maryland. For African Americans in Harford County, that number increased to 7,600 years of life lost.



Source: 2016 Maryland Vital Statistics Annual Report

The image below shows rates of emergency department (ED) visits per 1,000 residents in Harford County by zip code. Lighter colors on the image indicate higher ED visit rates, while darker colors indicate lower rates. The rate for Maryland was 353.2 per 1,000 residents in 2016. Harford County's rate was slightly lower at 316.1. When each zip code was examined individually, it was found that the zip codes with the highest ED visit rates were Aberdeen (580), Edgewood (502), and Havre de Grace (460), all of which were well above the state and county averages.

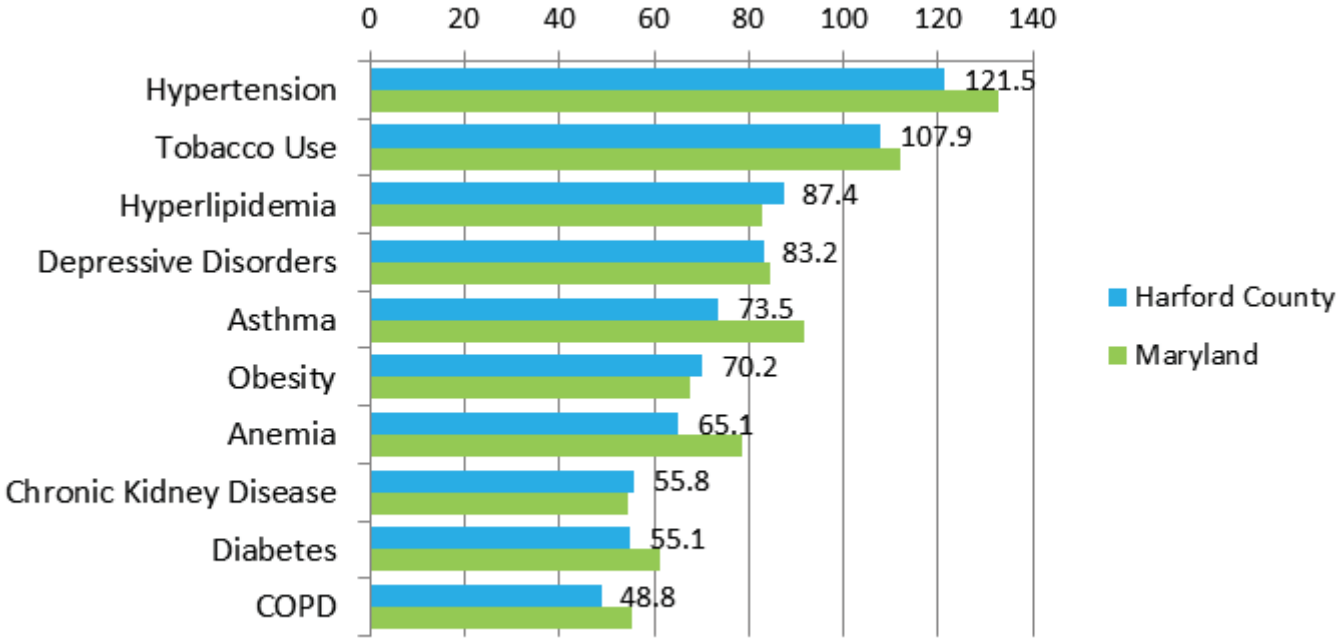
2016 Harford County Emergency Department Visits Per 1,000 Residents



Source: CRISP Emergency Department Visits by Zip Code (2016)

Using the Centers for Medicare and Medicaid Service's definition of chronic conditions, 2016 data for Harford County indicated that the three most common conditions associated with ED visits were hypertension, tobacco use, and hyperlipidemia (high concentration of fats or lipids in a patient's blood). Havre de Grace's top three chronic disease indicators were the same as those recorded for the county. However, while Aberdeen and Edgewood had tobacco use and hypertension as their leading indicators, the third and fourth highest indicators were depressive disorders and asthma, respectively, which suggest that these conditions were not being successfully treated on an outpatient basis. The top ten indicators for the entire county are listed in the table below.

Leading Chronic Conditions for Emergency Department Visits
Harford County and Maryland, 2016

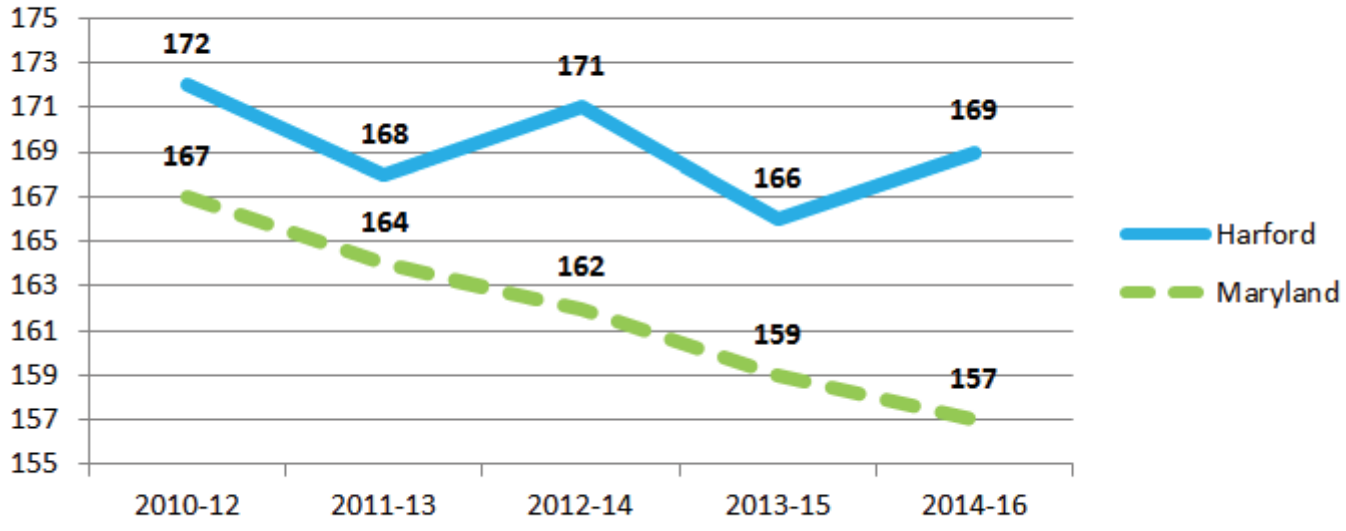


Source: CRISP Emergency Department CCW Conditions (2016)

Chronic and Communicable Disease

According to the Vital Statistics Administration, the leading cause of death in Harford County was cancer in 2016. Cancer mortality rates are also worse in Harford County than for the State of Maryland. While the state's mortality rates have steadily declined over time, Harford County's rate has remained relatively stable. Cancer mortality rates for Harford County and Maryland are shown below.

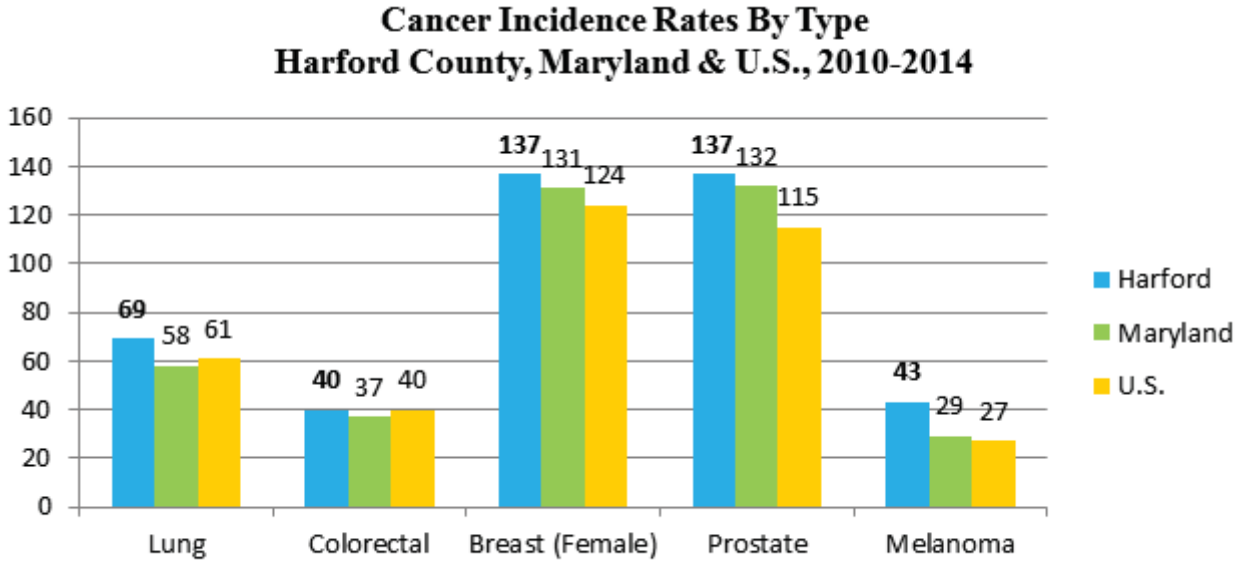
Cancer Mortality Rates
Harford County & Maryland, 2012-2016



**Age-Adjusted Rates*

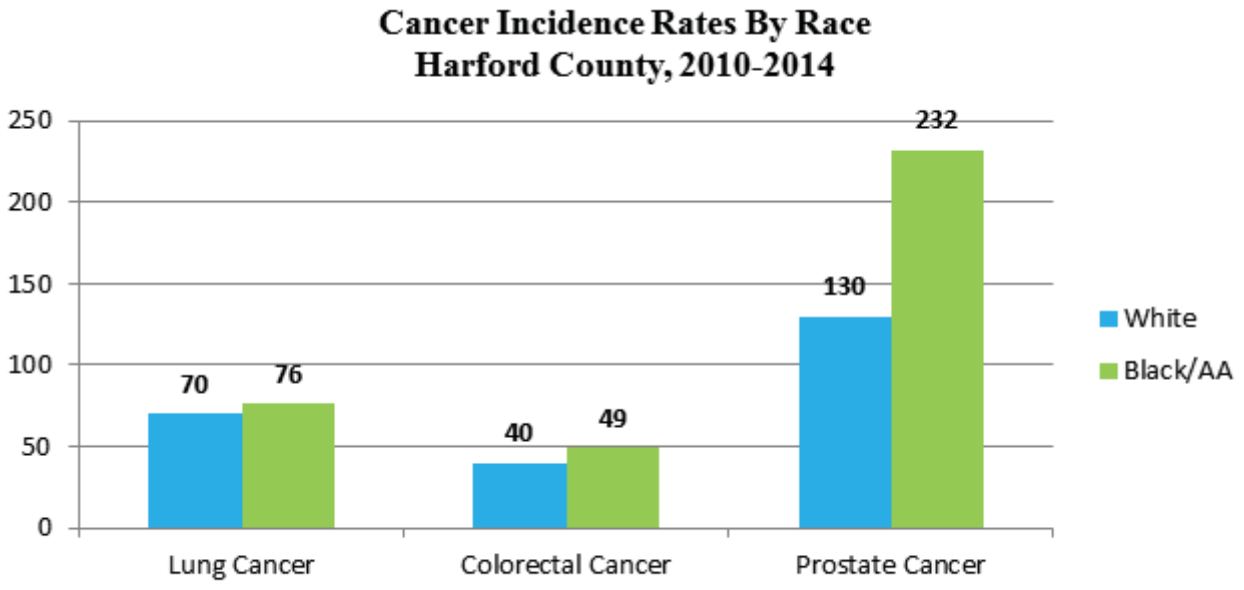
Source: Maryland Vital Statistics Reports

Cancer incidence rates by type are shown in the figure below for Harford County, Maryland, and the United States. Notice that Harford County rates are the same or worse for every cancer type when compared both locally and nationally.



