

# **An Evaluation of Regional Health Delivery and Health Planning in Rural Areas**



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## **Executive Summary**

### **Background**

This report is in response to Committee Narrative in the 2013 Joint Chairmen’s Report. The Budget Committees asked the Maryland Health Care Commission (MHCC or “the Commission) to address two issues that have not been the subject of any recent reporting or work by Maryland state agencies: (1) Are the current health planning region designations used in Maryland appropriate and (2) what has been the impact of recent hospital consolidation on the availability of services in rural areas? To assist the Commission in assessing these concerns, the MHCC staff convened a workgroup of interested stakeholders with background, experience, and expertise on rural health issues. This workgroup was also asked to address several issues of particular importance to rural health delivery that are not new or unique to this report, including the adequacy of the health care workforce in rural areas, barriers to accessing health care services in Maryland caused by distance, and the adequacy of transportation to health care services. The workgroup held four meetings around the state, including in rural regions, to present issues of importance in that rural region.

This report provides recommendations on the questions posed by the Budget Committees and presents stakeholders’ proposals for improved health care delivery in rural Maryland. Developed over a short timeframe for study, this report reflects the workgroup’s assessment of long-standing issues related to health care workforce shortages and health care-related transportation issues.

### **Development Process**

The challenges of health care facility and service availability and access in rural Maryland are interrelated and rooted in the defining characteristics of rural areas. Rural communities, by their nature, are more distant from urban centers where it is most logical to centralize facilities and services. Lower population density in rural jurisdictions has historically presented challenges to achieving availability and access to services comparable to that achieved in urban and suburban Maryland and, in some cases, problematic in terms of community expectations.

The workgroup was briefed on a number of programs in Maryland that currently address these challenges. Health Enterprise Zone (HEZ) grants have been made to collaborative programs in St. Mary’s County and on the Eastern Shore (Dorchester and Caroline Counties) to support innovative health care delivery in underserved rural areas. The Department of Health and Mental Hygiene’s (DHMH) Office of Workforce Development also administers a state loan repayment program for health care professionals, among other initiatives. Area Health Education Centers (AHECs) manage training and recruitment programs. Even broader initiatives are being planned through the State Innovation Model (SIM) planning grant process, which has led to development of Community Integrated Medical Home model that would be implemented over

the next three years if SIM testing funds are available. The Department of Health and Mental Hygiene (DHMH) expects to submit its SIM testing grant application in the first quarter of calendar year 2014.

Currently, there are a number of government regulations and initiatives with oversight over health care facilities and mandates for health planning initiatives. MHCC regulates health care facility building projects, which is discussed in detail below. The Affordable Care Act requires hospitals to conduct a Community Health Needs Assessments every three years. The State's Health Improvement Process (SHIP) provides a framework for local health coalitions to assess health measures in communities.

The Stakeholder Group discussed the adequacy of the current initiatives in the context of general and several specific barriers to health care delivery in rural areas, including transportation, workforce, socio-economic, cultural, and distance-related factors that contribute differences in health care access and may contribute to observed disparities in the use of the health care system. Stakeholders recommend that policy makers stay informed of and support a number of existing community services and innovative service delivery models that have been developed to reach rural populations. These include existing local and regional transportation services; existing, fledgling, and new workforce development initiatives; and specific innovative health care delivery models. The costs of some of these models are currently funded – such as HEZ grants, loan reimbursement programs, and telemedicine programs<sup>1</sup>. There was general agreement that more funds were needed, especially for workforce development.

Additionally, this report recommends that existing processes should be continually examined to ensure that they provide rural residents the maximum benefits to their health care service delivery. Health planning exercises should be conducted in consort with local providers, government agencies, and health system consumers – whether that collaboration is mandated by law or not.

***Question 1: Are the current health planning region designations used in Maryland appropriate?***

MHCC recommends that planning areas should continue to be defined on the basis of the service that is subject to Certificate of Need (CON) review. In Maryland, CON regulation is often conducted using regional designations, for purposes of need or utilization forecasting or framing impact analysis. Stakeholders reviewed existing policies and recommend the maintenance of flexibility in designation of regions most appropriate to the purposes of such designation – even though different planning exercises may use different regional designations and these regional designations may change over time. No particular drawbacks were identified

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<sup>1</sup> The use of interactive audio, video, or other telecommunications or electronic technology by a licensed health care provider to deliver a health care service within the scope of practice of the health care provider at a site other than the site at which the patient is located.

with respect to the use of different regional designations for different agencies or current policies used in defining regions.

***Question 2: What has been the impact of recent hospital consolidation on the availability of services in rural areas?***

MHCC regulates various categories of capital projects that can be undertaken by health care facilities, which includes hospitals. Neither MHCC nor any other state agency regulates acquisitions, mergers, or consolidations of health care facilities that only involve a change in ownership and/or operation of a facility or facilities. Only timely notification requirements apply to such transactions. MHCC does not recommend the increased regulation of systems consolidation. Benefits for smaller facilities associated with becoming part of a larger organization center around the general availability of more resources. This includes better borrowing rates and purchasing power, economies of operating scale, additional staff expertise for certain operations, and greater accessibility to a larger health care system's specialists. There is a legitimate concern that systems consolidation may result in more limited service offerings at some rural area hospitals. This type of change has occurred in Maryland in the past, primarily as a result of rural hospitals forming multi-hospital systems rather than through the absorption of rural hospitals into larger hospital systems, based in urban areas of the state.

Based on input from the workgroup, MHCC recommends that large health systems acquiring rural hospitals need to communicate more effectively with rural hospital staff and the service area population of the acquired hospital. Systems should provide clear information on planned organizational changes and the rationale underlying facility and service change decisions. Greater attention also needs to be focused on the unique needs of a rural population that is served by a single, newly-acquired hospital.

The workgroup discussed prospects for increased consolidation in the future. The forces underlying consolidation of independent rural hospitals into larger medical systems are likely to continue, so further consolidation is possible. This report encourages policy makers and health care planners to monitor consolidation activity and evaluate the performance of multi-hospital systems in delivering the anticipated benefits of consolidation and effectively engaging with the medical community and the service area populations affected by acquisitions with respect to planning change.

## **Introduction**

During the 2013 legislative session, Committee Narrative was included in the 2013 Joint Chairmen’s Report which requested that the Maryland Health Care Commission convene a group of interested stakeholders to evaluate regional health delivery and health planning in rural areas.

## **Scope of Work**

As requested, this report includes an evaluation of:

- the appropriateness of current health planning region designations,
- the adequacy of the health care workforce in rural areas,
- barriers to accessing health care services caused by distance;
- adequacy of transportation to health care services;
- the impact of recent hospital consolidation on the availability of services in rural areas;
- and recommendations for change.

## **Maryland’s Rural Population**

The Rural Maryland Council notes that “Rural jurisdictions share common characteristics that set them apart from their suburban and urban counterparts, such as geographic isolation, lack of transportation, and lack of access to and availability of health care.”<sup>2</sup>

The Annotated Code of Maryland includes 18 of Maryland’s 24 jurisdictions in its definition of “rural.” National and state definitions vary, as shown in Figure 1 on a map provided by DHMH’s Office of Primary Care Access. Federally-designated jurisdictions tend to fare worse in health and economic status because they are generally more isolated and have smaller and older populations, according to Maryland’s State Office of Rural Health.<sup>3</sup> Federally-designated counties are eligible for federal grant and assistance programs, though the definition of rural can vary by federal agency as well.

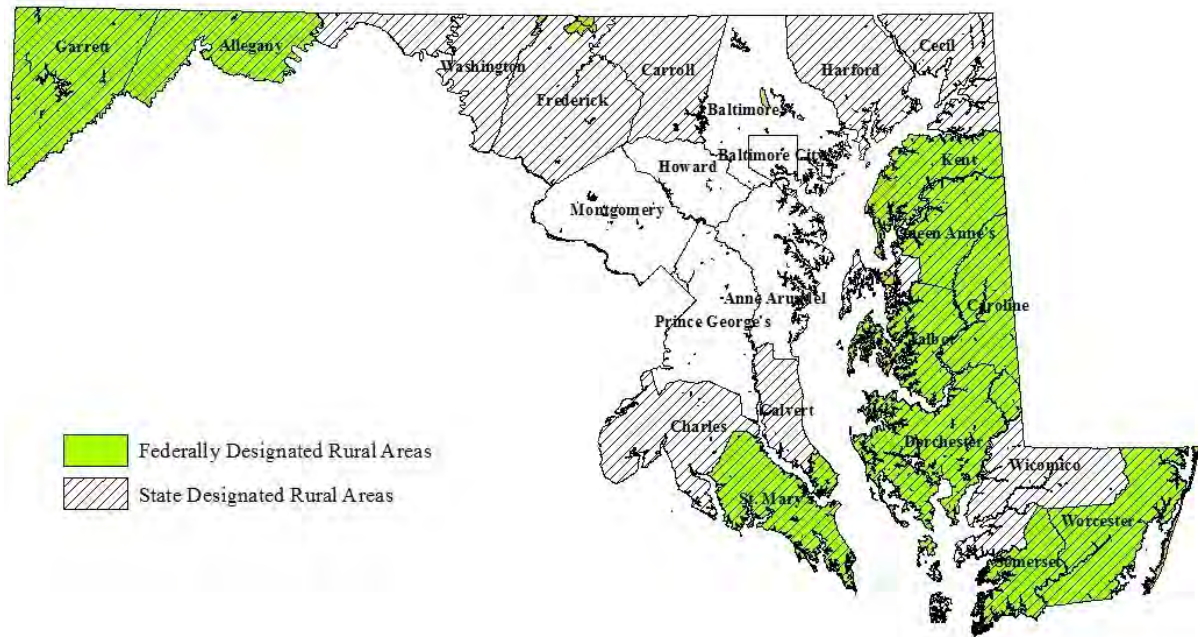
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<sup>2</sup> Rural Maryland Council. “How do we Define Rural in Maryland?” Web page.

<<http://news.maryland.gov/rural/the-rural-maryland-council/>>

<sup>3</sup> Maryland Department of Health and Mental Hygiene, Family Health Administration, Office of Health Policy and Planning, State Office of Rural Health. *Maryland Rural Health Plan*. June 2007.

**Figure 1. State and Federal Rural Designations in Maryland**



Created by Office of Primary Care Access, HSI/A, MarylandDHMH, March 22, 2013

On average, rural populations in the United States have relatively more elderly people and more children, higher unemployment and underemployment rates, and lower population density with higher percentages of poor, uninsured, and underinsured residents.<sup>4</sup> Appendix 2 includes a compilation of data gathered from various government sources that illustrate selected characteristics of Maryland's population by county. It will be noted that, in some cases, there are significant differences in these characteristics among the state's counties and regions.

- According to the latest 2012 U.S. Census population estimates, Maryland's rural population as a whole has roughly the same proportion of children under 18 years of age as non-rural areas (23%), with the highest percent found in the Southern Region (25%) and the lowest on the lower Eastern Shore (20%).
- Rural jurisdictions as a whole have a higher percentage of the population age 65 and older than non-rural areas – ranging from 11% in the Southern Region to 19% on the Mid and Upper Eastern Shore, with considerable variation by county – compared to the state's proportion of 13%.

<sup>4</sup> Hart, L. Gary, Eric H. Larson, and Denise M. Lishner. "Rural Definitions for Health Policy and Research." *American Journal of Public Health*. July 2005; 95(7): 1149–1155. doi: 10.2105/AJPH.2004.042432.

- Rural areas residents of graduating age have a similar rate of high school graduation than non-rural counterparts (89% and 88%, respectively), though rural residents have a lower rate of higher education degree attainment than the non-rural population – 27% and 40%, respectively.
- While a higher proportion of non-rural residents live in poverty in Maryland, compared to rural areas – 9.2% compared to 8.4%, respectively – this is heavily influenced by the very high rate of poverty in Baltimore City. Seven out of 10 of the federally-designated rural counties in Maryland have a poverty rate that is higher than the state’s overall rate (9%), while all non-rural counties but one (Baltimore City) fare better than the state’s overall rate. The lowest proportional poverty levels in the state are found in the Southern Region (6%), while the highest poverty levels among rural regions are found on the Lower Eastern Shore (14%).
- According to Maryland’s Department of Labor, Licensing & Regulation, the aggregate unemployment rate in rural areas is very similar to that in non-rural areas (7% for both). The proportion of both uninsured and those eligible for Medicaid is lower in rural areas compared to non-rural areas, according to the U.S. Census Bureau’s Small Area Health Insurance Estimates and the Maryland Department of Health and Mental Hygiene. (The U.S. Census may not accurately reflect the immigrant Spanish-speaking population, which a number of stakeholders discussed as a target population for health care-related community services.)
- According to Maryland’s Department of Health and Mental Hygiene, Medicaid-eligible rural residents have a slightly lower participation rate in the Managed Care Organizations offered through Medicaid than non-rural areas. Regionally, the lowest participation rate is found in the Western Region (73%). The highest regional rate is found in the Southern Region with a 76% participation rate. (Baltimore City has the highest participation rate in the state at 81%.)
- All but two federally-designated rural counties have a median household income below the state’s median (\$72,419), while the highest median incomes are found in the densely populated areas of Howard, Montgomery, and Anne Arundel Counties, as well as state-designated rural counties that have become exurbs of Washington, D.C. (Calvert and Charles Counties). Howard County’s median household income of \$105,692 is more than two and a half times higher than Allegany County’s at \$39,408.

Maryland’s rural communities, for the most part, have fewer health care provider organizations and health care professionals, as well as higher rates of chronic disease and mortality, than non-rural communities.<sup>5</sup> A theme expressed in meetings of the Stakeholder Group convened by MHCC to develop this report was that a combination of more difficult socio-economic characteristics, relatively low levels of health literacy, and a perception that larger

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<sup>5</sup> Maryland Department of Health and Mental Hygiene, Family Health Administration, Office of Health Policy and Planning, State Office of Rural Health. *Maryland Rural Health Plan*. June 2007.

institutions provide less personalized and accessible care are factors in producing less than adequate preventive behavior and prevention programming and deficits in routine medical care provision in rural areas.

### **Stakeholder Group**

These issues are, obviously, of concern to the rural population of Maryland. They are also a concern for a number of other persons and organizations in Maryland including, but not limited to, medical care and service providers; local health officers and health departments; state agencies, especially those addressing health care; payers; educational institutions, both general and health-care related; rural advocacy and development organizations; community service organizations; professional associations; and policy makers.

The Commission solicited nominations from a range of health care and rural leadership and advocacy organizations seeking experts to provide informed perspectives on rural health delivery, services, and the impact of hospital consolidation on rural areas in Maryland. The stakeholders and Commission staff members who participated in this project are listed in Figure 2. All four meetings of this Stakeholder Group were accessible via teleconference and publicly announced on the Commission web site. Other interested parties were encouraged to attend and participate in discussions.

**Figure 2. Stakeholder Group Members and Commission Staff**

**Stakeholder Group Membership**

|   |  |   |
|---|--|---|
| Nancy Adams, MBA, RN<br>Senior VP, Chief Operating Officer<br>& Chief Nurse Executive<br>Western Maryland Health System                 | State Delegate Adelaide Eckhardt<br>District 37B, Caroline, Dorchester,<br>Talbot, and Wicomico Counties                         | Stephen Ports<br>Deputy Director, Policy and<br>Operations                              |
| Susan Antol, PhD(c), MS, RN<br>Director, Governor’s Wellmobile<br>and School Based Health Clinics<br>University of MD School of Nursing | Kathleen Foster, RN, MS<br>Health Officer<br>Talbot County Health Department   | Deborah Rivkin, MD<br>VP, Government Affairs<br>CareFirst BlueCross BlueShield          |
| Robert Bass, MD<br>Executive Director<br>Maryland Institute for Emergency<br>and Medical Services Systems                               | Jacob Frego<br>Executive Director<br>Eastern Shore Area<br>Health Education Center   | Raquel Samson, MPH<br>Director<br>Office of Primary Care Access                         |
| Meenakshi Brewster, MD<br>Health Officer<br>St. Mary's County Health<br>Department  | Joan Gelrud, RN, MSN, CPHQ,<br>FACHE<br>Vice President<br>MedStar St. Mary's Hospital  | Susan Stewart<br>Executive Director<br>Western Maryland Area<br>Health Education Center |
| Brooke Buckley, MD<br>MedChi, The MD State<br>Medical Society   | Shannon Idzik, DNP, CRNP<br>Director, Doctor of Nursing Practice<br>Program<br>University of MD School of Nursing                | Ann Walsh, MHS, CHES<br>Director<br>State Office of Rural Health                        |
| Michelle Clark, MSW, MPH<br>Executive Director<br>Maryland Rural Health Association   | Doris Mason<br>Executive Director<br>Upper Shore Regional Council  | Scott Warner<br>Executive Director<br>Mid-Shore Regional Council                        |
| Charlotte Davis<br>Executive Director<br>Rural Maryland Council   | Kathleen McGrath<br>Director of Strategic Planning &<br>Business Development<br>Shore Health, University<br>of MD Medical System | Adam Weinstein, MD<br>MHCC Commissioner<br>Kidney Health Center of MD, PA               |
| Michael Dodd, MD<br>MedChi, The MD State<br>Medical Society   | Michael Pennington<br>Executive Director<br>Tri-County Council for<br>the Lower Eastern Shore                                    | James Xinis<br>President & CEO<br>Calvert Health System                                 |

**Commission Staff**

|  |  |   |
|--|--|---|
| Ben Steffen<br>Executive Director  | Paul Parker<br>Director, Center for Health Care<br>Facilities Planning & Development | Erin Dorrien<br>Chief, Government & Public<br>Affairs |
| Rebecca Goldman<br>Health Policy Analyst, Center for<br>Health Care Facilities Planning &<br>Development |  |   |

## Meeting Agendas

Four Stakeholder Group meetings were held between July 17 and November 8, 2013. Two meetings were convened to be geographically near the two rural areas of Maryland where acquisition of rural hospitals by multi-hospital systems has occurred in the last seven years. Summaries of the meetings are included in Appendix 1.

| <u>Meeting Details</u>   | <u>Meeting Topics</u>  |
|--|--|
| July 17, 2013, 3 to 5 p.m.<br>Commission offices<br>Baltimore, MD            | <ul style="list-style-type: none"><li>• Project introduction, plans, and timelines</li><li>• History and use of health planning regions in Maryland</li><li>• Hospital consolidations in Maryland</li></ul>  |
| September 3, 2013, 12 to 3 p.m.<br>Memorial Hospital at Easton<br>Easton, MD | <ul style="list-style-type: none"><li>• Data about Maryland hospital operations, contrasting rural and non-rural hospitals</li><li>• Shore Health System’s Community Health Needs Assessment</li><li>• Transportation planning and health care delivery on the Eastern Shore</li></ul> |
| October 7, 2013, 12 to 3 p.m.<br>Colony South Hotel<br>Clinton, MD           | <ul style="list-style-type: none"><li>• Emergency care planning in Maryland</li><li>• Health care workforce initiatives in Maryland</li><li>• Improving access to care in St. Mary’s County</li></ul>  |
| November 8, 201, 10 a.m. to 12 p.m.<br>Commission offices<br>Baltimore, MD   | <ul style="list-style-type: none"><li>• Contemporary hospital affiliation efforts in Western Maryland</li><li>• Discussion on report and recommendations</li></ul>   |

## Report Structure

This report addresses challenges associated with delivering health care in rural Maryland. The Stakeholder Group evaluated these challenges within the context of rural or regional designations and recent hospital system consolidations. Only a few months were provided to discuss and develop this report; the charge to MHCC was contained in the 2013 Joint Chairmen’s Report approved in the spring of this year and the report was requested by December. This limited the group’s ability to undertake extensive research and analysis. Thus, this report relies heavily on existing documentation to identify barriers to access to rural health care and evaluate transportation systems and workforce initiatives relevant to overcoming or ameliorating these barriers. Stakeholder input and expert opinion was relied upon to assess the impact of recent hospital consolidation on rural populations. At the beginning of each section, a summary of recommendations is provided, followed by a description of the Stakeholder Group’s discussion on these topics and supplemental information gathered by Commission staff.

### **I. Appropriateness of Current Health Planning Region Designations**

#### **Recommendations on the Appropriateness of State Health Planning Regions**

*Regions used by state health agencies in their planning and regulatory activities are appropriate to their purpose and are reviewed and altered over time in ways that allow for input from affected organizations and populations. They do not act as barriers to viable health care facility or service development in rural areas of Maryland.*

*State health agencies, including MHCC in its State Health Plan (SHP), should maintain their existing authority and flexibility to designate regions based on the particular objectives of the planning and regulatory activities for which regional designations have been established.*

Stakeholders and Commission staff identified three types of state agency region designations. The Commission designates different regions for each of its regulated health care services. The Maryland Institute for Emergency Medical Services Systems (MIEMSS) designates regions based on the objective of optimizing travel time of patients to critical emergency services. The Maryland Health Benefit Exchange Connection Program designates regions in order to regionally allocate resources facilitating health insurance reform efforts, involving collaboration of the federal and state government under the framework of federal law, throughout the state. Appendix 3 includes a list of each of these agencies regional designations, including an inventory of each chapter of COMAR Title 10.24 that includes a service region designation.

Stakeholders discussed the benefits of the SHP's ability to utilize regional configurations for health planning and CON regulation appropriate to the facilities and services being regulated, and its ability to revise regions, as needed, based on changes in the supply of or demand for health care services over time. For example, in the current fiscal year, the Commission has endorsed changes in the regions used in regulation of acute rehabilitation hospital services and is considering changes in the regions used for demand forecasting related to CON regulation of cardiac surgery.

There were no problems identified with the use of different regional designations across agencies and SHP chapters negatively affecting communities, health care providers, payers, or health care agencies involved in policy making and regulation.

### **Stakeholder Meeting Discussion**

Regulations for Maryland's CON program are included in the Code of Maryland Regulations (COMAR) at Title 10, Subtitle 24. The CON program is intended to ensure that new health care facilities and services are developed in Maryland only as needed and that, if determined to be needed, they represent the most cost-effective approach to meeting identified needs. With certain exceptions, a Certificate of Need is required to build, develop, or establish a new health care facility; move an existing health care facility to another site; change the bed capacity of a health care facility; change the type or scope of a health care facility's services in

certain ways; or make a health care facility capital expenditure that exceeds a threshold established by Maryland statute. Approved projects are awarded a Certificate of Need, authorizing the project applicant to implement the approved capital project.

Different health care services and types of facilities are regulated under separate chapters of COMAR Title 10, Subtitle 24, with separate methodologies for determining the appropriate regional designations for each type of service. Regions for each chapter are determined independent of other service chapters, based on the nature of the service and patient use patterns. For example, the Commission recognizes that general acute care hospital medical/surgical and inpatient pediatric services (and the closely associated emergency room services of general hospitals) should be evaluated at the jurisdictional level with bed need calculated on the basis of observed hospital service areas and an expectation of short optimal travel time to these services (30 minutes or less). However, specialized services like inpatient rehabilitation and organ transplantation are regulated on a multi-county regional level based on patient travel patterns and the need for minimum patient volumes to ensure program and staff proficiency and quality and economies of scale in operation. Travel time access is not a critical factor in the distribution of these non-emergent services.

