Maryland General Assembly Hospital Throughput Work Group

FINAL REPORT

March 2024

PREPARED BY

HEALTH MANAGEMENT ASSOCIATES

TABLE OF CONTENTS

EXECUTIVE SUMMARY

Recognizing the complexity of emergency department (ED) wait times and hospital throughput challenges, Maryland's Senate Finance Committee and House Health and Government Operations Committee requested that the Maryland Hospital Association (MHA) convene a multi-stakeholder work group to identify the root causes of longer than anticipated hospital ED visits in Maryland and to develop policies to consider for reducing the length of ED visits in Maryland.

Process: In July 2023, the MHA convened the Maryland General Assembly Hospital Throughput Work Group (Work Group). Over seven months, the 28-member Work Group met monthly to develop policies to consider for the General Assembly. The Work Group had diverse representation from state agencies, state departments and commissions, the legislature, patients, hospitals, unions, behavioral health providers, health care professionals such as nurses and emergency personnel, and others.

To inform the process, experts presented data on a wide variety of topics related to hospital throughput. The Work Group had numerous robust discussions about these topics to collaboratively identify policies to consider. Additionally, MHA engaged an independent consultant, Health Management Associates, to help gather information, facilitate discussions, and produce final policies to consider and the report.

Members offered policies to consider during group discussions, small breakout groups, individual interviews, site visits with HMA, and through an online survey. Members had the opportunity to review the final policies to consider and voted individually on their highest priority policies to consider for the General Assembly's consideration. The process was public, and the meeting materials and summaries are available online.[1]

Policies to consider: Seventeen policies to consider are offered by the Work Group to address challenges in the care continuum that lead to hospital throughput delays and longer wait times in Maryland. Collectively, the policies to consider take a multi-dimensional approach to addressing this concern, because the Work Group has identified several root causes of throughput delays which occur at different points during a patient's care continuum and originate from sources inside and outside

[1] Maryland Hospital Association. General Assembly Hospital Throughput Work Group. 2024. Available at: www.mhaonline.org/transforming-health-care/healthy-hospitals-healthy-communities/hospital-throughput-resources/hospital-throughput-workgroup. Accessed February 5, 2024

of the hospital. Building upon prior hospital throughput assessments, the Work Group developed an actionable blueprint that identifies strategies and responsible stakeholders for implementation.

The policies to consider are prioritized and grouped into four categories reflecting key themes and strategies.

- **Theme 1** - Infrastructure and Systems: The top priority is the need to modify infrastructure and systems in Maryland to alleviate strain in EDs. Two of the highest priority policies to consider are: 1) to create a sustainable funding pathway for specialized behavioral health services for individuals with serious mental illness and 2) to make modifications to managed care prior authorization processes. Both policies to consider will require partnership and leadership with the General Assembly for successful implementation. Other policies to consider include improving data collection across emergency providers and systems and conducting rate adequacy assessments for psychiatric step-down facilities.
- **Theme 2** - Access to Care for Patients in the Community: There is a need to expand access to care outside of the hospital and in the community as a critical step for preventing delays in hospitals. Five key services for which access should be expanded were identified, including: 1) home- and community-based services (HCBS), 2) dialysis services for patients with Serious Mental Illness (SMI), 3) hospital-at-home, 4) urgent care, and 5) end-of-life care (hospice, palliative). In addition, members recommend policymakers explore the expansion of access to health care coverage for uninsured individuals in Maryland. Members felt strongly that these policies to consider be acted on within the next year to alleviate pressure on hospital EDs.
- **Theme 3** - Hospital Capacity: A broad range of solutions were developed to improve hospital ED throughput by eliminating bottlenecks inside the hospital which will, in turn, expand hospital capacity. This includes evaluating and implementing modifications as needed to Maryland's Global Budget Revenue (GBR) Model, such as eliminating the Medicare skilled nursing facility (SNF) three-day rule and modifying Maryland's Certificate of Need (CON) rules to alleviate capacity constraints. Other important elements of this theme include the development of new home-based caregiver discharge support services, increased funding for the expansion or redesign of hospital ED capacity, the establishment of a state funded work group charged with monitoring ED throughput data trends, and an assessment of the impact of the implemented policies to consider included within this report.

- **Theme 4** - Workforce and Guardianship: Several policies to consider align with and enhance existing efforts to implement policies to resolve the many workforce challenges in Maryland (Maryland Commission to Study the Health Care Workforce Crisis). These policies to consider include bolstering ED care coordination staff and several health care workforce development interventions and identifying licensing strategies to fill workforce gaps. Work Group members strongly expressed the need for a variety of workforce solutions to bolster the staffing pipeline for numerous occupations, such as physicians, nurses of various levels, imaging technicians, social workers, care coordinators, and non-clinical professionals. In addition, this category includes a policy to consider to add a new pathway to establish patient guardianship, which aligns with the Maryland judiciary's efforts on the same topic.

Next Steps: Collaborative efforts across multiple stakeholders are required to implement the policies to consider and generate improvement in hospital throughput. Across the full care continuum, partners such as hospitals, clinicians, payers, and state agencies will be required to play a leadership role in implementing or partnering to implement many of the policies to consider.

To initiate the process, the initial legislative actions have been identified to propel this work forward.

- Enact infrastructure and systems legislation to fund and strengthen the behavioral health infrastructure and reform managed care prior authorization systems.
- Instruct the Health Services Cost Review Commission (HSCRC) and Maryland Department of Health (MDH) to evaluate the Work Group's GBR-related policies to consider to determine if the state will need to negotiate changes to the state's Medicare waiver with the Centers for Medicare & Medicaid Services (CMS) to implement these policies to consider.
- Consider the workforce policies to consider in alignment with the Maryland Commission to Study the Health Care Workforce Crisis and implement policy changes that expand the health care workforce in the state. These individual workforce policies to consider will require hospitals, state agencies, educational institutions, and professional licensure boards to work in concert with one another to build pipelines of needed clinical and non-clinical health care staff.
- Partner with Maryland's judiciary branch of government to align around proposed changes to the patient guardianship statutes.
- Develop ongoing mechanisms to track hospital ED throughput concerns and to track the actions taken by the state and other stakeholders to implement the policies to consider by either extending the duration of this Work Group and providing funding for its efforts, initiating a new multi-stakeholder commission to continue the work, or delegating this responsibility to an existing state agency.

POLICIES TO CONSIDER OF THE MARYLAND GENERAL ASSEMBLY HOSPITAL THROUGHPUT WORK GROUP

Subject Area	Policies to Consider	Actor/ Stakeholder
Infrastructure and Systems		
Behavioral Health Infrastructure and Systems	Enhance the Maryland behavioral health infrastructure and systems by: • Ensuring sustainable funding from public payers. • Providing incentives for commercial payers for enhanced targeted case management and other wraparound services for the SMI population including children, youth, and adults to enable care in the community.	• Legislature
Managed Care Prior Authorization Reform	Require managed care plans operating in Maryland to: • Adhere to standardized and shortened timelines of prior authorizations for skilled nursing facilities admissions of individuals in the ED and inpatient settings. • Adhere to standardized and shortened timelines of prior authorizations for surgical procedures of individuals in the ED and inpatient settings. • Reduce the burden on patients for obtaining prescription refill authorizations.	• Legislature
Statewide Data Tracking of Patient Care Pathways Involving ED Services	Enhance state collection of data from multiple providers (hospitals, SNFs, ambulances) for patients receiving care in Maryland hospital EDs to better identify patient care pathways, systemic bottlenecks, and patient outcomes in different geographic areas of the state.	• MIEMSS • Hospitals • SNFs • Local EMS agencies • MDH
Behavioral Health Housing	Conduct a rate adequacy assessment for adult post-acute and post-inpatient psychiatric step-down facilities to understand the cost for public and commercial payers to enhance coverage of these services.	• MDH • BHA • DHS • Group Home Providers
Patient/Community Related Access to Care		
Dialysis Services	Create access points outside of the hospital ED for patients requiring dialysis who are not currently receiving regular treatments outside the ED, including those with behavioral diagnoses and those without insurance.	• Hospitals • Dialysis providers • State agencies
Urgent Care	Encourage urgent care centers to do more to attract and accept patients to the highest level they are capable of caring for.	• Urgent care centers • State agencies
Hospital-at-Home Model	Expand the CMS hospital-at-home model by revising the existing program and expanding its availability to additional hospitals in Maryland.	• Hospitals • State agencies • CMS

Subject Area	Policies to Consider	Actor/ Stakeholder
Home and Community-Based Services (HCBS)	Expand access to HCBS within the Maryland Medicaid program, including the expansion of home health aide services.	• MDHS Medicaid
End-of-Life Care	Increase access to end-of-life care services such as hospice and palliative care by requiring all payers in Maryland to cover these services to some degree.	• Legislature • Payers
Uninsured Patient Access	Expand the coverage of health insurance for Maryland's uninsured population.	• Legislature
Hospital Capacity		
Modifications to Maryland's Global Budget Revenue (GBR)	Make modifications to the GBR model to relieve burden on hospital ED • Eliminate the Skilled Nursing Facility (SNF) three-day stay rule from the Maryland GBR model. • Study the impact of the GBR model on hospital boarding practices, inpatient capacity, and ED throughput. • Study the impact of the GBR model on physician compensation relative to other states and the need for hospitals to pay practice subsidies.	• HSCRC • MHA • CMS
Certificate of Need (CON)	Explore modifications to Maryland's CON program and identify ways to enable providers to expand capacity in areas of need • Consider functional bed capacity in the definition of capacity. • Consider the inclusion of patient ED boarding in the measurement of bed capacity. • Better align staffed beds with specific geographic population needs when facilities are built or expanded. • Reduce the regulatory burden associated with requesting modifications to existing CON regulations.	• MHCC
ED Capacity	Create state capital funding for hospitals to expand their ED capacity and specialized care pathways.	• Hospitals • State agencies • Legislature
Discharges to Home	Increase support for home/family caregivers to make ED and inpatient discharge to home more feasible and safer.	• Hospitals
ED Throughput Work Group Continuation	Establish a state supported two-year work group to continue to discuss, monitor, assess ED throughput, and report back. Stakeholders including providers, payers, and patients should participate with administration by a third-party consultant.	• Legislature