Source: CDC and NCI at https://www.statecancerprofiles.cancer.gov/incidencerates/

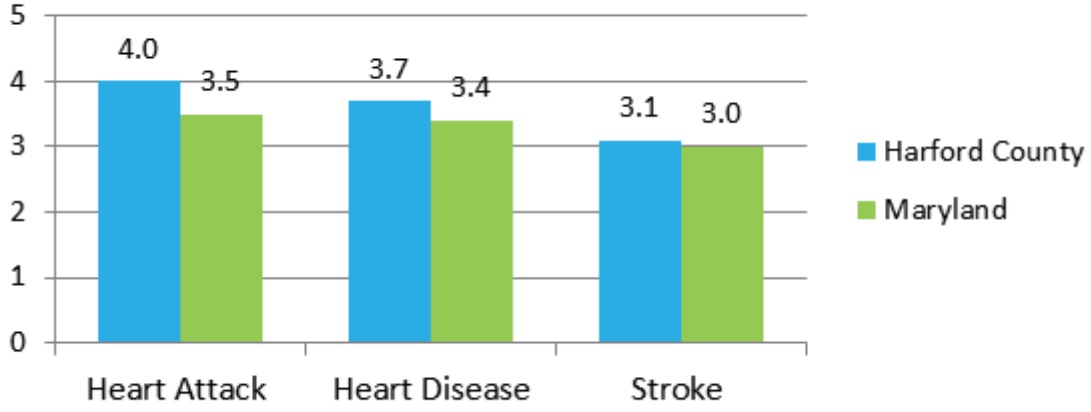
In addition to higher rates of cancer in the county, racial disparities exist for three types of cancers that have positive outcomes when screening occurs regularly. The figure below depicts incidence rates for lung cancer, colorectal cancer, and prostate cancer among white and black residents from 2010 to 2014.



Source: CDC and NCI at https://www.statecancerprofiles.cancer.gov/incidencerates/

Harford County adults have been shown to have a higher percentage of several vascular diseases when compared to Maryland adults. The chart below shows the percentage of adults that have been told that they have experienced a heart attack, been diagnosed with heart disease, or had a stroke. In each case, the percentage of Harford County adults is slightly higher than the state percentages.

2013-2015 Pergentage of Adults Diagnosed with Heart-Related Conditions



Source: 2013-2015 Maryland BRFSS

For other chronic conditions such as diabetes, asthma, Chronic Obstructive Pulmonary Disease (COPD), hypertension, and high cholesterol, the prevalence of each of these conditions is higher in Harford County than in the state, with the exception of diabetes. The following chart summarizes prevalence rates for each condition and compares them to the state prevalence.

Table: Percentage of Adults Ever Told They Have the Chronic Condition, 2013-2015

Chronic Condition	Harford County	Maryland
Asthma	14.3%	13.8%
COPD	8.1%	5.8%
Diabetes	9.7%	10.2%
High Cholesterol	37.0%	30.9%
Hypertension	36.6%	33.3%

Source: 2013-2015 Maryland BRFSS

A notifiable disease is any condition that, when identified in a patient, is required to be reported to the government so that its incidence can be monitored for potential outbreaks and clustering. In Maryland, there are 86 notifiable diseases that are reported to the Centers for Disease Control (CDC). Of those diseases, the highest case rates in Harford County were observed for chlamydia, Lyme disease, gonorrhea, salmonellosis (salmonella), and aseptic meningitis. The following chart provides rates for Harford County and Maryland per 100,000 residents. Notice that Harford County's Lyme disease rate is much higher than the state rate. In addition, 23 Harford County residents were diagnosed with HIV in 2016.

2016 Notifiable Disease Incidence Rates per 100,000 in Harford County and Maryland

Notifiable Disease	Harford County	Maryland
Chlamydia	320.5	509.6
Lyme Disease	69.4	21.2
Gonorrhea	62.3	158.5
Salmonellosis	11.6	16.1
Meningitis, Aseptic	10.4	8.7
Syphilis	6.8	8.5

Source: Maryland Department of Health

Maternal and Child Health

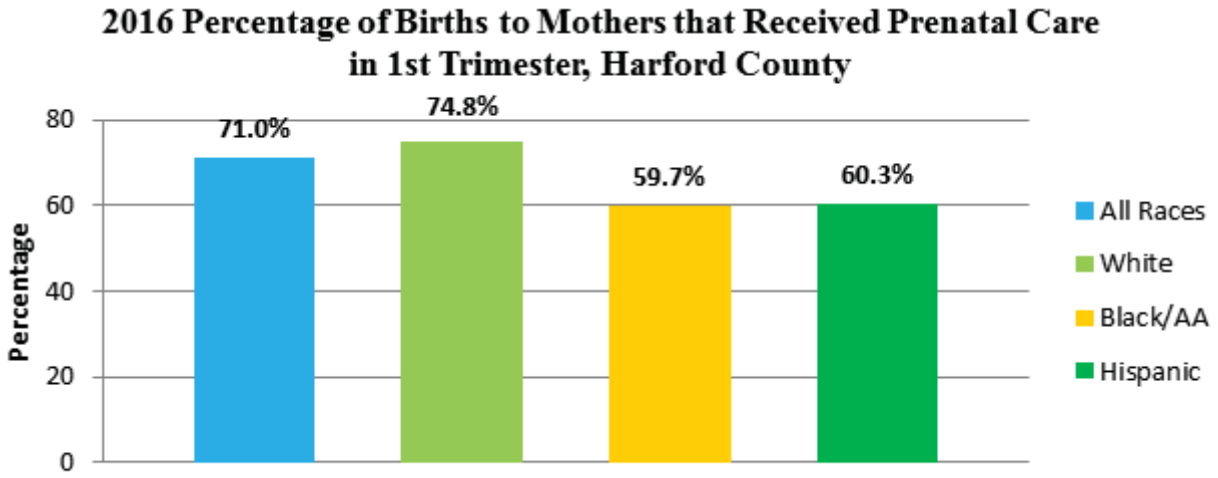
In 2016 there were 2,701 live births in Harford County. The chart below outlines maternal and child health data for the county. Maternal characteristics and birth outcomes in Harford County vary by race, indicating health disparities exist for mothers and babies for racial and ethnic minorities. Maternal characteristics and birth outcomes are provided by race in the chart below. Notice that the infant mortality rate for blacks in the county is more than three times higher than the rate for all races combined.

2016 Maternal and Child Health Data, Harford County and Maryland

Maternal Characteristics	Harford County	White	Black/AA	Hispanic
Under 20 years of age	3.5%	2.6%	6.6%	6.0%
Unmarried	30.6%	24.7%	56.4%	38.4%
Birth Outcomes				
Low birth weight (<2500 grams)	7.6%	6.4%	12.1%	7.5%
Infant Mortality (per 1,000 live births)	4.8	3.1	14.4	N/A

Source: 2016 Maryland Vital Statistics

A mother's well-being before, during, and after pregnancy can affect the health of a child from infancy to adulthood. The percentage of births to mothers receiving prenatal care in the first trimester of pregnancy was 71.0%, which was high when compared to Maryland's (67.8%). Births to mothers under the age of 20 made up only 3.5% of births in the county, while births to unmarried mothers made up 30.6% of births. The chart below highlights disparities in prenatal care by race in Harford County.



Source: 2016 Maryland Vital Statistics

Injury

According to County Health Rankings data between 2011 and 2015, the overall death rate from injuries in Harford County per 100,000 population was 61, which was slightly higher than the rate for Maryland (58). The rate of motor vehicle crash deaths was 11 per 100,000 in Harford County and 9 in Maryland. In addition, the percentage of motor vehicle deaths in which alcohol-impairment was the primary factor was higher in Maryland at 33%, than the 24% for Harford County deaths.

The table below shows causes of death and their corresponding death rates in both Harford County and Maryland from the 2016 Maryland Vital Statistics Annual Report. Intentional injuries from suicide and homicide accounted for 2.1% of deaths in Harford County in 2016 and unintentional injury deaths accounted for around 5.8%. While injury deaths from motor vehicle accidents have decreased over the past ten years, deaths from intentional self-harm (suicide), poisoning, and falls have continued to increase throughout the state.

2014-2016 External Causes of Death Rate per 100,000

Cause of Death	Harford	Maryland
Accident	32.0	30.5
Intentional Self-Harm (Suicide)	12.3	9.2
Assault (Homicide)	*	9.0

Source: Maryland Vital Statistics 2016 Annual Report

*Rates based on <20 events in the numerator are not presented since such rates are subject to instability.

Mental Health

A combination of qualitative data collected in hospitals, schools, and community surveys paints a startling picture of mental health for both children and adults in some of Harford County's most vulnerable communities. The Maryland BRFSS data for 2013-2015 indicates that 21% of Harford County residents have been diagnosed with depressive disorder, compared to 16.1% for the state. In addition, hospital data made available by the Chesapeake Regional Information System for our Patients (CRISP) reporting system, which serves as a regional health information exchange for Maryland, Virginia, West Virginia, and the District of Columbia, indicates that the rates of hospitalizations and emergency department visits for mental health-related conditions are similar in Harford County and the state of Maryland, but geographic disparities appear in the three zip codes with the highest need index for the county. The need index is based on the Community Need Index developed by Dignity Health in 2004. The following tables summarize hospitalization and Emergency Department (ED) visit rates per 1,000 residents for the state, county, and three selected jurisdictions.

