MARYLAND HEALTH CARE COMMISSION

2018 ANNUAL REPORT

EXECUTIVE SUMMARY

This report describes the activities and accomplishments of the Maryland Health Care Commission (MHCC or the Commission) during fiscal year (FY) 2018.

MHCC is an independent regulatory agency whose mission is to plan for health system needs, promote informed decision-making, increase accountability, and improve access in a rapidly changing health care environment. To achieve this mission, MHCC provides timely and accurate information on availability, cost, and quality of services to policy makers, purchasers, providers, and the public. The Commission's vision for Maryland is to ensure that informed consumers hold the health care system accountable and have access to affordable and appropriate health care services through innovative programs.

In 2018, MHCC made progress in five strategic areas:

1. Reporting on health system quality and cost
2. Planning for and maintaining the availability and financial viability of health care facilities and services
3. Developing an all payer database to monitor cost, quality, and population health
4. Reducing the costs of health care through wider adoption of information technology
5. Supporting statewide health reform initiatives

POLICY AND LEGISLATIVE REPORTS

Utilization: Spending and Use among Maryland's Privately Fully-Insured 2016 (May 2018)

CON: Modernization of the Maryland Certificate of Need Program Interim Reports (Volume I: Interim Report)(Volume II: Appendices)

Cybersecurity: Health Care Data Breaches: 2017 Findings (2018)

Electronic Health Records: An Update on Adoption and Incentives Paid by State-Regulated Payors (2018)

Hospital: Health Information Technology: An Assessment of Maryland Acute Care Hospitals

Telehealth: Advancing Population Health and Primary Care Transformation via Telehealth: A Compilation of 2015 & 2016 Telehealth Grant Final Reports (March 2018)

MHCC Responsibilities

MHCC is legislatively mandated to carry out the following activities for the State of Maryland:

- Report on health system quality and cost
- Plan for and maintain the availability and financial viability of health care facilities and services
- Reduce the costs of health care through wider adoption of information technology
- Promote health care delivery system reform
- Develop an all payer database to monitor cost, quality, and population health
- Monitor health care expenditures
- Protect safety net providers
- Monitor health disparities

In addition, MHCC acts as a health policy arm of the General Assembly, monitors Maryland's health care workforce, and serves as a technical resource to the Health Services Cost Review Commission (HSCRC) for the All Payer Model and Total Cost of Care (TCOC) Demonstration.

The first section of this report covers MHCC progress on each of the priority areas. The second section addresses MHCC operations, including organization, staffing, and budget.

Reporting on Health System Quality and Cost

Overview: The primary objectives of the Commission's health care provider quality and performance evaluation mandates are to increase transparency and informed decision-making among consumers, to improve the delivery of care, and to support the state's unique hospital rate-setting system (i.e., the TCOC Model). The Commission's price transparency initiatives include the Maryland Health Care Quality Reports and Wear the Cost websites.

The Maryland Health Care Quality Reports website is a comprehensive, consumer-friendly resource that brings together MHCC's four mandated public reporting initiatives: hospitals, long-term care, ambulatory surgery centers, and commercial health plans. This website offers consumer-friendly information on quality and costs of health care in Maryland, including hospitals and long-term care facilities. The Quality Reports website does not, however, provide prices for hospital outpatient services and does not include physician fees.

The Hospital Guide, first created in 2002, is the largest program included on the Quality Reports website. It allows consumers to compare hospital performance metrics and prices on numerous services provided. Users of the website can view hospital-specific charges by medical condition and by major payer categories such as Medicare, Medicaid, commercial insurance, and other payers. MHCC's Hospital Guide covers 47 acute care hospitals in Maryland using data from trusted state and national sources. The Hospital Guide reports on hospital average charges (prices), average length of stay, and number of discharges (volume) for all medical conditions treated on an inpatient basis.

The Quality Reports site has benefited greatly from national progress in developing evidence-based guidelines to improve the delivery of care and standardization of data collection, quality measurement, and surveillance system protocols. These resources enable states to compare their performance to other states and against national benchmarks and goals.

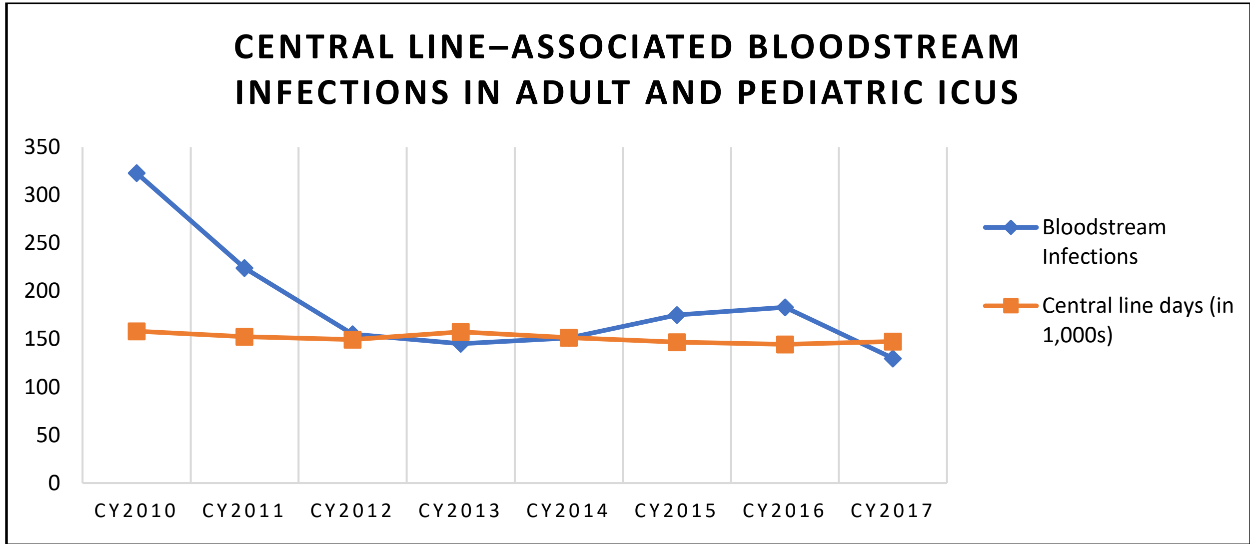
For example, MHCC uses results from a national patient experience survey (the Consumer Assessment of Healthcare Providers and Systems, or CAHPS) to assess consumer experience with hospitals, health plans, and home health agencies. The Centers for Disease Control and Prevention National Healthcare Safety Network (NHSN) surveillance system is used for collection and reporting of health care-associated infection data such as central line-associated bloodstream infections; certain serious bacterial infections, such as Clostridium difficile or C. diff; and MRSA (methicillin-resistant staphylococcus aureus). The NHSN system is also a national source for comparative data on hospital employee influenza vaccination rates.

Key 2018 Activities: MHCC's commitment to the collection, reporting, and monitoring of various hospital-associated infection quality metrics has been associated with solid hospital performance improvement in this area over time. Figures 1 through 4 illustrate this improvement for hospital-associated infections and preventive immunizations for hospital workers.

"Consumer engagement is important to further price transparency, and it is also important as Maryland moves to adopt some very ambitious delivery reform initiatives."

Ben Steffen, Executive Director of Maryland Health Care Commission

Figure 1: Performance Trends in Central Line-Associated Bloodstream Infections in ICUs



ICUs = intensive care units; CY = calendar year

Figure 2: Hospital Performance Trends in Clostridium Difficile and MRSA Infection

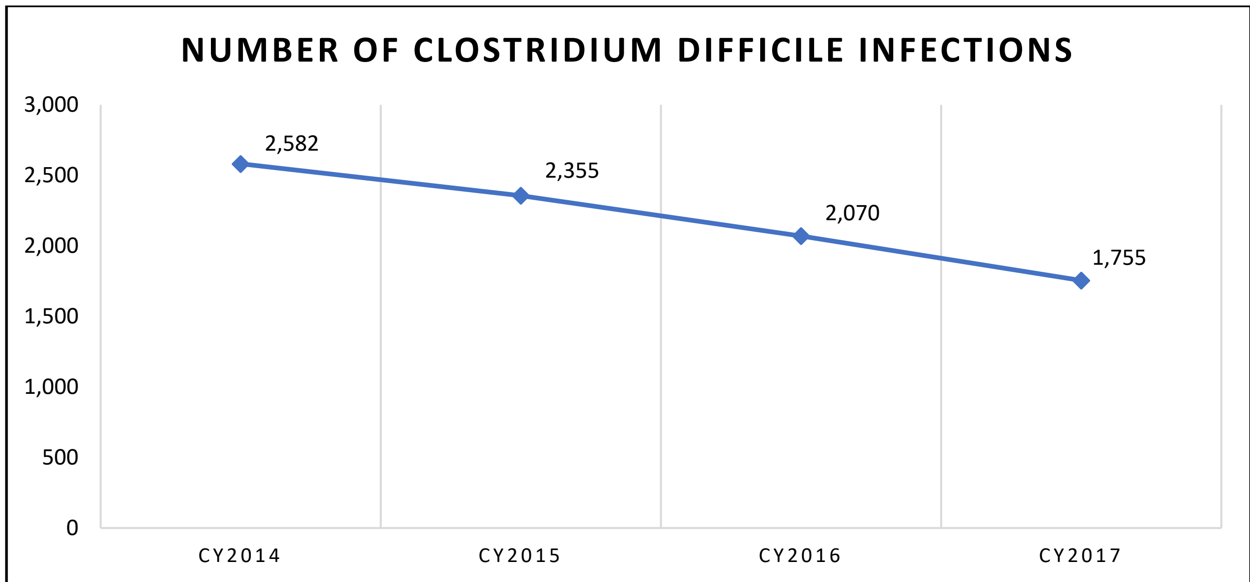


Figure 3: Hospital Performance Trends in MRSA Infection

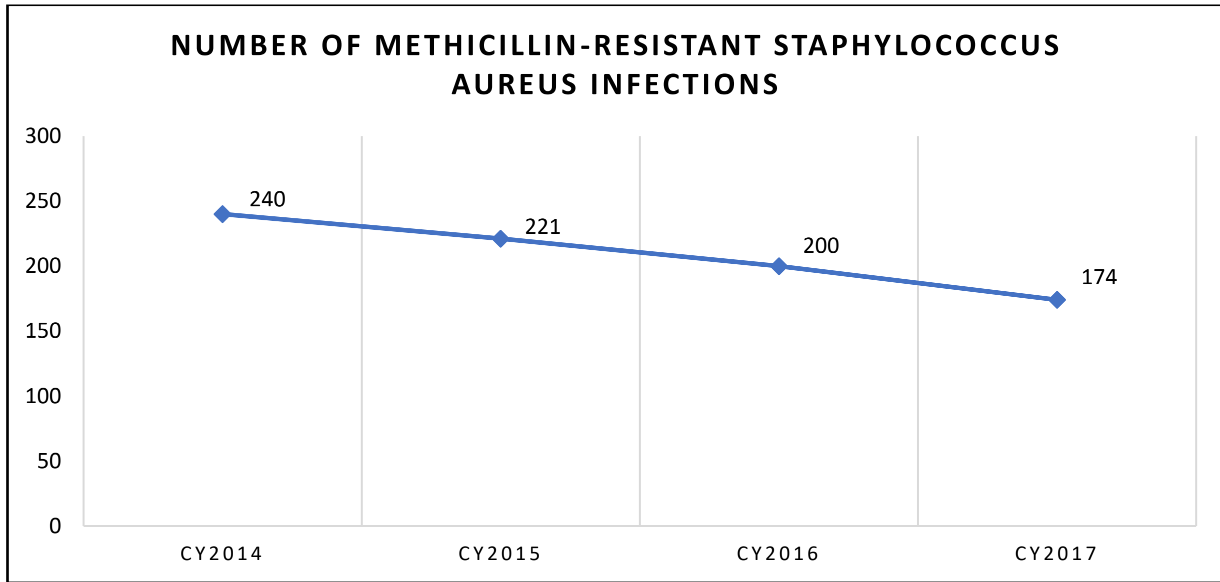
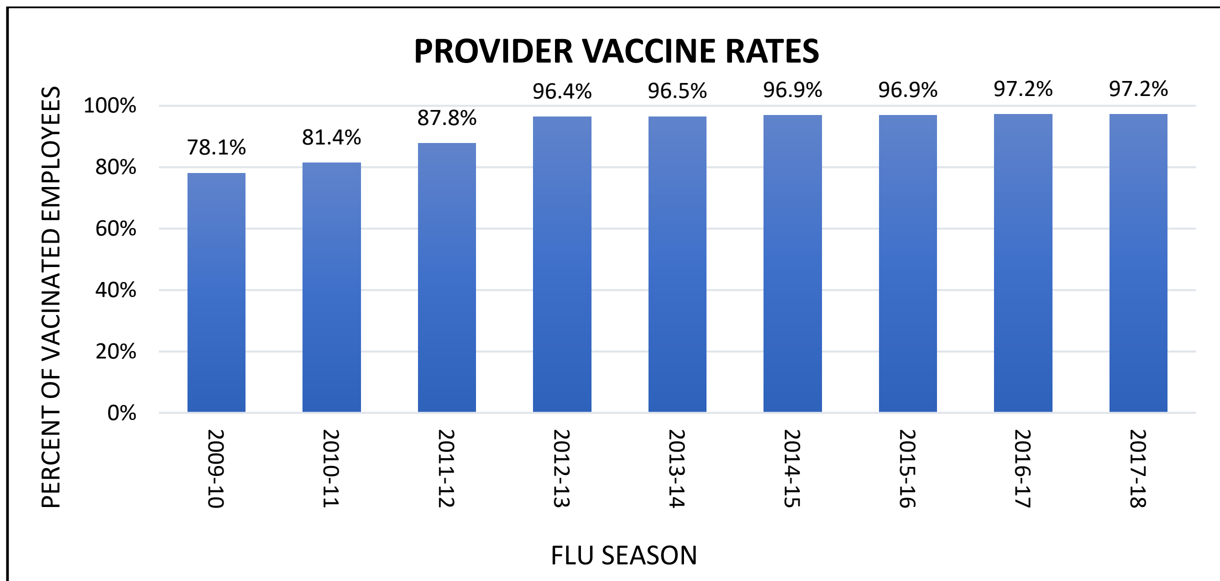


Figure 4: Health Care Worker Influenza Vaccination Rates at Hospitals



In addition to using nationally available data, MHCC also developed and implemented data collection tools to gather information when national sources were not available. These include the Staff Influenza Vaccination Survey of Nursing Homes and Assisted Living Facilities and the Nursing Home Family Experience of Care Survey. The most recent results from the Maryland surveys are presented in Figures 5 through 8.