Subject Area	Policies to Consider	Actor/ Stakeholder
Workforce and Guardianship		
Guardianship	Review the guardianship process in Maryland and consider adding an expedited health care limited financial guardianship pathway to reduce barriers to care and patient discharge.	• Maryland Judiciary
Workforce Care Coordination Staff	Ensure that all hospitals in Maryland maintain care, discharge, and eligible coordinators in EDs. • Ensure hospital EDs have a care coordination navigator to assist with discharge connections. • Ensure hospital EDs have a patient coverage eligibility coordinator.	• Hospitals
Workforce Development	Enhance workforce development efforts for clinical and non-clinical emergency department staff in Maryland to relieve staffing challenges where they exist. • Reduce nurse and social worker licensure burdens. • Increase pipeline of LPNs and imaging techs through partnerships with community colleges. • Expand the number of imaging techs in urgent care centers. • Require professional licensure boards to collect data on their populations to inform state "education blueprint." • Reform Maryland's clinical education grantmaking systems to provide financial support to newly trained clinicians (nurses and physicians).	• Legislature • Workforce boards • Healthcare employers • Higher education

INTRODUCTION

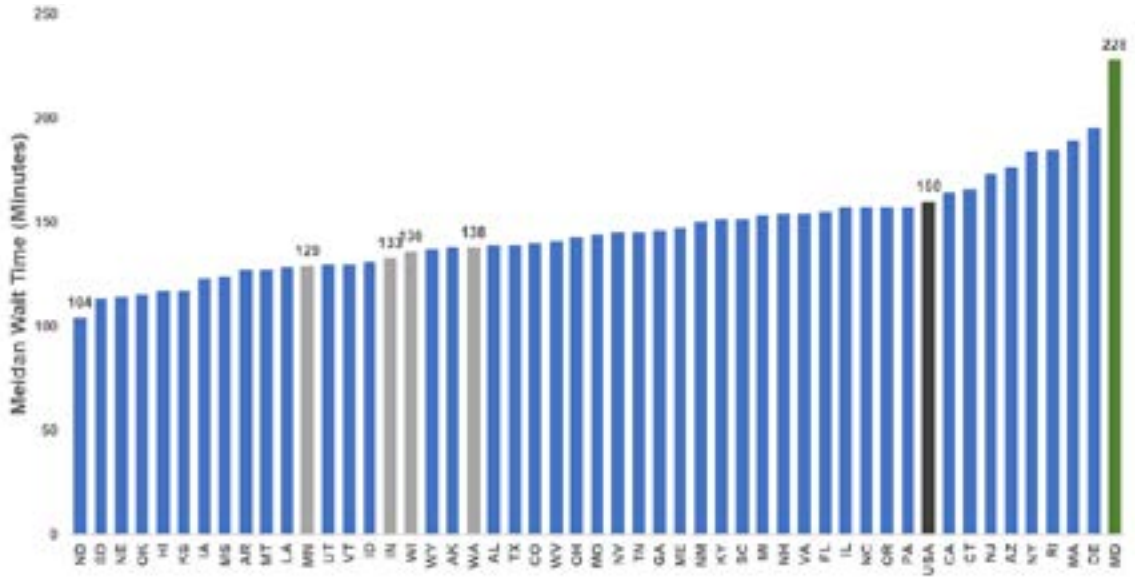
In response to a formal request from the Maryland Senate Finance Committee and House Health and Government Operations Committee, the Maryland Hospital Association (MHA) convened a multi-stakeholder Work Group from July 2023 to January 2024 to identify the root causes of longer than anticipated hospital emergency department (ED) visits, see Exhibit 1, and to develop policies to consider for reducing the length of ED visits. This request was made May 11, 2023, following extensive debate and consideration of specific legislation related to hospital throughput during recent Maryland legislative sessions.

The Work Group was made up of 28 health care leaders who generated and vetted ideas and solutions. The Work Group included policies to consider that ranged from narrow support to simple majority.

The 17 policies to consider detailed in this report reflect a multi-dimensional set of potential solutions and represent both short-term and longer-term opportunities for improvements.

EXHIBIT 1

MEDIAN HOSPITAL EMERGENCY DEPARTMENT WAIT TIMES BY STATE, 2021



Source: Centers for Medicare & Medicaid Services.

Note: Data reflect emergency department visits from January 7, 2020 to March 31, 2021

Several factors contribute to trends in ED utilization and delays in throughput—a measure of the time between when patients enter the ED and the time they depart.[2] Contributing factors of ED throughput delays in Maryland also affect throughput in other states, but Maryland has certain unique characteristics that may contribute and must be factored into any solution. These factors include Maryland's Global Budget Revenue (GBR) Model for hospital reimbursement, the demographic composition of the population, and healthcare system capacity. Maryland hospitals provide a critical access point for all people with far-ranging medical and behavioral health needs—regardless of ability to pay. As of February 2024, 48 hospital EDs actively serve patients in Maryland, and in 2022, these facilities provided care to approximately 1.7 million patients.[3] These facilities serve patients 24 hours per day, 7 days per week, 365 days per year and offer services related to both medical and behavioral health.

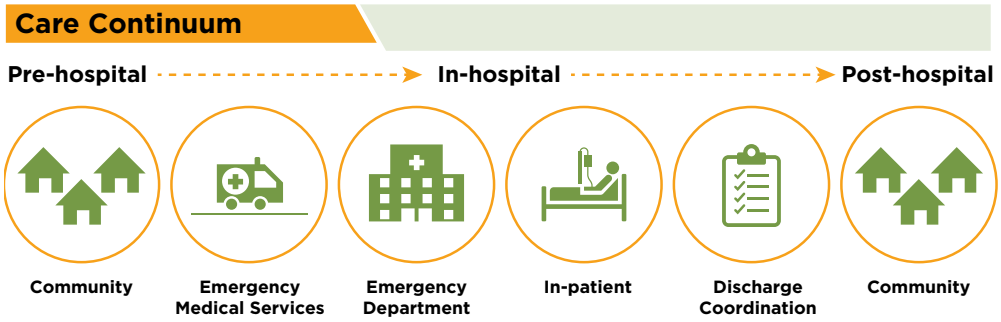
[2] Ray M and Reinoso H. A New Process to Improve Throughput in the Emergency Department. The Journal for Nurse Practitioners. 2019;15(10):e193-e196. doi:10.1016/j.nurpra.2019.05.016

[3] Maryland Hospital Association. General Assembly Hospital Throughput Work Group. 2024. Available at: www.mhaonline.org/transforming-health-care/healthy-hospitals-healthy-communities/hospital-throughput-resources/hospital-throughput-workgroup. Accessed February 5, 2024.

Acute care provided to patients in an ED typically reflects just one point in the patient's episode of care, often referred to as the care continuum. Summarized in Exhibit 2, EDs serve as a bridge and play a critical role in the broad patient care continuum.

EXHIBIT 2

ILLUSTRATION OF PATIENT CARE CONTINUUM



Source: Centers for Disease Control (CDC), 2017.
https://archive.cdc.gov/www_cdc_gov/dhdsp/programs/about_pcnasp.htm

At the front end of the care continuum, patients receive primary, behavioral health, or other services from many types of providers in the community, such as physician offices, clinics and health centers, and urgent care centers. Patients receiving care in the community may also be tapping other types of providers, such as home health agencies or nursing facilities. Community Based Organizations (CBO) play a significant role in providing patients with support to address social determinants of health (SDOH) like housing, transportation, and food. Further, care in the community is delivered by a wide variety of clinicians, such physicians, nurses, home health aides, pharmacists, social workers, physical therapists, imaging technicians, and many others. Emergency medical services (EMS) serve as another touchpoint, and roughly 18 percent[4] of all patients served in an ED arrive by EMS transport. Patients who arrive by EMS have higher triage scores, require more ED resources, have longer lengths of stay, and are more likely to require hospital admission. The ED represents a critical point on the care continuum, serving as a bridge between varying medical care needs for many and an initial touchpoint for others. In some cases, uninsured and underinsured patients or those with chronic behavioral health conditions that may impede their ability to leverage care in the community, rely on the hospital ED as their only source of care and an initial entry point in the care continuum. After ED stabilizing services many patients are either discharged back into their community or receive additional care in inpatient and post-acute settings.

[4] Peters, Gregory et al. Patients who use emergency medical services have greater severity of illness or injury compared to those who present to the emergency department via other means: A retrospective cohort study. Journal of the American College of Emergency Physicians. August 2023 (https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10388837/#:~:text=Results,and%2082%25%20via%20other%20means)

BACKGROUND

Hospital ED throughput concerns are a national issue and have been researched and studied for nearly two decades.[5,6,7,8,9] Maryland's policymakers have contemplated solutions to hospital throughput over the same period, and a significant amount of knowledge was gained from these deliberative efforts. Findings and policies to consider from the four most recent Maryland-based studies and recent efforts by the Maryland hospital field served as a starting point for this work.

Statewide efforts to address hospital throughput

Between 2007 and 2022, the Maryland General Assembly produced four reports containing findings and policies to consider for how the state might address ED challenges. Collectively, these reports identified several common sources of hospital throughput challenges:

- Insufficient access to behavioral health care
- Insufficient access to primary care
- Workforce shortages
- Lack of standardized performance metrics to track hospital ED performance
- Unintended consequences of Maryland's "Yellow Alert" hospital ED/Emergency Medical Services (EMS) ambulance diversion alert system[10]

The recent reports contained policies to consider that overlap in some instances, including:

- Advancing policies to increase the quality and availability of primary care and other community health care services
- Strengthening the Maryland behavioral health care system
- Developing standardized metrics to evaluate ED operations and throughput

[5] Weiner S, Venkatesh AK. Despite CMS Reporting Policies, Emergency Department Boarding Is Still a Big Problem—The Right Quality Measures Can Help Fix It. Health Affairs Forefront. March 29, 2022. Available at: www.healthaffairs.org/content/forefront/despite-cms-reporting-policies-emergency-department-boarding-still-big-problem-right. Accessed February 5, 2024.

[6] Rabin E, Kocher K, McClelland M. Solutions to Emergency Department Boarding and Crowding Are Underused and May Need to Be Legislated. Health Affairs. 2012. Available at: www.healthaffairs.org/doi/10.1377/hlthaff.2011.0786. Accessed February 5, 2024.

[7] Zhu, Jane, et al. Emergency Department Length-of-Stay for Psychiatric Visits was Significantly Longer than for Nonpsychiatric Visits, 2002-2011. Health Affairs. September 2016. www.healthaffairs.org/doi/10.1377/hlthaff.2016.0344

[8] Paling, Steven et al. Waiting times in emergency departments: exploring the factors associated with longer patient waits for emergency care in England using routinely collected data. Emergency Medicine Journal. 2019. emj.bmj.com/content/37/12/781

[9] Nam, Eunji, et al. 10-year trends of emergency department visits, wait time, and length of stay among adults with mental health and substance use disorders in the United States. Psychiatric Quarterly. February 2019.