Hospitalizations per 1,000 Residents for Mental Health Indicators, CRISP 2016

Population	Depression	Alzheimer's	Bipolar	Schizophrenia
Maryland	43.86	13.05	12.50	8.17
Harford County	45.14	13.46	11.94	5.64
Aberdeen	70.9	19.3	22.2	10.3
Edgewood	58.03	12.12	19.57	8.52
Havre de Grace	62.1	20.9	17.7	8.2

Source: 2016 CRISP Hospitalization Data

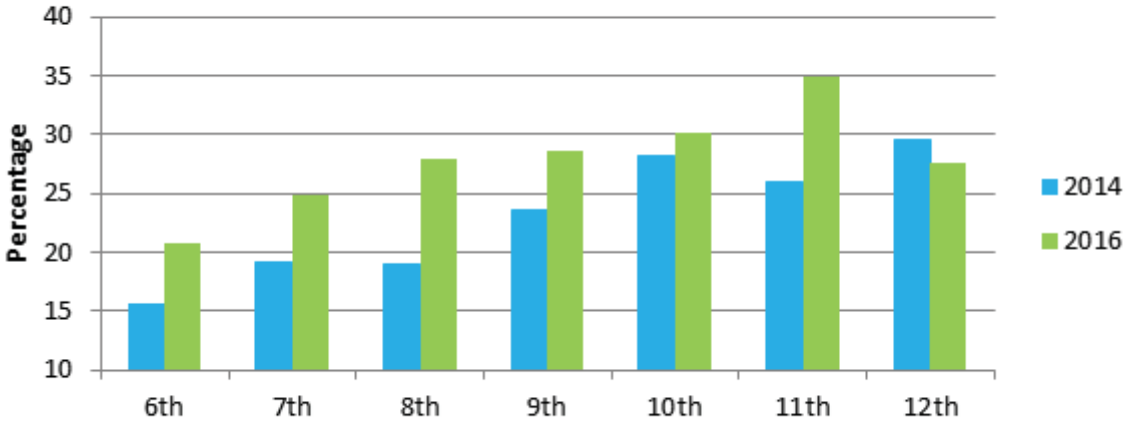
ED Visits per 1,000 Residents for Mental Health Indicators, CRISP 2016

Population	Depression	Alzheimer's	Bipolar	Schizophrenia
Maryland	84.7	12.6	40.9	21.6
Harford County	83.2	11.4	34.3	11.9
Aberdeen	164.5	18.6	77.7	27.3
Edgewood	128.9	11.4	61.4	22.2
Havre de Grace	128.8	20.2	50.2	18.3

Source: 2016 CRISP ED Visit Data

According to the 2014 and 2016 Maryland Youth Risk Behavior Survey, the percentage of students who reported feeling sad or hopeless for more than two weeks in a row climbed 33.3% between the first year of middle school and the senior year of high school. The percentage of high school students who seriously considered committing suicide was 18.2 % while 14.4% made a plan for how they would commit suicide.

2014-2016 Percentage of Students Who Felt Sad or Hopeless by Grade, Harford County



Source: 2014 & 2016 Maryland Youth Risk Behavior Survey

Access to Health Care

Health Insurance Coverage

Without health insurance, most people cannot afford quality healthcare. Lack of coverage may lead to disparities in overall health. Access to health insurance coverage has remained strong in Harford County with the expansion of Medicaid eligibility and implementation of the Maryland Health Exchange for Qualified Health Plans under the Affordable Care Act. In 2016, the percentage of uninsured adults was just 4.6% compared to Maryland (8.1%) according to the U.S. Census Bureau. However, the following disparities arise by zip code, age, sex, race, and educational attainment. Notice that the following characteristics make adults less likely to have health insurance coverage: 18 to 24 years of age, male, Hispanic, and less than a high school degree. Populations with the highest uninsured rates live in Aberdeen (21001) and Edgewood (21040).

2016 Percentage Uninsured by Category by Zip Code, Harford County

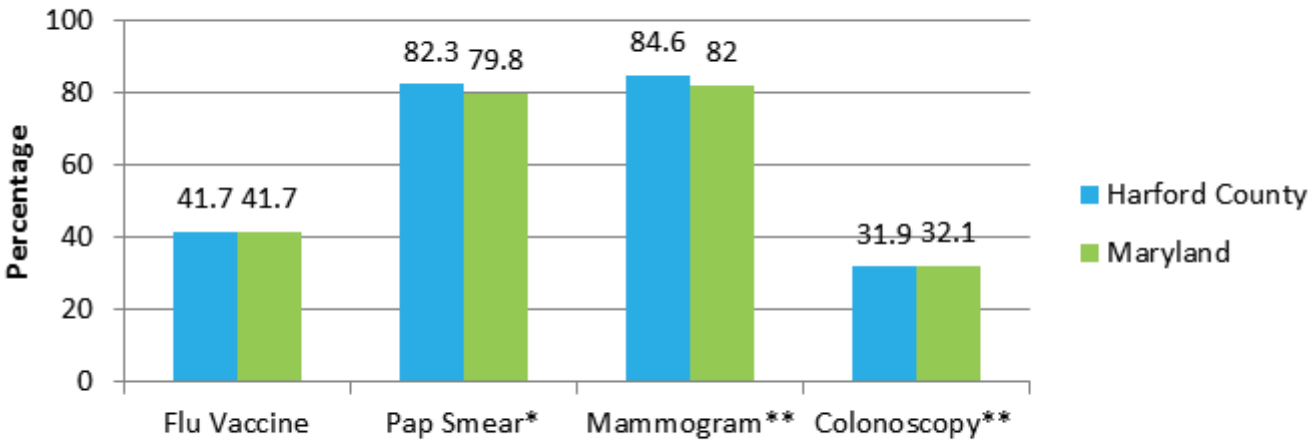
Age	Harford	Aberdeen	Edgewood	Havre de Grace
Under 18 years	2.1	1.8	1.4	2.0
18 to 24 years	8.7	16.6	19.2	11.8
25 to 34 years	9.1	15.0	13.4	6.9
35 to 44 years	5.9	10.3	10.4	7.2
45 to 54 years	5.4	11.4	8.6	5.9
55 to 64 years	4.6	9.5	9.0	6.2
Sex				
Female	3.7	6.7	5.9	4.3
Male	5.5	10.1	10.0	5.5
Race/Ethnicity				
White	3.7	7.1	9.8	4.0
Black/AA	7.4	9.3	6.6	8.4
Hispanic	12.8	18.8	17.6	8.9
Educational Attainment				
Less than high school	12.5	16.3	12.7	6.1
High school graduate	6.6	11.9	9.6	9.9
Some college	4.5	6.9	8.1	3.5
Bachelor's or higher	2.3	5.2	6.9	2.2

Source: U.S. Census 2012-2016 American Community Survey, 5-year Estimates

Access to Primary Care and Preventive Health Services

Preventive health services are essential for early detection of diseases and to avoid serious complications when diseases are not caught in their early stage. Most health insurance plans are required to cover a set of preventive services – such as vaccines and screenings – at no cost to the patient. The chart below shows the percentage of Harford County adults that took advantage of such opportunities in 2014. Notice that the use of each type of preventive health service is similar in Harford County and Maryland.

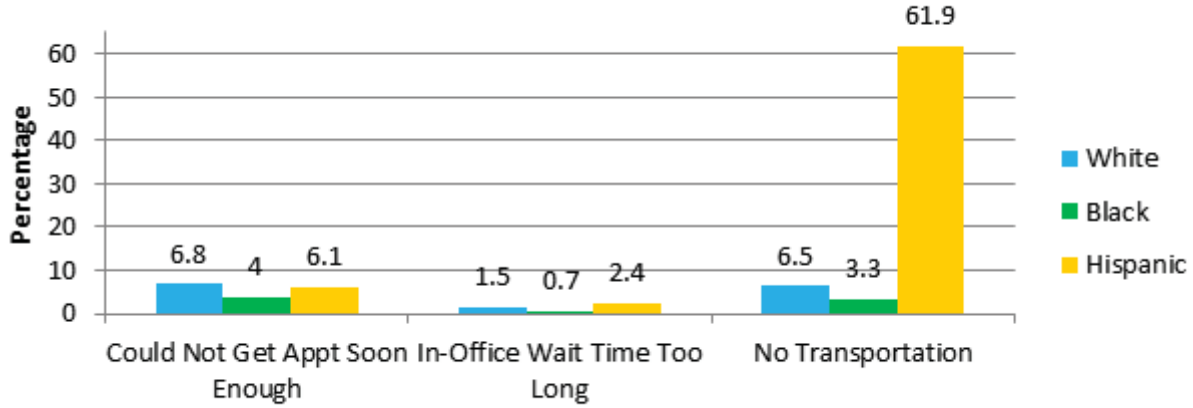
2014 Percentage of Harford County Residents Receiving Preventive Health Services



Source: 2014 Maryland BRFSS
**Screening in past 3 years for women 18 years and older*
***Screening in past 2 years for adults 50 years and older*

In the 2013-2015 BRFSS, 87.6% of Harford County residents reported having a person that they think of as their personal doctor or health care provider, higher than the state percentage of 82.4%. Responses to the 2015 BRFSS indicate that more Harford County residents have had routine health checkups in the last year (79.9%) than Maryland residents (76.2%). However, in the 2013-2015 BRFSS, 11.5% of Harford County residents reported needing to see a doctor but not being able to because of a cost barrier. In 2014 the two most reported reasons for delaying medical care included not being able to get an appointment soon enough (6.1%) and not having transportation to reach an appointment (8.3%), according to the Maryland BRFSS. The graph below shows that Hispanics were almost 10 times more likely than whites to report transportation as a barrier to receiving care.