Figure 5: Health Care Worker Influenza Vaccination Rates at Nursing Home

State Statistics	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Nursing home HCW vaccination rate	57.9%	65.1%	73.6%	79.3%	85.5%	87.6%	86.9%	**87.0%**
Nursing Homes Surveyed	235	225	225	230	230	229	228	**225**
Nursing Homes with staff vaccination rates of ≥ 95%	2% (4)	8% (9)	16.4% (37)	23.5% (54)	41.3% (95)	43.7% (100)	42.8% (98)	**44% (100)**
Nursing Homes with ≥ 60% staff vaccinated	42.6% (100)	60.4% (136)	70.2% (158)	78.8% (181)	84.3% (194)	88.0% (202)	85% (193)	**86% (194)**
Mandatory Vaccination Policy: Higher HCW vaccination rates are associated with facilities that have a mandatory vaccination rate in place and provide on-site influenza vaccination at free or reduced cost. 52% of Maryland nursing homes have implemented a mandatory vaccination policy, with 8% planning to implement a policy during the 2018-2019 survey season.								
Mandatory policy in place	NA	19.1%	22.4%	31.3%	46.1%	48.5%	50.0%	**52% (116)**
Plan to implement mandatory policy in upcoming influenza season	NA	18.2%	14.8%	19.6%	11.3%	9.2%	10.1%	**8% (17)**
No plan for mandatory policy	NA	62.7%	62.8%	49.1%	42.6%	42.3%	39.9%	**41% (92)**

Figure 6: Health Care Worker Influenza Vaccination Rates at Assisted Living Facilities

State Statistics	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Assisted living facility staff vaccination rate	49.0%	53.2%	57.9%	56.2%	54.7%	**56.7%**
Assisted living facilities surveyed	318	334	376	379	370	**374**
Reason for Declining Vaccination						
Medical reasons (Documentation required)	3.1%	2.7%	1.5%	2.0%	2.9%	**2.3%**
Religions reasons	1.0%	1.2%	1.3%	1.4%	0.9%	**1.5%**
Other or no documentation of vaccination	45.7%	42.9%	39.3%	40.3%	41.6%	**39.5%**

Figure 7: Family Experience on Five Domains of Care in Maryland Nursing Homes

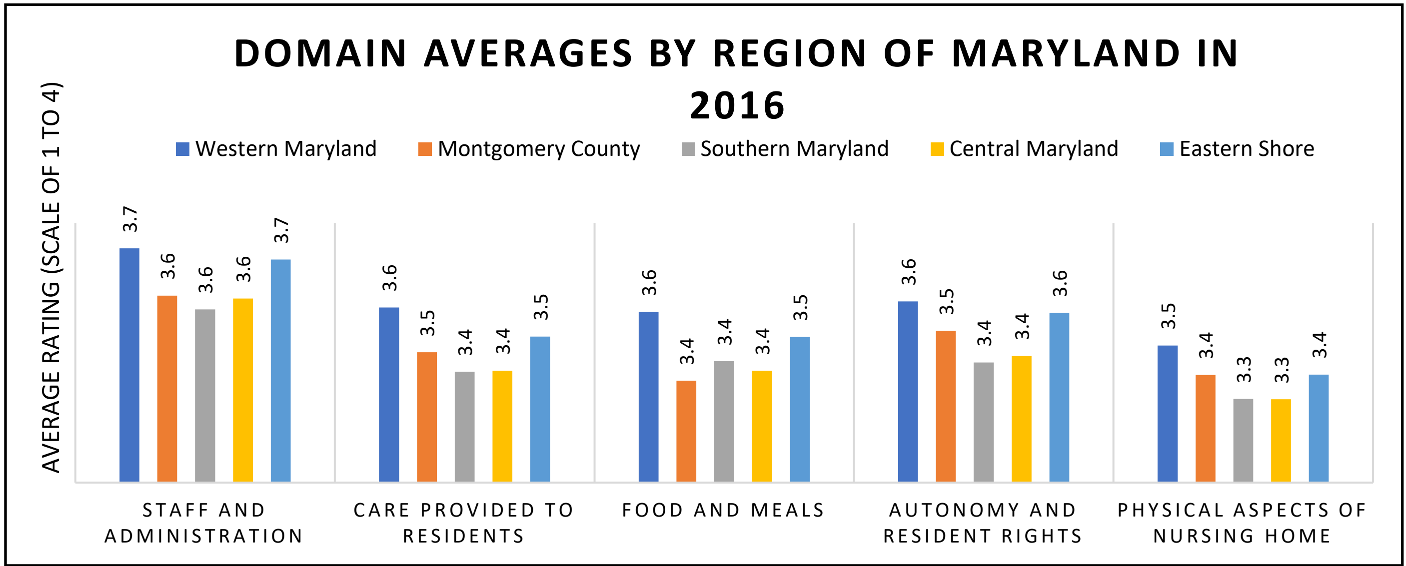
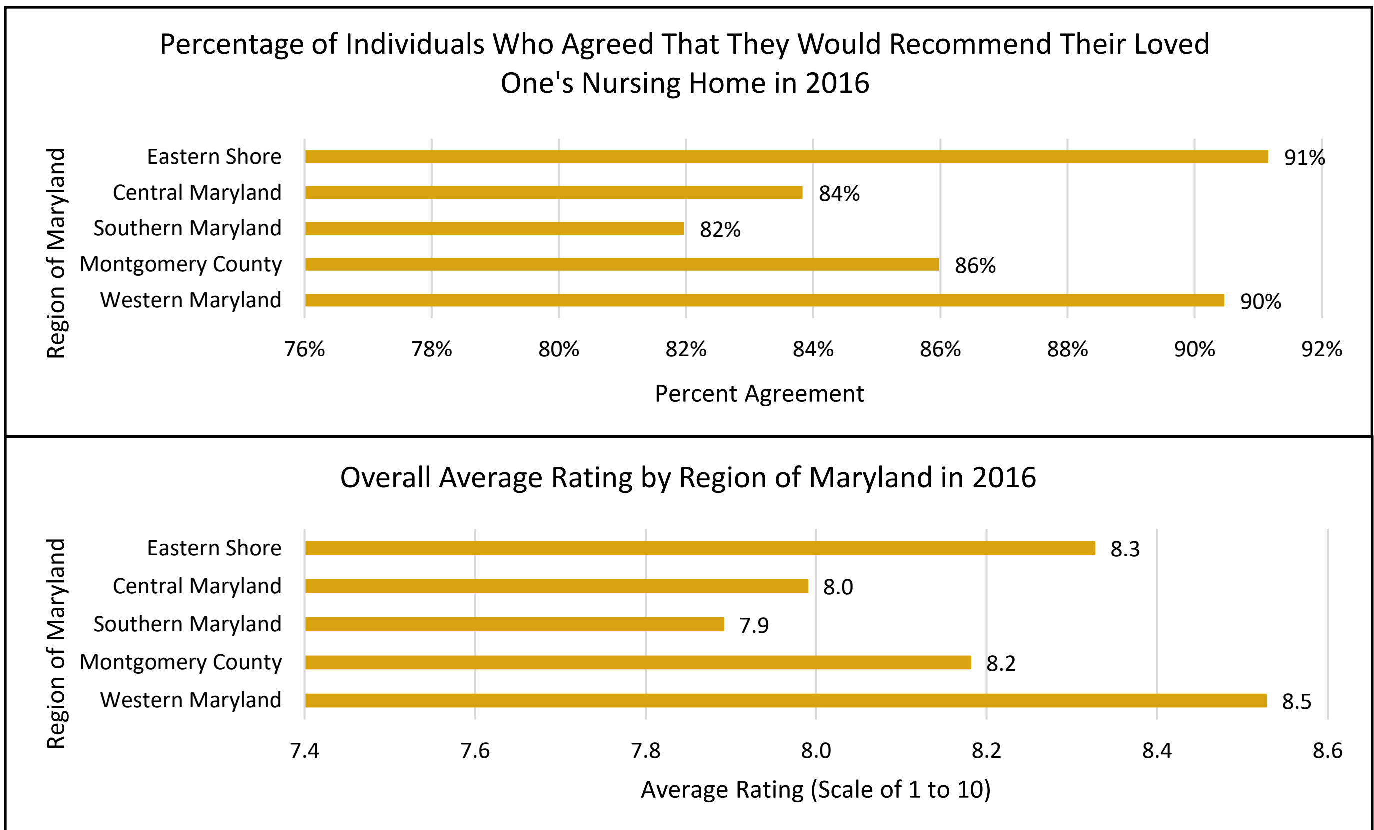


Figure 8: Family Experience with Nursing Homes



In addition to Quality Reports, MHCC's Wear the Cost is one of the state's major initiatives to offer consumer-centric price transparency information. To educate consumers about the total costs associated with the care and treatment of common medical conditions (e.g., hospital, physicians, and outpatient follow-up visits), MHCC initiated the #WearTheCost campaign in 2017. Wear the Cost leverages the Maryland Medical Care Data Base (MCDB), the private insurer portion of the Maryland All Payer Claims Database (APCD), to publish cost and quality information for episodes of care (Figures 9 & 10). The website (https://www.wearthecost.org/) uses episodes-of-care measures to show the total cost associated with a bundle of services provided to treat a condition. The measures can be used to assess how cost and quality varies across health care providers for certain procedures. As Figure 11 shows, the website now attracts users both from within Maryland and across the country. The website traffic peaked in July 2018 in conjunction with a communications initiative launched by MHCC, illustrating how public information can increase consumer engagement with health care cost and quality information.

The goal of the initiative is to eventually display cost and quality for more episodes and payer categories, including Medicare and Medicaid, but due to significant morbidity differences in these populations, their results must be generated independently. Medicare 2015/2016 results for nine episodes are anticipated to be posted on the website in spring 2019. Average costs for reported episodes of care remained stable or slightly increased over recent reporting years.

Figure 9: Trends in Costs per Episode—Statewide Average Costs for Commercial Population

Episodes	Study window 2014–2015	Study window 2015–2016
Hip Replacement	$30,779	$30,067
Knee Replacement	$29,059	$30,168
Hysterectomy	$16,381	$16,138
Vaginal Delivery	$10,841	$11,590

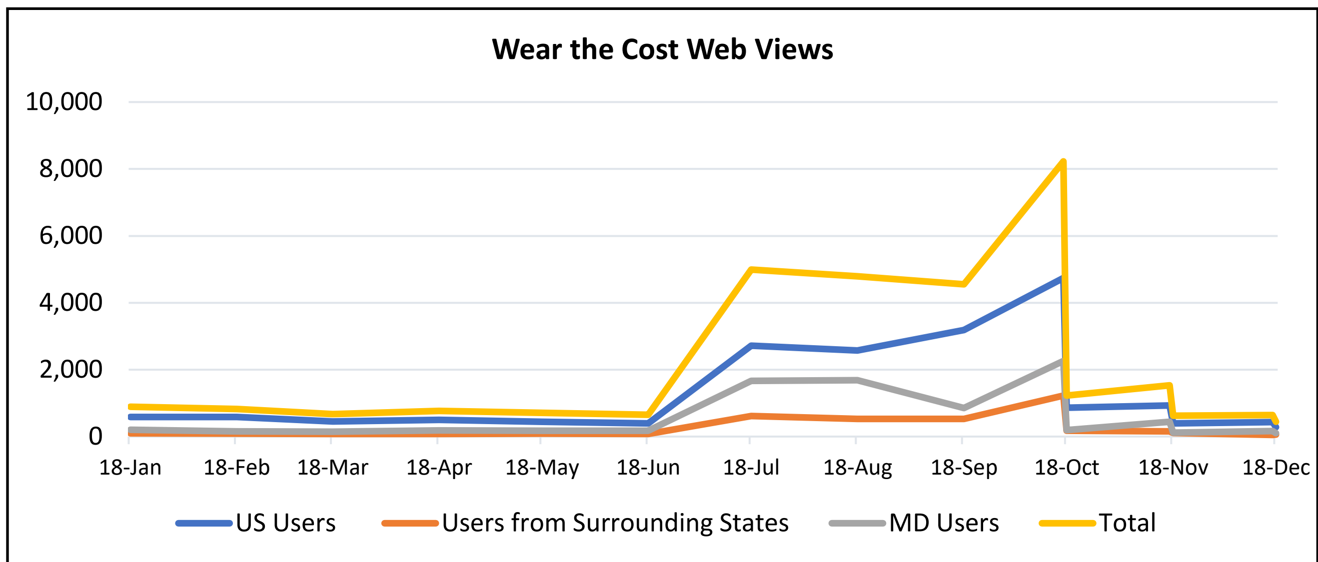
Figure 10: Number of Hospitals Reported Per Episode

Episodes	Study window 2014–2015	Study window 2015–2016
Hip Replacement	10	14
Knee Replacement	21	28
Hysterectomy	16	22
Vaginal Delivery	24	27

"Many of us as consumers find it difficult to ask our provider, especially if we're sitting in front of them contemplating a complicated procedure, 'How much is it going to cost, where are those costs going to come from, which hospital should I go to, and is one better than another?' All of those are important decisions that people need to take some responsibility for, and this kind of a website can really help."

Dr. Marilyn Moon, former chairwoman of MHCC, October 19 ,2017

Figure 11: Wear the Cost Web Traffic Geographic Breakdown



"Our website will shed light on the cost and quality differences among Maryland hospitals that until now have been largely unavailable in a consumer-friendly fashion. At the center of this initiative is the website. It is a unique platform for educating consumers about costs and quality disparities across Maryland. It will enable them to become better shoppers of elective health care services and procedures. The website is only one part of our initiatives. We aim to begin a statewide conversation about pricing and quality disparities in Maryland. The goal is to improve health care affordability for all of our citizens. This will start a process where citizens will really start to ask questions, start to probe, and get satisfactory answers as to why costs are the way they are.

By providing this public information on prices for common medical procedures, our Commission will enable Maryland citizens to match the prices with provider performance. This is not simply a good idea for the Maryland Health Care Commission—this is integral to our mission. It is one of the major reasons why we even exist: to help consumers do this."