[10] When a hospital is overwhelmed with patients they may initiate Red and/or Yellow alert with MIEMSS. These alert statuses notify EMS and the community that the hospital is crowded. Red alert indicates that the hospital lacks any inpatient monitored beds. Yellow alert indicates that the emergency department is overwhelmed with volume. Red and yellow alerts are subjective and the processes for going on and off alert vary by hospital. Furthermore, when multiple adjacent hospitals are on alert at the same time the effect is that none of the hospitals are on alert.

- Addressing health care workforce challenges
- Identifying options to replace Maryland's hospital ED/EMS (emergency medical services) "yellow alert" diversion system
- Assessing reimbursement rates and ED performance metrics under Maryland's Quality Based Reimbursement (QBR) program

In addition to reviewing the results of the previous reports, the Work Group assessed the degree to which Maryland had formally acted upon the prior policies to consider and found that few have been implemented formally. A summary of the findings is included below.

2007: Use of Maryland Hospital Emergency Departments: An Update and Recommended Strategies to Address Crowding (MHCC, 2007)[11]

In response to a 2006 Joint Chairmen's report, the Maryland Health Care Commission (MHCC), in consultation with state and health policy experts, identified and analyzed issues driving ED overcrowding and provided policies to consider to improve throughput. The 2007 report recommended increasing access to health services, including behavioral health, primary care, and other community services. It also noted that hospitals should enhance data collection practices and standardized measures of ED performance and recommended that the Maryland Institute for Emergency Medical Services Systems (MIEMSS) develop an ED Overload Mitigation Plan.

2017: Joint Chairmen's Report on Emergency Department Overcrowding (MIEMSS and HSCRC, 2017)[12]

In 2017, the Budget Chairs for both the House and the Senate requested that MIEMSS and the Health Services Cost Review Commission (HSCRC) study and identify solutions to ED overcrowding. They found that the number of patients accessing Maryland EDs was significantly increasing amid staffing shortages.

[11] https://dlslibrary.state.md.us/publications/Exec/DHMH/MHCC/UMHED_2007.pdf
[12] https://dlslibrary.state.md.us/publications/JCR/2017/2017_29a.pdf

At the same time, the state was also experiencing a significant increase in behavioral health patients seeking treatment in EDs. MIEMSS recommended evaluating their diversion process to determine whether the Yellow Alert system should continue and endorsed new models for EMS care delivery. HSCRC recommended including ED performance improvement measures in the Quality Based Reimbursement Program. Additionally, HSCRC requested that hospitals experiencing the longest ED wait times submit hospital efficiency improvement action plans.

2019: Joint Chairmen's Report on Emergency Department Overcrowding Update (MIEMSS and HSCRC, 2019)[13]

In 2019, the Budget Chairs requested that MIEMSS and HSCRC report on the state's progress in implementing the policies to consider outlined in the 2017 report. MIEMSS determined that the Yellow Alert system created a domino effect, with overcrowding shifting from hospital to hospital, and decided to explore alternative systems. MIEMSS reported on the state's progress developing new models of EMS care. In addition, MIEMSS developed an Alternative Destination Protocol to help EMS personnel transport patients to alternative destinations, such as urgent care centers. HSCRC included ED performance measures in the QBR program and provided an update on the hospital efficiency improvement plans described in the 2017 MIEMSS and HSCRC report.[14] HSCRC approved two quality-based measures aimed at improving ED performance for federal fiscal year 2018: ED-1b and ED-2b.[15] HSCRC also requested performance improvement plans from 13 hospitals. These facilities submitted performance plans that included common themes, such as aligning staffing levels with demand, creating special protocols for hospitals that are near capacity, and improving case management in the ED.

2022: Behavioral Health Emergency Department Wait Times and Service Improvements in Maryland (HSCRC, 2022)[16]

At the request of the House Health and Government Operations Committee, HSCRC submitted a report assessing Maryland's behavioral health (BH) system of care and hospital throughput. This report identified five issues that negatively affect Maryland's BH system of care and ED throughput, including: improving data availability, finding sustainable funding for behavioral health services, addressing workforce shortages, strengthening Maryland's primary BH care model and integration of BH into primary care, and examining legal issues inhibiting a patient's ability access alternative care settings.

[13] https://dlslibrary.state.md.us/publications/JCR/2019/2019_36.pdf
[14] https://dlslibrary.state.md.us/publications/JCR/2017/2017_29a.pdf
[15] https://dlslibrary.state.md.us/publications/JCR/2019/2019_36.pdf
[16] https://dlslibrary.state.md.us/publications/Exec/MDH/HSCRC/HB1121,2020Ch29(2021)_2022.pdf

Recent statewide hospital efforts

In addition to reviewing the policies to consider of previous work groups and HSCRC, the Work Group gathered information to understand the unique perspective of the Maryland hospital field to both learn from and build upon the improvement activities already introduced at Maryland's hospitals.

In 2017, MHA organized a statewide summit to address hospital ED/EMS ambulance diversion, which resulted in the organization issuing a comprehensive report on the complex factors and interrelated issues that contributed to a rise in hospital ED diversion alerts.[17] While some challenges are similar to other states, the report identified issues unique to Maryland, such as more deliberate assessments of hospital patients to ensure they receive the most appropriate care in the most efficient care setting as incentivized under the Maryland Total Cost of Care Model. Further, MHA concluded that attempts to treat this problem through hospital-only payment policy incentives and penalties fail to address the root causes of the problem.

In 2019, MHA organized a forum of its hospital members to discuss the escalating number of patients seeking behavioral health services in hospital EDs. An outcome of this forum was a study that identified the root causes of prolonged ED stays for behavioral health patients.[18]

The findings included:

- 42 percent of behavioral health ED patients experienced a discharge/transfer delay
- These patients were delayed for 1,676 days—an average of 20 hours per patient
- Delays accounted for 48 percent of the time those patients spend in EDs
- Three of the leading five causes of a delay were related to actions that the prospective receiving "agency" or placement site took
- Children and teenagers were delayed twice as long as adults, and discharge planners cited age as a contributing factor to the delay

MHA concluded that a lack of opportunities for patients to be swiftly discharged to more appropriate care settings negatively affected patients and caused delays for all patients. The study also concluded that solutions to this concern would require collaboration across the health care field and with state government. MHA specifically recommended a comprehensive approach to remove barriers to timely discharges and transfers for behavioral health patients, invest in community-based services, and improve processes to ensure patients have access to high-quality care delivered in appropriate settings.

[17] Maryland Hospital Association: Emergency Department Wait Times: Understanding the Causes. 2017. https://www.mhaonline.org/docs/default-source/Resources/ED-Diversions/ed-diversions-wait-times---understanding-the-causes.pdf?sfvrsn=2

[18] Maryland Hospital Association, Behavioral Health Patient Delays in Emergency Departments. 2019 www.mhaonline.org/docs/default-source/resources/behavioral-health/behavioral-health-patient-delays-in-emergency-departments-study-2019.pdf

In 2023, the MHA led a 10-week learning collaborative for its member hospitals to provide a platform for hospitals to learn from peers in Maryland and other states, gaining insights into potential strategies to enhance hospital ED processes and throughput. After the 10-week learning collaborative and in support of the HSCRC EDDIE initiative MHA initiated a 12-month performance improvement collaborative. Hospitals are divided into geographically similar groups and engage in monthly guided discussion about how to improve hospital throughput through rapid cycle improvement. This initiative will continue through July 2024, and hospitals continue to work toward hospital-specific goals and share best practices.

WORK GROUP PROCESS AND METHODOLOGY

To generate ideas and solutions from Work Group members, several methods were used; the entirety of the process is described below.

Legislative request

In response to the request of the chairs of the Maryland General Assembly Senate Finance and House Health & Government Operations Committees, MHA and MIEMSS convened a Work Group to identify the root causes of wait times across a wide range of provider types.

The legislators specified that the Work Group's assessment include:

- An analysis of health system capacity, including inpatient hospital, urgent care, inpatient and community behavioral health, primary care, and other health facility or community capacity considered necessary
- An analysis of the health care workforce and unmet needs
- An analysis of changes in acuity over time in hospitalizations and ED visits
- The availability of post-hospitalization care options and barriers to accessing those options

In addition, legislators requested an analysis of the regulatory environment, access and availability of health care services, and inpatient bed availability in states that:

- Have populations like that of Maryland
- Are similar in hospital density and care pattern utilization
- Have at least one city of approximately 500,000 residents
- Rank within the top 50 percent of states in shortest ED wait time

Finally, legislators requested that the Work Group develop policies to consider, including legislative, regulatory, or other policy initiatives, regarding best practices for state implementation.

Work Group Design

In response to the General Assembly's request, a wide range of stakeholders with varying viewpoints were identified to provide expertise and yield reliable and actionable policies to consider for the legislature. The Work Group was co-chaired by Ted Delbridge, M.D., Executive Director of MIEMSS, and Erin Dorrien, Vice President of Policy at MHA. The Chairs worked with Health Management Associates (HMA) to organize and convene the Work Group, which met seven times from July 2023 to January 2024.

The Work Group included 28 representatives from healthcare entities across Maryland. Among these individuals were an official from state agencies such as the Maryland Department of Health, HSCRC, physician leaders from several hospitals, EMS leaders, patient advocates, a labor union representative, a member of the ED nurses' association, a representative for long-term care facilities, and others.

The complete list of Work Group members is included in **Appendix 1**.

Each stakeholder brought a unique perspective on hospital throughput and lengths of stay. In addition, the individuals representing EDs reflected the interests of facilities of various sizes, geographic locations across the state, and serving people of varying demographics.

Work Group Process

The Work Group's meetings were structured in three phases to enable the review of a range of information over a short period of time, foster open discussion and brainstorming, and generate a variety of policies to consider to be prioritized for policymakers. Throughout the process, presentations and expertise were provided by varying experts from state agencies such as MHCC, HSCRC, MIEMSS, HMA, MHA, and other stakeholders.