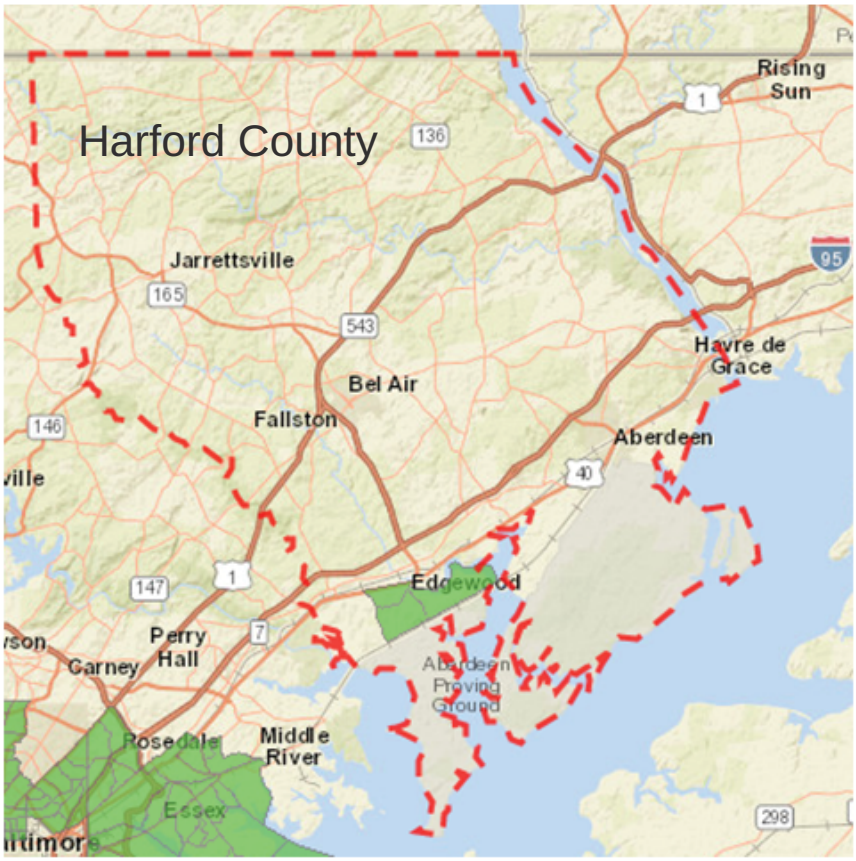
2014 Reasons for Delaying Needed Medical Care, by Race



Source: 2014 Maryland BRFSS

According to the Maryland Department of Health's Health Resources and Services Administration, a portion of Harford County is considered a Health Professional Shortage Areas (HPSA) for primary care. The following image shows in green the area of Harford County that has been designated as HPSA for primary care.

Primary Care Health Professional Shortage Areas



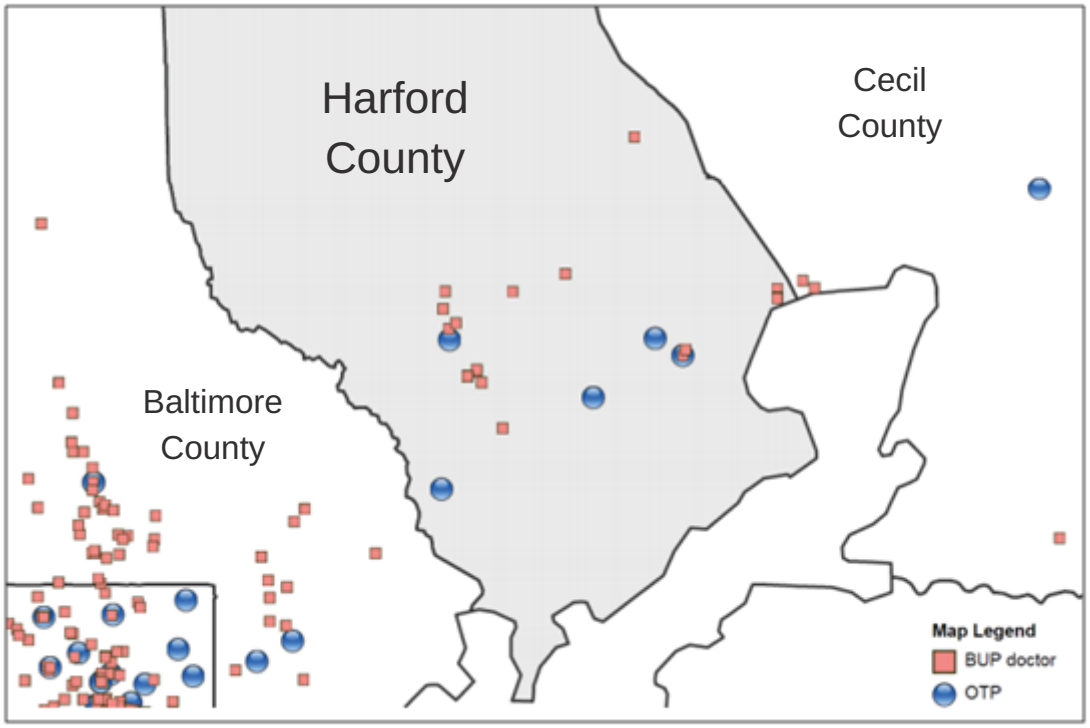
Source: Health Resources and Services Administration, County and County Equivalent Listing – Primary Care

Access to Mental Health and Substance Abuse Care

While most mental health and substance use disorders can be treated successfully, many who suffer from these diseases do not receive the care they need. The Health Resources and Services Administration designated all of Harford County as a Health Professional Shortage Area (HPSA) for mental health services. This designation means that the need for mental health services far outweighs their availability.

The Maryland Department of Health's Behavioral Health Administration compares each Maryland County's Opioid Treatment Program (OTP) capacity to the estimated need in that county. In 2015 Harford County's estimated need was 2,570 patients. In comparison, existing capacity could only serve 1,687 patients, leaving about 883 persons in need. The figure below maps Buprenorphine Treatment Providers and OTP facilities throughout the county. In addition, data from County Health Rankings show that in 2016, Harford County's mental health provider ratio was 740:1. This is much higher than Maryland's ratio of 490:1. United States counties in the 90th percentile for this measure report ratios closer to 360:1 for mental health providers.

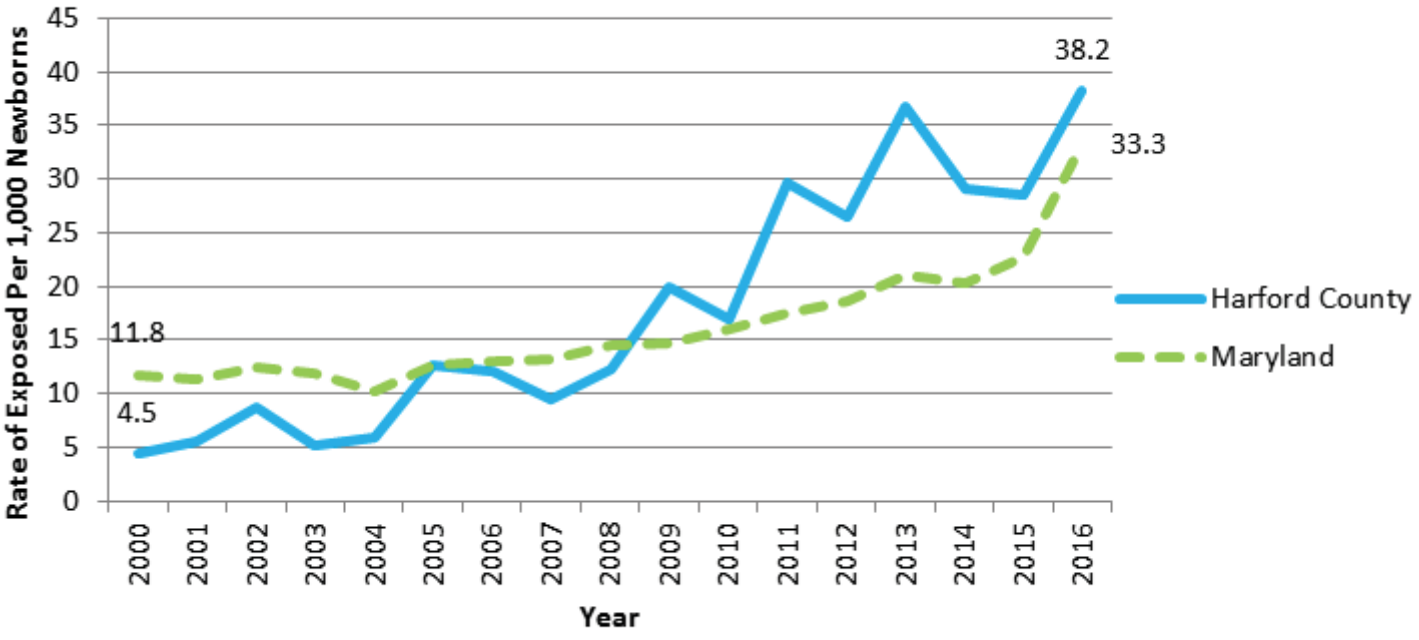
Harford County Buprenorphine Treatment Providers and OTP Facilities



Source: 2015 Maryland Behavioral Health Administration Opioid Treatment Programs in Maryland

Another indicator that suggests limited access to substance abuse treatment is the rate of substance-exposed newborns. The following graph shows the 8-fold increase in the rate of hospital encounters for newborns with maternal drug/alcohol exposure for Harford County and Maryland between 2000 and 2016.

Rate of Hospital Encounters for Newborns Born with Maternal Drug/Alcohol Exposure in Harford County and Maryland, 2000-2015



Source: HSCRC Hospital Data, 2000-2016

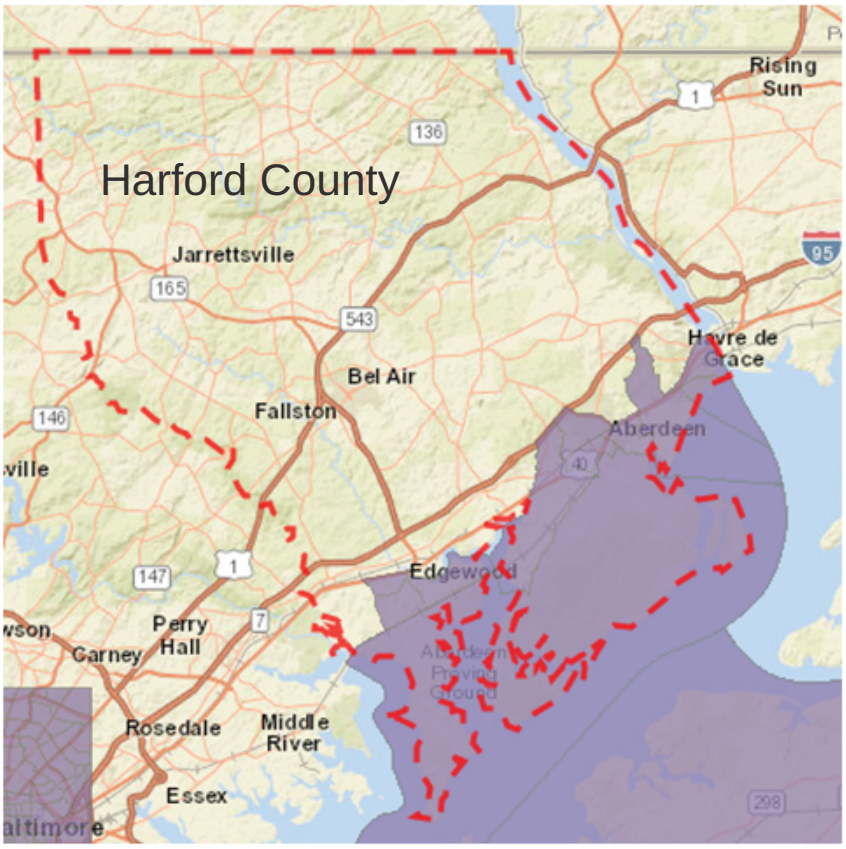
NOTE: ICD-10 Codes Used 760.70, 760.71, 760.72, 760.73, 760.75, 760.77, 779.5

The Harford County Health Department provides community-based behavioral health treatment and support services, as well as outreach, education, and specialized substance use disorder programs. The University of Maryland Upper Chesapeake Health provides behavioral health services through its Harford Memorial Hospital, including acute inpatient treatment, emergency room evaluations, medical consultations, and intensive outpatient programs. However, data indicates that the county needs additional capacity for treating those with mental illness and with addiction disorders.