Robert Emmet Moffit, PhD, Chairman, Maryland Health Care Commission

Planning for and Maintaining the Availability and Financial Viability of Health Care Facilities and Services

Overview: MHCC is legislatively mandated to plan for and maintain the availability and financial viability of health care facilities and services for the state of Maryland. The purpose of state health planning and the Certificate of Need (CON) program, which requires certain types of health care facility and service projects to obtain approval from MHCC, is to ensure new health care facilities and services are valuable to the state, in that they are:

- Needed;
- High quality;
- Geographically and financially accessible; and
- Financially viable.

MHCC's Center for Health Care Facilities Planning and Development provides staff support for the regulatory oversight of health care facility development in Maryland. MHCC is charged with administering the 45-year-old CON program. This program ensures that only needed facilities and services are developed and that they will be available and accessible to those who require services. It also ensures that facilities provide an acceptable level of quality care to the public and that they can be feasibly developed and sustained over time.

The center staff supports the establishment and updating of regulations, known as the State Health Plan (SHP), which inform the regulated facilities about the requirements for obtaining CON approval of their development plans. Over the past five years, MHCC has worked to modernize aspects of CON regulation within the powers and limitations established in current law, through redevelopment of the SHP. In 2017 the key health committees of the General Assembly charged MHCC with reconsidering CON regulation in light of the 2019 initiation of the TCOC Model by the HSCRC. In December 2018, MHCC adopted a report with recommendations for change, *Modernization of the Maryland CON Program*.

Five chapters of SHP regulation have been updated in the last five years, and a new chapter of regulation, addressing the newest category of health care facility in Maryland, was developed.

- **Acute Rehabilitation:** The SHP chapter of regulation for acute rehabilitation (COMAR 10.24.09), which is a category of special hospital service, was updated in FY 2014. The updated regulations established an approach to evaluating the need for regional bed capacity changes.
- **Hospice Services:** It is likely that in 2019 additional hospice services will be approved for two jurisdictions with historically low use rates. These approvals are consistent with FY 2014 changes to the SHP chapter of regulation for general hospice services, COMAR 10.24.13, which established a key policy objective of increasing Maryland's use of hospice care.
- **Cardiac Care:** MHCC has overseen a series of updates revamping regulatory oversight of cardiac surgery and percutaneous coronary intervention (PCI) services (COMAR

10.24.17), with the last update taking effect in January 2019. This process codified Maryland's approach to allowing development of primary PCI programs in hospitals that do not provide cardiac surgery services. The changes ensure that heart attack victims have more timely access to emergency intervention that can save lives or greatly reduce the long-term impact of a heart attack.

- **Home Health:** Since 2016, new home health agency (HHA) providers have been approved for some Eastern Shore, Southern Maryland, and Western Maryland jurisdictions, the most substantive expansion of service capacity in the state since the 1990s. These approvals are consistent with updated SHP regulations for HHA services (COMAR 10.24.16).
- **Organ Transplantation:** MHCC is now reviewing proposals to establish three new organ transplantation programs by community hospitals that are part of hospital systems. These proposals are in response to FY 2017 updates to the SHP regulations for organ transplant services (COMAR 10.24.15), which expanded opportunities for changes in the supply and distribution of organ transplantation.
- **Freestanding Medical Facilities:** MHCC is implementing reviews authorized in a new SHP chapter for freestanding medical facilities (FMFs), COMAR 10.24.19, adopted in FY 2017. FMFs are freestanding emergency centers that are developed and operated by hospitals. They are staffed and equipped to provide a level of care comparable to that found in hospital emergency departments. These rules have already been used to review the conversion of a struggling general hospital to an FMF, and two similar proposals are currently under review.
- **General Surgical Services:** MHCC is implementing reviews authorized in a FY 2018 SHP update of regulations for general surgical services (COMAR 10.24.11). These amended rules expand the opportunity for development and expansion of ambulatory surgical facility settings in Maryland to the maximum extent possible under current law, based on a policy objective of accommodating performance of surgery in the least expensive setting whenever possible.

2018 CON Updates: MHCC completed the review of 11 CON applications in FY 2018 (Figure 12) and made final decisions on five requests to change approved CONs (primarily because of increases in estimated project costs) (Figure 13). MHCC also reviewed two requests for exemptions from CON, an alternative and more limited project review process available for some types of projects. Three CON applications were withdrawn from consideration in FY 2018.

The most prominent project review completed in FY 2018 was the establishment of a 16-bed special psychiatric hospital in Annapolis by Anne Arundel Medical Center, one of the state's largest general hospitals and one of the largest that, to date, has not provided psychiatric acute inpatient care services. It was a contested review and was conditionally approved.

Also notable were the first two expansions of HHA service capacity approved under the SHP update of FY 2016. One of the largest HHAs in Maryland, the Visiting Nurse Association of Maryland, was authorized to expand its services into four Upper Eastern Shore jurisdictions with a limited number of existing HHA providers. A new HHA was authorized to serve Calvert

and St. Mary's Counties in Southern Maryland. The applicant organization, Minerva Home Healthcare Inc., was an experienced residential service agency, a type of home health provider that can be established without obtaining a CON.

Coming in 2019: Beginning in the 2019 General Assembly session, MHCC will use recommendations from the *Modernization of the Maryland CON Program* report to support statutory changes in CON regulation. The report serves as a road map for modernizing the SHP, the project review process, and oversight of project development following project review.

Figure 12: Certificate of Need Applications Reviewed in FY 2018

Project Sponsor	Location	Description of Project	Estimated Cost of Project	Final Action
Riva Road Surgical Center LLC	Annapolis/ Anne Arundel Co.	Establish an ambulatory surgical facility (ASF) by adding a second operating room to an existing one-operating-room physician outpatient surgical center (POSC)	$741,499	Approval
Visiting Nurse Association of Maryland LLC	Caroline, Kent, Queen Anne's, and Talbot Counties	Expand the service area of an existing home health agency (HHA) to include Caroline, Kent, Queen Anne's, and Talbot Counties	$34,000	Conditional Approval
FutureCare-Homewood Properties LLC	Baltimore City	Add comprehensive care facility (CCF) beds to an existing CCF	$6,799,182	Conditional Approval
Presbyterian Senior Living Services Inc., d/b/a Glen Meadows Retirement Community	Glen Arm/ Baltimore Co.	Eliminate admission limitations on CCF beds established without a CON (as exceptional beds operated by a continuing care retirement community) through the acquisition of temporarily delicensed CCF beds	$138,000	Denial
Bethesda Chevy Chase Surgery Center LLC	Bethesda/ Montgomery Co.	Establish an ASF by adding a second operating room to an existing one-operating-room POSC	$1,759,618	Approval
Coastal Hospice Inc., d/b/a Coastal Hospice & Palliative Care	Ocean Pines/Worcester Co.	Capital expenditure to establish a hospice house	$7,998,114	Approval
Broadmead Inc.	Cockeysville/ Baltimore Co.	Capital expenditure to expand and renovate a CCF	$14,723,000	Conditional Approval

Project Sponsor	Location	Description of Project	Estimated Cost of Project	Final Action
Thomas Johnson Surgery Center LLC	Frederick/Frederick Co.	Establish an ASF by adding a second operating room to an existing one-operating-room POSC	$183,031	Approval
Sacred Heart Home Inc.	Hyattsville/Prince George's Co.	Capital expenditure to replace a CCF	$19,219,869	Conditional Approval
Anne Arundel Medical Center Inc.	Annapolis/Anne Arundel Co.	Establish a special psychiatric hospital	$24,984,795	Conditional Approval
Minerva Home Healthcare Inc.	Calvert and St. Mary's Counties	Establish an HHA authorized to serve Calvert and St. Mary's Counties	$75,000	Conditional Approval

Figure 13: Other Certificate of Need Actions in 2018

Changes to Approved CONs				
Project Sponsor	**Location**	**Description of Project**	**Estimated Cost of Project**	**Final Action**
Adventist HealthCare Inc. d/b/a Washington Adventist Hospital	Silver Spring/ Montgomery Co.	Increase the approved cost of a general hospital relocation by adding construction of a central utility plant and a parking garage	$64,145,958 (yielding a new total approved project cost of $400,198,988)	Approval with same conditions attached to original CON
Suburban Hospital Inc.	Bethesda/ Montgomery Co.	Finish approved shell space, make several design changes, and increase the approved cost of a general hospital expansion and renovation project requiring CON approval because of the size of the capital expenditure	$10,141,154 (yielding a new total approved project cost of $210,691,989)	Approval with modified conditions
314 Grove Neck Road Opco LLC	Earleville/Cecil Co.	Increase in the approved cost of the establishment of an alcoholism and drug abuse treatment intermediate care facility (ICF)	$5,595,384 (yielding a new total approved project cost of $12,983,966)	Approval with same conditions attached to original CON
11100 Billingsley Road Opco LLC	Waldorf/Charles Co.	Increase in the approved cost of the establishment of an alcoholism and drug abuse treatment ICF and reallocation of capital costs between regulated and unregulated components of the project	$10,712,744 (yielding a new total approved and reallocated project cost of $16,783,294)	Approval with same conditions attached to original CON

Project Sponsor	Location	Description of Project	Estimated Cost of Project	Final Action
Prince George's Post-Acute LLC	Landover/Prince George's Co.	Increase in the approved cost of the establishment of a CCF	$3,066,232 (yielding a new total approved project cost of $30,995,328)	Approval with same conditions attached to original CON
Exemption from CON Review				
Project Sponsor	**Location**	**Description of Project**	**Estimated Cost of Project**	**Final Action**
Adventist HealthCare Inc.	Rockville/ Montgomery Co.	Consolidate Shady Grove Adventist Medical Center (a general hospital) and Adventist Behavioral Health and Wellness (a special psychiatric hospital)	$0	Approval
Innovations Surgery Center PC	Rockville/ Montgomery Co.	Establish an ASF by adding a second operating room to an existing one-operating-room POSC	$200,000	Conditional Approval

CCF = comprehensive care facility; ASF = ambulatory surgical facility; POSC = physician outpatient surgical center

Innovative Approaches: Approach to Regulating Cardiac Services

MHCC's approach to regulating cardiac surgery and PCI has evolved significantly since the CON statute became effective in FY 2013, with multiple subsequent new regulations and SHP changes. The new approach allows for more flexibility for MHCC's consideration of new cardiac surgery programs. It also more clearly establishes PCI as a regulated service that does not need to be coupled with the provision of cardiac surgery if appropriate case volume minimums, at the program and physician level, and other performance standards are met. Backstopping this expansion of opportunities to deliver cardiac services are requirements for ongoing performance review, which give MHCC the ability to reshape the delivery system if surgery or PCI programs fail to meet expectations.

The most recent updates to the SHP chapter for cardiac surgery and PCI included changes in a key mortality rate performance measure that will allow the first periodic, ongoing performance reviews to proceed in FY 2019. Since the implementation of the new law, MHCC has authorized two existing primary PCI programs, Westminster and Bel Air, to provide elective PCI and has also authorized establishment of a second PCI program on the Eastern Shore, in Easton, substantially reducing one of the larger geographic and travel time gaps for primary PCI left in the state. MHCC also authorized the state's eleventh cardiac surgery program at Anne Arundel Medical Center in Annapolis, which will involve a collaboration between that hospital and the cardiac surgery program of the Johns Hopkins Hospital in Baltimore. Trends in Maryland's cardiac surgery and PCI rates are shown in Figures 14 though 16.

Figure 14: Adult Cardiac Surgery Cases by Hospital, FY 2014–FY 2018

Hospital Name	Fiscal Year				
	2014	**2015**	**2016**	**2017**	**2018**
Adventist HealthCare Washington Adventist Hospital	319	278	269	280	301
Johns Hopkins Hospital	1,136	1,189	1,060	985	797
MedStar Union Memorial Hospital	540	592	513	436	514
Peninsula Regional Medical Center	421	436	424	371	355
Sinai Hospital of Baltimore	368	407	389	440	333
Suburban Hospital	255	233	222	196	207
University of Maryland Medical Center	924	934	922	949	947
University of Maryland Prince George's Hospital Center	14	85	114	77	81
University of Maryland St. Joseph Medical Center	425	446	511	529	498
Western Maryland Regional Medical Center	179	154	176	141	129
Total	4,581	4,754	4,600	4,404	4,162

Data Source: HSCRC Discharge Database
Notes: Cardiac surgery cases are defined as those discharges that count for volume in COMAR 10.24.17 (effective 1/14/19), and discharges with age 15 and over are counted as adults. Only cases at hospitals with cardiac surgery programs are included in counts. Fiscal years begin on July 1 and end on June 30, and the procedure date determines.

Figure 15: Pediatric Cardiac Surgery Cases by Hospital, FY 2014 to FY 2018

Hospital Name	Fiscal Year				
	2014	**2015**	**2016**	**2017**	**2018**
Johns Hopkins Hospital	124	122	132	138	104
University of Maryland Medical Center	57	57	51	64	56
Total	181	179	183	202	160

Data Source: HSCRC Discharge Database
Notes: Cardiac surgery cases are defined as those discharges that count for volume in COMAR 10.24.17 (effective 1/14/19), and discharges with age 15 and over are counted as adults. Only cases at hospitals with cardiac surgery programs are included in counts. Fiscal years begin on July 1 and end on June 30, and the procedure date determines.