Process Phase 1: Information dissemination and discussion

During the July, August, and September of 2023 meetings, the Work Group met in person with three goals in mind: convey the responsibilities of the Work Group and the intentions of the Maryland General Assembly, review key contextual information, and offer members an opportunity to voice their general ideas and concerns. The Work Group covered several contextual topics including:

- Previous efforts in Maryland to address hospital ED throughput
- Maryland Certificate of Need (CON) regulations and potential impacts on hospital ED throughput
- HSCRC's Emergency Department Dramatic Improvement Effort (EDDIE)
- Patient boarding in Maryland hospitals and EMS challenges with emergency transportation across the state
- Demographics of ED use in Maryland and equitable access in hospital EDs

Process Phase 2: Information dissemination, discussion, and the development of policies to consider

Beginning with the October and November 2023 meetings, HMA facilitated discussions, fostered policies to consider development, and enhanced the research and review processes of the Work Group. Presentations from key sources, included:

- Hospital capacity and definitions of beds
- Innovations in certified community behavioral health clinics (CCBHC)
- Analysis of Maryland vs. peer group states/best practices
- Hospital and regional factors associated with ED length of stay

In addition, HMA presented the results of two qualitative research efforts:

- *Interviews with key Work Group members:* HMA interviewed several individual Work Group members to gather opinions about the root causes of throughput concerns and to collect potential. Interviews were conducted with MHA and MIEMSS, a patient advocate, a state legislator, and hospital leaders.
- *Site visits to hospital EDs:* HMA conducted site visits at a Baltimore County hospital and another in Montgomery County. The visits included tours of the ED, meetings with leadership teams, and discussions with clinical and administrative staff working in the ED.

HMA also facilitated breakout groups to synthesize the Work Group's policies to consider. Members were asked to collaboratively identify root causes and link these to potential policies to consider.

Members divided into three groups, each with a separate discussion topic: 1) the

transition of the patient from ED to inpatient admission, 2) hospital capacity, and 3) patient length of stay.

At the next meeting, members again broke into three discussion groups covering the same topics to refine policies to consider previously discussed, identify new policies to consider, and identify stakeholders critical to implementing the proposed policies to consider (e.g., legislature, state agencies, hospitals).

To complete Phase 2, policies to consider were gathered through an online survey for those who could not attend or wanted more time to develop their policies to consider. Through this process, seven members submitted 17 policies to consider, which are detailed in the final report.

Process Phase 3: Refinement of policies to consider, prioritization voting, and additional discussion

Before the final meetings, HMA synthesized and refined dozens of policies to consider, including those developed in breakout groups, gathered during interviews and site visits, stated at meetings, and shared through the online survey. HMA collected the policies to consider, combined those that were inter-related, refined their language to reflect intent, and organized topical categories.

HMA then walked through a refined list of policies to consider to provide the context, intent, and stakeholder responsibilities of each policy to consider. Work Group members discussed each suggestion and asked questions. Based on members' comments further refinements were made to the policies to consider, and HMA presented the Work Group with revised policies to consider reflecting members' edits.

Following the in-person refinement process, an anonymous voting process was used to identify the top five policies to consider. Members expressed varying priorities: no policies to consider received votes from a majority of participants, and all but two policies to consider received at least one vote. The voting process revealed that members view solutions as multi-dimensional and requiring several policies and strategies.

The individual policy to consider receiving the most votes focused on the need to ensure sustainable funding for enhanced targeted behavioral health case management and other wraparound services for children, youth, and adults with serious mental illness (SMI) to enable care in the community. The policy to consider receiving the second most votes is to modify the prior authorization processes of managed care plans.

Any policies to consider receiving a vote was retained in the list of policies to consider to ensure that policies to consider reflecting both the majority and minority views were captured in the report.

A final meeting was held in January 2024 to share the results of the voting process, to view and approve the categorization method, and to further refine the language of the policies to consider for clarity.

As the policies to consider were shared, further discussion occurred, including a review of those that had received fewer votes but were the subject of several Work Group discussions. These ideas—that did not receive votes or were volunteered after the voting process had ended—are included in an "Other Considerations" section of this report.

WORK GROUP DISCUSSION TOPICS AND ASSESSMENT OF ROOT CAUSES

The Work Group discussed several topics at its meetings including but not limited to seven topics that Work Group members identified as areas of primary focus. Each of these topics are summarized below.

- Hospital capacity
- The behavioral health crisis in Maryland
- Workforce challenges
- Access to care and insurance coverage
- Equity considerations within the domain of access to care
- The peer state analysis
- HSCRC's analysis of Hospital and Regional Factors Associated with ED Length of Stay and HSCRC's Emergency Department Dramatic Improvement Effort (EDDIE)

Hospital Capacity, Occupancy, and ED Patient Boarding

Hospital capacity, occupancy, and ED boarding are significant contributing factors in ED length of stay.[19]

Several members asserted that a lack of inpatient bed availability significantly slows patients' movement out of the ED and general movement of patients into and out of the hospital overall. Inadequate inpatient bed availability can result in delays in discharging patients after inpatient care to post-acute care or to homes. These discharge delays may occur because of the:

- Lack of available beds at skilled nursing facilities (SNFs)
- Inability of family members to care for the patient at home and a lack of supports to enable family members to care for patients at home
- Delays in insurance approvals for post-acute care, which affects transfers of inpatients to SNFs

[19] Boarding is defined by the American College of Emergency Physicians as "the practice of holding a patient in an emergency department after they have been admitted to the hospital, because no inpatient beds are available." www.acep.org/patient-care/policy-statements/definition-of-boarded-patient

When the inpatient beds of a hospital are at capacity, hospitals respond by boarding patients or delaying intake of patients from the ED. This slowing of inpatient hospital discharges causes a trickle-down effect.

Similar reasons are found for delays in discharging patients home from the emergency department, absent an inpatient admission. These delays may occur because of the:

- Inability or unavailability of family members to care for the patient at home or lack of supports to make it feasible
- Lack of availability of or connection to community support services

Lack of support at home was particularly acute because discharges often occur when family members are at work and unavailable to assist. This challenge was flagged as a significant equity issue as it disproportionately affected low-income households and patients without community support.

Members noted that in the aggregate, Maryland may have sufficient inpatient acute care beds; however, those beds are not distributed geographically to critical areas where demographic changes are occurring, or population growth is rapid. These distribution dynamics leave hospitals in some jurisdictions with bed shortages. They noted that the MHCC, HSCRC, and individual hospitals have sought to address this issue in the past but have yet to arrive at an actionable solution. Some members suggested redistribution of beds that have already been approved through the certificate of need (CON) process or the creation of new bed capacity, while other members opposed these options based on difficulty.

During discussions around hospital capacity, a New England Journal of Medicine article by Gabor Kelen, M.D., and colleagues was noted as it frames the connection between inpatient and ED capacity, saying:[20]

> "Emergency department crowding is a sentinel indicator of health system functioning. While often dismissed as mere inconvenience for patients, the impact of ED crowding on avoidable patient morbidity and mortality is well documented but remains largely underappreciated. The physical and moral harm experienced by ED staff is also substantial. Often seen as a local ED problem, the cause of ED crowding is misaligned health care economics that pressures hospitals to maintain inefficient high inpatient census levels, often preferencing high-margin patients. The resultant back-up of admissions in the ED concentrates patient safety risks there. Few efforts (even well-meaning ones) address the economically driven root causes of ED crowding, i.e., the need to achieve minimal financial hospital margins. The key to a sustainable solution is to realign health care financing to allow hospitals to keep

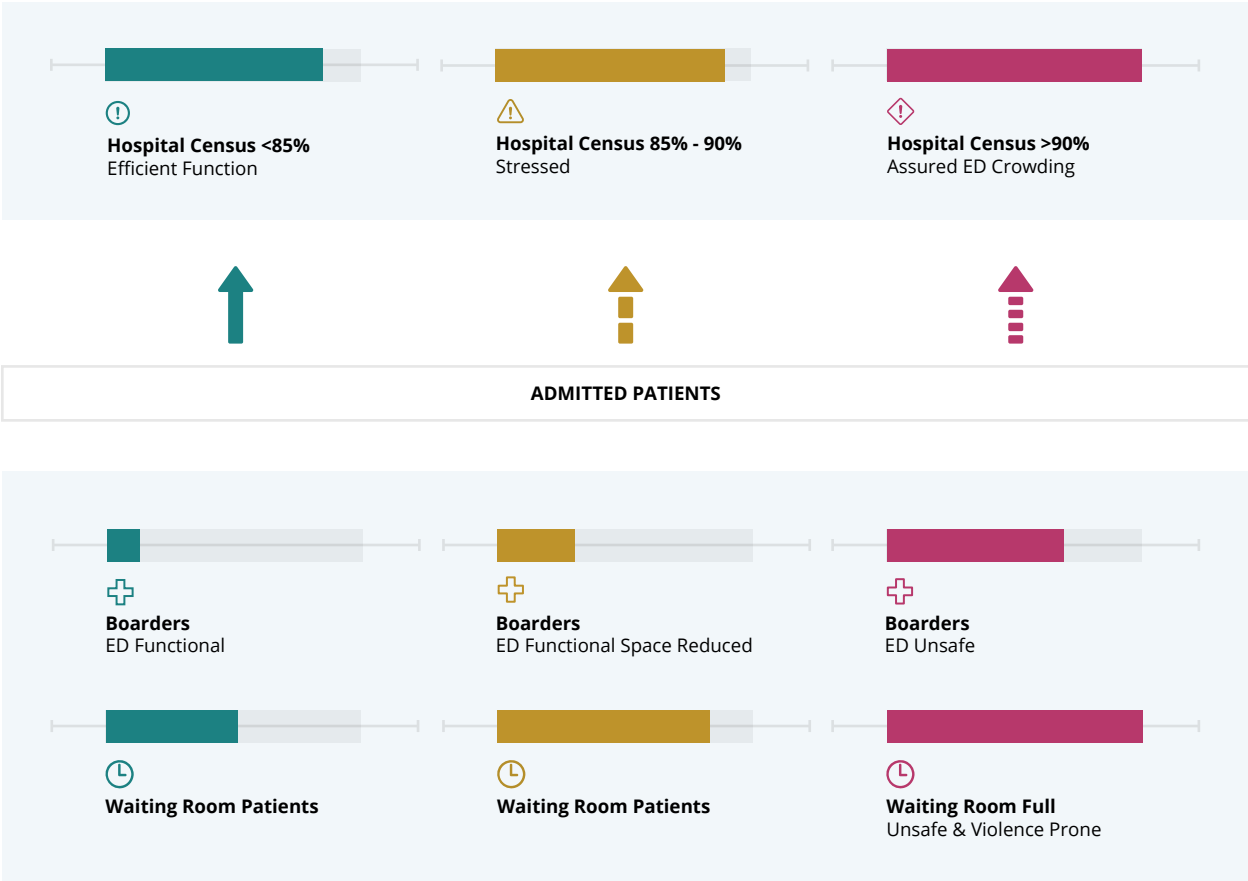
[20] Kellen, Gabor, et al. Emergency Department Crowding: The Canary in the Healthcare System. New England Journal of Medicine Catalyst. 2021. https://catalyst.nejm.org/doi/full/10.1056/CAT.21.0217

inpatient capacity below a critical threshold of 90 percent; beyond that, hospital throughput dynamics will inevitably lead to ED crowding.