Access to Oral Health Care

Oral health is an important part of overall health. Poor oral health has been associated with heart disease and has recently been linked to cancer in women (1). Dental problems are often painful, causing difficulty in eating and, consequently, to poor nutrition. On occasion, periodontal disease can require hospitalization and may lead to death. Access to affordable dental care is critical to ensuring good oral health. The ratio of dentists to population is lower in Harford County than for the state as a whole: 1 dentist for every 1,630 people in the county as compared to 1 to 1,350 in the state. Harford County has a lack of dentists in the southern area, which has been designated as a Health Professional Shortage Area (HPSA) for dental health. In the map below, the county's dental HPSA is shaded purple.

Health Professional Shortage Areas - Dental Health



Source: Health Resources and Services Administration, County and County Equivalent Listing – Oral Health Care

Data for 2015 from the Maryland BRFSS showed that just 67% of adults in Harford County reported visiting the dentist in the past year, a figure that was lower than for the state (72%). In addition, 6.8% reported that their last dental visit was over 5 years ago.

(1) Ngozi N. Nwizu, et. al., Periodontal Disease and Incident Cancer Risk among Postmenopausal Women: Results from the Women's Health Initiative Observational Cohort, Cancer Epidemiology, Biomarkers and Prevention, August 2017.

Online Community Health Survey

Background

The customized survey tool consisted of approximately 46 questions to assess access to health care, health status and behaviors, and health-related community strengths and opportunities. The online survey took respondents approximately 15 minutes to complete. In total, 1,741 respondents completed the survey.

The following section provides an overview of the findings from the Online Community Survey, including highlights of important health indicators and health disparities.

Demographic Information

The demographic profile of the respondents who completed the online survey is depicted in Tables 1 and 2. Approximately 55% of all respondents reside in zip codes 21014, 21015, 21009, 21078, and 21050. An additional 13.8% of respondents live in an "Other" zip code, the most common of which are 21901, 21918, and 21921. As depicted in Table 2, of the total 1,741 respondents, 80.29% were female and 19.71% were male. Whites comprised 83.77% of study participants and Blacks/African-Americans represented 11.55%. Approximately 3% of all respondents identified as Latino/Hispanic. Approximately 49% of all respondents were between the ages of 45 and 64 years. An additional 34.8% of all respondents were between the ages of 25 and 44 years.

Table 1. Zip Code Representation

Zip Code	%	Zip Code	%	Zip Code	%	Zip Code	%
21014	17.18	21040	7.15	21084	1.61	21005	0.52
Other	13.83	21001	6.80	21028	1.21	21111	0.29
21015	11.87	21047	3.75	21034	1.15	21010	0.23
21009	9.91	21085	2.54	21013	0.75	21060	0.12
21078	8.24	21154	2.42	21087	0.69	21018	0.06
21050	7.32	21017	1.61	21132	0.69	21082	0.06

Table 2. Demographic Information

Demographics	%
Gender	
Male	19.71
Female	80.29
Age	
18-24	4.97
25 – 34	16.94
35 – 44	17.86
45 – 54	24.10
55 – 64	24.97
65 – 80	10.69
81+	0.46
Race/Ethnicity	
White	83.77
Black/African American	11.55
American Indian/Alaska Native	0.40
Asian/Pacific Islander	1.68
One or more races	2.60
Hispanic/Latino*	3.06

* Hispanic/Latino respondents can be of any race, for example, White Hispanic or Black/African American Hispanic

The marital status, education level, employment status, and income level were also assessed for each respondent. The majority of respondents (63.09%) were married. Approximately 15% of respondents were single (never married) and 11.71% were divorced. 2.07% of respondents attained less than a high school diploma or GED. Approximately one-third (29.76%) of respondents attained some college, technical school or nursing school and 51.69% of respondents have an undergraduate degree or higher.

The majority (72.29%) of respondents were currently employed and working full-time. In addition, half of the respondents had an annual household income of $75,000 or more. Less than 14% of respondents had an income less than $25,000.

Table 2. Demographic Information Cont'd

Demographics	%
Marital Status	
Married	63.09
Divorced	11.71
Widowed	4.15
Separated	2.08
Never married	15.11
Member of an unmarried couple	3.86
Level of Education	
Never attended school or only attended kindergarten	0.0
Grades 1-8 (Elementary School)	0.52
Grades 9-11 (High school, no diploma)	1.55
High school diploma or GED	11.97
Some college or Technical school	32.30
College degree	29.76
Graduate degree	21.93
Other	1.96
Employment Status	**%**
Full-time employee	72.29
Part-time employee	12.99
Unemployed, looking for work	2.08
Unemployed, not looking for work	.064
Retired	6.93
Disabled, Not able to work	3.29
Student	0.75
Homemaker	1.04
Annual household income from all sources	
Less than $10,000	5.21
$10,000-$14,999	2.87
$15,000-$19,999	1.99
$20,000-$24,999	3.10
$25,000-$34,999	6.91
$35,000-$49,999	9.02
$50,000-$74,999	16.29
$75,000 and more	54.60

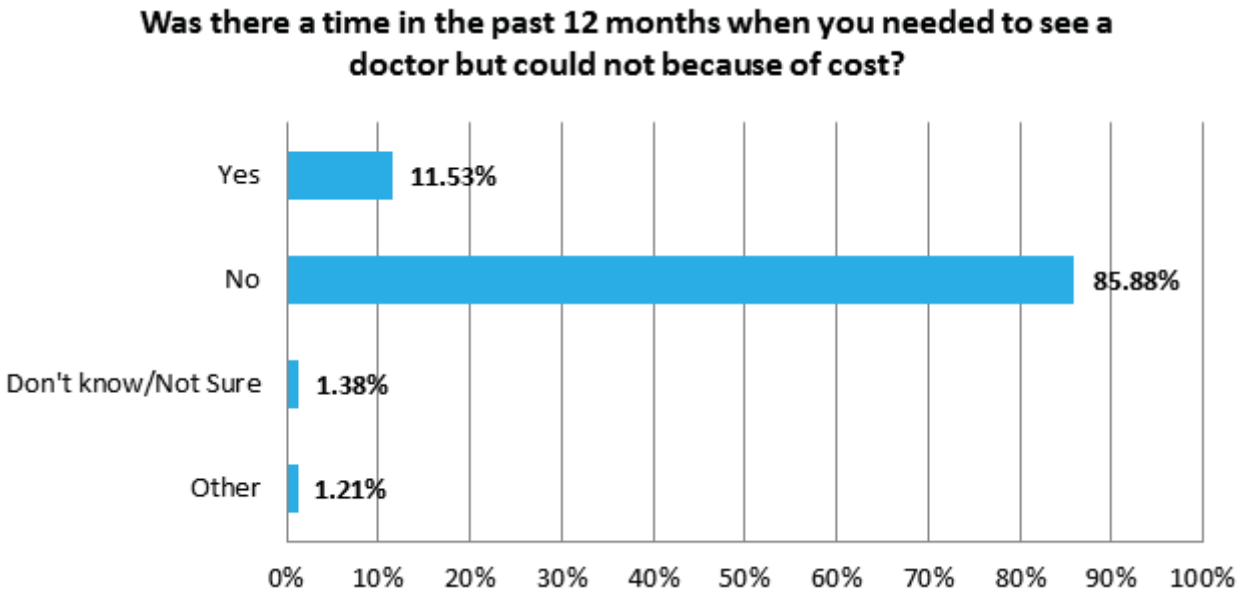
Access to Health Care

A high proportion of respondents had health care coverage (97.92%) and at least one person who they think of as their personal doctor or health care provider (88.44%). In addition, 76.33% of respondents had a routine checkup within the past year and 13.95% had one within the past two years. The source of respondent's health insurance coverage is detailed in Table 3.

Table 3. Source of Health Insurance Coverage

Health Insurance Source	%
Your employer	61.09
Someone else's employer	21.59
Medicaid or Medical Assistance, MCHiP	8.49
The military, CHAMPUS, or the VA	2.60
Some other source	5.60
A plan that you or someone else buys on your own	3.35
None/No Health Insurance	2.08

Despite primarily positive findings regarding health insurance and access to primary care, respondents in Harford County still cite the cost of care as a barrier. Nearly 12% of respondents said that there was a time in the past 12 months when they needed to see a doctor but could not because of cost. This finding may be an indicator that out-of-pocket expenses not covered by insurance (e.g. copays) are preventing respondents from seeking care when they need it. In addition, 21 respondents cited an "Other" reason for not being able to see a doctor due to cost. Of these 21 respondents, seven stated they were not able to afford dental care or they had transportation issues.



Next, respondents were asked if they had delayed needed medical care in the past 12 months. Nearly 71% of respondents did not delay or need medical care in the past 12 months. Of those who did delay medical care, 13.04% stated they could not get an appointment soon enough. Approximately 146 respondents (8.50%) cited an "Other" reason for delaying care. The most frequently mentioned themes are summarized below. The majority of respondents mentioned the inability to pay out-of-pocket costs as their main reason for delaying needed medical care. Others indicated being unable to take time off work.