Figure 16: Percutaneous Coronary Intervention Cases by Hospital, FY 2013 to FY 2017

Hospital	Fiscal Year				
	2013	**2014**	**2015**	**2016**	**2017**
Adventist HealthCare Shady Grove Medical Center	250	285	273	335	294
Adventist HealthCare Washington Adventist Hospital	831	664	662	690	753
Anne Arundel Medical Center	345	346	372	403	400
Carroll Hospital	75	82	137	239	203
Frederick Memorial Hospital	309	382	391	383	387
Holy Cross Hospital of Silver Spring*	84	73	76	84	57

Hospital	Fiscal Year				
	2013	2014	2015	2016	2017
Howard County General Hospital	86	100	102	96	100
Johns Hopkins Bayview Medical Center	210	184	236	193	208
Johns Hopkins Hospital	789	821	683	708	681
MedStar Franklin Square Medical Center	97	111	118	102	99
MedStar Southern Maryland Hospital Center	286	307	306	327	313
MedStar Union Memorial Hospital	1,208	1,090	1,022	1,124	1,066
Meritus Medical Center	712	332	332	273	331
Peninsula Regional Medical Center	680	631	578	635	625
St. Agnes Hospital	419	447	427	492	462
Sinai Hospital of Baltimore	800	875	819	755	587
Suburban Hospital	487	490	340	515	444
University of Maryland Baltimore Washington Medical Center	291	280	320	339	329
University of Maryland Medical Center	714	657	540	447	450
University of Maryland Prince George's Hospital Center	225	270	269	302	255
University of Maryland St. Joseph Medical Center	790	1,276	1,222	941	790
University of Maryland Upper Chesapeake Medical Center	131	134	263	453	441
Western Maryland Regional Medical Center	319	319	272	284	325
Total	10,138	10,156	9,760	10,120	9,600

Data Source: National Cardiovascular Data Registry/CathPCI Registry

Developing an All Payer Data Base to Monitor Cost, Quality, and Population Health

Overview: The Maryland Medical Care Data Base (MCDB) is the private insurer portion of the APCD, managed by the MHCC Center for Analysis and Information Systems. It includes private health insurance claims for covered services received by Maryland residents enrolled in health plans from commercial insurance carriers, Medicare, and Medicaid. Detailed information regarding the regulations, submission process, and release of these data can be found on the MHCC website.

A list of payers contributing data to the MCDB is included in Figure 17. The MCDB is also leveraged to develop annual reports on health care expenditures in Maryland and on use of privately insured professional health care services. Both the MCDB and these annual reports are mandated under statute. As needed to implement the regulations, launch new initiatives, provide information, and solicit feedback from stakeholders, MHCC staff convenes workgroups and payer meetings.

MHCC collaborates with a variety of partners to increase the value of the MCDB in statewide efforts to improve transparency and support the state's health care policy improvement. The MCDB supports estimates of cost and utilization, policy analyses, and evaluations of

demonstration programs. It is a decision support tool for state partners such as the Maryland Insurance Administration (MIA) and the HSCRC.

Figure 17: Payers Contributing to the APCD

Category	Payer Name	Payer Type	Year				
			2014	2015	2016	2017	2018
Private	Aetna	Ins. Co.	✓	✓	✓	✓	✓
	CareFirst	Ins. Co.	✓	✓	✓	✓	✓
	United Healthcare	Ins. Co.	✓	✓	✓	✓	✓
	Kaiser Permamentae	Ins. Co.	✓	✓	✓	✓	✓
	CIGNA	Ins. Co.	✓	✓	✓	✓	✓
	Humana	Ins. Co.	✗	✓	✓	✓	✓
	StateFarm	Ins. Co.	✓	✓	✓	✓	✓
	Evergreen	Ins. Co.	✗	✓	✓	✗	✗
	AmeriHealth Administrators	TPA	✓	✓	✓	✓	✓
	CareFirst Administrators	TPA	✓	✓	✓	✓	✓
	Group Benefit Services	TPA	✓	✓	✓	✓	✓
	Harrington Health and Health Plan Services	TPA	✓	✓	✓	✓	✓
	HealthSmart Benefit Solutions	TPA	✓	✓	✓	✓	✓
	Innovative Health Services	TPA	✓	✓	✗	✗	✗
	The Loomis Company	TPA	✓	✓	✓	✓	✓
	Zenith American Solutions	TPA	✓	✗	✗	✗	✗
	UMR	TPA	✓	✓	✓	✓	✓
	OptumHealth Behavioral Solutions	TPA	✓	✓	✓	✗	✗
	American Specialty Health	TPA	✗	✗	✓	✓	✓
	HealthSCOPE Benefits	TPA	✗	✗	✗	✓	✓
	Consolidated Health Plans	TPA	✗	✗	✗	✗	✓
	Catamaran Corporation	PBM	✓	✓	✓	✓	✓
	CareMark	PBM	✓	✓	✓	✓	✓
	Envision Pharmaceutical Services	PBM	✓	✓	✓	✓	✓
	Express Scripts	PBM	✓	✓	✓	✓	✓
	Optum Rx	PBM	✓	✓	✓	✓	✓
	Prime Therapeutics	PBM	✓	✓	✓	✓	✓
Public	Medicare	CMS	✓	✓	✓	✓	✓
	Medicaid	CMS	✓	✓	✓	✓	✓

Notes: (1) Ins. Co. means insurance company
(2) TPA means Third Party Administrator
(3) PBM means Pharmacy Benefits Manager
(4) CMS means Centers for Medicare and Medciad Services

Key Reports and Studies from the MCDB: In 2018 the MCDB provided data to support multiple state and national initiatives:

- **Public Reporting and Transparency:** MCDB data populates the Wear the Cost website designed to increase transparency of cost and quality information to consumers, to aid in making health care decisions.
- **Performance Benchmarking:** Maryland, along with other regions across the US, participates in the Network for Regional Healthcare Improvement (NRHI) TCOC national benchmark reporting. NRHI released an updated report in February 2018. TCOC looks at risk-adjusted spending in terms of indices. For example, the Total Cost Index is the product of the Resource Use Index (which measures the amount of health care

resources it takes to care for a patient) and the Price Index (measures how much a service costs).

- **Health Care Reform:** MHCC collaborated with the HSCRC to provide enrollment and claims data to support TCOC all payer model monitoring. MHCC developed a policy white paper, *Compensating for Missing ERISA Information in Calculating Private Market Per Capita Costs*. MHCC also collaborated with the MIA to provide data relating to rate review.
- **Policy Reports:** MHCC developed an annual *Spending and Use Among Maryland's Privately Fully-Insured* report examining health care cost and utilization among Maryland's privately insured population. The Commission also provided reports for legislative studies on lymphedema and digital tomosynthesis and initiated a population health study on the cost of diabetes care (released in 2019).

Active Users of the APCD: Maryland's MCDB is an important resource for both public and private users, and MHCC collaborates with a variety of research organizations to make the data publicly available. Figure 18 lists active users of the APCD and some of the reports generated through the data.

Figure 18: Active Users of the Maryland APCD

Users	APCD Use
Health Services Cost Review Commission	Total Cost of Care All-Payer Model
Maryland Insurance Administration	Rate Review
Medicaid (The Hilltop Institute)	Various policy analyses
Researchers	
• The Hilltop Institute	Reinsurance study conducted for the MHBE
• HCI_3 Altarum	Wear The Cost website
• Lewin Group	Monitoring Maryland's All-Payer Model
• RTI International	Monitoring Maryland's All-Payer Model
• Johns Hopkins University School of Public Health	Umbrella DUA - Various Research Projects
• University of Maryland School of Public Health	Rural Health Study
• University of Maryland School of Pharmacy	Shared Savings analysis for Medicaid patients at participating PCMH practices
• University of Massachusetts Amherst	Effects of utilization patterns and coordination of care
Maryland Health Care Commission Staff	Various projects to support the Commission

HCI_3 = Health Care Incentives Improvement Institute; DUA = data use agreement; PCMH = Patient-Centered Medical Home

Figure 19: Trends in Timely Data Submission (Percent of Payers' MCDB Submission Status 1 Month after Submission Deadline)

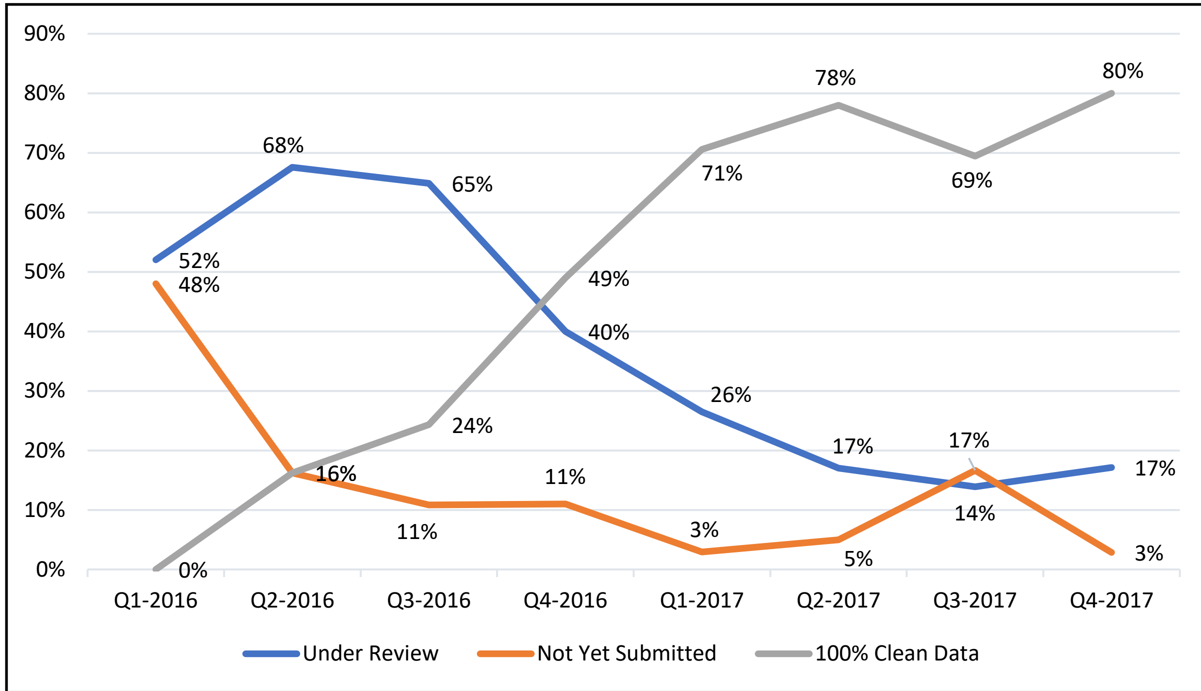


Figure 20: Annual Percentage Changes in PMPM Spending, Utilization per 1,000 Members, and Cost per Unit by Service Category, All Markets Combined (2016 over 2015)

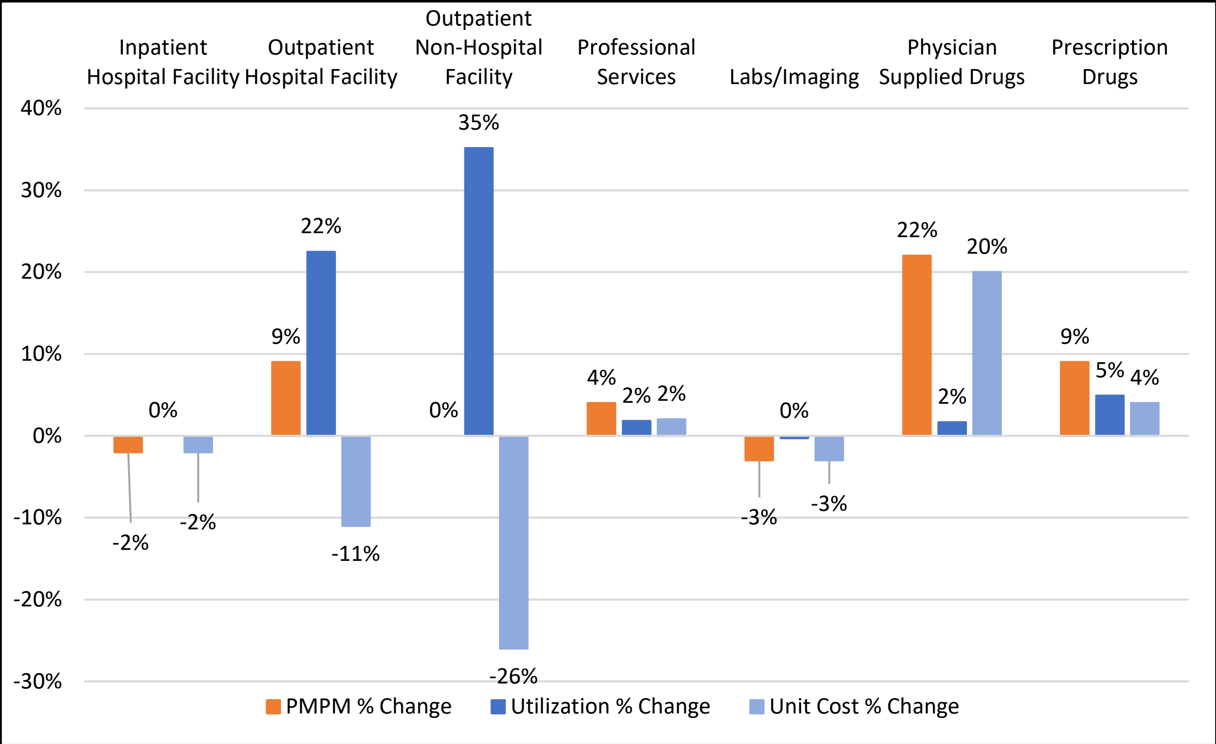
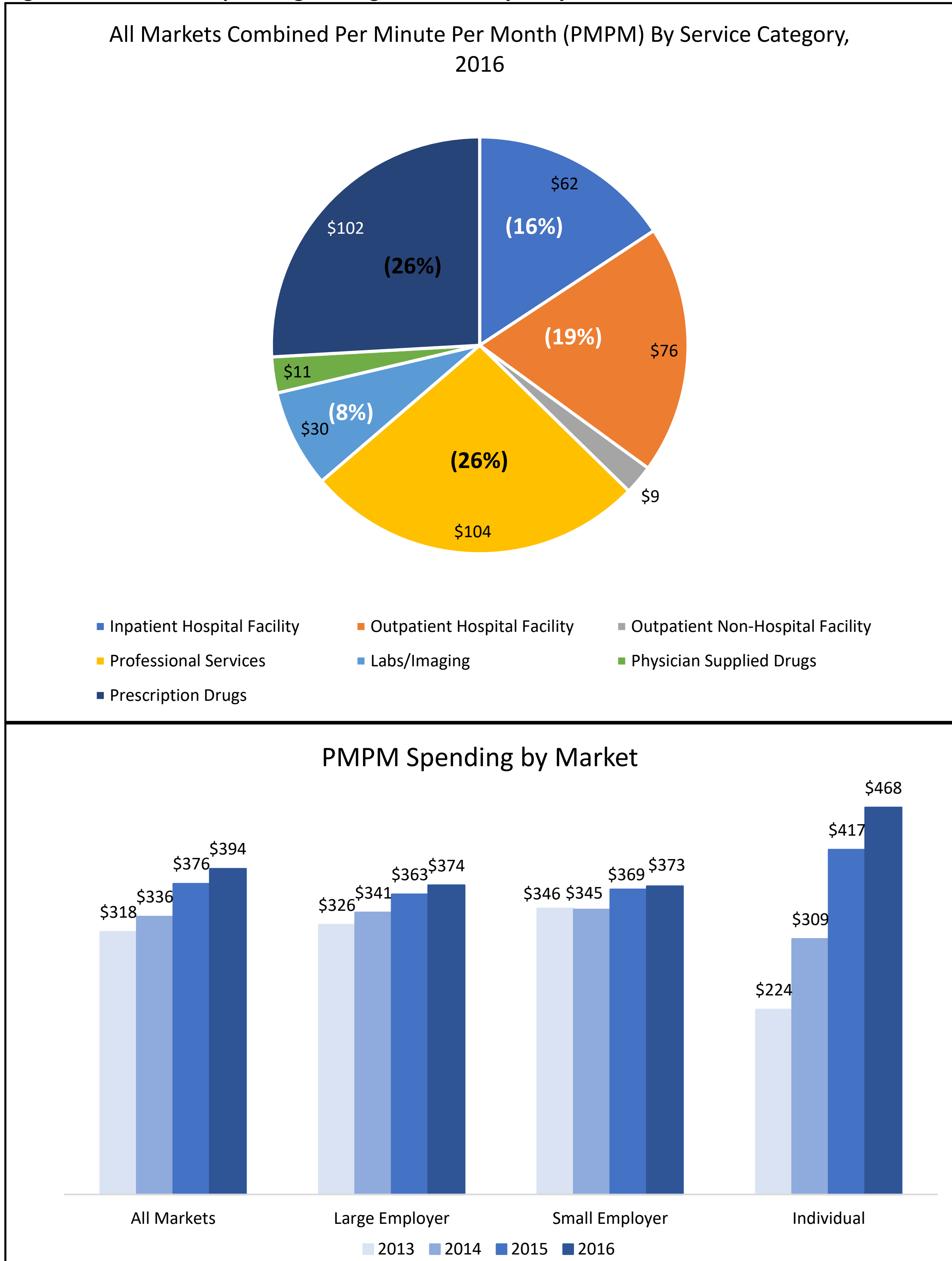