Other agencies designate health planning regions for different purposes. MIEMSS constructs regions based on the need for timely and competent emergency service provision. In the case of the Maryland Health Benefit Exchange Connector, regions are based on the desirability of decentralizing navigator and consumer assistance services in the state.

## **II. Adequacy of the Health Care Workforce in Rural Areas**

To evaluate the adequacy of the health care workforce in rural areas, the Stakeholder Group relied on previous and ongoing work from groups which have a specific focus on this issue. Previous studies have made conflicting conclusions on the supply and adequacy of health care providers in rural Maryland<sup>6</sup>, while government- and privately-funded programs currently address recognized health care workforce recruitment and retention challenges in rural areas.

While the levels of shortage in each rural area in Maryland have been debated, it is clear that recruitment and retention of health care workers is a bigger challenge in Maryland's rural areas than in most of Maryland's urban/suburban regions and medical facility hubs. Rural

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<sup>6</sup> MHCC sponsored the "Maryland Physician Workforce Study: Applying the HRSA Method to Maryland Data," conducted by Direct Research, LLC, in 2011. This report found that the U.S. Health Resources and Services Administration (HRSA) and the Association of American Medical Colleges (AAMC) both show Maryland among the states with the highest physician-to-population ratios, roughly 25 to 29 percent above the U.S. average, in 2008 and 2009, respectively. By contrast, a study sponsored by the Maryland Hospital Association and the Maryland State Medical Society, attempting to refine information about actual clinical practice activity among physicians, found that Maryland physician supply was 15 percent *below* the national average, with significant and widespread physician shortages now existing and likely to persist into the future.

facilities have a harder time attracting top quality practitioners, who are also being courted by hospitals in non-urban areas with higher salaries and more medical schools, a wider array of housing options, leisure activities, and employment opportunities for family members, and other urban amenities. To address some of these issues, DHMH operates a number of programs that aim to address rural health care workforce issues. Stakeholders also brought first-hand knowledge regarding challenges for these programs to the discussion.

### **Recommendations on the Adequacy of the Health Care Workforce in Rural Areas**

A number of specific recommendations regarding workforce issues fit under the categories of training needs, recruitment and retention strategies, tracking and measurement of workforce capacity, and constraints on some existing practitioners.

#### **Training**

*Policy makers and hospitals should support existing training curricula that address the needs of rural Maryland's diverse population.*

*Policy makers, hospitals, other providers, and health care advocates and planners should identify new needs for training for health care providers that specifically address the cultural and demographic differences of Maryland's rural populations, and support these training programs.*

#### **Recruitment and Retention**

*Policy makers, hospitals, other providers, and health care advocates should work together to support programs that create pipelines for students living in rural areas who are interested in health care careers, particularly students who want to practice in professional disciplines identified as underrepresented in rural Maryland.*

These are obviously long-term approaches to addressing workforce issues. The immediately preceding recommendation, regarding practitioner demographics not reflecting the patient population, is based on a University of California outreach model aimed at rural and underserved area high school students. Such programs also exist in Maryland. Currently, funding from a HEZ grant is allocated to the Eastern Shore AHEC for health career exploration summer day camps targeting students in grades 7 through 10.<sup>7</sup>

*Expand loan reimbursement programs.*

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<sup>7</sup> Dorchester County Health Department. *Caroline/Dorchester Health Enterprise Zone Proposal*. Submitted to Maryland's Community Health Resource Commission November 2012. <<http://dhmh.maryland.gov/healthenterprisezones/Documents/Dorchester%20County%20HEZ%20Application%20-%20Redacted%20Version.pdf>>

These programs help to retain new, high quality professionals in rural areas in Maryland. Maryland's loan reimbursement programs must be competitive with other state and national programs to improve their chances of success. Stakeholders suggested a number of ways to improve existing programs – including additional funding for more opportunities; removing stringent eligibility guidelines; seeking new funding streams so loan reimbursement can be extended to a larger pool of applicants; and developing innovative in-state, rural, multi-hospital rotations for residency programs.

***Loan reimbursement providers, medical schools, and hospitals should increase awareness of existing loan reimbursement opportunities for medical school residents.***

Specifically at this time, DHMH should continue to actively recruit from Maryland school residency programs and engage existing providers in recruitment of new practitioners to rural areas.

***Loan reimbursement providers, medical schools, and hospitals should establish marketing and awareness campaigns designed to highlight the benefits of practicing in a rural area.***

These benefits extend beyond loan reimbursement opportunities to other cultural benefits tied to being part of a rural community. Hospital systems should actively promote the benefits of working at rural hospitals, within their systems, to sources of needed personnel, on a regular, on-going basis.

#### **Measurement and evaluation of health care workforce**

***Policy makers should support initiatives to improve data collection and analysis on the health care workforce.***

The Commission has partnered with the Governor's Workforce Investment Board, the Governor's Office of Health Care Reform, the Robert Wood Johnson Foundation, and professional licensure boards to establish, for the first time, a workforce data system that will allow Maryland policy makers to accurately assess current supply issues and plan for future workforce needs responsive to changing health care demands of the population. Ongoing and future efforts to use this data for health planning purposes should be supported. An overview of this partnership effort was provided to the Commission in November of 2013 and is included at Appendix 4 of this report.

#### **Improvement to existing health care workforce programs and policies**

***Policy makers, providers, and payers should address existing constraints on mid-level practitioners to expand access to primary care diagnosis, treatment, and referral services in rural areas.***

***Policy makers and health care advocates should support efforts that identify and address differences in reimbursement rates for physicians and non-physicians in rural areas.***

Stakeholders reported that some payer reimbursement policies require a nurse practitioner to collaborate with a physician on the same practitioner panel to qualify for payment. Nurse practitioners believe that this policy unnecessarily limits appropriate access to primary health care services in rural areas.

### **Stakeholder Meeting Discussion**

Maryland's Health Systems and Infrastructure Administration, within DHMH's Office of Primary Care Access, operates a number of programs that aim to address rural health care workforce issues. In April 2012 a DHMH Workforce Committee, funded through an American Recovery and Reinvestment (ARRA) Retention and Evaluation Grant, conducted community assessments for regions throughout Maryland – including Southern Maryland, the Eastern Shore, and Western Maryland.

This work group identified challenges to and strategies for addressing workforce issues in rural Maryland. They identified a need for consistent marketing efforts, a centralized network to develop workforce pipelines, referral networks, and consistent funding streams for workforce expansion; the need to address practice limitations for mid-level practitioners; and a lack of diversity in the workforce that provides a poor match with the diversity of the state's rural patient population. Some recommended strategies to address these needs included collaboration with AHECs for internships, development and use of recruitment videos to promote the benefits of working in underserved areas, and identification of the variance between how non-physician primary care providers and primary care physicians are reimbursed for providing the same services. The need for cultural competency and health literacy workshops was also identified. Stakeholders reported that more aggressive and effective promotion of the benefits of practicing in a rural area is needed, and should include testimonials from successful rural practitioners.

Stakeholders emphasized efforts to recruit future practitioners from rural regions, Maryland medical schools, and underserved communities with underdeveloped health care resources as an important long-term approach to address retention issues. Early introduction to health care careers at a younger age can put more rural students on a path to a health care career in a rural area. This strategy should also be used to recruit from underrepresented populations to address the need for a more diverse health care workforce that reflects the patient population.

Regarding improvements to existing loan reimbursement programs, DHMH reported that eligibility requirements are stringent due to the federal funding source. Some grants are restricted to physicians only, who graduate from a state school. Stakeholders noted the need for more funding for this program, as well as the need to pursue alternative funds to expand eligibility.

Stakeholders expressed doubt regarding whether existing research captured the health care workforce recruitment challenges they experience in rural areas. They expressed the need for improved ways to connect with specialty services and a broader referral network in rural areas. The State is currently undertaking an initiative to address the lack of data available on the health care workforce. MHCC is a partner in that effort. Commission staff reported on the status of a comprehensive evaluation of medical profession data systems that will lead to the ability to show the availability and location of health care services and employment throughout the state. The upcoming Maryland Health Care Workforce Study will assess the quality and utility of data available to study the workforce with the goal of reporting on the distribution of the existing health care workforce for all health care occupations in Maryland, particularly primary care, mental health, and dental services practitioners. Partners in this initiative include counselors, dentists, nurses, pharmacists, psychologists, and social workers. It will give Maryland an ability to be more responsive to the new health care delivery and insurance system taking shape and establish a workforce data system for policy makers to assess needs of the changing population based on assets and gaps. It should improve the understanding of matches and mismatches between the needs of the population and the supply of providers, for improved planning across the state. This project will move workforce planning beyond single health care occupation planning to a more integrated approach and allow for better modeling of workforce needs. The first stage of the study will conclude by the end of 2013 with recommendations to the professional boards, addressing potential changes to their applications and an ongoing reporting process. This initiative should fill the need for more information on workforce adequacy and worker shortages across Maryland.

Stakeholders also addressed current barriers to accessing potentially available health care services. Representatives from the Nurse Practitioners Association of Maryland also reported on the current policy of some payers to require nurse practitioners to have an attestation with a physician who is on the same panel if they want to serve patients. They report that this policy prevents community-accessible primary care providers from serving patients if they do not have an attestation from a physician on that same panel.

### **III. Barriers to Accessing Health Care Services Caused by Distance**

#### **Recommendations on Access Barriers**

***Policy makers, funders, hospitals, other providers, and payers should support innovative models of service delivery aimed at addressing barriers experienced by patients in obtaining access to health care services caused by distance, including Health Enterprise Zone development and support, viable funding for the technical infrastructure for telemedicine services, visiting practitioner***

***programs, community paramedicine, and other non-traditional service delivery models aimed at transporting practitioners and services to patients.***

While not all alternative programs work in rural communities with the same level of success, policy makers, health planners, and hospital systems should assess whether and which non-traditional service delivery models are likely to work in their service areas, based on research available on best practices and effectiveness. Evaluations should include identifying the best ways to increase physician buy-in and patient trust in these systems. Assessments should identify and address real and perceived drawbacks to new programs. Hospitals should aid in demonstrating the effectiveness of these programs to policy makers and funders.

**Stakeholder Meeting Discussion**

Not surprisingly, rural jurisdictions in Maryland generally have fewer health care facilities per county compared to non-rural areas. In this geographic sense, rural county residents have fewer health care facility options within their immediate area. Appendix 5 identifies the number of hospitals, nursing homes, and beds per county in Maryland. Still, in Maryland, even most rural residents are not far, in terms of automobile travel time under normal driving conditions, from major urban areas and medical hubs, when they need to access services in those locations. One can travel by car from the far western part of Maryland to the Lower Eastern Shore in less than six hours, with medical hubs located in the central corridor of the state, including D.C., a medical hub for rural Southern Maryland. Analysis of the HSCRC's inpatient abstract data demonstrates that rural residents travel to the Central Region and Washington, D.C. metropolitan facilities to receive medical care at different levels. Conversely, regional retention increases and outmigration declines as distance from an urban hub increases. The lowest rates of outmigration to urban hubs are found in Western Maryland and the Lower Eastern Shore. Yet, data in Figure 3 also show that many patients travel to non-rural regions from their rural home jurisdictions to obtain services.

**Figure 3. Rural Hospital Retention Rates by Rural Region or Jurisdiction and Migration to Urban Areas, Calendar Year 2012**

|  | <u>Patient Category</u>      |                   |                    |                  |
|--|------------------------------|-------------------|--------------------|------------------|
|  | <u>Medical/<br/>Surgical</u> | <u>Obstetrics</u> | <u>Psychiatric</u> | <u>Pediatric</u> |
| <u>Western Region</u>  |                              |                   |                    |                  |
| Retained in Garrett, Allegany, Washington                    | 87.1%                        | 91.3%             | 93.7%              | 70.4%            |
| % migration to Central MD (Baltimore and suburbs) region     | 9.1%                         | 3.1%              | 2.9%               | 13.8%            |
| % migration to DC region                                     | 1.6%                         | 1.1%              | 1.1%               | 13.9%            |
| <u>Southern Region</u>                                       |                              |                   |                    |                  |
| Retained in Calvert, Charles, St. Mary's                     | 59.4%                        | 63.3%             | 76.1%              | 44.0%            |
| % migration to Central MD region                             | 11.8%                        | 9.7%              | 6.8%               | 11.7%            |
| % migration to DC region                                     | 28.5%                        | 27.0%             | 16.5%              | 44.2%            |
| <u>Mid/Upper Shore</u>                                       |                              |                   |                    |                  |
| Retained in Kent, Queen Anne's, Caroline, Talbot, Dorchester | 64.7%                        | 67.3%             | 65.3%              | 41.8%            |
| % migration to Central MD region                             | 29.6%                        | 30.4%             | 19.4%              | 49.3%            |
| % migration to DC region                                     | 1.8%                         | 0.4%              | 2.0%               | 7.3%             |
| <u>Lower Shore</u>   |                              |                   |                    |                  |
| Retained in Somerset, Wicomico, Worcester                    | 87.2%                        | 93.1%             | 88.7%              | 61.1%            |
| % migration to Central MD region                             | 9.9%                         | 3.8%              | 5.4%               | 23.1%            |
| % migration to DC region                                     | 1.9%                         | 0.7%              | 1.2%               | 14.9%            |
| <u>Cecil &amp; Harford Counties</u>                          |                              |                   |                    |                  |
| Retained   | 65.5%                        | 57.5%             | 76.6%              | 38.9%            |
| % migration to Central MD region                             | 33.9%                        | 42.2%             | 22.7%              | 60.6%            |
| % migration to DC region                                     | 0.3%                         | 0.2%              | 0.2%               | 0.4%             |
| <u>Carroll County</u>  |                              |                   |                    |                  |
| Retained   | 57.9%                        | 57.7%             | 80.1%              | 30.1%            |
| % migration to Central MD region                             | 36.4%                        | 37.2%             | 15.8%              | 65.1%            |
| % migration to DC region                                     | 2.1%                         | 2.4%              | 1.6%               | 3.2%             |
| <u>Frederick County</u>                                      |                              |                   |                    |                  |
| Retained   | 74.6%                        | 79.8%             | 78.6%              | 56.1%            |
| % migration to Central MD region                             | 13.0%                        | 5.3%              | 5.3%               | 18.6%            |
| % migration to DC region                                     | 8.9%                         | 11.5%             | 6.5%               | 23.4%            |

Source: HSCRC MD Inpatient Discharge Abstract & DC Discharge Abstract, with analysis by Commission staff.

Central MD region - Hospitals in Baltimore City and Baltimore, Howard, and Anne Arundel Counties.

DC region - Hospitals in Washington, DC and Montgomery and Prince George's Counties.

Commission staff also reviewed use rates for selected health care facilities in rural areas and the relationship between county location and use of these services. County use rates per 1,000 population for hospital inpatient services, nursing homes, and emergency rooms for the last year of available data for each facility type is included in Appendix 6. This analysis shows that acute inpatient hospital use rates are not related to county or rural location. However, State Health Plan work by the Commission has identified variation in use and pattern of use of

specialty services, such as acute medical rehabilitation, that appear to be related to facility and service distribution and geographic proximity to facilities. Commission staff did not find that rural patients categorically use hospital inpatient services at a rate that is clearly different from non-rural patients – for either the total population or patients over 65 year of age. For nursing homes, the rates of use for the oldest populations are comparatively high in rural areas. Patients in rural areas need and use this service at a higher rate, likely due to fewer family member caregivers living in and available to give care in the rural area. For hospital-based emergency medical services, the aggregate use rate for rural residents is lower than for non-rural residents. While rural Marylanders may have fewer health care provider choices, it is not apparent that they face any particular barrier to accessing general acute care hospital services, the particular focus of the legislative request responsible for this report.

Innovative service delivery models can aid in delivering more effective primary and specialty care in remote areas in the state, according to comments from existing program managers and Stakeholder Group members. A number of these models are being implemented in Maryland. In St. Mary's County, community health need assessments and Med Chi studies found an access problem for non-hospital-based health care services. A number of HEZ-funded initiatives are planned in St. Mary's County to address barriers to accessing health care due to distance. A Community Health Center with integrated services and culturally competent Community Health Workers will expand the availability of health care services to targeted populations, and a "mobile medical route" will expedite travel times to health care services.<sup>8</sup> The Dorchester and Caroline Counties' HEZ-funded programs on the Eastern Shore include, among other things, improving the cultural competency of the existing health care workforce with new programming and creating a mobile mental health crisis team through coordination between law enforcement, emergency medical, school, and detention agencies.<sup>9</sup> Another community-based model discussed was the expansion of primary care services through community and school-based health centers. Maryland's 70 school-based health centers already provide service to children enrolled in Medicaid. Outpost clinics connected as spokes to medical practices located in more populated areas could serve as hubs for community-based locations.<sup>10</sup>

Regarding hospital-based programming, University of Maryland Shore Medical Center at Easton presented information to the Stakeholder Group about new technological options and

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<sup>8</sup> MedStar St. Mary's Hospital. *Greater Lexington Park, Health Enterprise Zone Project Proposal*. Submitted to Maryland's Community Health Resource Commission in November 2012.

<<http://dhmh.maryland.gov/healthenterprisezones/Documents/St%20Marys%20County%20HEZ%20Application%20-%20Redacted%20Version.pdf>>

<sup>9</sup> Dorchester County Health Department. *Caroline/Dorchester Health Enterprise Zone Proposal*. Submitted to Maryland's Community Health Resource Commission in November 2012.

<<http://dhmh.maryland.gov/healthenterprisezones/Documents/Dorchester%20County%20HEZ%20Application%20-%20Redacted%20Version.pdf>>

<sup>10</sup> One model for a community-based, multi-function center is an Aleydis Center, which serves as a hub where various providers of care deliver treatment on a periodic, scheduled basis. Information can be found online at <<http://www.aleydiscenters.com/index.html>>.

linkages with University of Maryland Medical System (UMMS) specialists designed to address barriers to health care service on the Eastern Shore. Rural practitioners and patients in this system's service area have new access to a new telemedicine program<sup>11</sup> and specialty clinics from the system's urban hub on a regular basis.<sup>12</sup>

While new and innovative models of care delivery like telemedicine are being adopted by rural hospitals, Stakeholders explained that it takes time for rural hospitals to equip facilities for new technology needs, orient staff to new programs, and acclimatize patients to new methods of care. Some Stakeholders expressed reservations about whether rural practitioners and residents will embrace telemedicine. The rate of adoption will likely vary based on the specialty service being provided, the care needs and other characteristics of the region's population, and the level of comfort the population and practitioners gain with the use of technology.

Stakeholders also proposed models that do not currently exist in the state, to the Stakeholders' knowledge, but have shown promise in other states or for other populations. Community paramedicine is a model of service delivery that can improve access to care in rural areas with efforts underway in health practitioner shortage areas in Minnesota, Maine, Nebraska, Colorado, Texas, and other states. Service is based on local need and provided by emergency medical technicians and paramedics overseen by emergency and primary care physicians, according to the National Association of Emergency Medical Technicians. However, new and innovative models of care have to be recognized by payers to fund care delivery and most of the models underway are grant-funded. Studies regarding the effectiveness of these programs could increase payer support, if proven effective in expanding access to needed care.

#### **IV. Adequacy of Transportation to Health Care Services**

As stated in the 2007 *Maryland Rural Health Plan*:

The traveling distance required to reach providers and limited transportation in rural areas are commonly cited barriers [to receiving health care]. Each jurisdiction in Maryland, except Garrett, offers fixed-route public transportation, usually by bus; however, these routes often do not cover the entire rural jurisdiction and run infrequently.<sup>13</sup>

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<sup>11</sup> The University of Maryland's eCare, program launched in early 2013, is expanding to include Shore Health System's hospitals. This telemedicine program will allow intensivists and critical care nurses located in a central operations room at the University of Maryland Medical Center campus in an urban area to oversee patient care in the rural hospital ICUs, helping to provide a safety net of medical and nursing direction.

<sup>12</sup> University of Maryland Specialty Clinics at UM Shore Medical Center at Easton include pediatric surgery, thoracic surgery, vascular surgery, and kidney transplant.

<sup>13</sup> Maryland Department of Health and Mental Hygiene, Family Health Administration, Office of Health Policy and Planning, State Office of Rural Health. *Maryland Rural Health Plan*. June 2007.

Stakeholders heard from two transportation service providers on the Eastern Shore, which have worked to consolidate services in their region and coordinate with each other across jurisdictions and regions to increase efficiency. Commission staff compiled additional information about services in other rural areas.

### **Recommendations on the Adequacy of Transportation to Health Care Services**

***Policy makers and funders should explore how reimbursement policies and funding mechanisms hinder medical transportation providers and explore ways to minimize restrictions when doing so would result in more efficient service delivery.***

Stakeholders tied the availability of transportation services directly to funding. They also cited restrictions that prevent these agencies from operating in the most efficient way possible. Policy makers and funders should review spending guidelines and consider lifting restrictions that would help medical transportation services better serve the most dependent populations of rural areas. Specific examples are included in the following discussion. Emergency transportation is also restricted when Medicaid recipients have a car registered in their name, even if the vehicle is not functional, available, or a person capable of driving is not available. This policy prevents necessary emergency transportation in such circumstances.

***Policy makers, funders, and health planning initiatives should support and encourage coordination efforts among different transportation providers.***

In each region, different state agencies and nonprofits target constituents with similar transportation needs, often duplicating routes. Policy makers and funders should encourage efforts designed to consolidate and coordinate these service routes.

***Policy makers and health care providers should support initiatives that will increase public awareness of transportation programs.***

Stakeholders discussed the need for increased awareness among providers and consumers. They recommended programs that target medical office coordinators and eligible patient populations through a variety of methods including videos, flyers, and meeting with eligible recipients in community settings.

***Providers should share information about transportation services with patients and stress the priority of health care appointments over other needs.***

Providers and facilities could also help to track the impact of transportation barriers on their patient population by measuring missed appointments and the effect that has on patient health status.

***Government agencies funding and coordinating transportation services should work to measure the “value” of these transportation services, quantifying the affect of transportation barriers that can be reduced with additional funding and increases in health care expenditures related to those barriers.***

***State and local agencies should include health care facilities, which are both major service providers and major employers in rural communities, transportation infrastructure planning to better understand how transportation infrastructure plans will impact local health care delivery.***

Stakeholders discussed the challenge of communicating the value of what is sometimes perceived as a high-cost, low-efficiency service. When a patient misses a routine or preventive care visit due to lack of transportation, they may end up needing more high-cost emergency care in the future.

### **Stakeholder Meeting Discussion**

On the Upper and Mid-Shore, Delmarva Community Transit (a program of Delmarva Community Service, Inc.), Queen Anne County Ride, and Shore Transit (a division of the Tri-County Council of the Lower Eastern Shore of Maryland) coordinate services under Maryland Upper Shore Transit (MUST) to provide regular fixed routes and specialized transit service for those not on public transportation routes in Caroline, Dorchester, Kent, Queen Anne’s and Talbot Counties. Specialized transit serves seniors, people with disabilities, veterans, and medical assistance recipients. On the Lower Shore, Shore Transit is a coordinated effort of seven different transit operators in order to prevent duplication; improve customer service; and consolidate vehicles, staff, and overhead. Shore Transit provides service to Medicaid recipients, people with disabilities, patients of a local mental health provider, Salisbury State University, and the Lower Shore Workforce Alliance to leverage benefits for all riders. With increasing levels of coordination, these agencies increase efficiency by co-managing the delivery of health care transportation services on the Eastern Shore. A representative from each organization attends the other’s advisory meetings to seek ways to work together to maintain the same or increased levels of service.