Reason: Cost	Reason: Work
"No money."	"Time off work means no pay."
"No money for co-pays and couldn't get an appointment quick enough."	"Work gets in the way."
"High co-pay/deductible."	"Too busy at work to go."
"Not being able to afford the tests I knew they would order."	"Put job before my health and the care of an elderly parent."
"Had to pay out of pocket as the doctor was out of network and the deductible was too high, and there was not a similar doctor I could go to instead of the one I went to."	"Stressors at work make it difficult to make time for personal calls during regular business hours."
"Can't afford it."	"Too hard to take off work to go."
"I couldn't afford the co-pay."	"Appointment times inconvenient because I work during business hours too."
"Co-pay too expensive; cannot afford."	"Work prevents me from follow up with care after diagnosis."
"Dentist cost a lot of money."	"I cannot take time off to go to my doctor's appointments because my job has a policy that two people cannot be off at the same time."

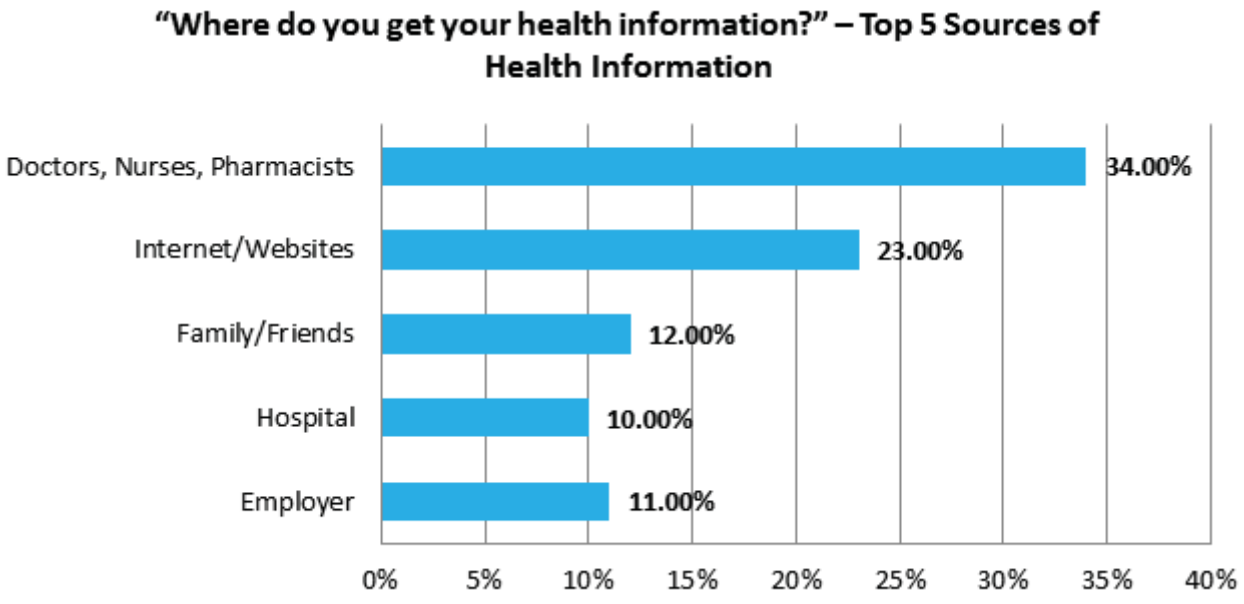
Next, respondents were asked if they travel outside of Harford County to get medical help. More than one-third of respondents (35.66%) travel outside of the County for medical help. Respondents travel outside of the county for primary care, obstetrics/gynecology, and specialty care. The following is a summary of the approximate number of times the most prominent types of care/providers were mentioned.

Table 4. "Other" Types of Care/Providers Respondents Travel Outside of the County to Visit

Type of Care/Provider	Number of Mentions
Primary care/Routine care	122
Obstetrics/Gynecology	81
Specialist	49
Dentist	18
Rheumatologist	16
Oncology	13
Surgery	12
Dermatology	10
Eye Doctor	9
Neurology	8
Mental Health	8
Orthopedics	8
Endocrinology	7
Pediatric	7
Gastrointestinal	6

Health Information

Respondents were asked to indicate where they get their health information. Approximately 90% of respondents get their information from one of the five sources shown in the graph below. More than one-third of participants (34%) reported that they get health-related information from health professionals (doctors, nurses, pharmacists). Respondents also indicated that they get health information from a variety of sources that were listed, not just one source.



Health Status & Chronic Health Issues

Overall Physical & Mental Health

Respondents were asked to rate their general health status. Approximately 56% of respondents stated their general health is very good or excellent. Approximately 11% of respondents stated their general health is fair or poor. Respondents were also asked to rate their overall physical and mental health. In general, self-reported measures of poor physical and mental health days were favorable among Harford County respondents. Nearly 50% of respondents reported having no poor physical health (including physical illness and injury) or mental health (including stress, depression, and problems with emotions) during the past 30 days. Thirty percent of respondents reported having poor physical health and 26% reported having poor mental health for a maximum of one to two days during the past 30 days.

Respondents were also asked how many hours of sleep they get in a 24 hour period on average. The vast majority of respondents (87.27%) reported getting 5 to 8 hours of sleep and 7.93% reported getting 9 to 12 hours of sleep. An average of 7 to 9 hours of sleep is recommended for adults by the National Sleep Foundation.

Physical Activity

It is widely supported that physical activity can inhibit health concerns such as obesity and overweight, heart disease, joint and muscle pain, and many others. It is recommended that individuals regularly engage in at least 30 minutes of moderate physical activity, preferably daily, and at least 20 minutes of vigorous physical activity several days a week. Approximately 72% of respondents reported that they have participated in physical activities or exercises such as running, calisthenics, golf, gardening or walking during the past month. Among respondents who participated in physical activity, the majority (51.50%) reported participating in exercise 1 to 5 times per week, and nearly 10% were physically active 6 to 10 times per week. The majority of respondents (59.29%) engaged in exercise for 30 minutes to 1 hour. These findings may indicate that the majority of respondents for Harford County engage in physical activity on a regular basis.

Dietary Behaviors

Respondents were asked about their consumption of fruits and vegetables. Only 10% of respondents reported eating fruits and/or vegetables three or more times a day. Approximately one-third of respondents eat fruits and/or vegetables one to two times per day.

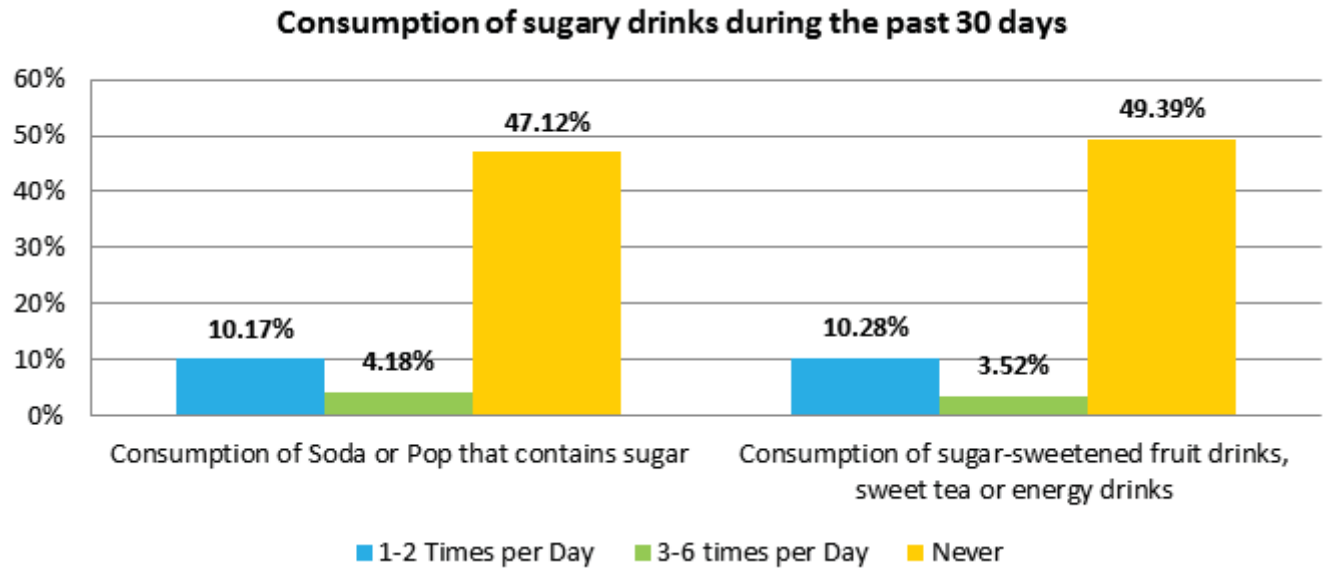
Table 6. Fruit and Vegetable Consumption

	Consumption of Fruits	Consumption of Vegetables
1 to 2 Times per Day	37.67%	31.31%
3 to 6 Times per Day	9.34%	9.78%
1 to 2 Times per Week	16.19%	18.23%
3 to 6 Times per Week	21.24%	29.92%
1 to 3 Times per Month	10.27%	8.04%
Never	3.89%	1.68%

The majority of respondents reported that they never drink soda or sugar-sweetened drinks (47.12% and 49.39% respectively). Nearly one quarter of respondents reported drinking soda and/or sugar-sweetened drinks one to nine times a month (25.28% and 22.70% respectively). In contrast, approximately 14% of respondents reported drinking soda and sugar-sweetened drinks respectively, one to six times per day. Strong evidence indicates that consumption of sugary drinks on a regular basis contributes to the development of type 2 diabetes, heart disease, and other chronic conditions.

Table 7. Regular Soda and Sugar-Sweetened Drink Consumption

	Consumption of Soda or Pop that contains sugar	Consumption of sugar-sweetened fruit drinks, sweet tea or energy drinks
1 - 2 Times per Day	10.17%	10.28%
3 - 6 Times per Day	4.18%	3.52%
1 - 6 Times per Week	8.31%	6.82%
7 - 15 Times per Week	1.28%	2.02%
More than 15 Times per Week	0.52%	0.64%
1 - 9 Times per Month	25.28%	22.70%
10 - 25 Times per Month	1.05%	2.08%
More than 25 Times per Month	0.52%	0.81%
Never	47.12%	49.39%



Next, respondents were asked if they are currently watching or reducing their sodium or salt intake. More than half of the respondents (51.59%) reported that they are not watching or reducing their salt or sodium intake currently and another 46.78% reported that they are currently watching or reducing their sodium or salt intake.