Inpatient Hospital Facility
Outpatient Hospital Facility
Outpatient Non-Hospital Facility
Professional Services
Labs/Imaging
Physician Supplied Drugs
Prescription Drugs
40%
30%
20%
10%
0%
-10%
-20%
-30%
-2%
0%
-2%
9%
22%
-11%
0%
35%
-26%
4%
2%
2%
-3%
0%
-3%
22%
2%
20%
9%
5%
4%
PMPM % Change
Utilization % Change
Unit Cost % Change

Figure 21: Trends in Spending among the Privately Fully Insured for 2013–2016



Reducing the Costs of Health Care through Wider Adoption of Information Technology

Overview: MHCC's health information technology (IT) programs balance the need for information sharing with strong privacy and security policies that are adaptive to accommodate changing needs—those that can be anticipated as well as those not yet imagined. Health IT improves the quality of health care delivery, increases patient safety, decreases medical errors, strengthens the interaction between patients and providers, and fosters greater engagement by patients in their health care. Key elements of health IT include health information exchange (HIE), electronic health records (EHRs), and telehealth. Widespread adoption of health IT that shares information and integrates with solutions across organizational boundaries is pivotal to achieving well-coordinated care and reducing preventable hospitalizations.[1] In collaboration with stakeholders, MHCC develops health IT initiatives and privacy and security policies for advancing diffusion statewide.

Coming in 2019: The MHCC will maintain its legislatively mandated activities to promote health information technology consistent with best practices for privacy, security, and interoperability. In addition, MHCC will work to expand the use of telehealth services in a variety of health care settings by educating providers and patients and evaluating grant programs.

Statewide Progress on EHR Adoption and Use of HIE: Annually, MHCC assesses health IT adoption and meaningful use statewide and compares state performance with national trends. From this assessment, MHCC identifies policy issues to inform future planning in the state. In 2018 MHCC issued several reports on health IT adoption by Maryland providers, including:

- **Hospitals:** In March 2018 MHCC released the *Health Information Technology: An Assessment of Maryland Acute Care Hospitals* report, which details hospital use of health IT, controls to detect and manage cyber risks, and strategic health IT priorities to support quality-based initiatives.
- **Dental Practices:** MHCC worked with the Maryland State Dental Association to conduct an EHR environmental scan among dentists. In April 2018 MHCC released an information brief, *Dental Electronic Health Record Adoption*, detailing findings on the benefits and barriers to adoption, leading technology solutions, and opportunities for increased diffusion.
- **Comprehensive Care Facilities:** MHCC released the *Comprehensive Care Facilities Adoption of Health Information Technology* report in April 2018. The report assesses health IT adoption trends among comprehensive care facilities.

[1] Clarke JL, Bourn S, Skoufalos A, Beck EH, Castillo DJ. An Innovative Approach to Health Care Delivery for Patients with Chronic Conditions. *Popul Health Manag*. 2017;20(1):23–30.

A snapshot of EHR adoption by care setting is shown in Figure 22.

Figure 22: EHR Adoption in Maryland by Setting

Care Setting	EHR Adoption Rate (%)	
	Maryland	Nation
Acute Care Hospitals	100	96
Dentists	53	52
Office-based Physicians	71	54
Comprehensive Care Facilities	88	64
Note: Data on physicians was provided by the Maryland Board of Physicians. National data was obtained from various online sources.		

EHR = electronic health records

In addition to tracking adoption of health IT, MHCC continues to work with stakeholders to increase HIE statewide. HIE, the sharing of patient information across provider organizations, is an important capability needed to fulfill the promise of EHRs to improve patient care, decrease medical errors, and reduce costs. Providers have made notable progress in connecting to the state-designated HIE, the Chesapeake Regional Information System for our Patients (CRISP). Key patient information available through HIE includes laboratory results, radiology reports, discharge summaries, consultation notes, history, and physical notes, operative notes, and images. A snapshot of HIE adoption is shown in Figure 23.

Figure 23: Adoption of Health Information Exchange by Setting

Care Setting	HIE Adoption Rate (%)	
	Maryland (CRISP)	Nation
Acute Care Hospitals	100	88
Ambulatory Practices	27	14
Dentists	7	Not Available
Comprehensive Care Facilities	54	30
Note: Information reported by CRISP. National data was obtained from various online sources.		

CRISP = Chesapeake Regional Information System for our Patients

MHCC collaborates with stakeholders in the development of HIE privacy and security policies to inform the development of sound regulations that enhance the protections of electronic health information while fostering HIE innovation. Key actions in 2018 include:

- **Sensitive Health Information:** Several meetings with the HIE Policy Board (the Board), a staff advisory group, were held during the year. The Board finalized policies for facilitating the electronic transmission of sensitive health information (SHI) through an HIE. SHI includes subsets of protected health information considered to be of high risk in the event of disclosure and is subject to specific legal protections, such as those required under Confidentiality of Substance Use Disorder Patient Records regulations found in 42 CFR Part 2. MHCC released the proposed amendments for informal public comment and adopted the proposed regulations in August 2018.

- **HIE Registration:** HIEs that operate in Maryland are required to safeguard consumers' information and register as an HIE annually with MHCC. MHCC renewed the registration of all HIEs, which include Adventist HealthCare, CRISP, Children's IQ Network, Peninsula Regional Medical Center, and Surescripts.
- **Updating Regulation:** MHCC is working with stakeholders to identify changes in the existing regulations (COMAR 10.25.18, Health Information Exchanges: Privacy and Security of Protection Health Information) to support the change in definition of an HIE in law.[2] The revised definition of an HIE includes EHR and other system integration solutions that enable the exchange of electronic health information. The law enables consistent privacy and security standards for the exchange of electronic health information.

Oversight of CRISP: MHCC collaborates with CRISP to advance electronic health information that aligns with state and federal priorities and is guided by strong privacy and security policies. With MHCC guidance, CRISP convenes committees in the areas of technology, research, data use, and finance.

MHCC has been instrumental in the technical monitoring and evaluation of CRISP. Annually, a privacy and security audit of CRISP is conducted, which includes procedures that evaluate security controls for processing, transmitting, and storing electronic patient data to minimize the risk of unauthorized disclosure or breach of protected health information. The audit assesses compliance with HIE regulations; evaluates the status of corrective actions to remediate prior audit findings; and reviews System and Organization Controls (SOC) 2, Type 2 reports to assess privacy and security of vendors supporting the CRISP infrastructure.[3] MHCC also completed an in-depth review of SOC reports for CRISP vendors and identified opportunities where CRISP could engage vendors to ensure controls align with the National Institute of Standards and Technology (NIST).

Key Initiatives in Telehealth: Since 2010, MHCC has collaborated with stakeholders to identify opportunities to expand innovative uses of telehealth. Telehealth can increase access to health care, reduce health disparities, and create efficiencies in health care delivery through use of communication technologies.

Since 2014, MHCC has awarded 14 telehealth demonstration project grants to evaluate select use cases. Findings from telehealth demonstration projects help inform better telehealth care delivery practices and industry implementation efforts, policies to support the advancement of telehealth, and the design of larger telehealth initiatives. The grants have also complemented efforts to advance a strong, flexible health IT ecosystem in Maryland.

MHCC released an information brief highlighting outcomes and lessons learned from five demonstration projects that assessed use of telehealth to support population health and primary care practice transformation in FYs 2017-18. The key lessons learned included:

---

[2] Md. Code Ann., Health-Gen. §4-301 (2018).

[3] The most recent audit covered the period April 1, 2017, to March 31, 2018.

1. Successful telehealth requires practices to assess the need for telehealth, identify an appropriate modality, and ensure sufficient patient and provider willingness to engage in telehealth.
2. Telehealth is generally an effective care delivery method where a multi-disciplinary team can deliver comprehensive patient care.
3. Telehealth reduces barriers to care for patients typically considered reluctant to adopt/accept telehealth services (e.g., the elderly and those with behavioral health conditions).

MHCC hosted three telehealth "lunch and learn" virtual education webinars featuring telehealth adopters and experts in the field. Sessions focused on navigating telehealth compliance and reimbursement; implementing remote patient monitoring projects; and enhancing patient readiness, engagement, and adherence in telehealth.

In addition to the lunch-and-learn webinars, MHCC developed a Telehealth Readiness Assessment (TRA) tool. The TRA tool helps physician practices to determine level of readiness for offering telehealth services, identify areas that need improvement, and prioritize improvement areas by importance. Results from the TRA tool help inform practices about provider, patient, caregiver, and organizational readiness for implementing telehealth. Supporting guidance documents in the TRA tool provide more information and resources to help practices prepare for telehealth adoption.

Key Innovations in Cybersecurity: MHCC continued to promote awareness of cybersecurity by engaging stakeholders in peer learning opportunities and developing resources for cybersecurity support. Peer learning forums focused on end-user behavior and knowledge gaps that impact security and on sharing information on best practices for improving security posture.

MHCC hosted a cybersecurity lunch-and-learn webinar for small health care practices. The webinar provided tactics to reduce the risk of a cyberattack and information about a new Buy Maryland Cybersecurity tax credit.

MHCC assessed breaches in Maryland and the nation that affected 500 or more individuals from 2010 through 2017. An information brief was released that highlighted breach trends and recommendations for enhancing security to prepare for and mitigate the effects of new and evolving cyber threats.

To promote greater awareness of best practices, MHCC updated the Cybersecurity Self-Assessment Tool, a resource that helps smaller health care organizations evaluate cybersecurity readiness. The tool incorporates select elements from NIST's Cybersecurity Framework (CSF), and the updates reflect revisions released by NIST to the CSF. The tool includes a series of self-evaluation statements. Results inform users about potential gaps in cybersecurity.

Supporting Statewide Initiatives

Overview: MHCC serves an important role in providing data and engaging providers in key statewide initiatives, including the All Payer Model and TCOC Demonstration, Trauma Physician Services Fund, Rural Health Care Improvement, and Maryland Opioid Reduction.

MHCC currently collects, manages, and reports quality and cost data to support Maryland's statewide health care transformation models. A core premise of the All Payer Model and statewide TCOC Demonstration is that public sharing of quality and cost data can empower Maryland residents and improve health care quality. MHCC is collaborating on the TCOC program, offering data and information support and working with practices on care transformation.

TCOC is an eight-to-ten-year agreement with the federal government launching in 2019. Its goal is to slow the growth of total health care costs across hospitals, doctors, nursing facilities, and other providers. TCOC aims to coordinate care for patients across both hospital and non-hospital settings, improve health outcomes, and engage health care providers in improving the overall health of all Marylanders.

Coming in 2019: MHCC will continue to collaborate with stakeholders to engage specialty groups, facilitate wider adoption of alternative payment models, and increase use of MHCC quality and cost data by all members of Maryland's health care system. The Commission plans to expand its data sharing and work to improve how this data is communicated to different audiences within the health care community.

Primary Care: MHCC has been a key partner on state and federal initiatives to enhance primary care. The Centers for Medicare & Medicaid Services (CMS) is working with states to expand participation in alternative care delivery and payment models. A key element of success in alternative care delivery models is practice transformation.

MHCC has been instrumental in building physician practice awareness of federal changes to Medicare payment policy that create financial incentives for performance reporting and quality improvement. MHCC convened six practice symposiums aimed at increasing awareness of the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) and the Merit-based Incentive Payment System, the federal regulation establishing Medicare payment changes.

MHCC continues to participate as part of a Practice Transformation Network established in 2016. The Commission, the Maryland State Medical Society (MedChi), and the Maryland Learning Collaborative partnered with the New Jersey Innovation Institute to participate in the CMS Transforming Clinical Practice Initiative (TCPI). TCPI is a three-year program to help transform practices in Maryland. Nearly 835 Maryland clinicians participated in the practice transformation initiative.

MHCC initiated planning activities in collaboration with stakeholders for a Specialist Transformation Network (STN), a proposed quality initiative that builds upon the TCPI's aims in Maryland. The STN is envisioned to provide practices located in rural, urban, and underserved

areas with collaborative support to transform and sustain participation in alternative care delivery models. The STN will diffuse best practices through peer learning for health IT, care delivery, innovative quality improvement techniques, and patient-centered care transitions. Practice champions will collaborate to discuss challenges and solutions related to practice milestones. MHCC will analyze practice data through assessment tools and quality metrics to guide development of action plans for targeted strategic improvements.