The adequacy of these transportation services is reliant on the availability of resources and their ability to navigate funding streams. The following issues and needs were identified during stakeholder meetings.

- Funding challenges.
  - Inconsistent support from local governments. All jurisdictions have agreed to provide funding for this service, but some only do so on an irregular basis.
  - In addition to a limited amount of available funding, stakeholders addressed other limits on uses of funds that can prevent optimal efficiency. They often must tailor purchases to meet guidelines of granting organizations, even though those purchasing criteria do not allow the most efficient use of funds to achieve the granting organization's objectives. For example, large buses cannot navigate rural driveways; smaller vehicles are more efficient when transporting fewer passengers. However, funding restrictions prevent the purchase of smaller vans. Also, permitting the purchase of only American-made vehicles prevents the purchase of foreign-made vehicles that may serve these programs better.
- Educating consumers and managing expectations. These agencies identified the need to educate residents about existing programs for medical assistance recipients (Medicaid transportation funding), senior transportation programs, and veteran transportation programs. They also indicated a need to address stereotypes about public transportation and the need to change behavior. These services struggle to manage consumer expectations regarding the ability to respond to all service requests.
- Educating front desk schedulers at physicians' office and other provider locations.
- Communicating the value of patient visits to funders, state transportation officials, and legislators. These services struggle with definitions of efficiency and cost savings. While it costs money to provide transportation to a patient for a routine maintenance appointment, if that missed appointment leads to an emergency situation the costs of health care could exceed the additional resources to assure the patient gets to scheduled appointments.
- Increasing consolidation within the system to promote efficiency and making new linkages. The coordination level of services on the Eastern Shore is comprehensive. However, there is a continued effort to seek new consolidations and new funding streams.
- Technology updates. The Eastern Shore collaboration is exploring expansions to web-based scheduling systems to respond to consumer preferences.

Along with fewer public transportation options, stakeholders indicated that residents in rural Maryland have negative perspectives on public transportation. Rural residents tend to pride themselves on independence and may perceive public transportation as charity. Rural residents also often associate riding a bus with an older and poorer population, and may not consider this service a viable option to get to a health care appointment.

Stakeholders also addressed a need for more flexibility in reimbursement for emergency transportation for medical assistance recipients. If a Medicaid recipient has a car registered to

their name, that service is ineligible for reimbursement. This is a barrier to emergency transportation for these patients.

In the Western Region, the Western Maryland Health System conducted a community survey targeting lower income residents receiving medical services in Allegany County. One quarter of those surveyed cited transportation as a barrier to receiving health care services.

Western Maryland residents are currently served by a number of public transportation services. To date, most local transportation services are managed at a county level. All counties provide specialty medical transportation services and a number of community service agencies also provide specialty transport for targeted communities in need. Each county, except Garrett, has a fixed-route local bus system (Allegany County Transit, Frederick County TransIT, and Washington County Transit). Additionally, Frederick and Washington County are served by one MTA commuter bus line, Amtrak runs through Allegany County on a Washington, D.C.-to-Chicago line, Frederick County is served by a MARC line to D.C. and an inter-county bus service to Montgomery County, Greyhound operates a bus from Frederick and Hagerstown that connects to Baltimore and Washington, D.C.

Western Maryland transportation plans highlight the need for transportation services that cross county and state lines to specialized medical services in Baltimore, Pittsburgh, Morgantown, and Washington, D.C.<sup>14</sup> The following needs and issues related to medical transportation were listed in the latest 2010 update to the *Western Maryland Coordinated Public Transit-Human Services Transportation Plan*. Many of these needs were also found on the Eastern Shore and have been incorporated into the recommendations.

- Limited transportation options for people who live outside the fixed-route service areas, particularly for people in the more remote areas of the region. (More specific to Allegany, Frederick and Washington Counties)
- Regional long-distance medical transportation, particularly for people who are not Medicaid-eligible.
- Customers and advocates may need travel training on how to use services.
- Limited transportation options for dialysis trips, particularly for people who are not Medicaid-eligible.
- The lack of funding to subsidize the trips for people who are not funded through an agency.

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<sup>14</sup> Maryland Transit Administration Office of Local Transit Support. *Western Maryland Coordinated Public Transit-Human Services Transportation Plan*. Updated September 2010.

<<http://www.kfhgroup.com/Updated%20Coordinated%20Plan%20for%20Western%20Maryland-September%202010.pdf>>

- Access to paratransit vehicles that can operate over difficult terrain. (More specific to Allegany and Garrett Counties)
- Limited transit opportunities for out-of county destinations.
- More wheelchair accessible vans.
- Improved interagency coordination.
- Additional operational funding.
- Better marketing and education.

In the Southern Region, population growth has led to a more urbanized transportation system with additional public fixed-route transportation reaching metropolitan areas. Demand response public services are managed by county governments and contracted to private sector services. A number of nonprofits also provide duplicated services. Regional development leaders have identified the potential for increased collaboration across agencies.

#### **V. Impact of Recent Hospital Consolidation on the Availability of Health Care Services in Rural Areas**

Consolidations, mergers, and acquisitions of medical service providers gained increasing momentum in the 1990s. In 2006, the Robert Wood Johnson Foundation released a report that included a comprehensive summary of consolidation since the 1990s. Between 1990 and 2003, Americans living in a metropolitan statistical area saw an equivalent reduction from six to four competing local hospital systems.<sup>15</sup> An analysis of American Hospital Association Survey data conducted by Avalere Health found that the number of U.S. community hospitals affiliated with health systems increased from 50% to 59% from 1999 to 2010.<sup>16</sup> Another study commissioned by the American Hospital Association counted 551 hospital acquisitions between 2007 and 2012 in the U.S.<sup>17</sup>

Rural hospitals in Maryland began to experience consolidation into larger centralized Maryland hospital systems in 2006 when the University of Maryland Medical System acquired Shore Health System's two-hospital system on the Eastern Shore. Figure 4 lists the hospitals in Maryland's rural counties, their affiliation or independence, and the year of consolidation into a larger centralized system. Of 17 rural hospitals, seven are affiliated with a larger system at the time of this report's writing – accounting for 32% of the licensed acute care bed inventory in rural hospitals. Statewide, 12 of 46 (26%) acute care hospitals in Maryland are independent and

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<sup>15</sup> Vogt, William B, Ph.D. and Robert Town, Ph.D. "How Has Hospital Consolidation affected the Price and Quality of Hospital Care?" Research Synthesis Report No. 9. The Synthesis Project. Robert Wood Johnson Foundation. February 2006.

<sup>16</sup> Office of Rural Health & Primary Care, Minnesota Department of Health. "Rural Hospital System Growth and Consolidation." Issue Brief. January 11, 2013.

<sup>17</sup> Kliff, Sarah. "Hospital chains keep getting bigger." *The Washington Post Wonkblog*. Updated June 3, 2013. Web. Accessed July 19, 2013.

not part of a larger system based in or outside of Maryland.<sup>18</sup> As of this report's writing, three hospitals in Western Maryland are evaluating the feasibility of a strategic alliance.

**Figure 4. County Location, Affiliation, and Number of Licensed Beds for Maryland's Rural Hospitals**

| Hospital   | Jurisdiction | Affiliated/<br>Independent | Licensed Acute<br>Care Beds<br>(FY 2014) |
|--|--------------|----------------------------|--|
| <b>Western Region</b>  |              |                            |  |
| Garrett County Memorial Hospital                                 | Garrett      | Independent                | 26                                       |
| Western Maryland Regional Medical Center                         | Allegany     | Independent                | 200                                      |
| Meritus Medical Center   | Washington   | Independent                | 237                                      |
| Frederick Memorial Hospital                                      | Frederick    | Independent                | 297                                      |
| <b>Central Region</b>  |              |                            |  |
| Harford Memorial Hospital, Havre de Grace                        | Harford      | UMMS (2013)                | 89                                       |
| Carroll Hospital Center  | Carroll      | Independent                | 151                                      |
| Upper Chesapeake Medical Center                                  | Harford      | UMMS (2013)                | 185                                      |
| <b>Southern Region</b>   |              |                            |  |
| MedStar St. Mary's Hospital                                      | St. Mary's   | MedStar (2009)             | 89                                       |
| Calvert Memorial Hospital  | Calvert      | Independent                | 92                                       |
| University of Maryland Charles Regional Medical Center, La Plata | Charles      | UMMS (2009)                | 121                                      |
| <b>Eastern Shore</b>   |              |                            |  |
| Edward W. McCready Memorial Hospital                             | Somerset     | Independent                | 4  |
| University of Maryland Shore Medical Center at Chestertown       | Kent         | UMMS (2008)                | 41                                       |
| University of Maryland Shore Medical Center at Dorchester        | Dorchester   | UMMS (2006)                | 41                                       |
| Atlantic General Hospital  | Worcester    | Independent                | 45                                       |
| Union Hospital of Cecil County                                   | Cecil        | Independent                | 85                                       |
| University of Maryland Shore Medical Center at Easton            | Talbot       | UMMS (2006)                | 112                                      |
| Peninsula Regional Medical Center                                | Wicomico     | Independent                | 288                                      |

Source: MHCC's Annual Report on Selected Maryland Acute Care and Special Hospital Service: FY 2013 and Certificate of Need program records

The American Hospital Association contends that integration of hospital services has the potential to drive prices down, find management consolidations, and realize economics of scale. (As noted in the following paragraph, hospital consolidation has also been found to drive prices up. The relationship between market concentration and pricing power may, of course, be different in Maryland than in other states, due to all-payer rate regulation in Maryland.) The

<sup>18</sup> Based on information presented by Nancy Adams at the stakeholder meeting on November 8, 2013. Her presentation can be found at <[http://mhcc.dhmdh.maryland.gov/workgroup/Documents/Rural\\_Health/110813.Western\\_MD\\_Health\\_System\\_Presentation.pdf](http://mhcc.dhmdh.maryland.gov/workgroup/Documents/Rural_Health/110813.Western_MD_Health_System_Presentation.pdf)>

AHA also believes that patient care management can be streamlined and more expert staff can become available through increased recruitment capabilities and additional staff specialists made available through systems integration. For example, a larger system may be better able to purchase the electronic medical record system that the smaller independent hospital cannot afford.<sup>19</sup>

This type of change rarely results in *all good* or *all bad* outcomes. In one documented case in Minnesota, a 2010 system consolidation led to a 30% increase in employment after its merger, a growth in patient volume and access to specialists in the rural area, *and also to* increased prices for health care.<sup>20</sup> There can be a mixed bag of effects after a change in business structure. A perceived benefit to one party might be a perceived drawback to another. Payers, administrators, practitioners and consumers will likely all have differing views regarding the same policy or medical service.

In each meeting of the Stakeholders Group, there was discussion of the actual impact of recent hospital consolidation on the availability of services in rural areas in Maryland, as well as the potential effects of consolidation. The Stakeholder Group does not recommend increased state health agency regulations on health care facility mergers, acquisitions, or consolidations. Nor does it propose expanding CON regulation to cover changes to services within a health care system that are currently exempt from the CON review process. Instead, it is most important to this group to identify ways to leverage potential benefits and avoid problems that may arise as a consequence of consolidation of smaller rural hospitals into larger hospital systems.

### **Recommendations on the Impact of Recent Hospital Consolidation on the Availability of Health Care Service in Rural Areas**

In interpreting the Joint Chairmen's request literally, which is "to evaluate the impact of recent consolidation on the *availability of services* in rural areas," the group did not find evidence that any of the consolidations or acquisitions in rural areas to date have negatively affected the availability of patient hospital services in any rural region. However, consolidations have other impacts beyond changing the availability of a health care service in a region. This report has thus far highlighted some challenges to rural health delivery and strategies to address these challenges. These challenges can also be addressed within the framework of hospital consolidation.

***When consolidating, hospitals should thoughtfully address the impact of consolidation on employees, and both employed and non-employed providers in the rural region.***

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<sup>19</sup> Kliff, Sarah. "Hospital chains keep getting bigger." *The Washington Post Wonkblog*. Updated June 3, 2013. July 19, 2013.

<sup>20</sup> *Ibid.*

*Consolidating hospital systems should carefully consider Community Health Need Assessments undertaken by hospitals being acquired; existing local planning initiatives, including those linked to State Health Improvement Plans and improvement coalitions; and collaborate with existing regional health resources, like AHECs, in order to ensure that the local culture and local perspectives on priorities are being addressed during a consolidation transition.*

*Hospitals, policy makers and rural health advocates should participate in on-going community health planning initiatives.*

These initiatives should include soliciting information from all providers in the rural region to help identify service gaps and ideas regarding the most efficient ways to improve service delivery in their communities.

*Policy makers and rural health advocates should understand how hospital services are reimbursed in Maryland and how that affects management decisions within a hospital system.*

*Policy makers, health planners, and funders should support innovative models of care and understand the reimbursement models (or lack of models) for these services, and how hospitals within a system can best utilize innovative models of care and funding opportunities.*

Consolidated systems can explore grant opportunities, seek out new partnerships, and otherwise support innovative models of care discussed on previous recommendations.

*Policy makers, hospital systems and rural health advocates should seek ways to track and report on community health measures and the effectiveness of innovative programs.*

All interested stakeholders should also seek methods to evaluate the impact that consolidations have on patient access, quality, and cost of services.

## **Stakeholder Meeting Discussion**

Based on the understanding of Commission staff and the Stakeholders, the availability of hospital services in rural areas has not substantively been changed as a result of the recent consolidation of rural hospitals and rural hospital systems into larger hospital systems that are primarily composed of urban and suburban hospitals. This is a relatively recent phenomenon, dating only to 2006.

Obviously, consolidations are expected to have and have impacts beyond changing the availability of health care services in a region. There are potential drawbacks to consolidation. Rural stakeholders may be concerned with long-established processes and systems being uprooted and replaced with new ways of operating. Introduction of new personnel can disrupt relationships between providers and patients. Care may be perceived to be less personalized within the new context of a larger systematized organization. Stakeholders also expressed concern that consolidation will lead to fewer one-stop-shop hospitals and a more dispersed network of specialty facilities, a change from the traditional conception of the general hospital as a comprehensive, self-contained institution.

It was reported by a Stakeholder that some providers left practices with Shore Health System at Memorial Hospital at Easton in response to the acquisition by UMMS in 2006. These practitioners felt that UMMS did not effectively communicate reasons for some business decisions and did not include its employees in some important processes throughout the transition. It is important to recognize that existing employees at a formerly-independent rural hospital have a history in the community and chose to practice in the rural service area before its affiliation with a larger system. According to the Stakeholder, the transition process was discouraging for a number of Shore Health employees, leading them to find other locations to practice. MedStar St. Mary's also addressed similar challenges during discussions at a Stakeholder Group meeting. During its transition in 2009, some employees lost tenure. On the other hand, employees also gained benefits, including the ability to move and retain tenure within the MedStar system.

Concerning reimbursement, new larger systems that serve a higher share of patients in a service area as a result of consolidation have increased leverage in negotiations with payers. Generally, consolidation among health providers and systems leads to cost of care increases. Consolidation has and can occur in all regions of the State. Cost increases have been reported by payers in rural and non rural areas, as a result consolidation. However, Maryland's HSCRC reimbursement policies are designed to prevent this sort of price gouging.

Consolidated rural hospitals also reported on the benefits resulting from joining a larger system. These include better borrowing rates and purchasing power; economies of scale; increased access to specialists; consolidated management and streamlining; and additional resources for planning, grant writing, legal issues, coding issues, and community engagement. In order to leverage the greatest benefits, consolidated systems should support the types of recommendations included under other sections of this report and help to measure their effectiveness.

Finally, Stakeholders stressed the industry's general awareness of the need to do more with less. This includes expanding and ensuring access to a continuum of care. Hospitals are moving to enhance continuity of care and patient-centered care as means for increasing efficiency under new reimbursement policies. There will be greater disincentives provided for repetitive and expensive hospital service interventions. The increased deployment of innovative service delivery to lower the cost of patient care would be likely to benefit rural area patients and consolidation of facilities into well-managed and well-coordinated systems may be a more promising platform for innovation than the small, independent hospital.

## **VI. Conclusion and Summary of Recommendations**

While this report does not recommend increased regulatory oversight of hospital systems formation or conclude the need for the creation of new health care planning initiatives, it does recommend that hospital systems and the governing bodies of rural hospitals carefully consider the ways in which their service area population, medical community, and hospital workforce can be actively engaged in understanding and planning for change. This should include evaluation of the impact of consolidation on the work and patient care culture of their institutions, and the ways in which need transitions for staff and patients can be most effectively managed.

To address the deficiencies in rural health care delivery in Maryland and leverage the benefits associated with joining a large health care system, legislators and rural health advocates must be consistent and persistent in holding new hospital systems accountable for doing the best they can to ensure competent health care service delivery for the system's new patient populations. Likewise, an all-around successful transition is incumbent on hospital systems utilizing existing community resources and foreseeing the need to provide extra communication and community planning resources when they acquire or merge with a hospital in a rural area of the state.

Finally, future research could bring further light on the issues addressed in this report. Pre- and post-consolidation studies on costs, quality of care, and patient and provider satisfaction would add to the body of evidence regarding the impacts of consolidation throughout the state. More in-depth surveys on different perceptions of consolidations could be conducted with consumers, rural residents, and providers to determine the best service delivery and communication strategies for a community. Hospital administrators could be surveyed on the benefits, drawbacks, and projections of consolidations.<sup>21</sup> More comprehensive evaluations could help to estimate the value that medical transportation brings to individual consumers and the

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<sup>21</sup> See an Issue Brief regarding a similar survey conducted by the Minnesota Department of Health's Office of Rural Health and Primary Care in January 2013. This can be accessed at <http://www.health.state.mn.us/divs/orhpc/rhac/hospbrief.pdf>.

health care system. The success of any future study will hinge on collaboration among a number of stakeholder groups addressed in this report.

### **Summary of Recommendations**

#### **Appropriateness of State Health Planning Regions**

- Regions used by state health agencies in their planning and regulatory activities are appropriate to their purpose and are reviewed and altered over time in ways that allow for input from affected organizations and populations. They do not act as barriers to viable health care facility or service development in rural areas of Maryland.
- State health agencies, including MHCC in its State Health Plan, should maintain their existing authority and flexibility to designate regions based on the particular objectives of the planning and regulatory activities for which regional designations have been established.

#### **Adequacy of the Health Care Workforce in Rural Areas**

- Support existing training curricula that address the needs of rural Maryland's diverse population.
- Identify new needs for training for health care providers that specifically address the cultural and demographic differences of Maryland's rural populations, and support these training programs.
- Support programs that create pipelines for students living in rural areas who are interested in health care careers, particularly students who want to practice in professional disciplines identified as underrepresented in rural Maryland.
- Expand loan reimbursement programs.
- Increase awareness of existing loan reimbursement opportunities for medical school residents.
- Establish marketing and awareness campaigns designed to highlight the benefits of practicing in a rural area.
- Support initiatives to improve data collection and analysis on the health care workforce.
- Address existing constraints on mid-level practitioners to expand access to primary care diagnosis, treatment, and referral services in rural areas.
- Support efforts that identify and address differences in reimbursement rates for physicians and non-physicians in rural areas.

#### **Barriers to Accessing Health Care Services Due to Distance**

- Support innovative models of service delivery aimed at addressing barriers experienced by patients in obtaining access to health care services caused by distance, including Health Enterprise Zone development and support, viable funding the technical infrastructure for telemedicine services, visiting practitioner programs and clinics, community paramedicine, and other non-traditional service delivery models, aimed at transporting practitioners and services to patients.

### **Adequacy of Transportation to Health Care Services**

- Explore how reimbursement policies and funding mechanisms hinder medical transportation providers and explore ways to minimize restrictions when possible.
- Support and encourage coordination efforts among different transportation providers.
- Support initiatives that will increase public awareness of transportation programs.
- Increase awareness about medical transportation services and stress the priority of health care appointments over other needs.
- Work to measure the “value” of these transportation services, quantifying the affect of transportation barriers that can be reduced with additional funding and increases in health care expenditures related to those barriers.
- Include health care facilities, which are both major service providers and major employers in rural communities, in transportation infrastructure planning to better understand how transportation infrastructure plans will impact local health care delivery.

### **Impact of Recent Hospital Consolidation on the Availability of Health Care Service in Rural Areas**

- When consolidating, hospitals should thoughtfully address the impact of consolidation on employees, and both employed and non-employed providers in the rural region.
- Consolidating hospital systems should carefully consider Community Health Need Assessments undertaken by hospitals being acquired; existing local planning initiatives, including those linked to State Health Improvement Plans and improvement coalitions; and collaborate with existing regional health resources, like AHECs, in order to ensure that the local culture and local perspectives on priorities are being addressed during a consolidation transition.
- Health planning should be collaborative and on-going. These initiatives should include soliciting information from both employed and non-employed providers of the hospital system in the rural region to help identify service gaps and ideas regarding the most efficient ways to improve service delivery in their communities.

- Understand how hospital services are reimbursed and how that affects management decisions within a hospital system.
- Support innovative models of care and understand the reimbursement models (or lack of models) for these services, and how hospitals within a system can best utilize innovative models of care and funding opportunities.
- Seek and support ways to track and report on community health measures and the effectiveness of innovative programs.

## **Appendix 1**

### **Meeting Notes**

**Rural Area Health Delivery and Planning Stakeholder Meeting  
Maryland Health Care Commission (MHCC)**

**Meeting Summary for July 17, 2013  
Location: Maryland Health Care Commission Offices**

**Stakeholder Members Present**

Nancy Adams, MBA, RN  
Susan Antol, PhD(c), MS, RN  
Robert Bass, MD  
Meenakshi Brewster, MD  
Brooke Buckley, MD

Kathleen McGrath  
Raquel Samson, MPH  
Ann Walsh, MHS, CHES  
James Xinis

**Stakeholder Members Present by Phone**

Michelle Clark  
Kathleen Foster, RN, MS  
Jacob Frego

Joan Gelrud  
Deborah Rivkin  
Susan Stewart

**Other Participants Present**

Veronica Gutchell,  
Nurse Practitioner Association of Maryland  
Sandi Nettina,  
Nurse Practitioner Association of Maryland

Christina Shaklee,  
Office of Primary Care Access  
Kevin Kelly,  
University of Maryland, Baltimore

**MHCC Staff Present**

Ben Steffen  
Paul Parker

Erin Dorrien  
Rebecca Goldman

This was the first meeting of several that will take place over the next few months with the goal of responding to a Joint Chairmen's request from the 2013 legislative session to evaluate regional health delivery and health planning in rural areas in Maryland. MHCC is convening the Rural Area Health Delivery and Planning Stakeholder Group in order to respond to this request.

**Introduction**

Executive Director Ben Steffen asked meeting attendees and MHCC staff to introduce themselves.

Steffen then reviewed the language in the Joint Chairmen's report, which requests an evaluation of transportation issues, workforce issues, and the impact of hospital consolidations in rural areas. Steffen explained that while the genesis for this legislative request stemmed from concern about the ongoing consolidation of hospitals on the Eastern Shore, legislators have also expressed interest in better understanding the impact of consolidation in Southern Maryland as well.