Kelen and colleagues further concluded that when hospital occupancy reached 85 percent, ED functional bed space was reduced, and patient boarding was likely. See Exhibit 3. At occupancy levels greater than 90 percent, boarding becomes highly likely and ED safety is compromised."[21]

EXHIBIT 3

EMERGENCY DEPARTMENT CROWDING: THE CANARY IN THE HEALTHCARE SYSTEM



Source: The authors, based in part on internal Association of Academic Chaors of Emegency Medicine (AACEM) members' data, and informed by Forster, AJ, Stiell I, Wells G, Lee AJ, van Walraven, C. The effect of hospital occupancy on emergency department length of state and patient disposition. Acad Emeg Med. 2003; 10(2) :127–133. https://onlinelibrary.wiley.com/doi/epdf/10.1197/aemj.10.2.127.

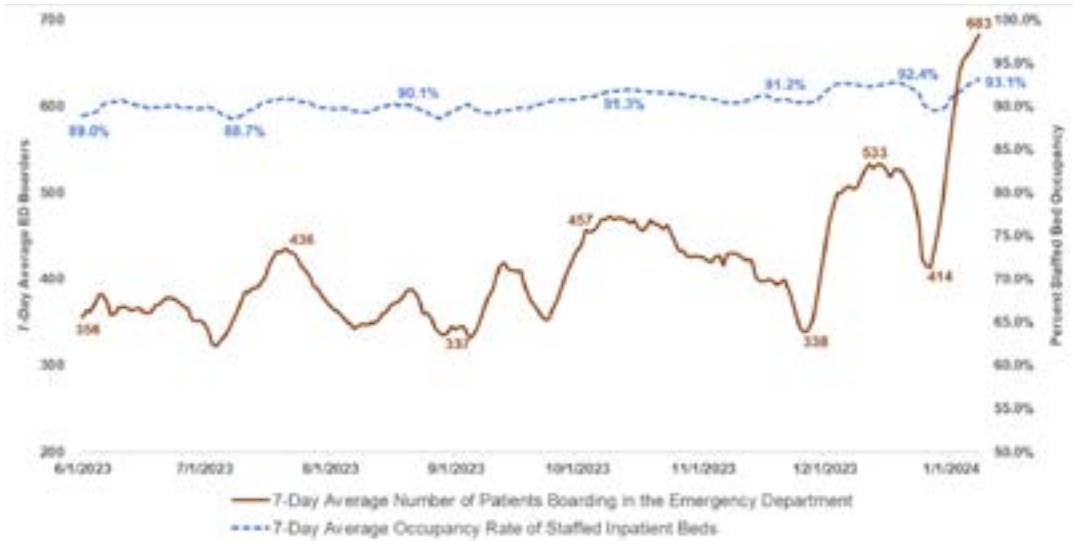
NEJM Catalyst (catalyst.nejm.org) © Massachusetts Medical Society

[21] Kellen, Gabor, et al. Emergency Department Crowding: The Canary in the Healthcare System. New England Journal of Medicine Catalyst. 2021. https://catalyst.nejm.org/doi/full/10.1056/CAT.21.0217

In addition, hospital data submitted to MDH and MIEMSS since April 2020 offers insight into the state's hospital occupancy. Hospitals consistently maintain an approximate 90 percent inpatient occupancy rate for staffed bed capacity. Though the number varies by individual hospital and region of Maryland, inpatient occupancy rates are consistently high. In addition, MIEMSS data also shows the seven-day average number of patients boarding in hospital EDs in Maryland in late 2023 fluctuated between approximately 300 and 670 patient boarders, see Exhibit 4.

EXHIBIT 4

SEVEN-DAY AVERAGE OCCUPANCY AND NUMBER OF BOARDERS IN MARYLAND HOSPITALS, 2023-2024

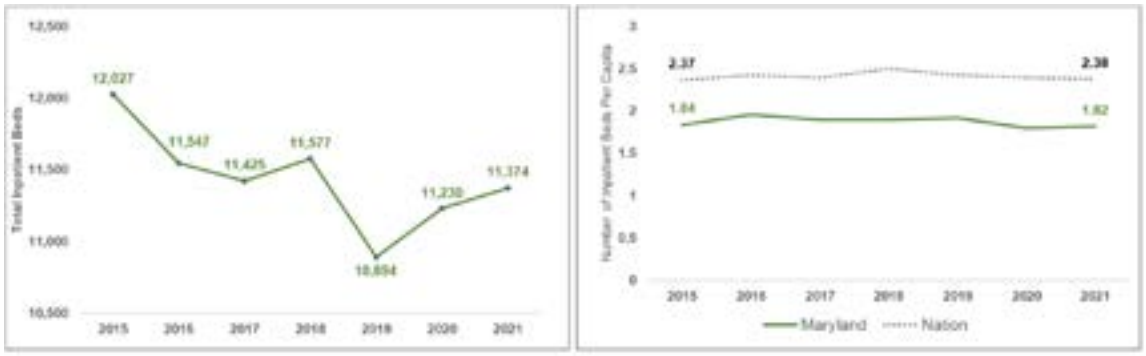


Data from the Kaiser Family Foundation, the American Hospital Association, and the U.S. Census Bureau demonstrate that Maryland's hospital capacity challenges are more acute than other states and have intensified in recent years. The number of hospital beds declined from approximately 12,000 to 11,300 from 2015 to 2021 (see Exhibit 5). Over the same period the number of inpatient hospital beds per 1,000 people in Maryland declined slightly from 1.84 beds to 1.82 beds. Maryland ranks as the fifth lowest in beds per capita and has significantly lower than national bed capacity which was 2.38 beds per 1,000 people in 2021.[22]

[22] Source: Kaiser Family Foundation - Hospital Admissions per 1,000 Population by Ownership Type via 1999 - 2021 AHA Annual Survey, American Hospital Association. Available at www.ahadata.com/aha-annual-survey-database and https://www.kff.org/other/state-indicator/beds-by-ownership/ Population data from Annual Population Estimates by State, U.S. Census Bureau; available at http://www.census.gov/popest/

EXHIBIT 5

NUMBER OF INPATIENT BEDS IN MARYLAND AND THE NUMBER OF HOSPITAL BEDS PER 1,000 PEOPLE, 2015-2021



Source: Kaiser Family Foundation, American Hospital Association, U.S. Census Bureau

Behavioral Health Crisis in Maryland

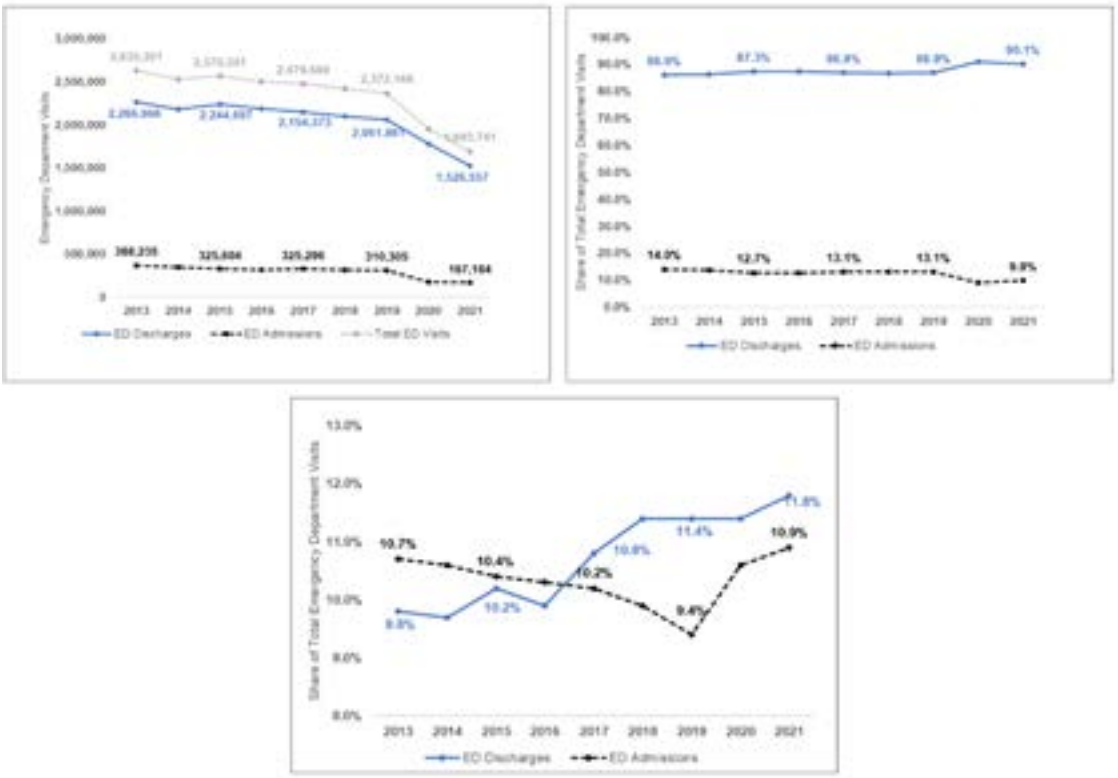
An ongoing behavioral health care crisis in Maryland contributes to ED length of stay and hospital discharge challenges. Preceding legislative efforts identified behavioral health as a root cause, and significant discussion time went into understanding data demonstrating the scope of the crisis.

- An MHCC white paper found that Maryland's population uses inpatient psychiatric care at a higher rate than the national average. MHCC stated that the U.S. use rate ranged from 430 to 470 discharges per 100,000 population from 2008 to 2015, while Maryland had use rates between approximately 500 and 600 discharges over the same period. Relative to other states, the overall number of inpatient psychiatric beds per 100,000 residents was lower in Maryland in FY 2016 (34 beds per 100,000 residents) than in Delaware, Pennsylvania, Virginia, West Virginia, and the District of Columbia. Combined this suggests that Maryland's bed capacity was low. Furthermore, MHCC found the number of licensed psychiatric beds at hospitals in the state remained at 714 between 2015 and 2019.[23]
- MHA data demonstrate that as total ED visits fell between 2019 and 2021, the proportion visits attributed to patients with behavioral health needs increased. These findings suggest that hospital EDs are treating a growing number of behavioral health cases, and solutions to improve hospital ED throughput need to include strategies to address behavioral health treatment capacity both inside and outside of the hospital setting. See Exhibit 6.