MHCC conducted an environmental scan of practice transformation in Maryland. The survey tool, developed by the American Medical Association and distributed statewide by MedChi, focused on team-based care, clinical quality and performance measurement, use of health IT, professional satisfaction, and practice organization. The data collected from the scan will be used to guide development of practice transformation initiatives.

MHCC developed a guidance document for practices to organize patient and family advisory councils (PFACs). Several practice-level focus groups were convened to collect feedback on usability of the guidance document. PFACs consist of patients and family members of patients who receive care at the practice, along with practice leadership and support staff. PFACs help practices understand how patients and caregivers perceive the practice and care delivery and engage as partners in their health care. PFACs also provide recommendations on how to deliver higher-quality, better-coordinated, and more patient-centered care.

The Maryland Primary Care Program (MDPCP) is a key initiative under the TCOC Model. MHCC collaborated with the Maryland Department of Health (MDH) on the program design. MHCC will convene an advisory group to gather input from key stakeholders to inform MDPCP operations. The advisory group will collect and analyze data from MDPCP program participants and beneficiaries, make recommendations to the MDH secretary of health, provide feedback on program operations, and recommend program improvement strategies.

Administering the Maryland Trauma Physician Services Fund: The Maryland Trauma Physician Services Fund provides payments to offset the costs of uncompensated and undercompensated medical care provided by trauma physicians to patients at Maryland's designated trauma centers, stipends to trauma centers to offset the trauma centers' on-call and standby expenses, and grant funding to trauma centers for certain equipment. The fund is financed by a $5 surcharge on motor vehicle registrations.

The legislation also established a formula for reimbursing trauma centers for trauma-related on-call expenses for trauma surgeons, orthopedists, neurosurgeons, and anesthesiologists. Requirements for on-call availability for Level I–III trauma centers are established by the Maryland Institute for Emergency Medical Services Systems.

MHCC and the HSCRC annually report to the Maryland General Assembly on the status of the Trauma Fund. In 2018, revenue collections by the Motor Vehicle Administration via the $5 surcharge increased to $12,445,331. In total, the Trauma Fund disbursed about $11.9 million to trauma centers and trauma physician practices over the past fiscal year. A full report, *Maryland*

Trauma Physician Services Fund: Operations from July 1, 2017 through June 30, 2019, is available on the MHCC website.

Rural Health Care: During the 2016 legislative session, Senate Bill 707 Freestanding Medical Facilities Certificate of Need, Rates and Definition (Appendix A) was enacted in response to the need for flexibility for general acute care hospitals to convert to ambulatory medical services campuses, while preserving access to needed emergency services. 1 These facilities are known as Freestanding Medical Facilities (FMFs).

SB 707 established a public notification process and defined specific information the hospital must make available to the public and other stakeholders. Specifically, the institution must describe the reason for the conversion and present plans for transitioning acute care services previously provided by the hospital, continuing to address the healthcare needs of the residents, and retraining displaced employees. The institution must also detail plans for the disposition of any part of the facility that would be closed. The legislation requires that this and other information be made available in a public information hearing and the results from that meeting must be shared with the Governor, Legislature, and other state policymakers.

Policy Background: The new law requires the Maryland Health Care Commission (MHCC) to complete a careful review of an exemption request. The MHCC organized a workgroup to assist in developing the regulations for FMFs. On May 18, 2017, the MHCC adopted COMAR 10.24.19 - State Health Plan for Facilities and Services: Freestanding Medical Facilities. These regulations became final in June of 2017. The regulations define the process for submitting the exemption request and the types of information the converting hospital and its parent hospital must provide to MHCC. To approve an exemption request, the MHCC must find that the conversion is not inconsistent with the State Health Plan; will result in the delivery of more efficient and effective healthcare services; will maintain adequate and appropriate delivery of emergency care within the statewide emergency medical services system as determined by the State Emergency Medical Services Board; and is in the public interest. MHCC will carefully review the evidence provided in the exemption request and consider the information gathered by the hospital in its public engagement processes.

Maryland's unique hospital payment model has been a key policy tool for softening the impact of declining hospital utilization on local hospitals. Over the past decade, the Health Services Cost Review Commission (HSCRC) has worked with rural hospitals to develop an alternative payment model, Total Patient Revenue (TPR) that was especially well-suited to the needs of rural hospitals. The success of that model was one factor that spurred Maryland to establish the All Payer Model Demonstration Agreement (All Payer Model, or Agreement) with the Center for Medicare and Medicaid Services (CMS) beginning in 2014. Under that agreement, Maryland committed to slow the growth in Medicare per capita hospital spending and to achieve ambitious quality and performance goals. All Maryland acute care hospitals committed to operate under a Global Budget Revenue arrangement, (which was similar to the TPR arrangement developed for rural hospitals) and to meet the challenging performance and quality improvement goals. Over the past three years, Maryland hospitals have met the key

requirements of the Agreement. Negotiations are now underway with CMS for the next phase, called the Total Cost of Care (TCoC) Demonstration, which is set to begin in 2019.

Providing greater flexibility for Maryland hospitals to convert to ambulatory medical services campuses, while preserving access to emergency services, is a response to the declining use of inpatient services in Maryland and the incentives in new healthcare reform models. Declining hospital admissions and shorter lengths of stay are consistent trends across the United States. The appropriate use of an ambulatory setting lowers the cost of care and is often preferred, as it means patients can return home the same day that they have received services. Expanded use of ambulatory care reduces the per capita cost of care and is consistent with the aims of the All Payer Model and the new TCoC Demonstration now being finalized with CMS. As the models evolve, Maryland communities will need less inpatient hospital service capacity because hospitals will be increasingly focused on improving the health status of the population in their service areas rather than increasing hospital admissions.

Preserving access to emergency and ambulatory services is an important objective. The FMF and the ambulatory services situated on the FMF campus can provide a safe and effective site for treating a significant proportion of the patients that present at the hospital emergency department of a small acute care hospital. As important, the FMF, like the hospital, would be tightly linked to a large health care system through advanced EMS transportation and would be electronically linked via advanced telehealth capabilities.

During the debate on SB 707, state policymakers, legislators, and community representatives highlighted the challenges that residents of rural communities face in accessing the healthcare system. Many of the challenges for rural communities go beyond inpatient care and include access to care more broadly. These challenges are rooted in an inadequate supply of providers, a compromised transportation system, and limited health literacy. More narrowly, in some rural jurisdictions, the loss of its only hospital eliminates the hub for health care in that community. Representatives from these communities reminded state policymakers and legislators that in some rural communities the hospital was the principal source of care. A closure or conversion could trigger an unraveling of the fragile local healthcare system, including the exodus of primary care and other community providers, a significant direct and indirect economic blow triggered by job losses. Policymakers and legislators recognized that loss of local access to inpatient care and limited alternatives due to travel times and travel distances were important complicating factors.

One area of particular concern was the Mid-Eastern Shore region of Maryland (Caroline, Dorchester, Kent, Queen Anne's, and Talbot Counties). The healthcare delivery challenges in the Mid-Shore region include long travel distances to health care facilities, few public transportation options, a limited health care workforce, and a limited number of healthcare facilities. In fact, two of the five counties in the region (Caroline and Queen Anne's counties) have no acute care general hospital. In addition, there are shortages of primary care physicians and specialists in the Mid-Shore region as well as limited numbers of nurses and allied healthcare workers to care for rural residents. Although the five-county Mid-Shore region of Maryland is not as vast and sparsely populated as the rural areas in some other states, it covers a large geographic area (almost 1,800 square miles). Similar to other rural areas throughout the

United States, the population in the Mid-Shore region is older, has more chronic health conditions, and has fewer financial resources than residents in urban and suburban areas of Maryland. The report can be found at: www.mhcc.maryalnd.gov/policy&legislative reports.

Opioids: MHCC awarded a 18-month telehealth grant to increase access to medication-assisted treatment (MAT) for underserved Maryland residents with opioid dependence. The program will offer telehealth interventions in an integrated care delivery approach. The grant, awarded to Mosaic Community Services Inc., plans to connect a Baltimore-area prescriber to a new addiction recovery site in Montgomery County. The project's goals are to increase access to addiction treatment in a jurisdiction that is currently lacking capacity, establish telehealth capabilities and protocols for MAT in Montgomery County, and allow Mosaic prescribers to enable MAT via telehealth.

MHCC Operations

Robert E. Moffit, PhD, Chair
Senior Fellow, Health Policy Studies
Heritage Foundation

Andrew N. Pollak, MD, Vice Chair*
Professor and Chair
Department of Orthopaedics University of Maryland School of Medicine
Chief of Orthopaedics
University of Maryland Medical System

Marcia Boyle
Founder
Immune Deficiency Foundation

Elizabeth A. Hafey, Esq.
Associate
Miles & Stockbridge P.C.

Margaret Hammersla, Ph.D.
Senior Director DNP Program
Assistant Professor
Organizational Systems Adult Health
University of Maryland School of Nursing

Jason C. McCarthy
Vice President of Operations – Baltimore
Kaiser Foundation Health Plan

Jeffrey Metz, MBA, LNHA
President and Administrator
Egle Nursing and Rehab Center

Gerard S. O'Connor, MD
General Surgeon in Private Practice

Michael J. O'Grady, PhD
Principal, Health Policy LLC, and
Senior Fellow, National Opinion Research Ctr (NORC) at the University of Chicago

Candice A. Peters, MD
Physical Medicine and Rehabilitation in Private Practice

Martha G. Rymer
Rymer & Associates, P.A.

Randolph S. Sergent, Esq.
Vice President and Deputy General Counsel
CareFirst BlueCross BlueShield

Stephen B. Thomas, PhD
Professor of Health Services Administration
School of Public Health
Director, Maryland Center for Health Equity
University of Maryland, College Park

Cassandra Tomarchio
Business Operations Manager
Enterprise Information Systems Directorate
US Army Communications Electronics Command

Marcus L. Wang, Esq.
Co-Founder, President and General Manager
ZytoGen Global Genetics Institute

**Appointed as Chairman in April, 2019*

Capabilities

MHCC pursues its mission through information gathering and dissemination, health planning and regulatory powers, and health policy analyses. Many of the Commission's activities focus on collaborative initiatives related to broadening Marylanders' access to high-quality and cost-effective health care services. Particular attention is given to areas such as Access to Health Care, Quality and Patient Safety, Innovative Health Care Delivery, Health Information Technology, and Information for Policy Development. These activities are directed and managed by the Commission's Executive Director.

Administrative activities, such as staffing, budget, and procurement, are managed by the Director of Administration and her staff. The Commission's Assistant Attorneys General provide legal advice and counsel to the Executive Director, the Commission members, and Commission staff. MHCC staff members' backgrounds and skills encompass a broad range of expertise, including public policy analysis, data management and analysis, health planning, health facilities construction and financing, Medicaid administration, quality assessment, clinical and health services research, and public performance reporting.

MHCC's Four Centers

The Commission is organized around the health care systems we seek to evaluate, regulate, or influence, bringing a wide range of tools (data gathering, public reporting, planning, and regulation) to bear to improve quality, address costs, and increase access. Two of the four centers—the Center for Health Care Facilities Planning and Development and the Center for Quality Measurement and Reporting—are organized around provider organizations, bringing together under the same leadership the expertise and tools to address cost, quality, and access in those sectors of Maryland's health care system. The Center for Analysis and Information Systems conducts broad studies, using both Maryland databases and national surveys, but also has specific responsibilities relating to physician services. The fourth center, the Center for Health Information Technology and Innovative Care Delivery, has responsibilities that cut across sectors to facilitate the adoption of EHRs and to enable the private and secure transfer of personal health information among sectors. This center also manages the Commission's Patient Centered Medical Home program.

A brief description of each of the centers follows:

THE CENTER FOR HEALTH CARE FACILITIES PLANNING AND DEVELOPMENT

Director, *Paul Parker*

The Center for Health Care Facilities Planning and Development develops plans for the supply and distribution of health care facilities and services and regulates the supply and distribution of facilities and services through CON and related oversight programs.

- The center is responsible for development and updates to the SHP, a body of regulation that establishes criteria and standards for considering the need, costs and effectiveness, impact, and viability of health care facility capital projects.
- The center collects information on health care facility service capacity and use. Annual data sets are developed on the service capacity of general and special hospitals, freestanding ambulatory surgical facilities, nursing homes, home health agencies, hospices, assisted living facilities, and adult day care facilities. The center also obtains hospital registry databases on cardiac surgery, cardiac catheterization, and PCI for use in regulatory oversight of these services.
- The center administers the Certificate of Need, Certificate of Conformance, and Certificate of Ongoing Performance programs, which regulate certain aspects of health care service delivery by health care facilities.

THE CENTER FOR HEALTH INFORMATION TECHNOLOGY AND INNOVATIVE CARE DELIVERY
Director, *David Sharp*

Electronic HIE promises to bring vital clinical information to the point of care, helping to improve the safety and quality of health care while decreasing overall health care costs. Health IT requires two crucial components to be effective: widespread use of EHRs and electronic HIE. The Center for Health Information Technology and Innovative Care Delivery is responsible for the Commission's health IT and advanced primary care initiatives. Its aims are to:

- Plan and implement a statewide health information exchange
- Identify challenges to health IT adoption and use, and formulate solutions and best practices for making health IT work
- Increase the availability and use of standards-based health IT through consultative, educational, and outreach activities
- Promote and facilitate the adoption and optimal use of health IT to improve the quality and safety of health care
- Harmonize service area HIE efforts throughout the state
- Certify electronic health networks that accept electronic health care transactions originating in Maryland
- Develop programs to promote electronic data interchange between payers and providers
- Designate management service organizations to promote the adoption and advanced use of EHRs
- Manage the Commission's Patient Centered Medical Home program

THE CENTER FOR ANALYSIS AND INFORMATION SYSTEMS
Acting Director, *Kenneth Yeates-Trotman*

The Center for Analysis and Information Systems has expertise in the creation, maintenance, and mining of large databases, in the management of IT and networks, and in the analysis and interpretation of population surveys. The center produces key reports to guide health policy,

including reports on health expenditures, health insurance, the uninsured, and uncompensated care.

- The center will be focusing on physician services, including physician reimbursement and reporting on the cost and quality of physician services.
- The center provides analytic and programming services to other divisions of the Commission and is responsible for the intranet and the Commission's website.
- The center works closely with the HSCRC, publishing each hospital's charges for the most common diagnosis-related groups as part of the Commission's Price Transparency Initiative.