A report is due to the Joint Chairmen in December 2013, so the group must move fast. This report should be geared to an audience that includes the joint budget chairs (who might not be intimately familiar with some of the issues), as well as members of the legislature on the House's Health and Government Operations Committees and on the Senate's Finance Committee (who are likely more well-versed in some of the issues).

## **Review of MHCC's Initiatives**

Ben Steffen reviewed a list of other complementary MHCC initiatives that he felt would benefit this group's work. He stressed that the group should be aware of these other initiatives so this group's work can avoid duplication of efforts and take advantage of the work being done by other groups which may have more resources and time to focus on specific topics.

First, in the following week, MHCC is convening a group to discuss expansion of telemedicine in the state. This group will develop recommendations to expand telemedicine in Maryland, which have implications on rural health care delivery. This group's work will build on a previous product of the Quality and Cost Council Workgroup headed by Robert Bass, which offered recommendations on clinical issues, technical and health information technology standards to improve telemedicine infrastructure in the state, and reimbursement issues.

MHCC is also participating in an initiative financed by the Governors' Office of Health Care Reform to study the health care workforce in Maryland. Compared to existing work that has been done on this front, this initiative will seek to develop a data system that includes comprehensive information regarding workforce capabilities beyond primary care providers, in order to increase the routes patients can take to get necessary medical care. MHCC is contracting with IHS Global Insight to assist with this effort and some of the findings should be available at our third meeting. It is likely that these findings can be incorporated into the Stakeholder group's work.

Two other broad initiatives which will impact rural health issues include the State Innovation Model (SIM) initiative launched by CMS and Health Enterprise Zones. Maryland is one of 25 states awarded a grant to plan for a State Innovation Model. This will include integrating patient-centered medical home care with a community health worker network to deliver care across all communities, with a focus on supporting patients with chronic conditions and higher cost patients in order to decrease hospital admissions. This project is underway. CMS will grant five states funds to test their models over a five-year period. Maryland's plan is very ambitious and it has sparked enthusiasm throughout the health care industry in the Maryland, so MHCC is hopeful that the state will be one of five states chosen for the model testing.

The State has also established five Health Enterprise Zones – three which are in rural areas. This initiative focuses on infusing resources in these zones with the goal of improving health outcomes. Strategies include improving access to primary and basic health care and engaging services beyond primary care. The hope is that if these pilot zones are successful the model can be replicated elsewhere to improve patient outcomes. This project is being managed by MHCC's sister agency The Health Services Cost Review Commission (HSCRC), with MHCC closely involved.

Jim Xinis requested that MHCC share a list of the representatives participating in these other initiatives. Steffen said MHCC could share these – and that the telemedicine group is still recruiting participants, if everyone is interested. Jake Frego suggested that the notes and results of other initiatives also be shared with this group. Steffen replied that there is typically a web page established on the MHCC web site for all notes and documents and that there are generally formal reports published after work is completed. MHCC will share this information with the group.

## **Review of Meeting Plans and Study Topics**

Steffen explained that members of this Rural Area Health Delivery and Planning Stakeholder Group were chosen with the goal of being representative of rural areas of the state. Considering the nature and charge of the group, MHCC plans to hold future meetings in rural locations and discuss locally specific issues at those meetings.

Steffen reviewed a list of the charges for this group and acknowledged that evaluations of transportation barriers, workforce availability, and other barriers can likely be informed by the past and ongoing work of other groups, groups that are more specifically focused on these issues. In terms of the health planning region questions, Steffen reflected on the concern regarding hospital consolidation on the Eastern Shore. In comparison, Southern Maryland's consolidation has not faced as much controversy and health systems in Western Maryland have experienced vertical integration of health services, where consolidated health systems acquire hospitals as well as other types of service providers, which can lead to other concerns.

The plan to accomplish the Stakeholder Group's goals includes three to four meetings, with meetings moving around the state in rural areas and with an opportunity to get input from local health professionals about their rural issues.

### **Presentation by Paul Parker on the Definition of Rural Maryland**

Paul Parker presented a list of 18 jurisdictions that are defined as rural by the Maryland Annotated Code and federal guidelines. These counties include: Garrett, Allegany, Washington, Frederick and Carroll Counties in Western Maryland (the latter which is categorized either in Western Maryland or Central Maryland in different health planning region definitions); Charles, Calvert, and St. Mary's in Southern Maryland; the Eastern Shore, which is typically defined with Cecil County in the north, and includes tri-county Upper Shore, Mid-Shore and Lower Shore regions; and Harford County, which is a state designated rural area and is typically included in the Central Region in MHCC's work.

Steffen clarified that the federally designated rural areas are defined based on Metropolitan Statistical Area population, from the standpoint of the census. However, there are other federally-used rural designations that exist, which may differ from the MSA population-based designations (for example, agricultural and CMS designations differ). It is his understanding that the MSA population-based designations are most widely used and generally understood.

For additional perspective, Parker also introduced a map from the Maryland Department of Planning (MDP) that shows MDP's planning initiatives, including targeted growth and revitalization areas, established communities (generally more urban), large lot development areas, and rural resource areas (which cover the majority of the rural counties listed above). This map reinforces where the high-density population bases and established communities are located compared to targeted development areas.

### **Presentation by Paul Parker on the History of Regional Health Planning in Maryland**

Parker briefly reviewed the five designated health planning regions that were in place in Maryland between 1976 and 1982, established in response to a federal law that awarded grants to officially designated state health planning regions for comprehensive health planning and Certificate of Need (CON) regulation. Each of these regions had a designated health planning agency that was charged with developing a comprehensive health systems plan. They participated with the State in developing the State Health Plan (SHP) (built up from the regional plans), and actively participated in reviews of health facility CON applications.

The federal program that encouraged regional participation in state health planning was terminated in 1982. However, state health planners still tend to use these same regional configurations throughout the current SHP and CON regulation still exists in Maryland. The SHP has evolved into a document more singularly focused on CON regulation, standards, and criteria, and the planning methodologies that inform this regulation, as opposed to the more comprehensive health planning document that once existed.

Parker presented a matrix of SHP services and regional designations. Regional designations vary by service in the SHP and may change as chapters are updated and as more current discharge, use, and need analysis is available. Parker also recognized that there is a planning case for a change in regional designations in some circumstances. However, the MHCC has a history of planning and regulating a certain way, and every proposed change is subject to a lengthy review process. There can be challenges in that respect. Parker described the methodology used to forecast bed need for acute care beds as one example of how MHCC staff use data to plan for health care needs – the interpretation of “jurisdictional” level in this case is not just based on jurisdictional population, but other factors including hospital service areas, population aging, adjusted length of stays, and jurisdictional patient migration for each hospital in each jurisdiction.

Steffen pointed out differences between urban hospitals’ service areas and rural hospitals’ service areas: in urban centers you see a great amount of service area overlap with more hospitals based in and around a densely populated urban base, whereas in rural areas you see less service area overlap with fewer hospitals in the same jurisdiction. Parker acknowledged that there is often one hospital per jurisdiction, or less, in rural areas. In terms of forecasting for urban areas, analysts must drill down to the service level to understand how hospital service areas overlap and how a change will impact multiple facilities operating within the same service area. There is less overlap in rural areas in Maryland.

Susan Antol suggested that rural issues are more about ensuring access to necessary health care services than planning for capacity needs. She used the case of emergency services as an example – in a more urban setting with more locations, a patient can choose another location for service. In a rural setting, a patient does not have an alternative location at which to receive services. She suggested rural health planning is less about ensuring that there are enough beds at hospitals and more about ensuring there are enough well-situated locations to receive services. Parker added that some regional designations in the SHP attempt to address the issues of distance to necessary health services – MHCC’s recognition of the need for acute care hospitals by jurisdiction varies from the designated need for

services like acute rehabilitation care, organ transplantation, cardiac surgery, and neo-natal intensive care. The SHP includes an optimal travel time for emergency and medical/surgical services of 30 minutes and established the need for hospitals based on jurisdiction. For specialized services, the SHP seeks to address regional distribution while placing an emphasis on the necessary critical volume to ensure competence and successful economies of scale.

Jacob Frego stated that regional planning still exists on the Eastern Shore. The Mid-Shore and Upper Shore still maintain the organizational structures listed in Parker's presentation and industry planners and representatives meet on the Lower Shore. They are not as active as they once were, but those relationships and structures still exist to discuss issues.

Jim Xinis suggested another issue to consider is the nature of relationships that rural organizations in Maryland have across state borders. State planners should recognize that Maryland providers often have long-standing relationships and affiliations with providers in other states to ensure the best patient care. As an example, Calvert Health Systems has long-standing relationships with hospitals outside of Maryland that offer the best specialized services. The access to these out-of-state resources should be recognized alongside Maryland assets when determining regional health planning designations. Additionally, rural health planning needs to be locally-focused. What works in one place of rural Maryland may not work in another place of rural Maryland for a number of complex reasons. Parker responded that, while the MHCC needs some sort of planning template, the Commission attempts and has a tradition of recognizing that one size does not fit all, that analysts take specific circumstances into account when a CON proposal diverges from a narrow interpretation of state regulations.

Dr. Brooke Buckley also believes an issue that should be recognized is that different pockets of rural areas have different types of people and different needs in terms of socioeconomics, education, language barriers, culture, and other factors. Antol added that we need to define what we expect a hospital to have or do – and it appears to her that the SHP attempts to address some of these questions by acknowledging that different types of services should be able to cover different areas. The essential question might revolve around what critical needs must be addressed in different areas. Frego added that it appears the SHP is absent of the local or regional view at this point in time.

Dr. Robert Bass addressed how his agency approaches state health planning. The Maryland Institute for Emergency Medical Services Systems (MIEMSS) focuses on time-critical issues and must coordinate patient care needs and hospitals' capacity within the right time frame. MIEMSS does not solely operate within a strict five-region plan, but looks globally at the accessibility and capacity of the closest hospital.

Parker also added that he did not want to leave the impression that regional state planning was something that once was, but is no more. There is still regional planning and thinking going on within the Department in Health and Mental Hygiene (DHMH) and at MHCC. However, the mandate attached to federal grants in a previous era helped to maintain those structures. The involvement of local and regional representation is now less formal and less centralized. Steffen added that the regional planning

of the past also focused on large facility planning, while health planning today has evolved into something with different considerations.

Steffen brought up the disconnection between modern regional health planning theories and individual rural residents' perceptions about the need for a traditional hospital that serves each community. He recognizes that the concern about losing a hospital is a real concern based on people's definitions and thoughts on services that have traditionally existed in hospitals, but the industry is moving to different models of service delivery. That is a challenge for rural communities to understand.

Dr. Buckley added that another concern is attraction and recruitment of providers into rural regions. She stated that The Memorial Hospital at Easton lost 18 providers to Anne Arundel Medical Center due to the lack of preferred services at Memorial Hospital. This drives the quality of providers in rural hospitals down.

Parker asked the group about other ongoing health planning initiatives. He noted that it might be a good idea to follow up with some of the rural hospitals to hear about their Community Health Needs Assessments, which all nonprofit hospitals are required to conduct as part of health reform legislation, to better understand how those can constitute as regional health planning efforts. These reports might be part of our analysis.

### **Presentation by Paul Parker on Hospital Consolidation in Rural Maryland**

Parker shared a list of recent rural hospital consolidations in Maryland. University of Maryland Medical System (UMMS) and MedStar Health have acquired hospitals in the southern part of Maryland; UMMS has acquired the hospitals in the Upper Shore and Mid-Shore Regions, with the exception of Union Memorial of Cecil County; in Harford County, Upper Chesapeake Health, a two-hospital system, is affiliated with UMMS with the plan to be fully acquired in the future; and in Western Maryland, there has not been development of multi-hospital systems. Parker stated that this list of consolidations will help in analyzing consolidated systems, their governance, and the impacts on the community, including access, availability, quality, stability, and other characteristics of health service delivery.

Parker suggested that the group should also particularly consider what role the State of Maryland should play in promoting or discouraging hospital consolidation. Parker explained that the Certificate of Need program does not regulate transfers of ownership, so, in general, any entity can acquire a hospital and it does not require regulatory approval (with some rare exceptions). It is generally only required that the MHCC is notified of an acquisition before it takes place, unless there are some significant changes proposed that are subject to regulation. There is also language in CON regulation that encourages consolidation and creation of multi-facility systems, originating in the late 1980s and early 1990s. There are a number of things a multi-facility system can do regarding moving services within the system and expanding parts of the system that require less regulatory oversight than if those same activities were being undertaken by an independent hospital. Multi-facility systems are often able to get a CON exemption for projects, which is a less onerous process to get approval for a capital expenditure.

## Discussion of Issues

Nancy Adams gave an update on the hospitals in Western Maryland. Western Maryland Health System, Meritus Health, and Frederick Memorial Hospital signed a Memorandum of Understanding in October 2012 to engage a consultant in a review of ways to deliver health care in the best way in Western Maryland. Adams will have more on this in the future.

Xinis suggested that this stakeholder group should not recommend moving toward increased regulation, but instead encourage an environment where organizations have flexibility. He believes the nature of the existing CON regulation is appropriate, which allows for more flexibility as health systems merge or go through acquisitions. Regulatory review is certainly appropriate when services close or consolidate in a region, but he is hesitant to believe that additional regulation on consolidated systems is the appropriate way to go. He also believes that the industry might see more consolidation, mergers, and acquisitions across state borders.

Sandy Nettina commented that she is not sure if consolidation will help attract providers, but the Nurse Practitioner Association of Maryland is examining the ability of nurse practitioners to start and maintain viable businesses in rural areas. She is also concerned about the payment system becoming more arduous, which will add another obstacle for smaller practices to navigate. Steffen responded that the Health Enterprise Zones should be looking into issues like these. Dr. Brewster added that the mobile health unit in the St. Mary's County is a service delivery model included in the Health Enterprise Zone study as well.

Frego added that the market is driven by profit, but profit may not be the best way to measure the need for services in rural areas. Hospitals are an extremely important asset to a community on a number of levels and health planning decisions should not ignore that.

Antol said that one of the things hospitals can do to respond to the needs of patients is to focus more on continuity of care. The model of health delivery is changing with patient-centered care. One of the issues to address is determining where along the continuum of care patients need more or better services, and identifying how can those services can be integrated within a hospital's system to ensure the most efficient use of health care services.

Steffen believes that the Accountable Care Organization (ACO) model may prove another challenge to rural providers. It will be interesting to hear from Meritus Health about implementing this delivery model in a rural setting.

Kathleen McGrath shared that Shore Health System just completed its Community Needs Assessment, which included five health departments and three hospital systems. Shore Health is a Total Patient Revenue (TPR) system, operating under UMMS which is not a TPR system. The system's service areas have very wide and different needs, so this assessment might help inform this group's work. She added that the provider recruitment and retention issues are not going away – rural hospitals face increased competition.

Dr. Brewster suggested that this stakeholder group is going to be most impactful if it can focus on alignment of the issues and recommendations with other groups, as well as narrow this group's focus to something that is the most meaningful to this group. Steffen agreed that he doesn't think it makes sense for this group to spend time and resources on workforce issues when MHCC already has a group doing that. Likewise, this group shouldn't focus on the interplay of technology and service delivery because there is a separate group doing that.

Original legislative interest developed around the impact of consolidation. Qualitative information and perspective on this varies region to region. For example, why is there less concern in Southern Maryland about consolidation and more on the Eastern Shore? What factors are different environmentally and historically? From the standpoint of the legislature, these are the complex issues that they'd like this group to evaluate. This group should recommend ways to maximize the benefits and reduce the drawbacks of hospital consolidation in rural areas. This group should identify specific examples of what works, how it works, and why it works – as well as what doesn't work – and how the State should move forward. He believes this topic can be covered in three or four meetings. The report will also reference the work of the other initiatives to tackle specific barriers.

Xinis said it would be good to get the perspective of the payers, like CareFirst, in this discussion, in order to determine if consolidation has had an impact on health care prices. Additionally, this group's evaluation could compare MHCC's Patient-Centered Medical Home (PCMH) program and CareFirst PCMHs. Steffen agreed and added that a formal study was not needed to know that larger systems have more leverage to influence rates. Xinis said another key challenge is the difference in fee structure between larger practices and independent practices in rural areas.

### **Meeting Conclusion**

Steffen thanked the members for their participation and concluded the meeting.

**Rural Area Health Delivery and Planning Stakeholder Meeting  
Maryland Health Care Commission (MHCC)**

**Meeting Summary for September 3, 2013**

**Location: Memorial Hospital at Easton**

**Meeting Start Time: 12 Noon**

**Stakeholder Members Present**

Michelle Clark

Susan Antol, PhD(c), MS, RN

Kathleen McGrath

Charlotte Davis

Doris Mason

Brooke Buckley, MD

James Xinis

Mike Pennington

Scott Warner

Mike Pennington

Susan Stewart

Richard Alcorta, MD for Robert Bass, MD

**Stakeholder Members Present by Phone**

Meenakshi Brewster, MD

Nancy Adams, MBA, RN

Patti Ciotta for Deb Rivkin

Antoinette Coward

Joan Gelrud

Susan Stewart

Taleah Parker for the State Office of Rural Health

Sally Chan

**Presenters**

Ken Kozel, Shore Health

Steve Scott, QAC AAA

Mary Handley, Delmarva Community Services, Inc.

Santo A. Grande, Delmarva Community Services, Inc.

**Other Participants Present**

Delegate Addie Eckhardt

Susan Delean-Botkin, NPAM

John General, MOSS Coordinator

Zoe Hruban, Anne Arundel Medical Center

Chuck Boyd, MDP

Shelly Aprill, MDP

Patti Mills/Willis, Shore Health

**MHCC Staff Present**

Ben Steffen

Paul Parker

Rebecca Goldman

This was the second meeting of this stakeholder group to respond to a Joint Chairmen's request from the 2013 legislative session to evaluate regional health delivery and health planning in rural areas in Maryland. MHCC is convening the Rural Area Health Delivery and Planning Stakeholder Group in order to respond to this request.

**Introduction**

MHCC Executive Director Ben Steffen asked meeting attendees and MHCC staff to introduce themselves. Steffen explained that the current level of Maryland Health Care Commissioner engagement is the highest level that the Commission has ever experienced, under the Chairmanship of Craig Tanio. Steffen informed the group of new Commissioners: Diane

Stollenwerk, Dr. Michael Barr, Fran Phillips, and Dr. Adam Weinstein (who is a member of this workgroup but could not attend today's meeting).

Steffen summarized MHCC's recent planning process, which refocuses MHCC on four priority areas: (1) streamlining of health planning under Paul Parker, (2) consolidation of quality reporting under one center co-headed by Bruce Kozlowski and Theresa Lee, (3) health information technology initiatives, and (4) research and development of data systems. This reorganization is aimed at realigning with MHCC key initiatives and evolving health care priorities.

### **Update on MHCC's Initiatives**

Steffen gave an update of the telemedicine workgroup. The workgroup has three subgroups: (1) clinical issues chaired by Dr. Robert Bass (2) technical solutions chaired by David Sharp of MHCC, and (3) reimbursement issues chaired by Ben Steffen. These groups have representation from the Eastern Shore, Western Region, and Baltimore area. Meetings are open and they welcome participation. They are trying to keep the workgroup sizes manageable, so those interested should contact MHCC staff if they would like to be on the group. Anyone can also attend to listen to meetings. The workgroup takes a statewide approach to fulfill its legislative mandate, but will focus on regional needs in the future. Steffen acknowledged that there is special need and support for the group's initiatives in particular rural areas. The outcome of this group will be a report back to the legislature about how to address certain technical categories and approaches to meeting health care system requirements through technical solutions. Reimbursement issues pose more challenges. Private carriers indicate they are committed to reimbursing for telemedicine. The question is always, how much? Legislation passed two years ago aimed to increase telemedicine, but the current level of use is not significantly greater than 2001, pre-legislation.

MHCC is also working in collaboration with the Governor's Workforce Investment Board (GWIB) on a workforce study. The Robert Wood Johnson Foundation has provided approximately \$50,000 to look at a comprehensive approach to examining workforce in the state of Maryland. IHS Global Inc. will compile the data. The focus of the study is on data preparation. This workgroup is attempting to fill a need to identify all providers that provide certain services. For example, the existing physician database was the result of MHCC's work with the Board of Physicians to design an online application. The collaboration has allowed MHCC to gather information on provider behavior, where they practice, characterization of the practice, and characteristics about technology they use. Other Boards do not have comparable information sets. While the original deadline was set for the end of October, they will likely need more time to present this information to the GWIB and convene meetings around the state. He will keep this group informed all progress.

James Xinis asked Steffen about a bill the General Assembly passed a few years ago, which authorized the state to fund medical school expenses. There has been no funding support since the bill passed. Xinis reported he lost two physicians to West Virginia because he could not compete and would like to know what MHCC or others are doing to address the lack of funding for this. Additionally, the minimal funding that is provided goes to Health Enterprise Zones

(HEZs), which was not the intent of the legislation. He believes the success of this initiative is dependent on funding. Steffen is aware of the limited amount of funds available for loan repayment financing. He believes one of the steps to address this is to combine workforce issues into a broader reform initiative. Over the last few years, MHCC has proposed several ideas, including promoting medical programs in areas that have historic need, which is based on a model at the University of California, San Francisco (UCSF). Delegate Addie Eckardt reported that she has been fighting a misperception that there is not a shortage of health care workers - rather, it is a distribution problem. It is very difficult to recruit adequate health care workforce throughout the state and she has been trying to get the initiative funded for some time. Steffen responded that distribution is the major challenge and that there is a concentration of providers around certain medical centers. A goal should be to provide incentives, beyond simply higher income, to recruit and retain providers. He is supportive of a focused strategy to recruitment indigenous residents in areas that have historically been lacking physicians. He also believes that if these incentive programs are not done carefully or if they lower standards, it can lead to less qualified providers. The UCSF model is coupled with a baccalaureate program that brings applicants from areas in need up to the same level as all applicants.

Michelle Clark added that the initial intent of the expansion of the reimbursement program was to address shortages on specific local levels. However, based on federal guidelines, Maryland does not appear to have a shortage. Regional delineations may not tell a complete local story. She hopes the upcoming workforce study will address the distribution of the primary care workforce on more local level. Steffen responded that the study will drill down to sub-regional levels. He also defended HEZs as a start, but not the conclusion of the improvement process. He hopes more zones in other parts of the state replicate what works best based on the most successful models. Susan Delean-Botkin, who has a practice at Memorial Hospital at Easton (MHE), believes that anyone who works in a rural region knows that there is a shortage, even though previous workforce reports have not identified a need in these regions. She believes that we need to be careful about how the data is collected, tabulated, and disseminated. She also suggested that marketing plans and strategies should include successful rural practitioners.

Susan Antol wanted to expand the conversation about work force beyond primary care, to nurses and nurse practitioners. On a local rural level, there is a need for more specialty providers within networks to aid in appropriate care delivery. Steffen agreed.

### **Review of MHCC Data**

Paul Parker reminded the group that at the last meeting we reviewed the definition of rural, identified hospital facilities in rural areas, and addressed how MHCC and other state agencies use the concept of regions in health planning and regulation. For this meeting, to provide some perspective and context on rural hospital delivery, MHCC staff displayed additional information with respect to hospital financial performance and historical discharge trends. These slides are available at [http://mhcc.dhmfh.maryland.gov/workgroup/Pages/Rural\\_Health\\_Workgroup.aspx](http://mhcc.dhmfh.maryland.gov/workgroup/Pages/Rural_Health_Workgroup.aspx).