[23] Maryland Health Care Commission, White Paper: Acute Psychiatric Hospital Services, April 2019. mhcc.maryland.gov/mhcc/pages/hcfs/hcfs_shp/documents/psychiatric_services/con_shp_comar_10_24_07_White_Paper_Md_Acute_Psych_Hosp_Services.pdf

EXHIBIT 6

NUMBER OF ED VISITS BY PATIENT DISPOSITION, SHARE OF TOTAL ED VISITS BY PATIENT DISPOSITION, BEHAVIORAL HEALTH ED VISITS AS A SHARE OF TOTAL ED VISITS, 2013-2021



Source: Health Services Cost Review Commission

- Patients require access to behavioral health services in the community, outside the walls of the hospitals. Expanded community-based care would enable patients to seek urgent behavioral health treatment in multiple locations outside of the hospital ED when in crises. In a presentation to the Work Group, the Community Behavioral Health Association of Maryland cited evidence that since the COVID-19 pandemic the use of outpatient mental health services among children enrolled in Medicaid decreased by 10 percent, and the use of specialty services, like psychiatric rehabilitation to address acute needs, decreased by 28 percent.[24] As outpatient behavioral service use has decreased in Maryland, pressure to offer behavioral health services in hospital EDs has increased.

[24] https://www.mhaonline.org/docs/default-source/default-document-library/throughput-workgroup/october/ed-throughput-presentation.pptx?sfvrsn=613bfab1 AllSingleYearReports_Part1 (samhsa.gov)

- Governor Wes Moore's administration recently committed to improving access for behavioral health services throughout the care continuum. Specifically, the 2024 Maryland state budget included $107.5 million to strengthen the behavioral health system of care. Further, in 2023 the Commission on Behavioral Health Care Treatment and Access was established to consider policies to strengthen Maryland's behavioral health system.[25] Maryland has also recently submitted a state plan amendment to offer mobile crisis and crisis stabilization services as an established Medicaid benefit.

Workforce Challenges

Throughout the process, workforce shortages were identified as a significant contributing factor to hospital throughput challenges. Shortages were noted within the following clinical occupations: ED nurses including Registered Nurses (RNs) and Licensed Practical Nurses (LPNs), ED physicians, imaging technicians, social workers, and behavioral health specialists. Shortages in administrative staff needed to move patients through the hospitals' processes and other more specific occupations, such as, environmental services, engineering, and nutritional services are also a concern. It is important to include solutions to increase both direct and indirect care workers, particularly related to ED and inpatient discharge-related staff.

Workforce shortages and needs applied to all health care facilities and medical settings including hospital EDs, hospital inpatient units, urgent care centers, primary care settings, and SNFs. Staffing challenges among various types of nurses, nursing aids, and administrative staff are a broader issue along with SNF staffing challenges. After-hours discharge delays at SNFs were cited as a major impediment to hospital throughput. Also noted was a lack of imaging technicians at urgent care centers.

The value of ensuring diversity was highlighted, particularly when policies targeting workforce challenges are developed and implemented to match the state's population.

The policies to consider are intended to align with the Commission to Study the Health Care Workforce Crisis in Maryland's concurrent work.[26] In April 2022, the Commission was created by the General Assembly (Chapter 708, Acts of 2022) with a charge to determine the extent of the health care workforce shortage in Maryland; in different settings, such as in-home care, hospitals, private practice, nursing homes, schools, community health centers, hospice care; in different geographic regions; in care provided in different languages; in environmental services for hospitals and nursing

[25] https://health.maryland.gov/commission-bhc/Pages/default.aspx
[26] https://msa.maryland.gov/msa/mdmanual/26excom/html/20healworkforce.html

homes; and in different levels of care for health occupations. The Commission is also to examine future needs for health care workers by region and language as the population ages to understand how to encourage people to enter and remain in health care.

Access to Care and Coverage

Gaps in access to care along several points of the patients' care continuum were frequently discussed and, in particular, care received before a hospital ED visit or inpatient admission. Members stated that patients' ability to access care before a condition becomes urgent or acute and leads to emergency care is crucial to improving hospital throughput. There is a need to strengthen primary care and behavioral health services in the community and particularly in underrepresented and served populations. Specific suggestions include:

- Expand access to coverage of home and community-based services (HCBS) and home health aides in Maryland's Medicaid program.
- Better connect patients being discharged from the ED or an inpatient setting with community support services. Some members asserted that this shift would require that care coordinators have more direct links to the full scope of community-based organizations that serve the public.
- Increase community crisis services such as mobile crisis, crisis response, and crisis stabilization services to enable patients to better care for themselves and aid in recovery from illness or injury.

Hospital throughput delays could be reduced by payers offering broader access to palliative care and hospice services. Better access to SNF care would enable hospitals to discharge patients more efficiently and decrease inpatient occupancy congestion. In addition, SNFs should be appropriately staffed to intake new patients after normal business hours.

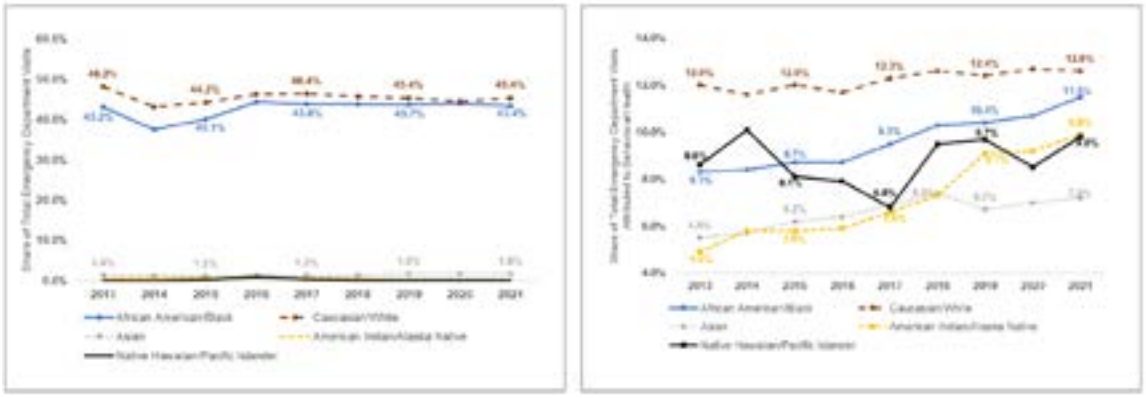
Expanding health insurance and access for all Maryland residents was another primary concern. Some members suggested expanding insurance coverage to all Marylanders, including undocumented residents, to enable patients to better access primary care and behavioral health regularly and potentially avoid unnecessary hospital visits. Several members noted that insurance coverage expansion and access to affordable prescription drugs are also important.

Equity Considerations in the Domain of Access to Care

Access to care for minority populations and equity considerations are a concern. Data shared with the Work Group showed Maryland's African American/Black population account for less than 30 percent of the total population, but more than 40 percent of all ED visits, see Exhibit 7.

EXHIBIT 7

SHARE OF TOTAL HOSPITAL EMERGENCY DEPARTMENT VISITS AND SHARE OF BEHAVIORAL HEALTH HOSPITAL EMERGENCY DEPARTMENT VISITS BY RACE, 2013-2021



Source: Health Services Cost Review Commission

ED throughput delays affect all patients, but people from marginalized communities and particularly people of color can be disproportionately affected for several reasons. Black and Hispanic/Latino individuals are more likely to report not having a usual source of care. These populations are also overrepresented among Maryland Medicaid beneficiaries, and have higher ED utilization rates than White patients. Consistent with Maryland's data, Black/African-American people nationwide are twice as likely to visit an ED than White or Hispanic people.[27] The reasons for higher ED use among minority populations include a lack of insurance coverage, limited access to primary care, exposure to healthcare provider bias and discrimination. These negative practices have created mistrust in medical professionals and healthcare systems and influence the care-seeking behaviors of minority patients. As a result, patients of color are less likely to seek preventive care and more likely to visit the hospital ED during periods of moderate to severe acute illness or chronic disease exacerbations.

Peer State Analysis

HMA conducted a peer state analysis to identify unique characteristics about Maryland that may contribute to throughput concerns and gather insight.

Consistent with the General Assembly's direction, HMA reviewed Indiana, Minnesota, Washington, and Wisconsin for the peer state analysis. These states are in the top 25 of the Centers for Medicare & Medicaid Services (CMS) outpatient quality measure for ED wait times (CMS measure OP18) and contain a city with at least 500,000 people.[28] For these states and Maryland, HMA gathered hospital data, demographic characteristics, and information about the reimbursement landscape.

[27] Parast L, Mathews M, Martino S et al. Racial/ethnic differences in emergency department utilization and experience. J Gen Int Med. 2021; 37:49-56.

[28] CMS Quality Measure OP18 = Average time patients spent in the emergency department before leaving from the visit https://data.cms.gov/provider-data/topics/hospitals/measures-and-current-data-collection-periods

To demonstrate the similarities and differences between Maryland and peer states, HMA used seven measures:

- CMS' measure of the average time from when a patient enters a hospital ED to when they are discharged (measure OP18)
- The payment system used by Medicaid programs in a state to pay for behavioral
- The year the Medicaid program was expanded
- The number of hospital beds per capita
- The 10-year change in the average number of beds per capita
- The scope of the state's CON policy for hospital inpatient beds
- The share of the population that is 65+ years old, the share of the population who are of a minority race, and the share of the uninsured population.[29,30,31] (See Exhibit 8.)

EXHIBIT 8

EXHIBIT 8: PEER STATE COMPARISON

	ED wait time (CMS measure OP18)	Coverage of any behavioral health services under Medicaid by reimbursement system	Year of Medicaid expansion	Hospital beds per 1,000 residents (2022)	Average annual percent change in beds per capital (2012-2022)	Certificate of Need law (level)	Share aged 65+	Share minority	Share uninsured
Maryland	**228 Minutes**	**MCO, ASO**	**2014**	**1.8**	**-14%**	**Yes (high)**	**16.3%**	**67.3%**	**6.1%**
Minnesota	129 Minutes	Not Reported	2014	2.39	-15%	No (with moratorium)	16.8%	40.5%	4.5%
Indiana	133 Minutes	FFS, MCO	2015	2.64	2%	Yes (low)	16.4%	41.3%	7.5%
Washington	138 Minutes	FFS, MCO, ASO, County/Gov Administered ASO	2014	1.6	11%	Yes (high)	16.2%	55.9%	6.4%
Wisconsin	136 Minutes	FFS, MCO, Limited Benefit PHP, County/ Gov Administered ASO	Not adopted	1.95	-15%	No (with moratorium)	17.9%	37%	5.4%

Source: ED wait times (2021) – Becker's Hospital Review. Coverage of any behavioral health services under Medicaid by reimbursement system (2023) – HMA. Year of Medicaid expansion (2023) – Kaiser Family Foundation. Hospital beds per 1,000 residents (2022) – Kaiser Family Foundation. Average annual percent change in beds per capita (2012-2022) – Kaiser Family Foundation. CON Policy (2023) – HMA. Share aged 65+ (2020) - US Census Bureau. Share minority (2020) – US Census Bureau. Share uninsured (2022) - US Census Bureau.