THE CENTER FOR QUALITY MEASUREMENT AND REPORTING
Director, *Theressa Lee*

- The center is committed to providing meaningful information to consumers about the quality and outcomes of care provided in all Maryland acute care hospitals. It publishes the Hospital Guide, containing both general information and specific quality and outcome measures. The center reports on the quality of hospital efforts in surgical infection prevention and is developing strategies to gather and report the rates of key hospital-acquired infections. The center plans to expand public reporting of angioplasty quality and outcomes beyond the current waiver hospitals to include all hospitals performing emergency angioplasty and is examining public reporting of risk-adjusted data on the quality and outcomes of cardiac surgery.
- The center publishes the *Nursing Home Guide for Marylanders*, providing an easy way to locate and compare nursing homes on quality and outcomes measures. The center is also pioneering the public reporting of resident and family satisfaction measures.
- The center has responsibility for policies and information dissemination related to Maryland assisted living programs.
- The center reports publicly on the performance of and satisfaction with health plans in the HMO Consumer Guide. Traditionally focused on measures of the clinical performance of HMOs, the guide is expanding in two ways. MHCC now reports on additional measures of health plan quality and value and on PPOs in addition to HMOs.
- The center is committed to reporting disparities in health and health care and is responsible for the Commission's Racial and Ethnic Disparities initiative.

Appropriations and Spending

2018 Budget: The MHCC operates through funding from special funds collected through an assessment on the health care providers and payors regulated by the Commission. The amount is derived differently for each industry and is set every four years based on an analysis of the Commission's work load. During Fiscal Year 2018, the Commission's cap was raised from 12 million to 16 million dollars. This cap increase is the first increase to the budgetary cap in 10 years. Currently, the Commission assesses the following percentages on the industries:

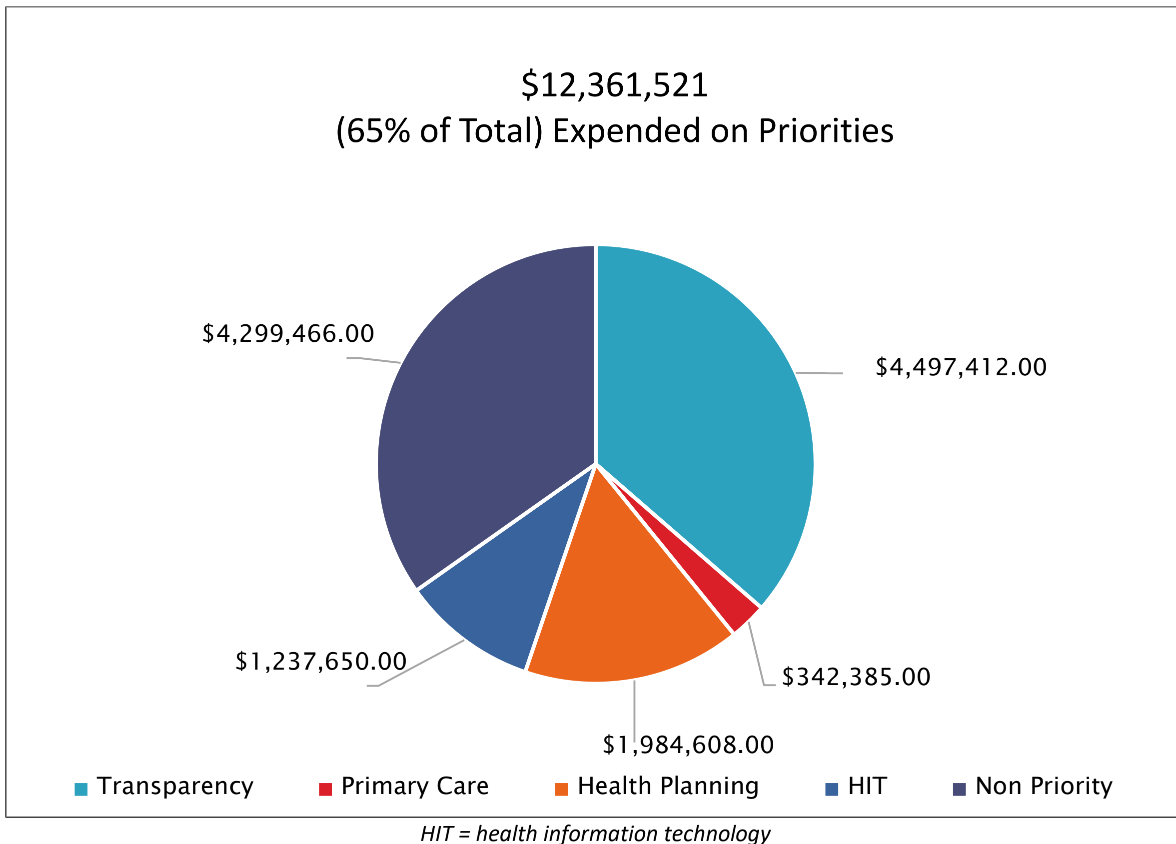
- Payors for an amount not to exceed 26% of the total budget;
- Hospitals for an amount not to exceed 39% of the total budget;
- Health Occupational Boards for an amount not to exceed 16% of the total budget; and
- Nursing Homes for an amount not to exceed 19% of the total budget

MHCC's FY 2018 Allowance was $55, 879,919 with an operating budget of $15,079,919.
Managing Critical Funds -- Trauma and HIT Operational Funds

- Maryland Trauma Physicians Services Fund - $12,600,000 – (includes $600,000 for equipment grants)
- Shock Trauma Grant - $3,200,000
- Integrated Care Network (CRISP) - $25,000,000

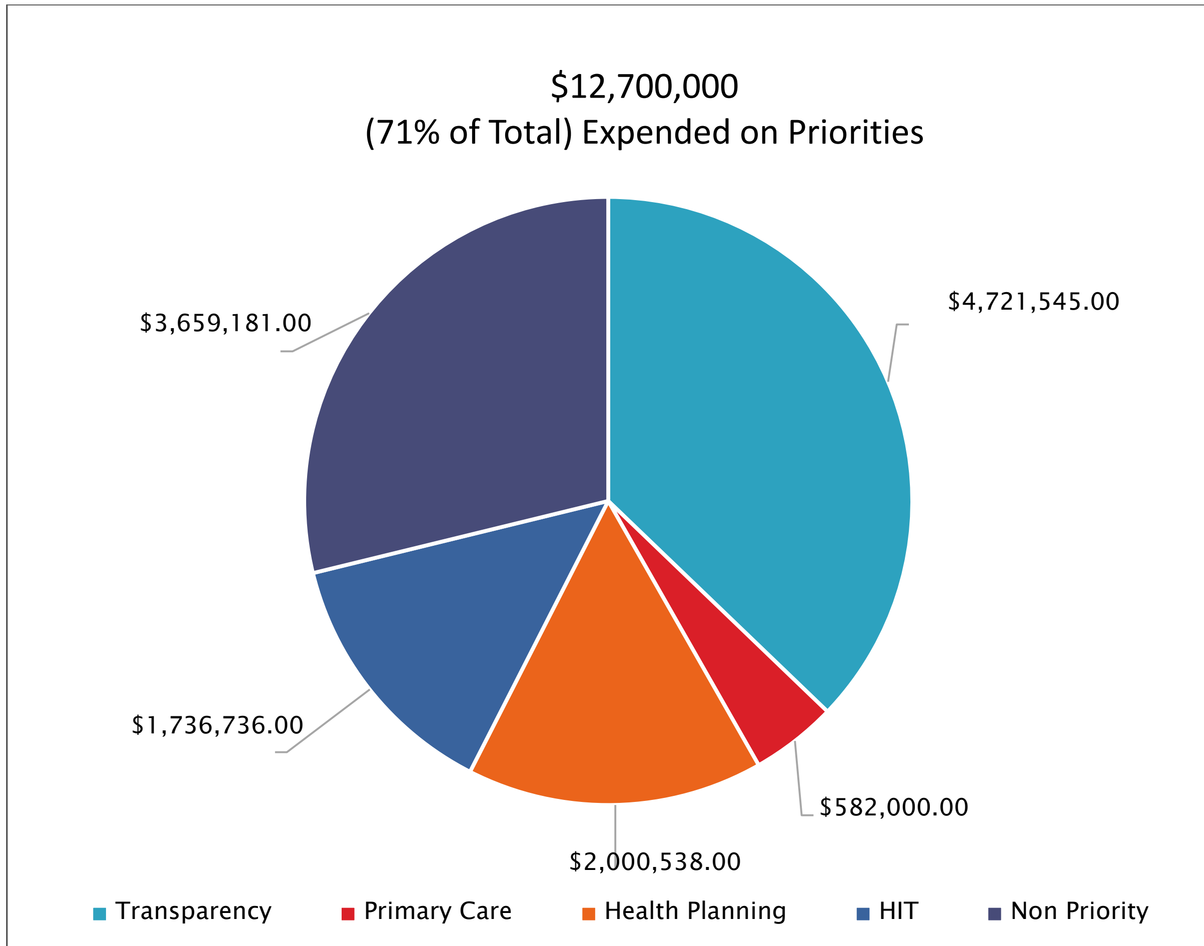
The MHCC was appropriated $15,079,919 but spent $12,361,521. Below is an illustration of how the budget was spent and aligns with the Commission's strategic priorities. The Fiscal Year 2018 closed with a surplus of $2,718,398.

Figure 24: Total Expenditures by Strategic Priority, 2018



HIT = health information technology

Figure 25: Planned Expenditures by Strategic Priority, 2019



HIT = health information technology

Future Plans

Maryland's health care system is in a state of transition, with the TCOC Model having launched in January 2019. The expansion of value-based payment models will require significant changes in care delivery and modernization of the SHP to align with the Maryland All Payer Model. The state's health care priorities for the next four years include reducing the impact of the opioid epidemic, supporting the TCOC Model, and resolving rural and minority health disparities.

MHCC has a track record of driving health advancement throughout Maryland. The Commission's data resource and management capabilities make it a key partner for continued system improvement. The Commission has identified five priority areas to help the state of Maryland reach its health care goals. These priorities and the corresponding objectives include:

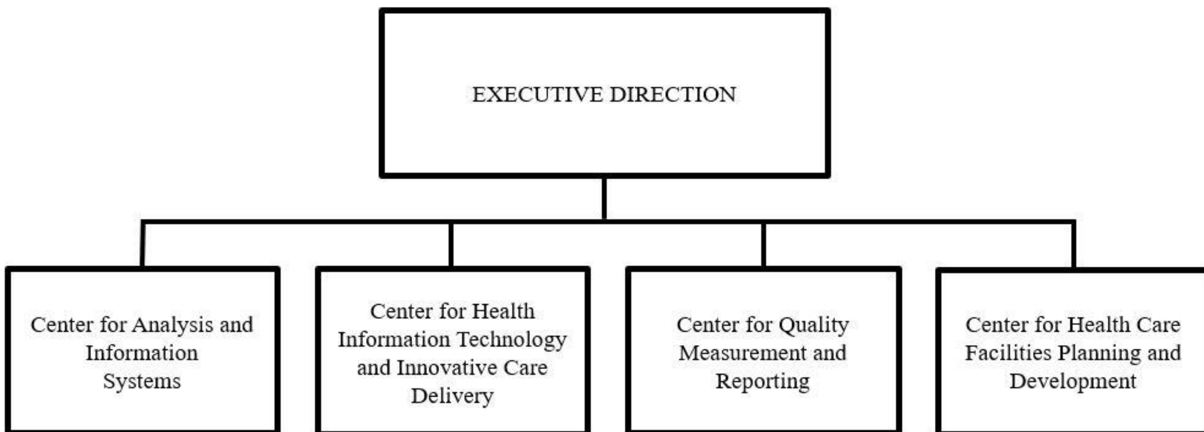
- Educate, inform, and engage the health care community on MHCC activities to elevate the success of the Commission's work in all priority areas
- Increase use of MHCC quality and cost data by all members of the state health care system, including Maryland residents, to increase price transparency and reduce use of low-value care
- Modernize the CON program to minimize administrative burden and support the state's goals under the All Payer Model
- Collaborate with stakeholders to engage specialty groups and facilitate wider adoption of alternative payment models
- Expand the use of telehealth services in a variety of health care settings by educating providers and patients and evaluating grant programs

The Commission believes these strategies will increase affordability and access, improve quality, and ensure health care delivery functions as an integral and positive part of a growing economy. As a convener and enabler, the Commission will ensure social determinants of health and health disparities are a part of all health care improvement discussions. As a collector of quality and cost data, MHCC will equip consumers, providers, payers, and policymakers with the information necessary to make informed decisions and improve care. With a shared commitment to the health care system and strong support from the state's leadership, the Commission will help providers navigate the rapidly changing health care system and support Maryland's implementation of the TCOC Model.

Appendix

Appendix A: Governance

Figure 26: Maryland Health Care Commission Organizational Chart



Selection Process and Geographic Representation of Commissioners: MHCC is governed by a commission of 15 members appointed by the Governor with the advice and consent of the Senate. Members are selected based on the type of stakeholder they represent as well as their geographic location. The term of a member is four years, and a member may not serve more than two consecutive terms.

The composition of the Commission is as follows:

- 9 individuals who do not have any connection with the management or policy of a health care provider or payer
- 2 physicians
- 2 payers
- 1 nursing home administrator in the state
- 1 non-physician health care practitioner

To the extent practicable, when appointing members to the Commission, the Governor ensures that at least five members are residents of different counties with a population of 300,000 or more and at least three members are residents of different counties with a population of less than 300,000. Of the three members representing counties with less than 300,000 residents, at

least one must be a resident of the Eastern Shore; one must be a resident of Allegany, Garrett, Washington, Carroll, or Frederick County; and one must be a resident of Southern Maryland. Biographies of the current Commissioners are included below.