Rebecca Goldman provided financial disclosure data, as reported by the Health Services Cost Review Commission (HSCRC). The first set of slides showed profit margins reported by

hospitals for regulated and unregulated activity for Fiscal Years 2009 to 2011, grouped by rural and non-rural designations. In this three year period, profit margins increased. Regulated activity profit margins were higher than regulated and unregulated activity combined. Rural hospital, as a group, had slightly higher profit margins than non-rural hospitals. The slides included unweighted average profit margins for the groups, weighted aggregate profit margins for the groups, and a list of all individual hospitals. Ken Kozel asked if the amounts shown represent the hospital-only figured or the cumulative revenues and expenses of the system. Jim Xinis specified that the data only includes regulated and unregulated services under the hospital themselves, but not income under obligated groups. This excludes subsidiaries and other entities that likely would bring margins down. Parker responded that MHCC would look into incorporating the hospitals' subsidiaries and obligated groups into this analysis.

The FY2012 data is scheduled to be released soon, but has not been released yet. Steffen and Parker speculated that profit margins will be lower in FY 2012 and FY 2013. Xinis noted that the Maryland Hospital Association (MHA) is reporting FY 2013 margins of 0.8 percent and 40 to 45 percent of hospitals with negative income.

A second set of slides showed the average daily inpatient census (ADC) from 1998 (the most recently recorded lowest average daily census for Maryland hospitals) to 2012. The ADC rose in Maryland overall from 1998 to 2008. Beginning in 2008, the ADC started to decline. 2012 ADC reached the low 1998 levels. Steffen added that during this same time of ADC decline, Maryland experienced population growth and elderly population growth. Xinis added that beginning in 2010, the state introduced new observation bed policies – and many rural hospitals were early adapters. An increase in observations will bring inpatient ADC down. He suggested including the numbers and use of observation capacity into this data. Antol added that shorter lengths of stays are also contributing to this trend, as technology advances. Dr. Buckley asked if this data accounts for regulated and unregulated activity – and whether a drop in 2010 might indicate that hospitals were driving more patients to unregulated space like surgery centers to drive numbers down. Steffen agreed that this data does not identify migration from regulated hospital space to unregulated space.

Parker added that MHCC picked this period to show a reversal in a relatively steady decade-long trend. This reversal in ADC trend is a likely reaction to recent HSCRC policies. Prior to 1998 there was steady decline in ADC driven by persistent reductions in lengths of stays, which flattened out in the late 1990s. The rise after 1998 primarily reflected the inability to further reduce lengths of stays. During the following 10-year period, use rates increased along with a gradual increase in medical patients (as opposed to surgical patients) in hospitals. American Hospital Association data also shows admission rates and average length of stay data for the nation and Maryland. Maryland's use rate was below the nation's from 1995 to 2004, but Maryland's use rate rose from 1998 to 2004 and caught up with the nation's. This rose in Maryland until 2008, while the nation's declined. In 2008, HSCRC implemented the observation bed policy and we saw an immediate decline in use rates. Maryland's use rate in 2011 was still above the nation's, but is expected to decline over the next few years. Additionally, Maryland's lengths of stays are consistently shorter than the nation's throughout this same period from 1995 to 2011. Maryland's lengths of stays are expected to increase based on the observation policies set by HSCRC since shorter-stay patients are now being moved to observation status. Xinis

asked if case-mix adjusted figures were available. Parker did not believe this was readily available.

Goldman showed the corresponding inpatient utilization data for each rural region from 1998 to 2012, and a comparison of population and utilization trend lines from 2001 to 2012. These slides reflected Steffen's analysis regarding population growth during this time period. The last slide showed in-county inpatient retention rates for hospitals in 2012. The data does not include DC data, which is not yet available and would likely impact retention rates in places like Montgomery and Prince George's Counties, or West Virginia data, which is not available to MHCC and may impact retention rates in Western Maryland Counties. Delegate Eckhardt suggested that this data be compiled to analyze regional retention rates and system retention rates since patients in Queen Anne's and Caroline Counties are not included in the existing analysis. Dr. Buckley pointed out high retention rates in some rural counties, which she believes indicates that a local system is working relatively well for those people. In many areas of the state patients can choose to go to Baltimore if they feel services are far superior, but the retention rates in some counties show they are choosing to stay in their home county.

To summarize, Parker said that the data indicated that rural hospitals as a group are not systematically worse than non-rural peers, in terms of utilization or financial performance. Xinis added that the HSCRC used to publish a Reasonableness of Charge (ROC) report, which looked at hospital cost per discharge, on a case-mix adjusted basis. Xinis believes that the rural hospitals tend to operate at a lower cost per case. He believes that the TPR models will show whether rural hospitals are in a position to be more efficient than other hospitals. Parker said that we'd look into getting an update to the ROC report to the next meeting, which will provide more comparable efficiency measures.

Kozel added that the role of hospitals as comprehensive health care providers is increasing, especially in rural areas. More revenues are needed to meet expanding goals.

### **Leveraging the Community Needs Assessment in Rural Health Delivery and Planning, Presentation by Ken Kozel and Kathleen McGrath**

Kozel introduced himself and Kathleen McGrath. Prior to Shore Regional Health, he was with Upper Chesapeake Health's two-hospital system in Harford County. He was attracted to Shore Health based on the similarities. He realizes now that there are also many differences. Shore Health is a five-county health system on the Mid-Shore – which includes five sets of legislators, school boards, and county government agencies all competing for the access and benefits of one health care system. Shore Health's planning process has evolved from a county-by-county approach to a broader regional approach. During the planning process, Shore Health was engaged in discussions with the Chester River Health System. As of July 1, Shore Health System is now a three-hospital, five-county system. The integration has resulted in additional regionalization efforts.

McGrath discussed the regional community needs-based planning approach to Shore Health's strategic planning process. Shore Health's required Community Health Needs Assessment takes into account the entire diverse area, which includes five counties, 20 percent of

the land mass in the state, two percent of the population, and 170,000 residents. McGrath displayed a map of the scope of services offered by Shore Health – three hospitals, one freestanding emergency center, 214 licensed beds, more than 14,000 admissions, more than 11,000 surgeries, 77,000 emergency room visits, 273 outpatient visits, 250 medical staff, and 2,576 employees. This hospital system plays an important role on the Eastern Shore and the residents depend on this system, without a large out-migration to other regions.

The strategic planning initiative addresses the requirement of HSCRC and the IRS to develop a Community Health Needs Assessment, but is also important beyond that. Shore Health collaborated with Chester River, which was not officially part of Shore Health System at the time. The State Health Improvement Plan (SHIP) coalition was an essential partner in identifying services offered beyond hospital walls and gaps in services. The SHIP coalition meets monthly with high attendance prioritized among 39 indicators in each county based on need. They took SHIP priorities back to the hospital's Community Health Needs Assessment steering committee which included clinical directors, physicians, and senior leadership. Shore Health also needed to incorporate feedback from residents of five counties and offered multiple ways to be engaged. They used primary and secondary data sources, conducted two telephone surveys, an online survey, met quarterly with local health officers, held eight town listening forums, the monthly mid-shore SHIP coalition meeting. Within the regional network, each county has their own perspective.

Mid-Shore issues include low insurance rates, high unemployment, and low income populations. The region faces public transportation barriers, a limited number of community organizations due to geographic barriers and low population, health workforce shortage in primary care, behavioral health, and specialists. Within this context, Shore Health prioritized and identified funding sources - for example, the ability to apply for a HEZ grant for Dorchester and Caroline County. This application relied heavily on data that appears in the Community Health Needs Assessment and was pulled together by the Dorchester Health Department. They will constantly update and revise this assessment, which must also be tied into the Community Benefits Report, required by the HSCRC. They aim to better align their system's strategic plans with HSCRC's focus on evidence-based, outcome-driven programs.

Xinis asked what the number one public health issue is for the Mid-Shore region. McGrath responded that it is diabetes, obesity and chronic disease management, based on the data and priorities. However, the underlining correlation with these issues is unemployment and the problem increases with lack of insurance or underinsurance. Behavioral health is also an issue, which will be addressed through the HEZ grant. A series of things cause people to fall into poor health, and mismanagement or self-medication exacerbates problems. The partnership is looking at the areas where disparity is the greatest and the HEZ model will work best. Kozel responded that managing expectations is also challenge. It is challenging to have fewer facilities and greater health disparities. Local communities are looking to the health system for the answer to all issues, like employment.

Dr. Buckley added that residents on the Eastern Shore are a proud community. They are also a health-illiterate community. This leads to an avoidance of seeking advice from health professionals. Major medical problems are ignored or underappreciated because people have

other priorities. Doris Mason asked where community-based education fits into regional health planning models. Kozel believes that responsibility is placed on County Health Officers, whose funding is being cut. They seek his organization's assistance in reaching the community and working with and leveraging resources with other community providers. However, there is no reimbursement or funding for those services. Del. Eckhardt hopes the health care worker model and the HEZ will address training for health care workers who are assigned to clients who need support and life coaches. The HEZ grants have encouraged communities to pool resources, which is beneficial.

McGrath says data collecting, tracking, and the ability to address different regulations for different agencies is challenging. In order to improve collaboration among counties, the SHIP coalition seeks to find similarities in needs and gaps across the five-county region. When people see a visual map of the resources and health indicators, they recognize that a regional approach makes sense when working with limited resources. This collaborative approach is working on the Mid-Shore with monthly SHIP meetings and positive relationships between Health Officers. Del. Eckhardt asked how the information gets back to elected officials. McGrath said the elected officials are welcome to be members of the SHIP coalition. In the past, a regional health planning group included local consumers who advocated for their health care needs to elected officials. Del. Eckhardt suggested that was a good strategy to consider. Dr. Meena Brewster agreed that utilizing local SHIPs to advocate to elected officials would help sustain the coalition's impacts and better lead to system change. She believes health officers and health departments can provide technical assistance regarding evidence-based public health policies in the process. She also described the public health wheel which includes ten essential services of public health. Public education is an important component of the public health system, but it is one of many responsibilities. As funding continually decreases, more compromises must be made. The established role of the public health infrastructure to provide some traditional services must be supported. Dr. Buckley added that recruiting, maintaining, and retaining rural community providers increases trust in the system.

Patti Willis emphasized that regional perspective beyond the hospital setting is critical in rural health planning – beyond revenues, use rates, and the number of health care providers. Xinis added that what works in one rural area of the state might not work as well in another. McGrath agreed and added that the University of Maryland system (UMMS) holds monthly meetings on each hospital's community planning. That increases the awareness about what works within the whole system. Kozel believes that the Mid-Shore region could serve as a model to test what works within a consolidated system. Shore Health is employing cutting edge practices like a telemedicine model.

Santo Grande asked Kozel what he thought the best strategy would be to communicate with local elected officials about the intersection of the health planning process to the health of the community. Kozel responded that it varies in each community, depending on local residents' knowledge of personal health care practices, public health care system, and the local health care facility's abilities and status. He tries to inform elected officials of his needs and resources on an ongoing basis. Grande is concerned that access to primary care physicians for older patients is decreasing. Steffen is hopeful that ongoing MHCC initiatives will address access to the scope and hierarchy of various needs.

Steffen wanted to address advantages and challenges of the hub and spoke model of the UMMS system. The five-county Mid-Shore region also now has linkages to Baltimore City after being acquired by UMMS, which has a hub at the University of Maryland Medical Center. Kozel responded that the system affiliation allows Shore Health to maximize benefits for the health of the community. If patients need a high level of care, Shore Health may send them to the hub hospital via ambulance or helicopter. Shore Health also brings physicians from the medical center to the local rural community and links to affiliate hospitals through telemedicine. This leverages system-wide resources for all communities. Steffen said the tradeoff is a lack of patient choice. The referral patterns may change based on system relationships. Kozel concluded that while Shore Health benefits by getting a better rates for loans, the Shore Health system does not receive support for operations from UMMS.

Dr. Buckley believes that telemedicine also poses challenges. Many smaller hospitals have tight-knit medical staff who know and are in constant communication with patients and other providers. In her experience, larger hospitals and systems do not have the same physician-to-physician interaction. She has seen higher lengths of stays due to the providers not communicating. Telemedicine and traveling physician programs lack these relationships and may not address all patient needs.

Susan Antol asked if Shore Health was tapping into the medical school residencies. Shore Health is pursuing this mutually beneficial strategy. The school is interested in increasing graduate retention rates in Maryland, while Shore Health is interested in recruiting providers. Antol hopes that there is legislative support for this.

### **Transportation Planning and Health Delivery on the Eastern Shore, Presentation by Scott Warner, Michael Pennington, and Santo Grande**

Goldman introduced Scott Warner, Executive Director of the Mid-Shore Regional Council. Among the many economic development issues that the Mid-Shore regional Council addresses, is transportation. This is a particular need considering the Mid-Shore's aging, underemployed, and dispersed population.

On the Mid-Shore, aside from the Easton-St. Michael's corridor, there are limited major access roads. There are also competing philosophies regarding the best economic development strategies for the region. While the communities with less dense population have health care needs, they also do not have enough of a population base to support large health care facilities. The Mid-Shore Regional Council is looking at a mid-shore economic health cluster based on regional economics, resources, and needs. A regional collaborative has also implemented a regional broadband project to ensure that the existing infrastructure is able to handle the bandwidth demand from initiatives like telemedicine efforts. A partnership between the Mid-Shore Regional Council, Lower Shore Regional Council, and Salisbury University operates a GIS center to better plan for transportation service delivery.

To address regional transportation needs, Kent County's local management board was awarded a grant to collaborate with Kent, Queen Anne's, Caroline, Talbot, and Dorchester Counties to conduct a year and half study to identify and address needs of the community.

Warner often encounters a lack of awareness of the region's network of local transportation providers. The regional management group began meeting regularly and strategizing on how to communicate about the services available. Delmarva Community Services is an award-winning transportation provider. They partner with Queen Anne's County ride services and transport people to the Lower Shore. System and agencies provide public transport and also Maryland Upper Shore Transit (MUST). The management board developed a list of recommendations to increase awareness and use. These transportation programs are dependent on funding, while the patients who depend on this transportation to receive critical medical care have the least amount of money. The group conducts outreach with targeted brochure distribution in English and Spanish languages and in videos in doctors' offices.

Mike Pennington explained that Shore Transit began in 2004, after mapping and identifying multiple transit systems run by various agencies serving overlapping areas. Shore Transit provides all the medical transportation for the Lower Shore counties. His system is at capacity and facing increased demand with the same level of resources. They provide transportation to Baltimore and other areas of the state to get people to the medical services they need.

Santo Grande and Mary Handley presented on Delmarva Community Services' transportation programs. The organization provides (1) public transportation (funded by federal transit administration, Maryland Transit Administration, and a local match), (2) medical assistance transportation (paid for by the Health Department, as public assistance recipients are eligible for transportation to and from medical offices and pharmacies), (3) senior transportation, and (4) veteran transportations. They operate from Easton as a central hub and transfer destination. By providing different types of services, they are able to combine rides and leverage resources. They request funding from four counties each year, with varying degrees of support, and also receive funding from the United Way of the Eastern Shore. The programs seek new partnerships to increase ridership and funding sources.

Transportation is always listed as a top health care need, but it's a challenging demand to meet. One major challenge, according to Mary Handley, is educating people about the need to plan or request these services for a time in the future. While the Eastern Shore has a robust transportation network, they need to increase awareness about how and when to request and use the service. It is similar to the previously mentioned challenge of managing expectations of a medical system. The system also must address consumer preferences and does this with the use of smaller, door-to-door vehicles (to help address rural stigmas about people who use bus transportation). They provide travel training and develop personal relationships with consumers and with providers to help them make appointments.

Susan Antol is working with Chester River discharge planning and transition coaches. She suggested that this might be an audience who can aid in health transportation planning. Mary Handley is increasing awareness at Chester River through this audience. She finds that front desk schedulers, patient advocates, and discharge planners are key to providing education to patients. Dr. Buckley stressed that missed routine appointments lead to increased medical expenses for more serious needs. Shore Health tracks reasons why people miss medical appointments and also

works to connect primary care workers with the transportation program information. To this end, high primary care turnover rates pose a problem.

Goldman summarized the challenges to accessing health care services caused by the barriers of the transportation system. Issues that the group discussed include funding issues, education needs, managing patient expectations, communicating the real value of the service, education of primary care physicians, increasing efficiency by communicating across different systems and consolidating travel trips, creating linkages with emergency room staff and transition coaches, and increasing awareness among networks.

Handley added that the most effective communication strategies include a combination of outreach to health care provider networks and to individuals by helping patients understand the transportation system. Delmarva utilizes professional telephone dispatchers and are working to move to an online application as more educated retirees are moving to the area. They also work with community centers and churches to meet with seasonal Spanish-speaking populations in community settings. Hospitals are supportive because they lose money when patients miss appointments.

Lastly, while program efficiency increases and cost per rider goes down as more people use this service, Grande believes that they face a challenge in defining efficiency. Cutting out mid-day runs that have one rider might appear efficient to someone, but it might end up costing the health system and community more in the long run if that patient misses a routine appointment. The list of barriers should include perceptions of what is efficient. Two examples: (1) Based on the funding structures, they cannot buy non-American vehicles even though it might save costs, and (2) There's a perception that larger vehicles that can hold more people are more efficient, but that's not the case in rural regions.

## **Meeting Conclusion**

Steffen thanked the members for their participation and concluded the meeting

**Rural Area Health Delivery and Planning Stakeholder Meeting  
Maryland Health Care Commission (MHCC)**

**Meeting Summary for October 7, 2013  
Location: Colony South Hotel, Clinton, MD  
Meeting Time: 12 Noon – 3 p.m.**

**Stakeholder Members Present**

Susan Antol, PhD(c), MS, RN  
Robert Bass, MD  
Meenakshi Brewster, MD  
Michelle Clark

Joan Gelrud  
Ann Walsh  
Jim Xinis

**Stakeholder Members Present by Phone**

Kathy Foster  
Susan Stewart

Dr. Brooke Buckley  
Kathleen McGrath

**Other Participants Present**

Lorraine Diana, Maryland Academy of  
Advanced Practice Clinicians (MAAPC)  
Robert Guite, MAAPC  
Zoe Hruban, Anne Arundel Medical Center  
Kevin Kelly, UMB

Barbara Klein, UMB  
Christina Shaklee, DHMH  
Pegeen Townsend, MedStar Health  
Christina Wray, MedStar St. Mary's  
Hospital

**MHCC Staff Present**

Ben Steffen  
Paul Parker

Erin Dorrien

This was the third meeting of this stakeholder group to respond to a Joint Chairmen's request from the 2013 legislative session to evaluate regional health delivery and health planning in rural areas in Maryland. MHCC is convening the Rural Area Health Delivery and Planning Stakeholder Group in order to respond to this request.

**Introduction**

Executive Director Ben Steffen asked meeting attendees and MHCC staff to introduce themselves. Following this, Steffen updated meeting participants on the telemedicine workgroup, comprised of three workgroups focused on technical solutions, clinical issues, and reimbursement issues. The technical solutions and clinical advisory groups will report back the legislature by December 2013. The group will likely focus on making sure reimbursement is available. The financing will be based on use cases and consideration of needed capital investments, and will likely not be worked out until they have clear recommendations for clinical and technical directions.

MHCC staff members are also participating in the State Innovation Model program to implement a performance measurement system to support primary care physicians writing referrals to high quality specialists. The metrics and measures required to do this are not yet recognized in a national process. It is likely that initial performance measures will focus on availability and gaps in specialty care to treat chronic diseases that can be monitored. Moving forward, it would include a full range of specialty care.

Steffen updated the group on the health insurance exchange launch. Like many states, the Maryland site was inundated with people who were interested. They are working to resolve issues.

## **Emergency Care Planning in Maryland Presentation by Dr. Robert Bass**

Dr. Bass reviewed the EMS system in Maryland. Maryland has one of the oldest systems in the country, which was created in the late 1960s. It continues to be an advanced statewide system, recognized for its regional care. It started as a trauma system. As the need for good pre-hospital and mid-trauma care was identified, collaborations were made with the State Police and local jurisdictions. In 1990, MIEMSS became a State agency with a Board responsible for developing an EMS plan. The plan is updated every five years and the current draft plan is located on the MEIMSS website.

MIEMSS coordinates and licenses providers. Local jurisdictions support day-to-day EMS services with volunteer companies and career services, as well as commercial ambulance companies. Approximately 50 percent of transports are handled by volunteer EMS providers. It includes a network of emergency departments in every county except Caroline County, trauma and specialty centers, the State Police Medivac program, statewide medical communications systems, statewide quality assurance, and an injury and illness prevention program. Funding comes from surcharges for vehicle registrations and the EMS operations fund (of which some goes back to local jurisdictions as grants). Dr. Bass noted that the all payer system in Maryland helps to preserve trauma centers. In other states, hospitals discontinue trauma care due to lack of compensation. In Maryland, the trauma fund provides reimbursement to physicians at trauma centers when they provide care to a non-insured patient.

The Maryland EMS system includes 20,000 providers with a range of four levels of care from basic to advanced. The number of providers continually grows. Every provider operates under the same medical protocol, which assists in interoperability and portability. They also utilize the statewide electronic patient care reporting system, which every service should be using by next year. The 24/7 statewide communication system enables ambulances to communicate with hospitals, trauma centers, specialty centers, and emergency departments; dispatches helicopters; and has satellite facilities in Talbot and Allegany Counties.

There has been a steady growth in trauma center patients over the last ten years. Trauma centers are distributed throughout the state. They submit comprehensive patient data to ensure quality. Helicopters are used as transportation when the drive time is longer than preferable in cases of stroke, neo-natal, STEMI, and heart attack care. MIEMSS does not regulate paratransit services (which the Maryland Department of Transportation regulates).

In the last 10 years, the EMS system has seen steady moderate growth in reports and transports. The aging population has had an impact – with accidental falls now the top reason for calls, followed by motor vehicles crashes and assaults. For trauma patients (the most severe cases), 85 percent go to the local emergency department and 15 percent go to the trauma center.

MIEMSS has also recently examined helicopter use. They were transporting 5,200 patients by air per year about ten years ago, though some of these patients could have been driven to the trauma center more quickly. MIEMSS changed protocol in 2008 to require consultations for patients who did not have

an obvious injury but that had a high probability of serious injury. This has led to a decrease in the number of patients per year by helicopter to 2,500 – about half of the previous volume. There is good statewide distribution of ambulances, but unnecessary overuse of commercial ambulance vehicles has been a concern.

Dr. Bass displayed the leading causes of death and which conditions are time-critical situations. Strategies have changed to treat some time-sensitive causes of death. For example, for medical cardiac arrests with witnesses they now use dispatcher-directed CPR to bystanders on the scene and early defibrillation. Resuscitation rates have significantly increased. In one case study in Howard County, these new changes led to an increase in the resuscitation rate – from between 5 and 10 percent to between 40 and 50 percent.