Chronic Conditions

Some chronic conditions are of concern in Harford County, including high cholesterol, high blood pressure, anxiety disorder and depressive disorder. Approximately 30% of respondents have been told they have high cholesterol and/or high blood pressure and 25% have been told they have an anxiety and/or depressive disorder. In addition, 22.8% of respondents have been told they have arthritis and 17.82% of respondents have been told they have asthma. Respondents also mentioned other chronic conditions that they have been diagnosed with but were not included in the survey list. Hyper/Hypothyroidism was the most frequently mentioned condition. A summary of chronic condition diagnoses among respondents is reported in Table 8.

Table 8. Chronic Condition Diagnoses

Chronic Condition	%
High blood pressure	30.30
High cholesterol	29.85
Anxiety disorder	25.18
Depressive disorder	24.63
Arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia	22.78
Asthma	17.82
Diabetes	9.35
Cancer	7.77
Angina or coronary disease	2.94
Chronic Obstructive Pulmonary Disease	2.24
Heart attack	1.82
Stroke	1.76

Respondents who reported having cancer were asked to specify the type of cancer with which they were diagnosed. The most common types of cancer reported by respondents included skin cancer (other than melanoma), breast cancer, and melanoma. Table 9 highlights the top 12 cancer types reported by respondents.

Table 9. Most Common Cancer Types Reported

Cancer Types	%
Other skin cancer	38.89
Breast cancer	20.56
Melanoma	12.78
Cervical cancer	8.89
Lung cancer	4.44
Thyroid cancer	4.44
Prostate cancer	3.33
Ovarian cancer	3.33
Endometrial (uterus) cancer	2.22
Bladder cancer	2.22
Head and neck cancer	1.11
Stomach	1.11

Health Risk Factors

Health Behaviors

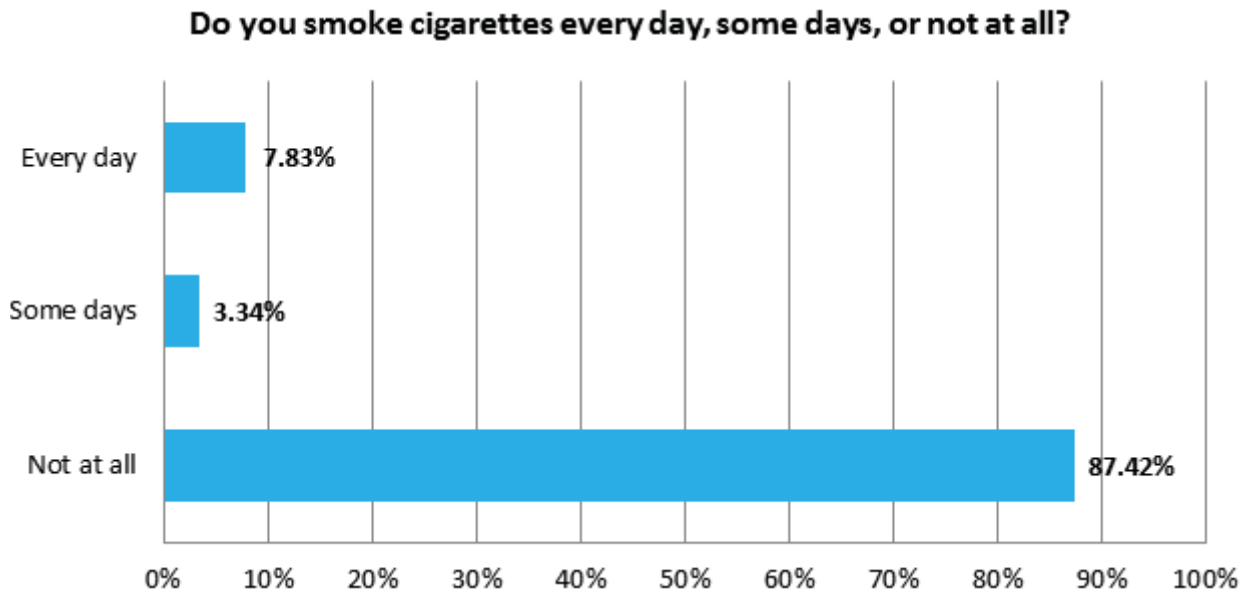
The survey respondents were asked to rate their level of health and safety practices on a scale of "1 – Always" to "5 - Never." As detailed in the table below, respondents were highly likely to use safety measures including wearing a seatbelt, practicing safe sex, using sunscreen regularly, and driving responsibly. In addition, respondents were less likely to eat fast foods more than once a week, use electronic cigarettes, get exposed to second-hand smoke, use marijuana, or misuse prescription drugs. However, 24.20% of respondents reported feeling stressed out or overwhelmed "Always" or "Most of the time."

Table 10. Respondent Health and Safety Practices

Factor	Frequency of "Always" and "Most of the Time" Responses
Wear a seatbelt	97.7%
Wear a helmet while riding a bicycle, scooter, roller blading, etc.	33.81%
Eat fast food more than once a week	12.37%
Use electronic cigarettes	1.74%
Get exposed to second hand smoke or vaping mist at home or work	6.61%
Use marijuana	1.33%
Misuse prescription drugs, opioids, heroin, or other illegal drugs	0.41%
Exercise 30 minutes a day, 3 times a week	34.27%
Use sunscreen regularly	47.75%
Practice safe sex i.e. use a condom, monogamous, get tested	67.11%
Feel stressed out or overwhelmed	24.20%
Drive responsibly, follow safe rules of the road, drive within the speed limit	89.00%

Tobacco & Alcohol Use

Risky behaviors related to tobacco and alcohol use were measured as part of the survey. Approximately 34% of respondents reported smoking at least 100 cigarettes in their lifetime. Among this group, 87.42% reported they currently do not smoke at all, whereas 7.832% smoke every day and 3.34% smoke some days.



In regards to alcohol use, almost two-thirds of respondents (65.66%) did not have an alcoholic beverage during the past 30 days. Among respondents who did drink an alcoholic beverage, 22.16% participated in binge drinking one to two times during the past month. Only a very small percentage of respondents (approximately 11%) participated in binge drinking three or more times during the past month. Binge drinking is defined as four drinks or more on one occasion for women and five drinks or more on one occasion for men.

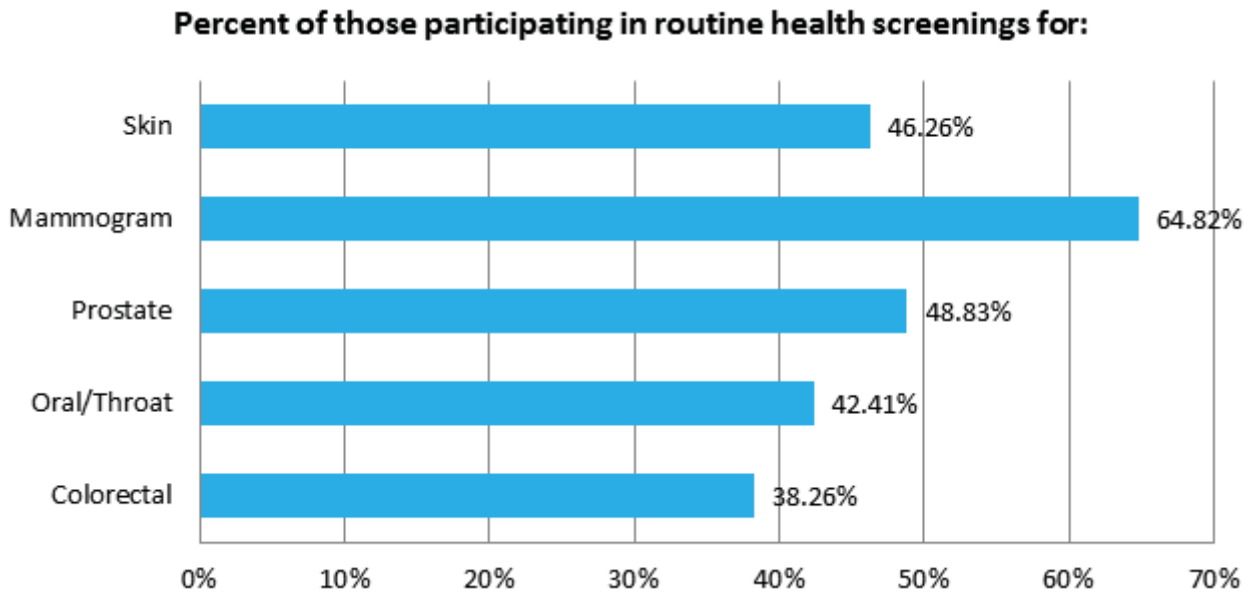
Preventive Health Practices

Immunizations

A positive finding among Harford County respondents was the prevalence of immunizations. In the past 12 months, 78.98% of respondents received a flu vaccine either as a shot or a nasal spray.

Screenings

The prevalence of routine health screenings among Harford County respondents varies based on the type of screening. In general, Harford County respondents are less likely to receive skin screenings. Only 46.26% of respondents have routine health screenings for skin-related conditions. Oral/throat health screenings and prostate screenings are also less prevalent among Harford County respondents (42.41% and 48.83% respectively). A low percentage of respondents also participate in routine health screenings for colorectal cancer (38.26%). In contrast, a larger proportion of respondents participate in routine mammogram screening (64.82%).



Key Health Issues

Respondents were asked to rank the three most significant health issues facing Harford County. The respondents could choose from a list of 13 health issues as well as suggest their own that were not on the list. Drug/Alcohol abuse was the primary area of shared concern among Harford County respondents. Nearly 83% of respondents selected this issue as one of the top three most pressing health issues facing the county. Mental Health/Suicide was also a concern shared by 44.80% of respondents. The third most pressing health issue, as viewed by the respondents was overweight/obesity with a 41.36% rating. The following table shows the breakdown of the percent of respondents who selected each health issue.

Table 11. Ranking of the Top Three Most Pressing Health Issues

Rank	Key Health Issues	Count	Percent of Respondents Who Selected The Issue
1	Drug Abuse/Alcohol Abuse	1,442	82.83%
2	Mental Health/Suicide	780	44.80%
3	Overweight/Obesity	720	41.36%
4	Cancer	442	25.39%
5	Access to Care/Uninsured	438	25.16%
6	Diabetes	324	18.61%
7	Heart Disease	302	17.35%
8	Tobacco Use/Smoking	254	14.59%
9	Alzheimer's Disease/Aging Issues	210	12.06%
10	Dental Health	150	8.62%
11	Sexually Transmitted Diseases	43	2.47%
12	Other	42	2.41%
13	Stroke	38	2.18%
14	Maternal/Infant Health (Pregnancy)	38	2.18%

In addition, respondents were asked through an open-ended response to specify other pressing issues they think are facing Harford County. The most frequently voiced issues included drug abuse, transportation, homelessness, and non-compliance. A complete listing of answers given by respondents shown below.