Commissioner Biographies: The Chairman of the Commission is appointed by the Governor. With the approval of the Governor, the Commission appoints an Executive Director who shall be the Chief Administrative Officer of the Commission. The members are as follows:

Robert Emmet Moffit, PhD, Chairman, is senior fellow at the Center for Health Policy Studies at the Heritage Foundation in Washington, DC. Dr. Moffit served in President Ronald Reagan's administration, where he was appointed deputy assistant secretary for legislation at the US Department of Health and Human Services (HHS). Before his service at HHS, he was appointed by the Reagan administration as an assistant director of the US Office of Personnel Management, with responsibilities for both federal personnel policy and congressional relations. He joined the Heritage Foundation in 1991 and became director of domestic policy. In 2003, Maryland Governor Robert Ehrlich appointed him to his first four-year term as a member of the Maryland Health Care Commission. In 2010, *Modern Healthcare* magazine named him one of "the top 100 persons" in American health care. Moffit earned three degrees in political science: his bachelor's from La Salle University in Philadelphia and his master's and doctorate from the University of Arizona, where he graduated with distinction. He has received public service awards from several organizations, including the American College of Eye Surgeons, the Great Lakes Association of Clinical Medicine, and the National Hispanic Family Against Drug Abuse. He is also president of the Buckley School Foundation, which promotes critical thinking, debate, and public speaking skills. He has appeared on ABC News, NBC News, CBS News, CNN, CNBC, Fox News, and the News Hour. He has published in such professional and specialty journals as *Harvard Health Policy Review*; *Health Affairs*; *Health Systems Review*; *The Journal of Law, Medicine & Ethics*; *The Journal of Medicine and Philosophy*; and *National Affairs*. His articles have also appeared in a wide variety of American daily newspapers, as well as *The Hill*, *National Review*, *The National Interest*, *The Irish Independent*, and *The Wall Street Journal*. Dr. Moffit lives with his wife, Barbara, in Severna Park, Maryland. **(Term expires 9/30/2018)**

Andrew N. Pollak, MD, Vice Chairman, earned his MD at Northwestern University School of Medicine. His internship in general surgery and residency in orthopaedic surgery were accomplished at the integrated Case Western Reserve University/University Hospitals of Cleveland program. He went on to complete a fellowship in orthopaedic traumatology at University of California Davis Medical Center. Dr. Pollak is the James Lawrence Kernan Professor of Orthopaedics and chair of the Department of Orthopaedics within the University of Maryland School of Medicine. He also serves as Chief of Orthopaedics for the University of Maryland Medical System. In the past, Dr. Pollak has served as chair of the Board of Specialty Societies for the American Academy of Orthopaedic Surgeons (AAOS). He currently serves as treasurer of the AAOS and is past president of the Orthopaedic Trauma Association. Dr. Pollak is a former chair of the Extremity War Injuries Project Team for the AAOS, previously served as a commissioner for the Maryland Health Care Commission from 2004 to 2008, and is a past president of the Maryland Orthopaedic Association. His current responsibilities include executive committee co-chair for the Major Extremity Trauma Research Consortium (METRC), chair of the Publications

Committee for METRC, editor of the AAOS Orange Book Series, medical director of the Baltimore County Fire Department, and special deputy US marshal. **(Term expires 9/30/2020)**

Marcia L. Boyle is the founder of the Immune Deficiency Foundation (IDF), the national non-profit patient organization dedicated to improving the diagnosis, treatment, and quality of life of persons with primary immunodeficiency diseases through advocacy, education, and research (www.primaryimmune.org). She served as president and CEO until her retirement in August 2017. She grew IDF from five volunteers in 1980 to an organization with approximately $10 million a year in revenue in 2017 and a full-time staff of 37. She was a co-founder of the International Patient Organization for Primary Immunodeficiencies, which currently includes representation of patient organizations from 60 countries around the world. She also served on the Board of Directors of the National Health Council from 2015 to 2017. She was honored as a White House Champion of Change for Precision Medicine in 2015. **(Term expires 9/30/2018)**

Elizabeth A. Hafey is a litigator in Miles & Stockbridge's Products Liability & Mass Torts practice group and the medical malpractice group within it. She defends doctors, hospitals, and other health care providers in medical malpractice and professional liability cases and manufacturers and other businesses in a variety of commercial, product liability, and premises liability matters. Hafey's experience also includes environmental contamination litigation, including federal Superfund cost recovery actions and exposures to other allegedly hazardous substances. A 2015–2016 graduate of the Maryland State Bar Association's (MSBA) Leadership Academy, Hafey is a now a fellow of the MSBA's Maryland Bar Foundation and serves on the MSBA's judicial nominating committee. She is an elected board member of the Bar Association of Baltimore City, serves on its executive council, and chairs a committee focused on engaging young lawyers and reaching diverse professionals. She was honored in 2015 by the Monumental City Bar Association and chosen by the *Baltimore Business Journal* for its 2016 "40 Under 40" list, which honors professionals under the age of 40 in the greater Baltimore area who are excelling in their fields and engaging with the community. **(Term expires 9/30/2019)**

Margaret B. Hammersla, PhD, is an assistant professor and senior director for the Doctor of Nursing Practice Program at the University of Maryland School of Nursing and an adult nurse practitioner. Dr. Hammersla has worked in a variety of clinical areas, including perioperative care, emergency medicine, long-term care, and dementia management. She currently maintains a clinical practice in internal medicine in Eldersburg, Maryland. Dr. Hammersla has had extensive experience in simulation development, interprofessional education, and curriculum development. Dr. Hammersla was a member of a project to develop six simulation-based learning experiences to provide health care students (medicine, nursing, pharmacy, dental, social work, and law) with the opportunity to learn about one another's disciplines as well as how to better communicate utilizing a TEAMSTEPPS-based approach funded by the Maryland Higher Education Commission. In addition, she has worked on many individual projects to provide students advanced practice registered nurse programs with interprofessional education opportunities with other schools on the UM Baltimore campus such as pharmacy and dental students. Dr. Hammersla received her PhD, a post-master certificate in teaching in nursing and health professions, and an MS as an adult nurse practitioner from the University of Maryland, Baltimore. **(Term expires 9/30/18)**

Jason McCarthy is vice president for operations at Kaiser Permanente Mid-Atlantic States. In his role, McCarthy is responsible for ensuring that Kaiser Permanente is appropriately and effectively aligned to implement high-quality care for its members throughout Maryland, Virginia, and the District of Columbia. In addition, McCarthy is responsible for overseeing Kaiser Permanente's growth in the Baltimore service area, which currently includes about 500 employees and 10 medical office buildings that service 125,000 members.

From 2014 to 2016, McCarthy served as the regional pharmacy director for Kaiser Permanente of the Mid-Atlantic States, with oversight of 29 pharmacies, a mail-order facility, infusion services, and a wide range of pharmacy support functions. Prior to joining Kaiser, McCarthy served as a district manager with CVS Pharmacy in the Washington, DC, metro area. He was accountable for the District's operational performance, total store revenue, customer service, expense control, and asset management.

McCarthy received his doctor of pharmacy from Howard University College of Pharmacy in 2002 and his MBA from the University of Maryland, College Park in 2016. He currently resides in Bowie, Maryland, with his wife and daughter. **(Term expires 9/30/2020)**

Jeffrey Metz, MBA, LNHA, is president and administrator of Egle Nursing and Rehab Center located in Lonaconing, Maryland. He is also a founding partner in Foundation, Rehab, an affiliate of Egle that provides long-term care rehabilitation services. Metz previously served as vice chair for the Maryland State Board of Examiners of Nursing Home Administrators. A graduate of Frostburg State University, he has a bachelor of science degree in accounting and a master's degree in business administration. Metz resides in Allegany County. **(Term expires 9/30/2018)**

Gerard S. O'Connor, MD, is a surgeon in private practice in Chestertown, Maryland. In addition to his private practice, Dr. O'Connor has served as chief of the medical staff and chief of surgery at Chester River Hospital Center, now University of Maryland Shore Medical Center at Chestertown. Dr. O'Connor received his undergraduate medical education at Georgetown University and completed a residency in general surgery at George Washington University. Dr. O'Connor brings to the Commission the perspective of a physician who serves a rural Maryland community. **(Term expires 9/30/2019)**

Michael J. O'Grady, PhD, is a principal of O'Grady Health Policy LLC, a private health consulting firm, and a senior fellow at NORC at the University of Chicago. His current research concentrates on the interaction between scientific development and health economics, with a particular concentration on diabetes and obesity.

From 2003 to 2005, he was the assistant secretary for planning and evaluation at HHS. Dr. O'Grady worked directly with the HHS secretary on such critical policy issues as implementing the new Medicare drug benefit. Prior to his Senate confirmation as the assistant secretary, he served as a senior health adviser to the chairman of the Senate Finance Committee and a senior health economist at the Joint Economic Committee of the US Congress. Dr. O'Grady also held senior staff positions with the Medicare Payment Advisory Commission and the Congressional Research Service at the Library of Congress.

Dr. O'Grady also serves on a number of commissions and boards, including the National Committee on Vital and Health Statistics and the Board of Directors of the Patient Access Network and AcademyHealth. He received his PhD in political science from the University of Rochester. Dr. O'Grady resides in Montgomery County. **(Term expires 9/30/2019)**

Candice Peters, MD, is in private practice at Advanced Primary and Geriatric Care in Rockville, Maryland. Dr. Peters is a board-certified doctor of physical medicine and rehabilitation. She attended Howard Medical School and completed her residency in physical medicine and rehabilitation at the University of Pennsylvania. In conjunction with her residency program, Dr. Peters completed acupuncture training at the Helms Acupuncture Institute at UCLA. **(Term expires 9/30/2021)**

Martha G. Rymer is the partner/owner of Rymer & Associates PA, located in Calvert County, Maryland. She has been a professional in the practice since 1998. Prior to joining the practice, she was the chief financial officer at Calvert Memorial Hospital for 13 years. Rymer has brought to the practice her extensive knowledge of health care. In addition, Rymer works with a wide variety of business clients in the construction, printing, real estate, restaurant, and retail industries. In addition to tax preparation, she consults on business practice management issues and assists various businesses with analysis of financial performance and planning. In addition to her responsibilities running her business, she is the treasurer of her local Chamber of Commerce and on the finance committee of the local hospice and her church. Rymer graduated from Mount Saint Mary's University in 1983 with a BS degree in accounting. She is a certified public accountant licensed in the state of Maryland. **(Term expires 9/30/2021)**

Randolph S. Sergent is vice president and deputy general counsel for CareFirst BlueCross BlueShield, where he has been employed since 2010. Prior to joining CareFirst, Sergent was a partner at Venable LLP. Sergent also has served in the Maryland Attorney General's Office as deputy counsel to the Maryland Insurance Commissioner and as assistant attorney general in the Civil Litigation Division. Sergent is a member of the Ethics Committee of the Maryland State Bar Association and has served as chair of the MSBA's Health Law Section. Sergent holds a JD from the University of Virginia School of Law, a master of science in electrical engineering from the University of Maryland, College Park, and a bachelor of science in electrical engineering from the University of Virginia. Sergent resides in Howard County. **(Term expires 9/30/2020)**

Stephen B. Thomas, PhD, is the director of the Maryland Center for Health Equity in the University of Maryland School of Public Health and a professor of health services administration at the school. Dr. Thomas is an internationally recognized African American leader in minority health research and community engagement and has been a lead investigator of multiple studies investigating racial differences in health outcomes. Dr. Thomas resides in Prince George's County. **(Term expires 9/30/2021)**

Cassandra Tomarchio works at the US Army Communications Electronics Command (CECOM) at the Aberdeen Proving Ground, Maryland. She currently serves as the point person coordinating the Software Engineering Center's Human Capital Program. Past roles have included executive officer, corporate communications, and member of the CECOM Commander's Initiatives Group. Prior to her employment with the US Army, Tomarchio held several positions in public affairs,

including as director of communications for Coventry Health Care of Delaware and director of advocacy for the American Lung Association. Tomarchio lives in Havre de Grace, Maryland, and serves her community as a member of the Havre de Grace City Council. She is a graduate of Ursinus College with additional study at Johns Hopkins University and the College of Notre Dame. **(Term expires 9/30/2019)**

Marcus L. Wang, Esq., is the co-founder, president, and general manager of the Baltimore-based ZytoGen Global Genetics Institute, a College of American Pathologists–accredited genetics testing company driving successful pregnancy outcomes for patients worldwide through its proprietary preimplantation genetic screening platform.

Wang's international business and legal experience covers both the US, where he practiced corporate law at the Manhattan office of DLA Piper, and China, where he spearheaded the development, execution, and launch of Under Armour's China market entry in 2011. Wang continues to advise US businesses concerning China market entry and partnerships, providing guidance on go-to-market strategy, regulatory issues, brand development, and product localization.

In 2011, Wang was recognized by the Maryland Daily Record as one of Maryland's "20 in their 20s," based on "professional accomplishment, civic involvement, and impact of achievement."

Wang's leadership experience also encompasses the educational and governmental sector. Currently, Wang sits on the President's Roundtable at the University of Maryland Baltimore, joining a select group of senior advisers to the president. In addition, he sits on the Board of Visitors at the University of Maryland Francis King Carey School of Law as co-chair of the Development Committee. There, he is also the founder of the Leadership Scholars Legacy Endowment, a scholarship fund for deserving students. Mr. Wang also serves on the Board of Trustees at Gilman School, as well as the Board of Directors for the Baltimore County Revenue Authority.

Born and raised in Baltimore, Wang graduated from Gilman School before going on to earn a BA cum laude from Harvard University and a JD from the University of Maryland Francis King Carey School of Law. Wang also holds a certificate in International and Comparative Business Law from the Central University of Finance and Economics in Beijing and a certificate in Genetics and Genomics from Stanford University. Wang is licensed and admitted to practice as an attorney in the state of New York. **(Term expires 9/30/20)**

Appendix B: MHCC Workgroups and Task Forces and Participants

Advanced Primary Care

PCMH Transformation Workgroup

Health Care Quality

Healthcare-Associated Infections Advisory Committee

Hospital Performance Evaluation Guide Advisory Committee

Health Information Technology

Electronic Prescription Records System Workgroup

Health Information Exchange Policy Board

Health Record and Payment Integration Program Advisory Committee

School-based Telehealth Workgroup

Legislative Workgroup

African American and Rural Community Infant Mortality Study

CON Modernization Task Force

EMS Reimbursement for New Delivery Models

Maintenance of Certification

Provider Payer Workgroup

Rural Health Care Delivery Workgroup

MCDB

MCDB Data Release Policy Workgroup

Practitioner Performance Measurement Workgroup

State Health Planning and Certificate of Need

Surgical Services Work Group

Cardiac Services Advisory Committee

Freestanding Medical Facilities Work Group

Home Health Agency Advisory Group

Organ Transplant Workgroup

Nursing Home Workgroup