MIEMMS breaks the state's counties into five regions: Region I (two Counties in Western MD: Garrett and Allegany), Region II (mid-Maryland: Washington and Frederick), Region III (Central Maryland: Carroll, Howard, Anne Arundel, Baltimore, Baltimore City, and Harford), Region IV (Eastern Shore: Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Wicomico, Somerset, and Worcester), and Region V (Montgomery, Prince George's, and Southern Maryland's Charles, Calvert, and St. Mary's). There has been a steady increase in the number of EMS providers in the last five years. The Eastern Shore has the largest number of EMS providers, having the most counties and a high number of volunteers, followed by Central Maryland. A high number of responses to transports in Southern MD, Eastern Shore, and Western MD are handled by volunteers. In response to a meeting attendee's question about the growth in services, Dr. Bass reported that there has been an increase in the career workforce (opposed to volunteers), especially in Charles and Calvert Counties. These communities are growing and it poses a challenge for volunteers to keep up with the increasing number of calls. Many volunteers hold several jobs. He also sees an increasing role for physician assistants, nurse practitioners, occupational therapists, and other mid-level practitioners. The role of EMS providers is probably going to evolve with innovative service programs.

Interest in one innovative model called community paramedicine has been bolstered in the U.S. recently. This model integrates EMS and public and community health care using advanced practice paramedics with the goal of decreasing the use of EMS services and increasing community health literacy. This concept originally started in rural health practitioner shortage areas. The challenge is defining which public health services, treatments, or types of education are most needed in each rural community – which is different in every community. This model also creates an alternative career path for the EMS workforce and can leverage resources for local and state governments. Dr. Bass has seen emerging governmental interest in this concept in response to the growth in the types of EMS services and growing cost of those services. Still, challenges to implementing this type of program include: (1) lack of reimbursement – Medicare only pays/reimburses for EMS services if there is a transport; (2) programs tend to be supported through grants to date; (3) opposition from other professions, such as nursing; and (4) lack of evidence regarding best practices and effectiveness.

In Maryland, counties have expressed interest – particularly Caroline County, which does not have a hospital or emergency room. This initiative is included in the current EMS plan, but they still will need to address the challenges listed above. The Centers for Medicare and Medicaid Services have historically been uninterested in supporting pilot programs, but there seems to be evolving interest. The

thought is that as the Affordable Care Act (ACA) evolves, they will seek to identify programs to reduce readmissions and fill a need for access to health care service.

Jim Xinis reported that in response to the growing population, the Southern Region is increasing access points to the public, access to mid-level practitioners, and improving travel times for health care services. It is still an underserved area. He is concerned that total population growth and the growing aging population are going to tax the system on all sides.

Another meeting attendee added that an improved road infrastructure could take pressure off EMS. When it is easier for patients to get to health care providers themselves, they do not need to call 911 for transportation. The Health Enterprise Zone (HEZ) in St. Mary's County will expand service in the evening hours, so more people can access and plan for more services during extended hours.

Meena Brewster suggested that this report could include the recommendation that existing Medicaid and Medicare become more supportive of innovative programs like the HEZ mobile pilot services and community paramedicine. Additionally, there are restrictions that prevent patients from using necessary emergency services. For example, if someone has Medicaid and there is any car registered to their name, they are not eligible for transportation assistance.

## **Health Care Workforce in Maryland Presented by Erin Dorrien and Christina Shaklee**

Erin Dorrien presented on health care workforce studies, including the 2013 Maryland Health Care Workforce Study, the implications of health reform for the workforce, past workforce studies, and next steps.

Projections indicate that Medicaid enrollment is expected to grow more than 20 percent by 2020, not including individuals who will be getting insurance through the exchange under the ACA. Medicaid will become the largest insurer in the state. Overall population growth is projected at 20 percent between 2010 and 2040 while the population over 65 will double by 2040.

In 2008, Maryland convened a task force on health care access and reimbursement, which evaluated two contradicting studies published by MedChi and the Health Resources and Services Administration (HRSA). HRSA considers Maryland to be a well-supplied state for physicians with regional differences throughout the state. Physicians are clustered around the central part of the state, with Southern Maryland more sparsely supplied. Based on the HRSA standard, Southern Maryland is the least supplied region. MHCC concluded that in Southern Maryland, residents were likely to travel outside of the area for care, physicians provide about 67 percent of Medicare reimbursements, residents receive 14 percent of care in Prince George's and Montgomery Counties, and the receive 12 percent of care out-of-state. Additionally, it was found that physicians in this area are just as likely to participate in medical assistance programs compared to other regions.

The upcoming Maryland Health Care Workforce Study will assess the quality and utility of data available to study the workforce, including data to assess the quality of the workforce and gaps in data that professional boards are collecting. The goal is to report on the distribution of the existing and past health care workforce and make recommendations to professional licensure boards to collect data.

Steffen added that the focus is to look at the complete workforce for all health care occupations in Maryland, particularly the primary care, mental health, and dental services. We currently have good physician data systems, but could improve other professions' systems – including nursing, mental health, and dental services. Partners include counselors, dentists, nurses, pharmacists, psychologists, and social workers. Benefits to Maryland include an ability to be more responsive to the new health care delivery and insurance system, establish a workforce data system for policy makers to assess needs of the changing population, understand the needs of the population and supply of providers, and improved planning. This project continues Maryland's tradition as an early innovator, moves workforce planning beyond single health care occupation planning into more integrated approach, and allows for modeling workforce needs. The first stage of the study will conclude by the end of the year with recommendations to the boards, potential changes to their applications, and a reporting process.

Xinis noted a concern with Medicaid restrictions. In the Southern Region, two MCOs have 95 percent of the market share of Medicaid. Recently the state reallocated funding for primary care physicians in the Southern Region and Prince George's County, resulting in a reduction of between 2 and 2.5 percent in rates to both of those two providers. This caused these MCOs to stop taking new patients for medical assistance in 2013. The state has a regulation that requires an MCO that withdraws from the program for one year to sit out for two years. While Xinis understands the reasons for this, this is not the time to restrict Medicaid registration (with the expected increase in the number of Medicaid recipients). He believes restricting these two MCOs in the Southern Region will increase costs to the system and will be a disincentive for primary care practitioners to participate in MCOs. He has asked for a reconsideration of this restriction in Southern Maryland. Steffen responded that he needs to find out more from Medicaid, and that he recognizes the challenges. In the case of Massachusetts, it was a challenge to manage the influx of new patients and distribute them accordingly. A positive thing in Southern Maryland is the growing number of insured residents.

Barbara Klein asked if the study will include recommendations about how to pull all professional board data into one system. Steffen said that was the goal. They are now evaluating the information systems that currently exist. In some cases, professional boards do not have information about the location of practices. The project will work with boards to change some of this data collection. Boards with fewer administrative resources might be less responsive to collecting more data; some might feel that their professionals would be opposed to giving more data. All of the issues will be discussed. Aligning data collection will be beneficial to the system and is a way to resolve short-term practitioner deficits.

Lorraine Diana expressed concern that MCOs and CareFirst require nurse practitioners in Maryland to have an attestation that they collaborate with a physician who is also on the same panel. She reported that there are nurse practitioners who want to take MCO patients but cannot because the physician is not on the MCO panel. She is hopeful that there may be resolutions to this dilemma.

Antol asked if there was going to be any way to identify whether a nurse practitioner is in a practice or whether the practice is inter-professional. Patients are sometimes directed to the physician rather than referred directly to the nurse practitioner. Steffen responded that the physician survey asks some practice questions about the professionals in the practice. Improving the nursing survey is likely going to be one of the main focuses. They use an outside vendor for licensure so it is going to be an additional challenge in changing renewal applications.

Christina Shaklee presented on DHMH’s rural workforce initiatives. The Health Systems and Infrastructure Administration (HSIA) was created in response to the ACA to improve primary care access and workforce, population health and quality (related to SHIP measures), school health, and local health department core funding. Its initial focus is to ensure adequate health workforce, especially in the most high need areas like HEZs. Access to good data about the workforce has been a challenge for her and she is hopeful that the workforce study will help to improve this.

A Workforce Committee convened in April 2012 to develop plans to increase health provider retention. This Committee designated the following regions: Southern Maryland, Eastern Shore, Central Maryland, and Western Maryland. Figure XX displays the challenges and strategies identified by this Workforce Committee in rural areas in Maryland. However, the Committee has since run out of funding.

**Figure XX. Rural Area Challenges and Strategies Identified by the Health Systems and Infrastructure Administration**

| Challenges Identified  | Strategies to Address Challenges  |
|--|---|
| <ul style="list-style-type: none"> <li>• Lack of consistent marketing</li> <li>• Absence of centralized network to develop workforce pipelines</li> <li>• Scope of practice limitations for mid-level providers</li> <li>• Lack of specialty referral networks</li> <li>• Lack of consistent funding streams for expansion</li> <li>• Lack of diversity to reflect population</li> </ul> | <ul style="list-style-type: none"> <li>• Collaborate with AHEC for medical student internship</li> <li>• Develop recruitment video to promote benefits of working in underserved areas</li> <li>• Survey insurance carriers to identify how non-physician primary care providers are reimbursed compared to physician counterparts</li> <li>• Host cultural competency and health literacy workshops</li> </ul> |

HSIA is currently working with the Maryland Women’s Coalition on Health Care Reform, DHMH’s Behavioral Health, Core Services Agencies, and local health departments to facilitate workshops to address workforce supply in light of health care reform. Workshops on behavioral health demand have been held in Allegany and Dorchester Counties to date. Issues identified at these workshops include:

- Lack of knowledge at safety net programs on the number of treatment slots available in all community organizations
- Need for primary care practices to integrate behavioral health plans into general patient care
- Increased use of emergency room for behavioral health during evenings and weekends
- Need to streamline board licensing practices

Steffen asked about loan programs and the lack of funding support for these initiatives. Shaklee said it was less an issue of funding, but more on the restrictions that were put on the loan repayment program. Between federal and state requirements and granters, the grants have restricted payments to physicians only, who graduated from a state school, and included a minimum seller requirement. DHMH may seek alternative federal dollars to expand the types of practitioners who can use the loan repayment.

Several issues regarding loan repayments were discussed. One stakeholder explained a disincentive regarding HEZ money. While physicians receive state tax abatements, federal taxes increase. Shaklee offered to look into that issue. Another stakeholder added that the repayment incentives were not competitive with other state programs. Shaklee responded that in Maryland the reimbursement is \$50,000 for two years. She is aware that the National Health Service Corps offers \$60,000 for two years and Maryland cannot go over this level. She offered to look into it to see if Maryland could increase the threshold.

Xinis asked how Maryland compares with other states for reimbursement slots. Shaklee responded that this year they have 30 and last year they had 29 slots filled. Xinis suggested that the payers might support physician recruitment efforts. Steffen responded that payers' costs have increased with the ACA, so it might not be the right time for an additional assessment on payers – but it could be a consideration.

Antol suggested school-based health centers as a way to improve access. She reported that the state's policy advisory council is looking into essential community provider status for school-based health centers. They have had conversations with MCOs about paneling and privileging some of the nurse practitioners in these centers. The centers are currently allowed to give service to children and bill Medicaid. She has suggested they consider opening this to other groups.

### **Improving Access to Care in St. Mary's County** **Christine Wray and Pegeen Townsend**

Pegeen Townsend presented MedStar's corporate health system plans to improve access to rural counties. MedStar is a \$4 billion dollar non-profit health care system operating 10 hospitals, 20 diversified organizations including a MCO, a research institute, 79 accredited training programs, more than 1,100 residents and fellows, 30,000 associates, and 5,600 affiliated physicians. Their goal is to better serve patients. They are employing a more community-based care delivery strategy. She sees a future in which (1) patients will expect more (personalized care, better products, more insurance coverage), (2) new business models will emerge (community linkages with hospitals, a focus on post-acute and urgent care, the need for more primary care and more telemonitoring), (3) restructuring driven by incentives (for consumers and disease management) and reimbursement (based on outcomes and efficiency). Provider roles will change with more collaboration, mid-level care, and full employment models. Information systems will change with more access to data and transparency.

MedStar's response to the changing environment is its Distributed Care Delivery Network, centered on organized, standardized, high quality, high-service care across a continuum throughout the MedStar system. Their focus is on best practices, intra-system communications, prevention, and access to care. Communication flows both down from the corporate office to hospitals and up from hospitals to corporate offices.

Christina Wray informed the group that MedStar St. Mary's Hospital just celebrated 100 years of serving Southern Maryland. Five or six years ago, the Board convened to discuss future challenges. They identified a difficulty in recruiting primary care and specialty physicians, the need for additional sources for capital investment and stronger purchasing power, and likely reimbursement reductions in the future.

In 2009, St. Mary's joined MedStar Health. The benefits included access to additional skill sets for legal, rate, and coding issues; ability to spread costs over a larger base; more purchasing power and lower prices for equipment and supplies; additional quality services at tertiary academic settings; and increased ability to recruit and retain practitioners. The hospital's health insurance costs also went down after the consolidation. Because of the partnership, they were able to strengthen existing practices and more services in the community. They have seen better qualified candidates and added practitioners in endocrinology, urology, ophthalmology, and pediatric subspecialties. They also added services including intervention radiology, a wound healing center, and cancer research and protocols. The MedStar system has added an MCO product and helped to keep hospice in the community.

The continued focus is on local community-based needs. The Community Needs Assessment identifies obesity, substance abuse, access to care for uninsured, and provider shortages. Their latest product is the HEZ-funded mobile unit to provide primary care to the uninsured. They partnered with the St. Mary's Health Department and a coalition of partners for this pilot project, which specifically addresses health disparities in Lexington Park area. Additionally, they partner with the EMS community, house the EMS unit to provide training, and will have an educational center within the next year. The hospital also works closely with other hospitals in the region, jointly owning home health and regional cancer care. They work well with other physician groups and surgeons.

In response to a comment about mid-level reimbursement levels and lower reimbursement costs in rural areas, Wray added they make good use of nurse practitioners at their urgent care center, but the hospital subsidizes their outpatient facilities. It is able to claim hospital-owned facilities as part of their community benefits, but the HEZ grant-funded program is not included in that.

Parker asked about resistance from the local community regarding consolidations. Wray responded that the broader community responded positively, including local businesses and the county. They had to work through some workforce issues. The longer tenured employees lost some ground and some were upset. The physician community was mixed. The reactions from larger groups were positive, while the smaller ones initially felt that the change would not impact them. However, the higher standard of care did impact all of them – and Wray believes this is beneficial for patients. Employees can also receive extra training and their tenure stays with them if they want to move to another MedStar facility.

## **Meeting Conclusion**

Steffen thanked the members for their participation and concluded the meeting.

**Rural Area Health Delivery and Planning Stakeholder Meeting  
Maryland Health Care Commission (MHCC)**

**Meeting Summary for November 8, 2013  
Location: Maryland Health Care Commission Offices  
Meeting Time: 12 Noon**

**Stakeholder Members Present**

|                             |                 |
|-----------------------------|-----------------|
| Nancy Adams                 | Michelle Clark  |
| Susan Antol, PhD(c), MS, RN | Charlotte Davis |
| Kathleen McGrath            | Jim Xinis       |

**Stakeholder Members Present by Phone**

|                    |               |
|--------------------|---------------|
| Kathy Foster       | Susan Stewart |
| Ann Walsh          | Jake Frego    |
| Dr. Brooke Buckley |               |

**Other Participants Present or by Phone**

|   |  |
|---|--|
| Lorraine Diana, Maryland Academy of<br>Advanced Practice Clinicians (MAAPC) | Denise Matricciani, Maryland Hospital<br>Association |
| Del. Addie Eckhardt   | Diane Marie M. St. George, University of<br>Maryland |
| Barbara Klein, UMB  |  |
| Beverly Lang, Nurse Practitioner<br>Association of Maryland                 |  |

**MHCC Staff Present**

|             |                 |
|-------------|-----------------|
| Ben Steffen | Erin Dorrien    |
| Paul Parker | Rebecca Goldman |

This was the fourth and final meeting of this stakeholder group to respond to a Joint Chairmen's request from the 2013 legislative session to evaluate regional health delivery and health planning in rural areas in Maryland. MHCC is convening the Rural Area Health Delivery and Planning Stakeholder Group in order to respond to this request.

**Introduction**

Executive Director Ben Steffen asked meeting attendees and MHCC staff to introduce themselves. Steffen said that while this is the last meeting of the group, he would like to schedule a conference call to discuss the final report. He reported that the telemedicine workgroup continues to meet. MHCC had engaged IHS Global Inc. to provide estimates on developing a consistent workforce database from board licensing files. It was described in the last edition of Health Affairs - which projects some significant deficits in parts of the country. We think we are going to show some deficits in Maryland providers as well. Historically we've benchmarked MD to a national standard. There is no good evidence of the adequacy of the standard, but it has been the most useful comparison. We will not be able to roll in all nurse practitioner and physician assistant workforce data into the model at first, but we will be able to report on availability. They are working on getting nursing data as well. There will likely be some presentations on this in beginning in Early December on the new model. It is a new approach to measuring supply of the workforce and how it stacks up against the demand in regions and across the state.

The state is also working on the roll out of health care reform, like everywhere else, it has been somewhat uneven. The exchange board continues to work on refining and improving its web site and challenges. Like the federal roll out, there was a major push in trying to be sure to make sure as many people as would like enroll in a health plan before the Jan 1 start-up. There's going to be new contracting improvements and enhancements in terms of other consumer needs. It is also still possible to enroll over the phone and in person. We want to be sure that all avenues are working for people.

The goal is to engage folks across the state and make sure that whoever they are, they have access to the framework, through navigator frameworks.

### **Potential Alliance between Western Maryland Facilities Presentation by Nancy Adams**

Steffen introduced Nancy Adams from Western Maryland Health System, who spoke about the potential alliance in Western Maryland. Adams reported on discussions about a potential strategic alliance in Western Maryland between Frederick, Washington and Allegany County hospitals, which is a result of an external evaluation by Berkeley Research Group. The evaluation included a discussion about upcoming changes in the health care industry and reforms that are driving providers to create larger organizations. These include profit constraints, IT investments, greater risk assumption, new service delivery models, the creation of Accountable Care Organizations, and changing cost paradigms.

The three western Maryland hospitals identified mutual interests including the following needs: to respond to financial strains as healthcare reform and ACA evolve, to protect the long-term survivability of the health systems, to acquire critical mass for ACO development, and to improve the overall health of the communities. Their analysis identified benefits to merging these assets including building strengths, maximizing each system's assets and services, minimizing future financial losses, enabling capital avoidance through capacity efficiencies, creating supply chain efficiencies, consolidating services where possible, and assisting with workforce development.

Adams stressed that each of the hospitals had the utmost interest in addressing the needs of their service areas. Specifically, they were looking for a way to provide access to viable, low-cost local health care in each community; preserve jobs; maintain stability in the region; create more political influence for western Maryland; provide the critical mass for the formation of an ACO; strengthen clinical integration and physician linkages; enable the creation a physician network for all of western Maryland; assist with physician coverage and recruitment; expand the ability to learn and share from each other; provide opportunities to enhance quality and patient safety; and increase opportunities to better manage population health in western Maryland and the surrounding service areas.

The hospitals currently in the discussions do not believe that they will have long-term sustainability as standalone health systems. The evaluation included the entire spectrum of possibilities regarding business structures. Based on the report, an alliance in which the three

hospitals have an equal balance of power initially makes the most sense, as they develop a business plan to determine what the ultimate structure will look like.

Steffen asked Adams why Garrett County is not included in the report. Adams reported that they were invited to participate, but that its Board decided that at this time, it prefers to remain standalone. They are closer to universities in West Virginia, so she thought that might have factored into a decision. Susan Antol asked about the existing vertical integration outside of the hospital walls among the three hospitals right now. Adams responded that each of the hospitals all have practices outside of the hospital walls. They are working on planning for those services together. Geographically, it is easier for Washington and Frederick Counties because they are closer to each other, but they are discussing how best to share expertise throughout the system.

Rebecca Goldman asked Adams to expand on the community reaction to this potential alliance. Adams responded that the community has been very supportive of the current alliance plan. The system remains more independent within a Western Maryland system, instead of an acquisition by another larger system. As the alliance evolves, she will be in a better position to discuss this further. Jake Frego asked if the feasibility study considered the benefits of consolidating with a larger centralized system. Adams responded that it included analysis of the benefits of joining a larger, more academic system within the state, a larger system outside of the state, or a partnership among each other. The alliance among the partners described in the presentation makes the most sense for the western region facilities.

Michelle Clark asked Adams to discuss the ways in which these hospitals engaged locals in this decision-making process. Steffen asked Adams to articulate the processes that the system went through to make this determination. Adams responded that they partnered closely with the health department and incorporated areas that they have not focused on before, like long term care, community health workers, and health worker curricula. These kinds of initiatives, and more outreach, will benefit the system in the long term.

Steffen asked about the expected governance structure of this new model. Adams responded that the initial Board includes the CEOs of each hospital and two Board members from each hospital, as the project evolves.

Steffen added that, four years ago, Meritus was very active in establishing clinically-integrated organizations. At that time, the ACA passed, which included the framework for ACOs. Steffen asked about the plan to build on those concepts. Adams responded that there is one ACO developed in Western Maryland. Meritus is much farther ahead in the development of an ACO than other partners. They will use that work, but also look to the Commission, to ensure success if those programs. Jim Xinis added that he knew of one challenge to implementing this program at Meritus – the private payers do not have an appetite to with clinically integrated networks.

## **Supplemental Information Package Presentation by Paul Parker**

Paul Parker followed-up on discussions from previous meetings. First, in response to the comment about the MCO and CareFirst requirement to have an attestation to collaborate with a physician that is on the same panel, Parker referred to a response from Deb Rivkin at CareFirst. The letter states that CareFirst has modified their policy to not require a written attestation, but have a listed name and specialty of the physician, and the physician must participate on the panel. Lorraine Diana reported that she met with Deb Rivkin in Sen. Middleton's office in July to discuss the issue. One issue was that they required nurse practitioners to have an attestation with a physician who practices in the same specialty as the nurse practitioner. The statute or regulations do not require this. They conceded to take a like practitioner to fulfill this requirement. Diana also sought to eliminate the collaborative agreement requirement to increase patient access to services. Several other payers have dropped the written collaborative agreement from their requirements. CareFirst continues to have it as a policy, but reported that they would also look at on a case by case basis in underserved areas. Michelle Clark asked of any exceptions had been granted to date. Diana responded that they are looking into this with a nurse practitioner on the Eastern Shore, who is serving MCO patients and does not have a similar physician practicing within the MCO. Antol requested a clarification about the differences between payers, MCOs, and managed-care Medicaid patients for this circumstance. She believes that there is a special need to get access to the Medicaid patients as soon as possible. Diana said Priority Partners was the most agreeable to dropping the required agreement. They were also the most agreeable to allow nurse practitioners to have the attestation physician within the specialty. However, they could not wave to requirements that the physicians must be in the same panel. Del. Eckhardt requested that she be apprised of these issues in the future.

Parker followed-up on the hospital utilization on the states. Xinis had previously suggested that Maryland's hospital inpatient figures have shifted as HSCRC's policies encourage fewer inpatient admission and more shorter-stay observations. Patients still spend considerable time in the hospitals even though they were not showing up as inpatient days. MHCC looked at 2011 and 2012 inpatient days and observation hours. MHCC staff attempted to translate observation hours into an inpatient days equivalency by assuming 24 observation hours for one inpatient day. Because there is such a varying length of stay for observation patients, this is not a perfect comparison. While there is still an observed decline in hospital bed use, factoring in the observation hours does reduce the net decline quite a bit. It makes the case regarding a comparison between 2010, 2011, and 2012 inpatient trends and use of beds.