[29] As the delivery of behavioral health (BH) services has become increasingly prominent in the ED setting, HMA collected the peer states' Medicaid BH delivery system models. How do States Deliver, Administer, and Integrate Behavioral Health Care? Findings from a Survey of State Medicaid Programs - Appendix - 10155 | KFF

[30] The Affordable Care Act expanded Medicaid coverage to adults with incomes up to 138 percent of the federal poverty level (FPL) and provided expansion states with enhanced Federal Medical Assistance Percentage (FMAP) dollars. As of December 2023, 41 states adopted the Medicaid expansion. The only peer state reviewed that did not adopt the Medicaid expansion is Wisconsin. Status of State Medicaid Expansion Decisions: Interactive Map | KFF

[31] Health, United States 2020–2021 (cdc.gov)

After comparing these peer states, HMA concluded Maryland:

- Is more densely populated
- Has a larger share of its population in minority racial groups
- Has fewer beds per capita
- Has a more stringent CON program linking inpatient beds to expenditure growth

HMA concluded that Maryland stands out from its peer states because of its large minority population, its relatively restricted bed capacity, and its unique global budget hospital reimbursement model. These findings were important in explaining the root causes of Maryland's ED throughput concerns and in identifying policies to consider for the General Assembly.

Each of the five states is confronting workforce issues. Washington and Indiana employ workforce data collection. Maryland could consider expanding information collected to include workers beyond "traditional" healthcare teams and consider all workers required to keep a hospital functioning. In addition, each of the five states report a behavioral health crisis, particularly among youth, and are considering how to use Medicaid to support social needs of vulnerable populations.

HSCRC: Hospital and Regional Factors Associated with ED Length of Stay

HSCRC presented hospital and regional factors associated with ED length of stay and offered critical insight into the root causes of challenges. Using a statistical modeling approach, HSCRC assessed how Maryland hospitals compare to others in similar regions and to peer hospitals outside of Maryland.[32] The model assessed the degree to which several variables were associated with increased hospital ED length of stay and suggests what proportion of the variation may be driven by the hospitals geographic area (Hospital Referral Region) and other hospital-specific factors.

Overall, HSCRC concluded that policies addressing the following key areas may improve hospital throughput:

- Investment in primary care, specifically through reimbursement enhancements to the Maryland Primary Care Program (MDPCP) and by expanding primary care availability
- Addressing patients' SDOH, such as housing, nutrition, or other health-related social needs
- Improving access to hospice and SNF services
- Planning elective surgeries and medical admissions to avoid ED admission constraints

[32] mha-ed-los-task-force-11-16.pptx (live.com)

HSCRC presented considerations where the agency might assist including:

- Ongoing measurement policies to consider
  - » Continue to operate the HSCRC Emergency Department Dramatic Improvement Effort (EDDIE) program to enable rapid cycle improvement. (See below for more detail on EDDIE)
  - » Enhance coordination efforts with MHA to share data and conduct research on hospital ED throughput
- Payment policies to consider
  - » QBR policy to provide new incentives for improvement on CMS ED-1 measure
  - » Multi-visit patient (MVP) policy that provides hospitals with a financial reward for reductions in the percentage of ED visits accounted for by patients with four or more visits annually
  - » Develop a work group to monitor the impact of policies on ED performance, propose payment policy changes, and provide periodic reporting to the General Assembly

HSCRC staff drew several additional conclusions: 1) Maryland has seen reductions in ED visits per capita that go beyond national declines, and HSCRC attributes this to investments that have been made in care management, primary care, and new site alternatives (e.g., urgent care); 2) differences between Hospital Referral Regions account for 37 percent of variations in median time from arrival to departure for admitted ED patients (ED1b); 3) hospital factors such as staffing, bed management, and organization structure may be driving ED performance; 4) primary care access is an important and modifiable determinant of ED length of stay; 5) addressing SDOH may improve ED length of stay performance; 6) structural hospital factors such as bed size, complexity, teaching status, and ED size that are not easily modifiable have a significant effect on ED performance; and 7) Maryland hospitals are larger, more complex, and more likely to be teaching facilities.

HSCRC Emergency Department Dramatic Improvement Effort (EDDIE)

Since the 2023 legislative session, HSCRC developed several public reporting and payment policies to reduce wait times. In July 2023, HSCRC initiated the EDDIE, which includes monthly public reporting on throughput measures and an MHA-led quality improvement initiative. The goal of EDDIE is to encourage and support advancements in ED throughput through rapid cycle improvement and public transparency. The three measures reported are: EMS turnaround time, ED1, and OP18.[33]

[33] EMS turnaround time = Time from ambulance arrival at hospital to when hospital signs to take over patient care. ED-1 = Median time (in minutes) from ED arrival to ED departure from admitted ED patients. OP-18 = Median time (in minutes) from ED arrival to ED departure from discharged ED patients.

There was also a separate MHA-led ED throughput performance improvement initiative that began in August 2023, and as a part of this effort hospitals submitted aim statements or summaries of how they plan to implement specific changes to drive improvement over a 12- month period. Hospitals are divided into four geographically similar cohorts and meet monthly to share experiences and best practices for rapid cycle improvement. This initiative will continue through July 2024.

POLICIES TO CONSIDER

Seventeen policies to consider are offered by the Work Group to address challenges in the care continuum that lead to hospital throughput delays and longer wait times in Maryland. Collectively, the policies to consider take a multi-dimensional approach to addressing this concern, because the Work Group has identified several root causes of throughput delays which occur at different points during a patient's care continuum and originate from sources inside and outside of the hospital. Building upon prior hospital throughput assessments, the Work Group developed an actionable blueprint that identifies strategies and responsible stakeholders for implementation.

The policies to consider are prioritized and grouped into four categories reflecting key themes and strategies.

- **Theme 1 - Infrastructure and Systems:** The top priority is the need to modify infrastructure and systems in Maryland to alleviate strain in EDs. Two of the highest priority policies to consider are: 1) to create a sustainable funding pathway for specialized behavioral health services for individuals with serious mental illness and 2) to make modifications to managed care prior authorization processes. Both policies to consider will require partnership and leadership with the General Assembly for successful implementation. Other policies to consider include improving data collection across emergency providers and systems and conducting rate adequacy assessments for psychiatric step-down facilities.
- **Theme 2 - Access to Care for Patients in the Community:** There is a need to expand access to care outside of the hospital and in the community as a critical step for preventing delays in hospitals. Five key services for which access should be expanded were identified, including: 1) home- and community-based services (HCBS), 2) dialysis services for patients with Serious Mental Illness (SMI), 3) hospital-at-home, 4) urgent care, and 5) end-of-life care (hospice, palliative). In addition, members recommend policymakers explore the expansion of access to health care coverage for uninsured individuals in Maryland. Members felt strongly that these policies to consider be acted on within the next year to alleviate pressure on hospital EDs.

- **Theme 3 - Hospital Capacity:** A broad range of solutions were developed to improve hospital ED throughput by eliminating bottlenecks inside the hospital which will, in turn, expand hospital capacity. This includes evaluating and implementing modifications as needed to Maryland's Global Budget Revenue (GBR) Model, such as eliminating the Medicare skilled nursing facility (SNF) three-day rule and modifying Maryland's Certificate of Need (CON) rules to alleviate capacity constraints. Other important elements of this theme include the development of new home-based caregiver discharge support services, increased funding for the expansion or redesign of hospital ED capacity, the establishment of a state funded work group charged with monitoring ED throughput data trends, and an assessment of the impact of the implemented policies to consider included within this report.
- **Theme 4 - Workforce and Guardianship:** Several policies to consider align with and enhance existing efforts to implement policies to resolve the many workforce challenges in Maryland (Maryland Commission to Study the Health Care Workforce Crisis). These policies to consider include bolstering ED care coordination staff and several health care workforce development interventions and identifying licensing strategies to fill workforce gaps. Work Group members strongly expressed the need for a variety of workforce solutions to bolster the staffing pipeline for numerous occupations, such as physicians, nurses of various levels, imaging technicians, social workers, care coordinators, and non-clinical professionals. In addition, this category includes a policy to consider to add a new pathway to establish patient guardianship, which aligns with the Maryland judiciary's efforts on the same topic.

POLICIES TO CONSIDER OF THE MARYLAND GENERAL ASSEMBLY HOSPITAL THROUGHPUT WORK GROUP

Subject Area	Policies to Consider	Actor/ Stakeholder
Infrastructure and Systems		
Behavioral Health Infrastructure and Systems	Enhance the Maryland behavioral health infrastructure and systems by: • Ensuring sustainable funding from public payers. • Providing incentives for commercial payers for enhanced targeted case management and other wraparound services for the SMI population including children, youth, and adults to enable care in the community.	• Legislature

Subject Area	Policies to Consider	Actor/ Stakeholder
Managed Care Prior Authorization Reform	Require managed care plans operating in Maryland to: • Adhere to standardized and shortened timelines of prior authorizations for skilled nursing facilities admissions of individuals in the ED and inpatient settings. • Adhere to standardized and shortened timelines of prior authorizations for surgical procedures of individuals in the ED and inpatient settings. • Reduce the burden on patients for obtaining prescription refill authorizations.	• Legislature
Statewide Data Tracking of Patient Care Pathways Involving ED Services	Enhance state collection of data from multiple providers (hospitals, SNFs, ambulances) for patients receiving care in Maryland hospital EDs to better identify patient care pathways, systemic bottlenecks, and patient outcomes in different geographic areas of the state.	• MIEMSS • Hospitals • SNFs • Local EMS agencies • MDH
Behavioral Health Housing	Conduct a rate adequacy assessment for adult post-acute and post-inpatient psychiatric step-down facilities to understand the cost for public and commercial payers to enhance coverage of these services.	• MDH • BHA • DHS • Group Home Providers
Patient/Community Related Access to Care		
Dialysis Services	Create access points outside of the hospital ED for patients requiring dialysis who are not currently receiving regular treatments outside the ED, including those with behavioral diagnoses and those without insurance.	• Hospitals • Dialysis providers • State agencies
Urgent Care	Encourage urgent care centers to do more to attract and accept patients to the highest level they are capable of caring for.	• Urgent care centers • State agencies
Hospital-at-Home Model	Expand the CMS hospital-at-home model by revising the existing program and expanding its availability to additional hospitals in Maryland.	• Hospitals • State agencies • CMS
Home and Community-Based Services (HCBS)	Expand access to HCBS within the Maryland Medicaid program, including the expansion of home health aide services.	• MDHS Medicaid
End-of-Life Care	Increase access to end-of-life care services such as hospice and palliative care by requiring all payers in Maryland to cover these services to some degree.	• Legislature • Payers
Uninsured Patient Access	Expand the coverage of health insurance for Maryland's uninsured population.	• Legislature