Most Pressing Health Issues Facing Harford County:

- "Homeless people/we need Homes!"
- "Opioid use/overdose"
- "Transportation"
- "Dental health for adults on fixed income with Medical Assistance."
- "Doctor, not Urgent Care facilities, where you can get an appointment in under 2 weeks"
- "Medication costs"
- "Healthcare costs"
- "Noncompliance with care recommendations/medication"
- "Additional Treatment"
- "Kidney stones"
- "Opioids and liberal Rx writing by Practitioners"
- "Having to wait weeks or months for an appointment"
- "Lyme disease"
- "Counseling"
- "Glasses to wear"
- "Too much sugar"

Barriers to Services

Respondents were asked to consider the most significant barriers that keep people in the community from accessing health services. The five most significant barriers included cost of out of pocket expenses (81.40%), lack of health insurance coverage (57.62%), lack of transportation (42.03%), difficult to understand/navigate health care system (37.15%), and inability find a doctor/get an appointment (35.58%). Responses are summarized in the table below.

Table 12. Barriers to Accessing Health Care

Rank	Key Health Issues	Count	Percent of Respondents Who Selected The Barrier
1	Cost/Paying Out of Pocket Expenses (Co-pays, Prescriptions, etc.)	1400	81.40%
2	Lack of Health Insurance Coverage	991	57.62%
3	Lack of Transportation	723	42.03%
4	Difficult to Understand/Navigate Health Care System	639	37.15%
5	Can't Find Doctor/Can't Get Appointment	612	35.58%
6	Basic Needs Not Met (Food/Shelter)	574	33.37%
7	Not Enough Time	333	19.36%
8	Lack of Child Care	252	14.65%
9	Lack of Trust	245	14.24%
10	Language/Cultural Issues	171	9.94%
11	Other	73	4.24%
12	None/No Barriers	58	3.37%

Respondents also identified through an open-ended response other significant barriers that they perceived were keeping people in the community from accessing health care. The vast majority pointed out lack of education and awareness as the most significant barrier. Responses such as "people lack education on how to maintain general health" and "they lack understanding of common health issues such as stroke, heart attack and diabetes" were very common. Other barriers that were mentioned frequently included conflicting work schedules, laziness, and the stigma or fear of addressing issues.

Resources Needed to Improve Access

Respondents were asked what resources or services are missing in the community. More than half of respondents (51.93%) indicated that free/ low-cost dental care services are missing in the community. A few other resources identified as missing included mental health services (42.46%), substance abuse services (42.22%), free/ low-cost vision/eye care (38.13%), and free/ low-cost Medicare services (37.95%). In addition, respondents indicated through an open-ended question that they want to have more access to affordable senior living facilities, health insurance, and substance abuse programs. Table 12 includes a listing of missing resources in rank order.

Table 13: Listing of Resources Needed in the Community

Rank	Resources Needed	Count	Percent of Respondents Who Selected The Resource
1	Free/Low Cost Dental Care	888	51.93%
2	Mental Health Services	726	42.46%
3	Substance Abuse Services	722	42.22%
4	Free/Low Cost Vision/Eye Care	652	38.13%
5	Free/Low Cost Medicare Care	649	37.95%
6	Transportation	597	34.91%
7	Prescription Assistance	560	32.75%
8	Access to Affordable Fresh Fruits & Vegetables	529	30.94%
9	Health Education/Information/Outreach	428	25.03%
10	Elder Care/Senior Services	395	23.10%
11	Health Screenings	373	21.81%
12	Primary Care Providers (Family Doctors	315	18.42%
13	Immunization/Vaccination Programs	197	11.52%
14	Bilingual Services	186	10.88%
15	Medical Specialists (Ex. Cardiologist)	152	8.89%
16	Availability of Parks & Recreation Areas	149	8.71%
17	Prenatal Care Services	85	4.97%
18	Other	58	3.39%
19	None	53	3.10%

Risky Behaviors in our Community

Respondents were asked to rank the three most important "risky behaviors" in Harford County. The respondents could choose from a list of 12 risky behaviors as well as suggest their own that were not on the list. Drug abuse was the most frequently identified risky behavior. Nearly 90% of respondents selected this issue as one of the top three most important risky behaviors in the county. Alcohol abuse was also a concern shared by 47.90% of respondents. The third most identified risky behavior, as viewed by the respondents, was being overweight with a 41.99% rating. In addition, respondents indicated through an open-ended question that texting while driving was an identified risky behavior. Table 13 includes a listing of risky behaviors in rank order.

Table 14. Ranking of the Top Three Most Important "Risky Behaviors"

Rank	Key Health Issues	Count	Percent of Respondents Who Selected The Issue
1	Drug Abuse	1555	89.32%
2	Alcohol Abuse	834	47.90%
3	Being overweight	731	41.99%
4	Poor eating habits	553	31.76%
5	Tobacco use	353	20.28%
6	Lack of exercise	303	17.40%
7	Unsafe sex	201	11.55%
8	Racism	194	11.14%
9	Not using birth control	141	8.10%
10	Dropping out of school	132	7.58%
11	Not getting "shots" to prevent disease	119	6.84%
12	Not using seat belts/child safety seats	57	3.27%
13	Other	50	2.87%

Needs for a Healthy Community/Quality of Life

Respondents were asked to rank the three most important needs for a "Healthy Community". The respondents could choose from a list of 16 things that most improve the quality of life in a community as well as suggest their own that were not on the list. Low crime/safe neighborhoods was the most identified need. More than half of respondents (54.51%) selected this issue as one of the top three needs for a healthy community. Access to health care was also a need shared by 37.51% of respondents. The third most identified need, as viewed by the respondents, was healthy behaviors and lifestyles with a 34.81% rating. Table 14 includes a listing of important needs for a "Healthy Community" in rank order.

Table 15. Ranking of the Top Three Most Important Needs for a "Healthy Community"

Rank	Key Health Issues	Count	Percent of Respondents Who Selected The Issue
1	Low crime/safe neighborhoods	949	54.51%
2	Access to health care (e.g., family doctor)	653	37.51%
3	Healthy behaviors and lifestyles	606	34.81%
4	Good jobs and healthy economy	560	32.17%
5	Good schools	503	28.89%
6	Strong family life	442	25.39%
7	Affordable housing	382	21.94%
8	Good place to raise children	337	19.36%
9	Religious or spiritual values	227	13.04%
10	Clean environment	197	11.32%
11	Parks and recreation	111	6.38%
12	Excellent race relations	95	5.46%
13	Low level of child abuse	74	4.25%
14	Low adult death and disease rates	36	2.07%
15	Arts and cultural events	25	1.44%
16	Other	23	1.32%
17	Low infant deaths	3	0.17%

Community Feedback

What Prevents You From Being Healthy In Harford County?

Respondents were asked to comment on what prevents them from being healthy in Harford County. The most common responses referenced lack of time, affordable health care, transportation, the high cost of healthy foods, and work-related issues.

Select Responses:

- "Healthy food is too expensive, needs to be low cost healthy food."
- "Money, even with insurance, I am unable to afford the co-pays for the services my insurance covers, so I don't go."
- "Can't afford housing, no train, no buses that work."
- "Transportation challenges for those without a car."
- "Cost of fresh fruits and vegetables."
- "Lack of easy access to outdoor recreation."
- "Demanding full-time job, raising busy family."
- "No drug awareness education program in elementary school. The county and state must step up and make it a top priority to help our youth."
- "Out of pocket costs for healthcare."
- "Healthcare hours aren't convenient."
- "No doctor will see a new patient in a reasonable time."
- "Lack of resources, cost of healthcare, lack of mental health support."
- "Affordable exercise programs and flexible doctor hours."
- "Work too many hours for too little pay which leaves me stressed for time."
- "Getting doctor's appointments in a reasonable amount of time."
- "Exhausted, single parent, short staffed at work – no lunch, no breaks."
- "My job – they talk the talk, but don't walk the walk."
- "Cost of groceries."
- "I am living from paycheck to paycheck. I cannot afford to buy the healthier foods to eat due to their cost is higher than the cost of processed and pre-packaged foods. Time is another issue. Not enough community activities that young, single and older single adults can go to mingle and develop friendships."
- "Cost of living and lack of good paying jobs."
- "Too many fast food options."
- "Horrible public transportation access."
- "Time to cook healthy and get outside to exercise."
- "Harford County needs engaging affordable activities for child, teens and elderly citizens."
- "Cost of living too high, pay is too low, co-pays just continue to increase."
- "Lack of adult dental care and good paying jobs."

General/Additional Comments:

- "Local transportation needs to be more readily available."
- "More mental health facilities/providers are desperately needed."
- "More community programs for Route 40 corridor."
- "Harford County and the State of MD need to address the heroin issue. Drug awareness education needs to be implemented in all elementary Social Studies curriculum. This is a serious issue and children must be educated by using a new high tech drug awareness program. The VHS tape program of the 1990's is completely obsolete."
- Harford County needs to up the pay rates for hard working employees and provide better more affordable housing."
- "WE NEED TO FIND PEDIATRIC PSYCH CARE!!!! How in the world can we raise children to be strong productive members of our community if we are not helping children in need of mental illness help!!! It's out of control."
- "Make health care affordable for everyone."
- "To help the people with no insurance to get the care and help the need."
- "Health education needs to have congruency starting in elementary schools all the way through high school. We cannot preach good eating habits and have vending machines in school or serve hot dogs and pizza in school cafeterias."
- "PCP involvement to stop the Opioid crisis."
- "Harford County also needs user friendly assistance for adults with prescription medication...and assistance with substance abuse treatments. Cost is a big issue."
- "Nutrition counseling services are grossly unattainable."
- "We desperately need drug abuse assistance as well as mental health assistance in this county."
- "Our county is in need of practical and affordable transportation options for community members, especially the senior community members."
- "There is a significant need for affordable access to healthy food and for affordable coverage for individuals who are on medical assistance."
- "Navigating a system while managing a family and full time job is difficult."
- "Need more specialists that you can see quickly."

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"When 'I' is replaced by 'We', illness becomes wellness."

- Shannon L. Adler