Lastly, Parker shared a recent history of hospital capital expenditures in nominal dollar amounts, not adjusted for inflation, tracked through the Certificate of Need program. Some hospitals with a higher percentage of capital expense to total expense. Xinis asked Parker to clarify that even though a hospital makes a pledge related to a capital project, it does not mean that they ultimately spent that money. They could have deferred it or excluded it from their strategic plan. Parker responded that this information reflected the aggregate of what came through the Commission as CON or pledge projects. While most of them did get implemented, it is not necessarily an audited statement of financial spending. Xinis does not believe that this financial data necessarily backs up the assertion that consolidation leads to greater access to capital. In some cases, independent hospitals spend more money on capital than those who are in partners systems. Xinis reported that we have to be careful when leading communities to believe that consolidation will result in a new hospital. This data does not necessarily reflect that.

## **Preliminary Stakeholder Findings and Recommendations Presentation by Rebecca Goldman**

MHCC staff presented an outline of the recommendation for consideration based on previous Stakeholder meetings.

Rebecca Goldman reviewed the charges of the Stakeholder Group. First, the report will include a definition of rural with associated socio-economic characteristics for each region and county, including median incomes, education rates, and employment rates. Frego observed the stark difference between the lowest rural county median income in Allegany County and the highest median income in Howard County, which is more than two and half times that of Allegany's. Rural and urban areas have a similar high school graduation rates. However, there's a significant difference in the rates of higher education degrees – lower in rural areas. Kathleen McGrath suggested that the report include a list to show the differences in these attributes county by county, which can vary greatly.

The report will also discuss regional designations used for health planning in Maryland. The report will recommend that the Commission polices are maintained. There were no specific disadvantages discussed among the Stakeholders. Antol thought that hospitals operating within a system might have a perspective on the challenges of operating multiple hospitals with multiple services, from a planning period. She thought the group might consider how that affects the number of planning models needed. Some hospital CEOs might see the regional designations as a disadvantage for their planning purposes.

Workforce issues will be addressed via the information that currently exists and a number of DHMH initiatives that we heard about in the previous meeting. While information about workforce shortages varies throughout the state, there are a number of initiatives that specifically address some challenges to recruitment and retention in rural areas. Findings will include that policy makers should support successful existing programs.

In terms of barriers caused by distance, the report will look at the use of use of these facilities and unique ways to address barriers caused by distance. In looking at use rates for hospital inpatient services, MHCC staff did not find relationships between use rate and location. Antol thought that high use rates in some places might be due to a lack of available of primary care, or another barrier to primary care. Xinis believes that a low level of physician supply in some areas could lead to increased transfers, which are admitted to hospitals.

Parker presented nursing home use rates by county in Maryland. For the older population, the highest use rates are in the rural jurisdictions. Non-rural areas tend to be at the lower end of the use rates. Simplistically, one observes that the fewer options that exist in rural areas, but do not lead to lower use rates in these areas. Younger populations are increasingly using this service, in part due to higher Medicaid use for rehabilitation. For the younger age group, Baltimore city has the highest use rates. Adams asked if any of these changes can be attributed to the increase use of skilled nursing facilities. Parker agreed and Steffen added that these services would have been provided in a hospital a decade ago. Antol added that patients are often discharged from hospitals quicker, before patients or caregivers are ready. She also added that

the population is older in rural areas, which helps to explain the higher use rates in rural regions. Antol thought these SNFs might be the next growing market in medical care and something to consider in planning for vertical integration hospital systems. Parker added that there are more assisted living options, but non-rural, affluent populations have the most access to these. Adams added that there's an increased resistance on the part of caregivers to put their family members in nursing homes because they are reliant on state assistance.

For transportation, the report will include a review of existing successful models of transportation, particularly on the Eastern Shore. These agencies provided a list of challenges affecting efficient program delivery that can be included in the report.

In discussing the impact of consultations, MHCC staff has not found a strong case that consolidation has impacted services to date. We heard about the benefits of consolidations from some of the systems. However, Frego thought the local positions on consolidations should also be included in the report.

Xinis thought the Washington Post did a good job of reporting on the effects of consolidation in the DC and Northern Virginia market. The conclusion was that consolidation led to increased prices, but did not have any impact on efficiency or access to care. Because Maryland is an all-payer state, it might not have the same impact here. Bigger systems may not be as efficient in terms of overall cost per members per month. He believes that is an important question – whether hospital consolidation lowers the cost of health care and impacts quality. He does not have evidence that consolidation is going to lower the cost of care and increase quality. He thinks, as a planning commission, MHCC should look at this down the road. Information is available on pricing and quality.

Parker responded that consolidation means concentration, market power, and increasing leverage relative to the payers. The situation in Northern Virginia is a classic situation without regulatory intervention. ANOVA increased its market share and could probably identify cost savings associated with the consolidation. Parker does not believe that there was significant reordering of services in that case, from a consumer perspective. That environment is also different than the rate-regulated environment here in Maryland. Maryland probably has a better shot at creating a more efficient system with rate regulations. Historically, during the earlier systems consolidations in rural Maryland, there was more of a change in services in smaller systems like Upper Chesapeake, Shore Health, and in Cumberland. They rationalized avoiding duplication of services prior to a bigger system coming in to consolidate a smaller hospital or systems. So far, there has not been much movement of services in the large system consolidations. The one impact identified was in the case of Kent County, which lost the obstetric service. From the information gathered, MHCC staff does not think that was a direct effect of consolidation. Antol believes that Parker is accurate – that the specialists left and the hospital was ill-equipped to serve those patients. Clark added that, consolidation or not, there are still barriers in rural Maryland that need to be addressed – including workforce and transportation. McGrath said it would be inefficient to operate with the same types of specialists in all system hospitals. The workforce development piece is vital and a big piece of Shore Health's strategic planning process. It always comes back to the providers, the workforce, and

the resources available to sustain these facilities. Frego added that there have been strategies to address this, but the issue still exists in rural areas.

Goldman reviewed some general recommendations that will be in the report. Xinis asked that we add a recommendation that policy makers keep apprised of how consolidations impact *patient access, quality, and cost of services*. He also requested that the recommendations include payment strategies. Providers need additional financial support to move to rural areas. It's not just loan repayment programs, it's more of an access issue in the rural areas. Frego believes there are models that could enhance this situation. Diana believes that the tax system could be restructured to encourage retiring physicians to stay in Maryland.

Steffen added that we could take an approach to identify and implement models of care that provide higher value delivery systems. Antol added that there might be a strategy to meet patients in the community where they are, to identify underserved communities and how to get specialist where the needs are – instead of consolidating everything in a large building in a county hub. She is aware of a model in which physicians or specialists go to a community office once a week or once a month to serve the community. We should look at different models of delivery. Del. Eckhardt expressed the need to engage policy makers in Community Health Needs Assessments and other planning initiatives.

### **Meeting Conclusion**

Steffen discussed the next steps for the report. Stakeholders are encouraged to offer additional insight. He thanked the members for their participation and concluded the meeting.

## **Appendix 2**

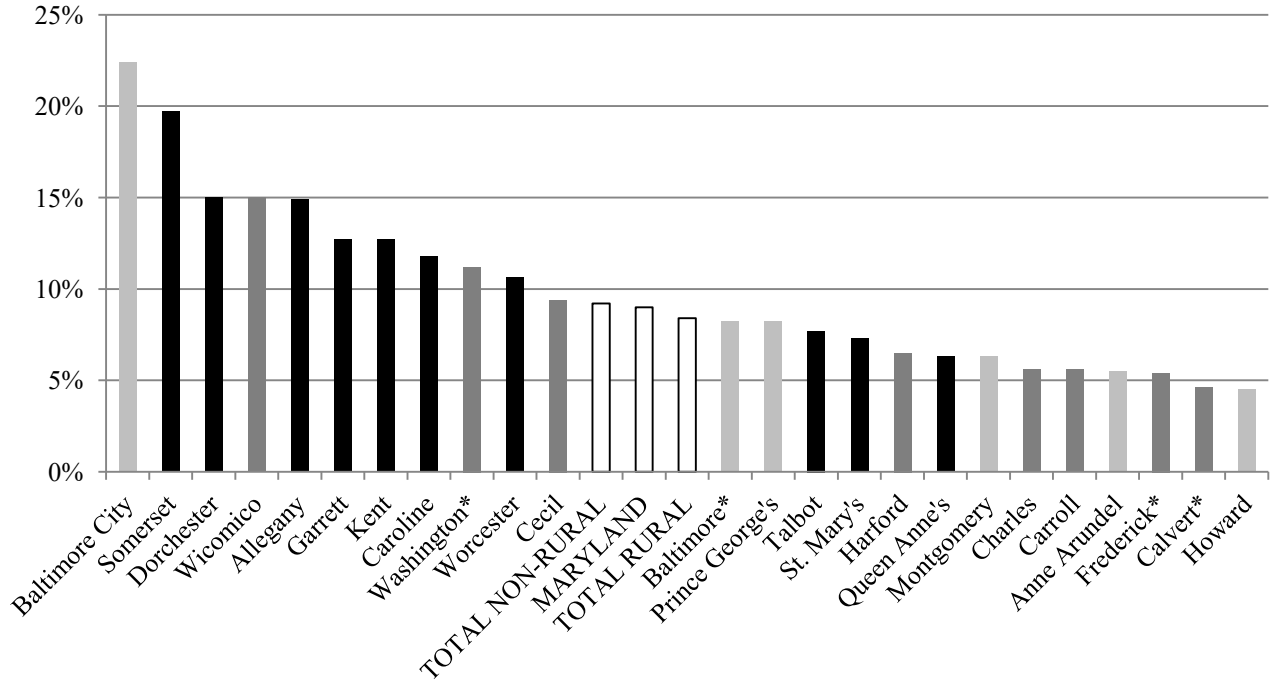
### **Characteristics of the Population for Maryland and Maryland's Counties**

**Proportion of the population under 18 years of age and over 65 years of age, poverty levels, and education levels for Maryland and Maryland's Counties, 2012 estimates**

| <b>County/Region</b>   | <b>Under 18 years, 2012</b> | <b>65+ years, 2012</b> | <b>Persons below poverty level, 2007-2011</b> | <b>High school graduates, 2007-2011</b> | <b>Bachelor's degree or higher, 2007-2011</b> |
|------------------------|-----------------------------|------------------------|---|---|---|
| Allegany               | 17.6%                       | 18.5%                  | 14.9%   | 86.4%                                   | 15.9%   |
| Garrett                | 21.1%                       | 18.6%                  | 12.7%   | 84.7%                                   | 17.3%   |
| Washington             | 22.4%                       | 14.9%                  | 11.2%   | 84.2%                                   | 19.0%   |
| <b>Western</b>         | <b>20.8%</b>                | <b>16.4%</b>           | <b>12.5%</b>                                  | <b>84.9%</b>                            | <b>17.9%</b>                                  |
| Cecil                  | 24.0%                       | 12.9%                  | 9.4%  | 86.9%                                   | 21.0%   |
| Harford                | 23.5%                       | 13.5%                  | 6.5%  | 91.3%                                   | 30.9%   |
| <b>Cecil/Harford</b>   | <b>23.6%</b>                | <b>13.3%</b>           | <b>7.3%</b>                                   | <b>90.0%</b>                            | <b>28.0%</b>                                  |
| Calvert                | 24.8%                       | 12.0%                  | 4.6%  | 92.1%                                   | 29.2%   |
| Charles                | 25.2%                       | 10.3%                  | 5.6%  | 90.6%                                   | 26.3%   |
| St. Mary's             | 25.4%                       | 11.0%                  | 7.3%  | 89.8%                                   | 28.5%   |
| <b>Southern</b>        | <b>25.2%</b>                | <b>11.0%</b>           | <b>5.9%</b>                                   | <b>90.7%</b>                            | <b>27.7%</b>                                  |
| Caroline               | 24.2%                       | 14.4%                  | 11.8%   | 82.2%                                   | 16.2%   |
| Dorchester             | 21.3%                       | 18.8%                  | 15.0%   | 82.2%                                   | 18.0%   |
| Kent                   | 17.1%                       | 23.3%                  | 12.7%   | 85.5%                                   | 29.6%   |
| Queen Anne's           | 22.9%                       | 16.1%                  | 6.3%  | 90.3%                                   | 29.9%   |
| Talbot                 | 19.0%                       | 25.5%                  | 7.7%  | 88.8%                                   | 32.7%   |
| <b>Mid/Upper Shore</b> | <b>21.3%</b>                | <b>19.2%</b>           | <b>10.1%</b>                                  | <b>86.3%</b>                            | <b>25.6%</b>                                  |
| Somerset               | 16.7%                       | 14.4%                  | 19.7%   | 81.6%                                   | 14.3%   |
| Wicomico               | 22.0%                       | 13.6%                  | 15.0%   | 85.4%                                   | 25.6%   |
| Worcester              | 17.8%                       | 24.3%                  | 10.6%   | 88.7%                                   | 27.3%   |
| <b>Lower Shore</b>     | <b>20.0%</b>                | <b>16.8%</b>           | <b>14.4%</b>                                  | <b>85.8%</b>                            | <b>24.4%</b>                                  |
| Carroll                | 23.3%                       | 14.3%                  | 5.6%  | 90.3%                                   | 31.5%   |
| Frederick              | 24.4%                       | 12.0%                  | 5.4%  | 91.5%                                   | 36.6%   |
| <b>Total Rural</b>     | <b>23.0%</b>                | <b>14.2%</b>           | <b>8.4%</b>                                   | <b>88.8%</b>                            | <b>27.4%</b>                                  |
| Anne Arundel           | 22.8%                       | 12.7%                  | 5.5%  | 90.4%                                   | 36.3%   |
| Baltimore              | 21.7%                       | 15.1%                  | 8.2%  | 89.2%                                   | 35.2%   |
| Howard                 | 24.9%                       | 11.2%                  | 4.5%  | 94.9%                                   | 58.7%   |
| Montgomery             | 23.5%                       | 12.9%                  | 6.3%  | 91.1%                                   | 56.8%   |
| Prince George's        | 23.1%                       | 10.3%                  | 8.2%  | 85.8%                                   | 29.7%   |
| Baltimore City         | 21.5%                       | 11.9%                  | 22.4%   | 78.5%                                   | 25.8%   |
| <b>Total Non-Rural</b> | <b>22.8%</b>                | <b>12.5%</b>           | <b>9.2%</b>                                   | <b>87.9%</b>                            | <b>39.7%</b>                                  |
| <b>Maryland</b>        | <b>22.8%</b>                | <b>13.0%</b>           | <b>9.0%</b>                                   | <b>88.2%</b>                            | <b>36.1%</b>                                  |

Source: US Census Bureau State & County QuickFacts

## Proportion of the population below the poverty level for Maryland and Maryland's Counties, 2007-2011



Federally Designated Rural Area  
  State Designated Rural Area\*  
  Non-Rural Area  
  Aggregate Group

\* Parts of Frederick, Washington, Baltimore, and Calvert County are federally-designated

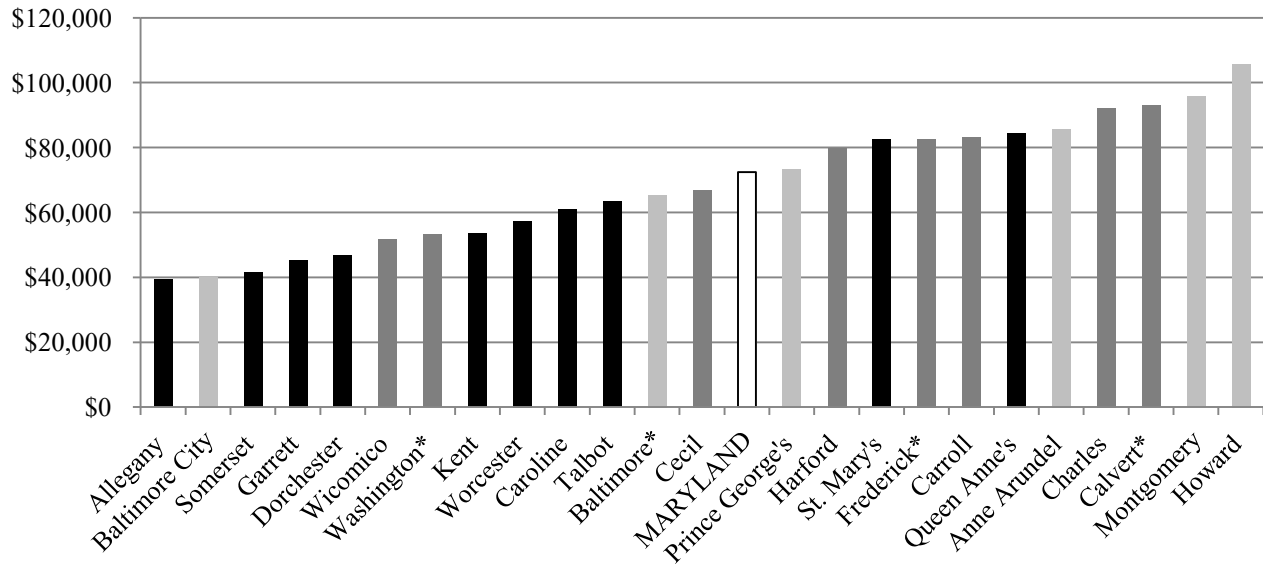
Source: U.S. Census Bureau State & County QuickFacts

**Rates of unemployment, uninsured, eligibility for Medicaid and MCO participation for Maryland and Maryland's Counties**

| <b>County/Region</b>   | <b>Unemployment Rate, Civilian Labor Force, 2012 Annual Average*</b> | <b>Uninsured Rate, 2011**</b> | <b>Eligible for Medicaid<sup>^</sup></b> | <b>MCO Participation Rate, 2011<sup>^</sup></b> |
|------------------------|--|-------------------------------|--|---|
| Allegany               | 8.2%   | 11.9%                         | 23.4%                                    | 70.1%   |
| Garrett                | 7.5%   | 14.0%                         | 24.0%                                    | 72.2%   |
| Washington             | 8.5%   | 11.9%                         | 21.6%                                    | 72.8%   |
| <b>Western</b>         | <b>8.3%</b>  | <b>12.2%</b>                  | <b>22.4%</b>                             | <b>71.9%</b>                                    |
| Cecil                  | 8.4%   | 10.3%                         | 19.6%                                    | 77.1%   |
| Harford                | 7.0%   | 8.8%                          | 12.5%                                    | 74.5%   |
| <b>Cecil/Harford</b>   | <b>7.3%</b>  | <b>9.2%</b>                   | <b>14.6%</b>                             | <b>75.5%</b>                                    |
| Calvert                | 5.7%   | 7.8%                          | 12.9%                                    | 76.6%   |
| Charles                | 6.0%   | 8.9%                          | 14.1%                                    | 74.6%   |
| St. Mary's             | 5.9%   | 9.1%                          | 15.4%                                    | 77.4%   |
| <b>Southern</b>        | <b>5.9%</b>  | <b>8.7%</b>                   | <b>14.2%</b>                             | <b>76.0%</b>                                    |
| Caroline               | 8.4%   | 14.7%                         | 28.1%                                    | 76.8%   |
| Dorchester             | 10.5%  | 14.0%                         | 31.6%                                    | 71.1%   |
| Kent                   | 7.5%   | 14.1%                         | 19.6%                                    | 72.8%   |
| Queen Anne's           | 6.2%   | 10.1%                         | 14.9%                                    | 77.1%   |
| Talbot                 | 7.6%   | 13.5%                         | 16.6%                                    | 71.5%   |
| <b>Mid/Upper Shore</b> | <b>7.8%</b>  | <b>12.9%</b>                  | <b>21.5%</b>                             | <b>74.0%</b>                                    |
| Somerset               | 10.3%  | 14.2%                         | 26.0%                                    | 73.3%   |
| Wicomico               | 8.6%   | 14.2%                         | 25.9%                                    | 76.2%   |
| Worcester              | 11.6%  | 14.2%                         | 19.1%                                    | 71.9%   |
| <b>Lower Shore</b>     | <b>9.7%</b>  | <b>14.2%</b>                  | <b>23.9%</b>                             | <b>74.7%</b>                                    |
| Carroll                | 6.2%   | 8.1%                          | 10.0%                                    | 72.0%   |
| Frederick              | 5.8%   | 9.9%                          | 11.7%                                    | 74.9%   |
| <b>Total Rural</b>     | <b>7.1%</b>  | <b>10.3%</b>                  | <b>16.5%</b>                             | <b>74.3%</b>                                    |
| Anne Arundel           | 6.1%   | 9.0%                          | 12.0%                                    | 74.9%   |
| Baltimore              | 7.3%   | 11.0%                         | 38.4%                                    | 73.0%   |
| Howard                 | 5.0%   | 8.1%                          | 17.1%                                    | 73.6%   |
| Montgomery             | 5.1%   | 12.7%                         | 9.7%                                     | 72.7%   |
| Prince George's        | 6.8%   | 16.1%                         | 12.8%                                    | 76.1%   |
| Baltimore City         | 10.2%  | 14.8%                         | 18.2%                                    | 80.5%   |
| <b>Total Non-Rural</b> | <b>6.7%</b>  | <b>12.6%</b>                  | <b>18.3%</b>                             | <b>75.4%</b>                                    |
| <b>Maryland</b>        | <b>6.8%</b>  | <b>12.0%</b>                  | <b>17.8%</b>                             | <b>75.0%</b>                                    |

Sources: \* Maryland Department of Labor, Licensing & Regulation, Office of Workforce Information and Performance; \*\*U.S. Census Bureau, Small Area Health Insurance Estimates; <sup>^</sup>Maryland Department of Health and Mental Hygiene, Medicaid eHealth Statistics and Department of Planning Population Estimates, with analysis by Commission Staff.