Subject Area	Policies to Consider	Actor/ Stakeholder
Hospital Capacity		
Modifications to Maryland's Global Budget Revenue (GBR)	Make modifications to the GBR model to relieve burden on hospital ED • Eliminate the Skilled Nursing Facility (SNF) three-day stay rule from the Maryland GBR model. • Study the impact of the GBR model on hospital boarding practices, inpatient capacity, and ED throughput. • Study the impact of the GBR model on physician compensation relative to other states and the need for hospitals to pay practice subsidies.	• HSCRC • MHA • CMS
Certificate of Need (CON)	Explore modifications to Maryland's CON program and identify ways to enable providers to expand capacity in areas of need • Consider functional bed capacity in the definition of capacity. • Consider the inclusion of patient ED boarding in the measurement of bed capacity. • Better align staffed beds with specific geographic population needs when facilities are built or expanded. • Reduce the regulatory burden associated with requesting modifications to existing CON regulations.	• MHCC
ED Capacity	Create state capital funding for hospitals to expand their ED capacity and specialized care pathways.	• Hospitals • State agencies • Legislature
Discharges to Home	Increase support for home/family caregivers to make ED and inpatient discharge to home more feasible and safer.	• Hospitals
ED Throughput Work Group Continuation	Establish a state supported two-year work group to continue to discuss, monitor, assess ED throughput, and report back. Stakeholders including providers, payers, and patients should participate with administration by a third-party consultant.	• Legislature
Workforce and Guardianship		
Guardianship	Review the guardianship process in Maryland and consider adding an expedited health care limited financial guardianship pathway to reduce barriers to care and patient discharge.	• Maryland Judiciary
Workforce Care Coordination Staff	Ensure that all hospitals in Maryland maintain care, discharge, and eligible coordinators in EDs. • Ensure hospital EDs have a care coordination navigator to assist with discharge connections. • Ensure hospital EDs have a patient coverage eligibility coordinator.	• Hospitals

Subject Area	Policies to Consider	Actor/ Stakeholder
Workforce Development	Enhance workforce development efforts for clinical and non-clinical emergency department staff in Maryland to relieve staffing challenges where they exist. • Reduce nurse and social worker licensure burdens. • Increase pipeline of LPNs and imaging techs through partnerships with community colleges. • Expand the number of imaging techs in urgent care centers. • Require professional licensure boards to collect data on their populations to inform state "education blueprint." • Reform Maryland's clinical education grantmaking systems to provide financial support to newly trained clinicians (nurses and physicians).	• Legislature • Workforce boards • Healthcare employers • Higher education

ADDITIONAL SOLUTIONS

Several additional potential policies to consider did not receive any votes during the voting process or were raised by a Work Group member after completion of the voting process and are included here as additional potential solutions:

- HSCRC's EDDIE program should continue to be relied upon to link hospital ED outcomes data to reimbursement. A regional workforce licensure compact between Maryland, Virginia, and Washington, D.C. could be created to enable physicians, nurses, and other clinicians to transfer their state-based licensure across state lines.
- Coverage parity for behavioral health services could be mandated across public and commercial payers to eliminate disparities and confusion of patients and providers.
- A state grant program could be developed to enable clinical programs (for nursing, physician assistant, imaging technicians) that offer specialized certifications for ED care.
- Clinical education student loan repayment programs could be expanded to include physicians (primary care and ED), physician assistants, nurses, imaging technicians, and administrative staff. In return for financial benefits, students would agree to devote time to working in the hospital.

NEXT STEPS FOR STAKEHOLDERS AND POLICYMAKERS

Collaborative efforts across multiple stakeholders are required to improve hospital ED throughput. Across the full care continuum, partners such as hospitals, clinicians, payers, and state agencies are needed to play a leadership role in implementing or partnering to implement many of the policies to consider. Initial legislative action is needed to propel this work forward, including:

- Enact infrastructure and systems legislation to fund and strengthen the behavioral health infrastructure and reform managed care prior authorization systems.
- Instruct HSCRC and MDH to evaluate the Work Group's GBR-related policies to consider to determine if the state will need to negotiate changes with CMS.
- The legislature and state agencies must consider the workforce policies to consider of this Work Group in alignment with the "Maryland Commission to Study the Health Care Workforce Crisis" and implement policy changes that expand the health care workforce. The workforce policies to consider will require hospitals, state agencies, educational institutions, and professional licensure boards to work in concert with one another to build pipelines of needed clinical and non-clinical health care staff.
- Partner with Maryland's judiciary branch of government to align around proposed changes to the patient guardianship statutes.
- Develop ongoing mechanisms to track hospital ED throughput concerns and to track the actions taken by the state and other stakeholders to implement the policies to consider contained in the report. Opportunities include extending the duration of this Work Group and providing funding for its efforts, starting a new multi-stakeholder commission to continue, or delegating this responsibility to an existing state agency.

APPENDIX 1: MARYLAND GENERAL ASSEMBLY HOSPITAL THROUGHPUT WORK GROUP ROSTER

CHAIRS

Erin Dorrien, MPP, Co-Chair
Vice President
Policy Maryland Hospital Association
Elkridge

Ted Delbridge, M.D., Co-Chair
Executive Director
Maryland Institute for Emergency Medical Services Systems
Baltimore

WORK GROUP MEMBERS

Klara Annibal
Health Committee Chair NAACP
Baltimore City Branch

Girume Ashenafi
Lead Researcher
Service Employees International Union
Annapolis

Pamela Beidle
Senator
Maryland General Assembly
District 32

Harry Bhandari, Ph.D.
Delegate
Maryland General Assembly
District 8

Michael Bond, M.D., FACEP, FAAEM
President-Elect
Maryland Chapter of the American College of Emergency Physicians
Baltimore

Angela Brittingham, MSN, RN, CEN, CPEN, NEA-BC, CPHQ
Chief Nursing Executive
TidalHealth
Salisbury

Geoff Dougherty, Ph.D., MPH
Deputy Director, Population-Based Methodologies, Analytics, and Modeling
Health Services Cost Review Commission
Baltimore

Lori Doyle
Public Policy Director,
Community Behavioral Health Association of Maryland
Catonsville

Wynee Hawk, RN, J.D.
Director of the Center for Health Care Facilities Planning and Development
Maryland Health Care Commission
Baltimore

Peter Hill, M.D.
Senior Vice President of Medical Affairs
Johns Hopkins Health System
Associate Professor of Emergency Medicine
Baltimore

Danna Kauffman, Esq.
LifeSpan
Network Columbia

Ben Kaufman, BS, RN, NRP
Battalion Chief
Montgomery County Fire & Rescue
Rockville

Stephanie Klapper, MSW
Deputy Director
Healthcare For All Coalition
Baltimore

Michelle LaRue, MD
Health and Human Services Director
CASA

Stuart Levine, M.D., FACP
President, MedStar Franklin Square Medical Center
Senior Vice President, MedStar Health
Baltimore

Karen Lewis Young, MBA, MA
Senator
Maryland General Assembly
District 3

Sunil Madan, M.D., CPE, FACEP
Chief Medical Officer
Luminis Health Doctors Community Medical Center
Lanham

Ashanti Martinez
Delegate
Maryland General Assembly
District 22

Erin McMullen, MPP, MSN, RN
Chief of Staff
Maryland Department of Health
Baltimore

Anna Palmisano, Ph.D.
Director
Marylanders for Patient Rights
Rockville

Todd Peters, M.D.
Chief Medical Officer
Sheppard Pratt
Baltimore

Stephen Schenkel, M.D., MPP
MedChi
Chair, Department of Emergency Medicine
Mercy Medical Center
Baltimore

Jeffrey Sternlicht, M.D., FACEP
Chair, Emergency Medicine Greater Baltimore Medical Center
Towson

Kathy Szeliga
Delegate
Maryland General Assembly
District 7A

Lisa Tenney, BSN, RN, CEN, CPHRM, FAEN
Chair, Government Affairs Committee
Maryland State Council Emergency Nurses Association
Gaithersburg

Neel Vibhakar, M.D., MBA, FACEP
Senior Vice President and Chief Medical Officer
UM Baltimore Washington Medical Center
Glen Burnie

APPENDIX 2: LETTER FROM THE MARYLAND GENERAL ASSEMBLY TO THE MARYLAND HOSPITAL ASSOCIATION

THE MARYLAND GENERAL ASSEMBLY
ANNAPOLIS, MARYLAND 21401-1991

May 11, 2023

Ms. Meghan McClelland
Chief Operating Officer
Maryland Hospital Association

Dear Ms. McClelland:

During the 2023 legislative session, our committees considered Senate Bill 387, sponsored by Senator Lewis Young and House Bill 274, sponsored by Delegate Bhandari. The bills established the Task Force on Reducing Emergency Department Wait Times. The bills were in response to the State's very low ranking regarding the average time spent waiting in an emergency department in a Maryland hospital. Although the bills did not pass, we believe that this matter deserves immediate attention from the hospitals in the State.

In lieu of legislation we urge that the Maryland Hospital Association convene a workgroup to identify the root causes of wait times in emergency departments in the State, including:

- an analysis of health system capacity, including inpatient hospital, urgent care, inpatient and community behavioral health, primary care, and other health facility or community capacity considered necessary by the Task Force;
- an analysis of health care workforce supply and unmet need;
- an analysis of changes in acuity over time in hospitalizations and emergency department visits; and
- the availability of post–hospitalization care options and barriers to accessing those care options.

The study should include an analysis of the regulatory environment, access and availability of health care services, and inpatient bed availability in states that have a population similar to Maryland, are similar in hospital density and care pattern utilization, have at least one city of approximately 500,000 residents, and rank within the top 50% of states in shortest emergency room wait time.

Health Management Associates

www.HealthManagement.com