## Median household income for Maryland and Maryland Counties, 2007-2011



Federally Designated Rural Area  
  State Designated Rural Area\*  
  Non-Rural Area  
  Aggregate Group

\* Parts of Frederick, Washington, Baltimore, and Calvert County are federally-designated

Source: U.S. Census Bureau State & County QuickFacts

## **Appendix 3**

### **Health Planning Region Designations**

**State Health Plan region designations, as of November 18, 2013**

| <b>State Health Plan Chapter</b>  | <b>Designated Regions</b>   |
|---|---|
| Psychiatric Services (COMAR 10.24.07)   | <b>Western MD sub-regions</b> (Allegany/Garrett; Frederick/Washington)<br><b>Southern MD sub-regions</b> (Calvert/Charles/St. Mary's; Southern Prince George's)<br><b>Central MD sub-regions</b> (Baltimore City; Anne Arundel/Baltimore/Carroll/Harford/Howard)<br><b>Eastern Shore sub-regions</b> (Upper – Cecil, Kent, Queen Anne's, Caroline, Talbot; Lower – Dorchester, Wicomico, Somerset, Worcester) |
| Emergency Services (COMAR 10.24.07)   | Institutional   |
| Nursing Home and Home Health Services (COMAR 10.24.08)  | Bed Need projected a jurisdictional level (23 Counties and Baltimore City)  |
| Acute Inpatient Rehab Services (COMAR 10.24.09)   | <b>Western</b> (Frederick, Washington, Allegany, Garrett)<br><b>Montgomery County</b><br><b>Southern</b> (Prince George's, Charles, Calvert, St. Mary's)<br><b>Central</b> (Baltimore City, Carroll, Baltimore, Harford, Cecil, Anne Arundel, Howard)<br><b>Eastern Shore</b> (Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Worcester, Wicomico, Somerset)  |
| Acute Hospital Services (COMAR 10.24.10)  | Medical/surgical and pediatric bed need forecast based on patient origin of each hospital and aggregated at the jurisdictional level. Analysis of need, viability, and impact issues addressed at hospital service area level.  |
| General Surgical Facilities (COMAR 10.24.11)  | Institutional   |
| Acute Hospital Inpatient Obstetric Services (COMAR 10.24.12)  | Institutional   |
| Hospice Services (COMAR 10.24.13)   | Need projected a jurisdictional level (23 Counties and Baltimore City)  |
| Alcoholism and Drug Abuse Intermediate Care Facility Treatment (COMAR 10.24.14)                                       | <b>Western</b> (Carroll, Frederick, Washington, Allegany, Garrett)<br><b>Montgomery County</b><br><b>Southern</b> (Prince George's, Charles, Calvert, St. Mary's)<br><b>Central</b> (Baltimore City, Harford, Baltimore, Anne Arundel, Howard)<br><b>Eastern Shore</b> (Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester, Worcester, Wicomico, Somerset)   |
| Organ Transplant Services (COMAR 10.24.15)  | <i>Consistent with Organ Procurement Organizations' designations</i><br><b>Transplant Resource Center of MD</b> (Western & Central MD, Eastern Shore, Calvert & St. Mary's)<br><b>Washington Regional Transplant Consortium</b> (Montgomery, Prince George's, Charles)  |
| Cardiac Surgery (COMAR 10.24.17)*<br>(PCI regulation in non cardiac surgery hospitals has been institutional to date) | <b>Western</b> (Garrett, Allegany, Washington, Frederick)<br><b>Metro Washington</b> (Washington, D.C., Montgomery, Prince George's, Calvert, Charles, St. Mary's)<br><b>Metro Baltimore</b> (Baltimore City, Carroll, Harford, Baltimore, Howard, Anne Arundel)<br><b>Eastern Shore</b> (Cecil, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, Worcester, Somerset)                             |
| Institutional   |   |
| Neonatal Intensive Care Services (COMAR 10.24.18)   | <b>Western</b> (Garrett, Allegany, Washington, Frederick)<br><b>Southern</b> (Montgomery, Prince George's, Calvert, Charles, St. Mary's)<br><b>Central</b> (Baltimore City, Baltimore, Anne Arundel, Carroll, Howard, Harford)<br><b>Eastern Shore</b> (Cecil, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, Somerset, Worcester)   |

\*Change in regions under consideration by MHCC

**Maryland Institute of Emergency Medical Services Systems (MIEMSS) region designations**

| <b><u>EMS Regions</u></b> | <b><u>Counties</u></b>   |
|---------------------------|--|
| Region I                  | Garrett, Allegany  |
| Region II                 | Washington, Frederick  |
| Region III                | Carroll, Baltimore, Harford, Howard, Baltimore City, Anne Arundel                      |
| Region IV                 | Cecil, Kent, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, Somerset, Worcester |
| Region V                  | Montgomery, Prince George's, Calvert, Charles, St. Mary's                              |

**Maryland Health Benefit Exchange Connector region designations**

| <b><u>Region</u></b> | <b><u>Counties</u></b>   |
|----------------------|--|
| Western              | Garrett, Allegany, Washington, Frederick, Carroll, Howard        |
| Capital              | Montgomery & Prince George's                                     |
| Southern             | Charles, St. Mary's, Calvert                                     |
| Central              | Baltimore, Anne Arundel, Baltimore City                          |
| Upper Eastern Shore  | Harford, Cecil, Kent, Queen Anne's, Talbot, Caroline, Dorchester |
| Lower Eastern Shore  | Wicomico, Somerset, Worcester                                    |

## **Appendix 4**

### **Overview of GWIB 2013 Health Care Manpower Study**

# Maryland Health Care Workforce Study

Srinivas Sridhara  
Maryland Health Care Commission

November 21, 2013



# Overview

- Maryland Professional Boards are often already collecting critical information needed for workforce analysis
- Most Boards are collecting data cited by the Health Resources and Services Administration's Workforce Minimum Data Set (MDS) initiative
- Maryland Boards collect more complete data than many states
- Considerable variation among Boards due to staff resources and prior involvement in workforce planning efforts

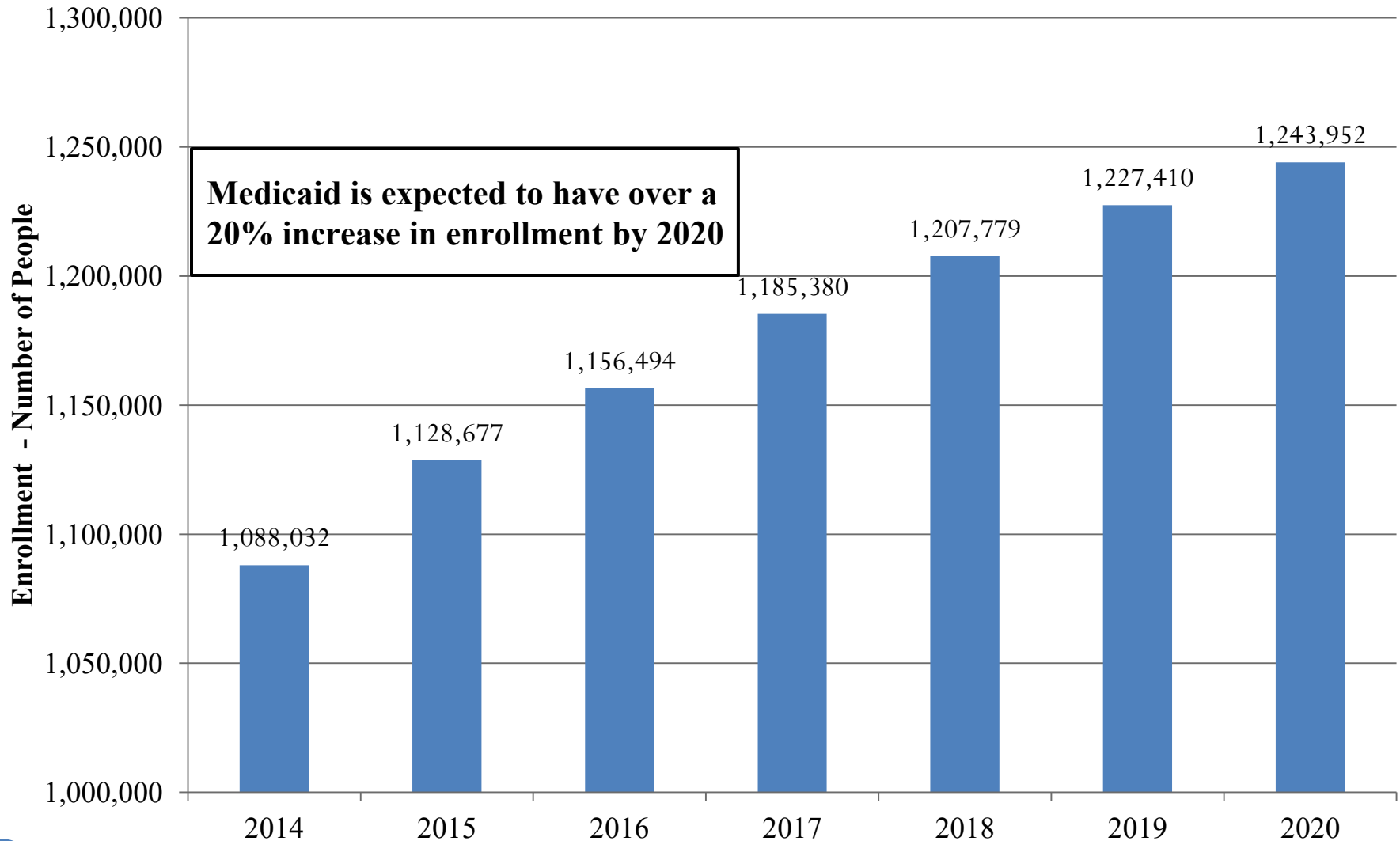
# Benefits to Maryland

- Allows Maryland to be responsive to the changing health care delivery system and expanded insurance coverage due to the ACA
- Establishes a workforce data system that will allow Maryland policymakers to assess current supply and plan for future workforce needs relative to changing health care demands of population
- As an early innovator:
  - Moves workforce planning beyond single health occupations
  - Begins to align workforce planning with delivery system reforms
  - Aligns Maryland's efforts with evolving HRSA initiatives to model workforce needs

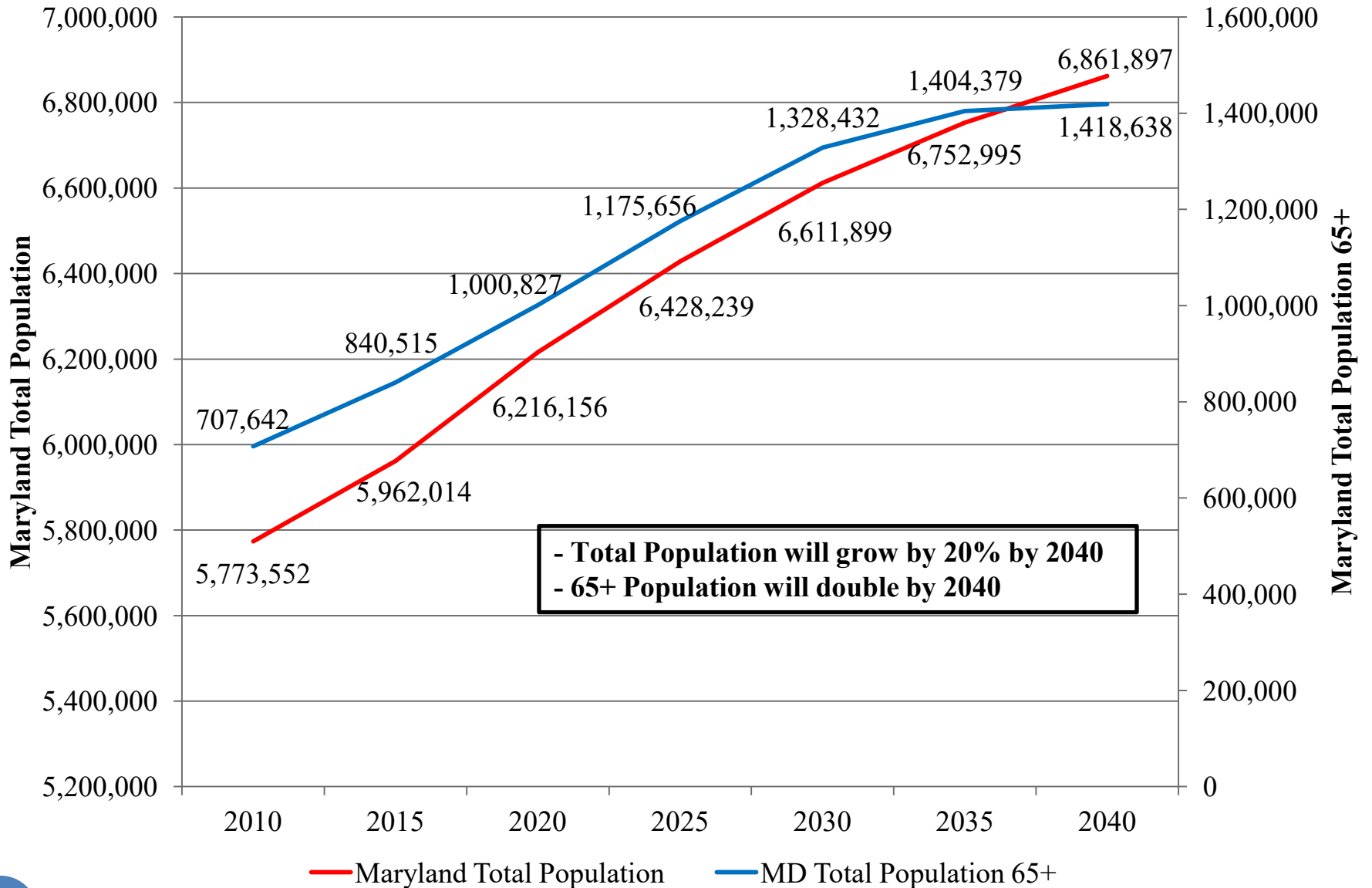
# Overview

- Health Reform Implications for Workforce
- Maryland's Health Workforce Study
  - Study Goals and Approach
  - State Partners and Collaborators
- Phase 1 Findings
- Phase 2 Preview
- Next Steps

# Medicaid Enrollment Projections with the Implementation of ACA



# Maryland Population Growth 2010-2040



# Study Goals and Approach

## PHASE 1

- Assess broadly the quality and utility of data available to study the Maryland health care work force
- Identify types of data needed to assess current and future adequacy of supply of health care services and providers
- Assess data availability, current gaps and possible solutions
  - Identify viable alternatives to currently available data where feasible

## PHASE 2

- Report on health care workforce characteristics and current and past distribution
  - Inform workforce transition to health reform
  - Identify disparities in access to care
  - Provide information to support stakeholder collaboration

## PHASE 3

- Make recommendations to Professional Licensure Boards to enhance collection of needed data
  - Support execution of changes to Licensure Board applications

# Partners and Collaborators

- Governor's Workforce Investment Board (*Funding Support*)
- Governor's Office of Health Care Reform
- Maryland Health Care Commission
  
- Maryland Professional Licensure Boards
  
- Robert Wood Johnson Foundation (*Funding Support*)
  - IHS Global Inc

# Providers to be Studied

- Initial emphasis on Primary Care, Oral Health, and Mental Health
- Boards that will be submitting licensure data
  - Counselors
  - Dentists
  - Nurses
  - Pharmacists
  - Physicians
  - Psychologists
  - Social Workers

# Phase 1 Findings – Fields Required

- **Current Supply Analysis**
  - **Essential Fields:** Activity Status, Specialty, Work Location, Patient Care Hours, and Resident/Fellow.
  - **Useful Fields:** Work Location, Age, Gender, Race/Ethnicity, Total Hours, Education, and Future Plans.
- **Current Demand Analysis**
  - **Essential Fields:** Population Demographics, Current Utilization Patterns, and Current Patient-to-Provider Ratio
  - **Useful Fields:** Population Health Risk and Socioeconomic Characteristics.
- **Adequacy of Supply and Forecasting**

# Phase 1 Findings – Data Strengths

- Many Boards collect essential fields for workforce supply analysis on their applications forms, including HRSA MDS fields
- Board of Physicians data is most comprehensive and requires few additional fields
- Several providers have data to support basic jurisdiction level supply analysis. Additional fields would be required for more sophisticated analyses.
  - Mental Health Providers – Psychiatrists, Psychologists, Social Workers, and Counselors
  - Physician Assistants
- MHCC role in supporting Board web applications

# Phase 1 Findings – Data Weaknesses

- While there are many strengths for analysis of current supply, analysis and adequacy of future supply is not possible in most cases
- Getting more refined than county-level analysis is not possible in most cases
- License management software are useful for Boards in their primary charge, but are not built for extraction of data and analysis.
  - Nursing
  - Dental
  - Pharmacy

# Phase 2 - Preview

- Variation in data availability across professions
- Supply Analysis
  - Deviations from past efforts
- Demand Analysis
  - Deviations from past efforts
  - Simulation models vs. national standards
- Geographic variation

# Next Steps

- Finalize Phase 1 and 2 Reports
  - Release of reports expected in December
- Make recommendations to Boards on potential changes to applications
- Execution of changes to Board Applications (Phase 3)
- Report back to GWIB, GOHCR, RWJF, and MHCC

## **Appendix 5**

### **Number of Selected Health Care Facilities and Beds by County**

### Number of hospitals and licensed acute care beds by Maryland County, FY 2014

| Rural Jurisdictions |            |              |            | Non-Rural Jurisdictions |            |              |            |
|---------------------|------------|--------------|------------|-------------------------|------------|--------------|------------|
| County              | Hospitals  | Beds         | Population | County                  | Hospitals  | Beds         | Population |
| Allegany            | 1          | 200          | 1.3%       | Anne Arundel            | 2          | 704          | 9.3%       |
| Calvert             | 1          | 92           | 1.5%       | Baltimore               | 4          | 1,077        | 13.9%      |
| Caroline            | -          | -            | 0.6%       | Baltimore City          | 12         | 3,961        | 10.6%      |
| Carroll             | 1          | 151          | 2.9%       | Howard                  | 1          | 253          | 5.0%       |
| Cecil               | 1          | 85           | 1.8%       | Montgomery              | 5          | 1,329        | 16.9%      |
| Charles             | 1          | 121          | 2.6%       | Prince George's         | 5          | 750          | 14.9%      |
| Dorchester          | 1          | 41           | 0.6%       |                         |            |              |            |
| Frederick           | 1          | 297          | 4.1%       |                         |            |              |            |
| Garrett             | 1          | 26           | 0.5%       |                         |            |              |            |
| Harford             | 2          | 274          | 4.3%       |                         |            |              |            |
| Kent                | 1          | 41           | 0.3%       |                         |            |              |            |
| Queen Anne's        | -          | -            | 0.8%       |                         |            |              |            |
| St. Mary's          | 1          | 89           | 1.9%       |                         |            |              |            |
| Somerset            | 1          | 4            | 0.5%       |                         |            |              |            |
| Talbot              | 1          | 112          | 0.7%       |                         |            |              |            |
| Washington          | 1          | 237          | 2.6%       |                         |            |              |            |
| Wicomico            | 1          | 288          | 1.7%       |                         |            |              |            |
| Worcester           | 1          | 45           | 0.9%       |                         |            |              |            |
| <b>Rural Total</b>  | <b>17</b>  | <b>2,103</b> | <b>-</b>   | <b>Non-Rural Total</b>  | <b>29</b>  | <b>8,074</b> | <b>-</b>   |
| MD Total            | 46         | 10,177       | -          | MD Total                | 46         | 10,177       | -          |
| <b>% of Total</b>   | <b>37%</b> | <b>21%</b>   | <b>29%</b> | <b>% of Total</b>       | <b>63%</b> | <b>79%</b>   | <b>71%</b> |

Source: Maryland Health Care Commission Update: Licensed Acute Care Hospital Beds, Fiscal Year FY 2014

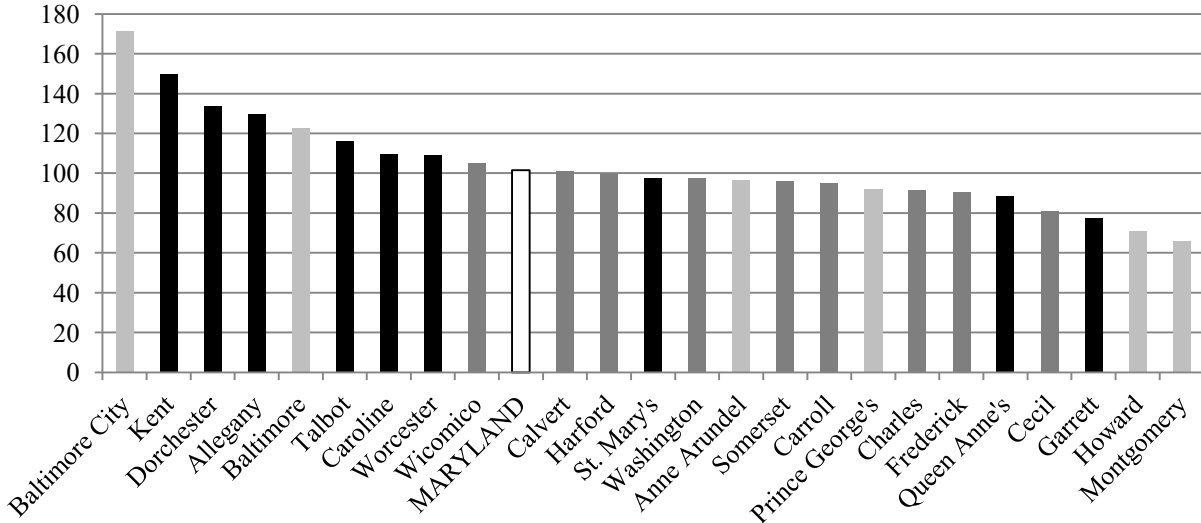
**Number of comprehensive care facilities (nursing homes) and beds by  
Maryland County, July, 2013**

| <b>Rural Jurisdictions</b> |             |              |                   | <b>Non-Rural Jurisdictions</b> |             |               |                   |
|----------------------------|-------------|--------------|-------------------|--------------------------------|-------------|---------------|-------------------|
| <b>Jurisdiction</b>        | <b>CCFs</b> | <b>Beds</b>  | <b>Population</b> | <b>Jurisdiction</b>            | <b>CCFs</b> | <b>Beds</b>   | <b>Population</b> |
| Allegany                   | 8           | 931          | 1.3%              | Anne Arundel                   | 16          | 1,833         | 9.3%              |
| Calvert                    | 4           | 314          | 1.5%              | Baltimore                      | 47          | 5,542         | 13.9%             |
| Caroline                   | 2           | 187          | 0.6%              | Baltimore City                 | 34          | 4,260         | 10.6%             |
| Carroll                    | 10          | 944          | 2.9%              | Howard                         | 5           | 572           | 5.0%              |
| Cecil                      | 3           | 456          | 1.8%              | Montgomery                     | 34          | 4,686         | 16.9%             |
| Charles                    | 4           | 489          | 2.6%              | Prince George's                | 20          | 2,841         | 14.9%             |
| Dorchester                 | 2           | 281          | 0.6%              |                                |             |               |                   |
| Frederick                  | 10          | 1,073        | 4.1%              |                                |             |               |                   |
| Garrett                    | 4           | 316          | 0.5%              |                                |             |               |                   |
| Harford                    | 6           | 785          | 4.3%              |                                |             |               |                   |
| Kent                       | 3           | 228          | 0.3%              |                                |             |               |                   |
| Queen Anne's               | 1           | 120          | 0.8%              |                                |             |               |                   |
| St. Mary's                 | 2           | 305          | 1.9%              |                                |             |               |                   |
| Somerset                   | 2           | 214          | 0.5%              |                                |             |               |                   |
| Talbot                     | 2           | 260          | 0.7%              |                                |             |               |                   |
| Washington                 | 10          | 1,144        | 2.6%              |                                |             |               |                   |
| Wicomico                   | 5           | 643          | 1.7%              |                                |             |               |                   |
| Worcester                  | 3           | 328          | 0.9%              |                                |             |               |                   |
| <b>Rural Total</b>         | <b>82</b>   | <b>9,018</b> | <b>-</b>          | <b>Non-Rural Total</b>         | <b>156</b>  | <b>19,734</b> | <b>-</b>          |
| <b>% of Total</b>          | <b>34%</b>  | <b>31%</b>   | <b>29%</b>        | <b>% of Total</b>              | <b>66%</b>  | <b>69%</b>    | <b>71%</b>        |

## **Appendix 6**

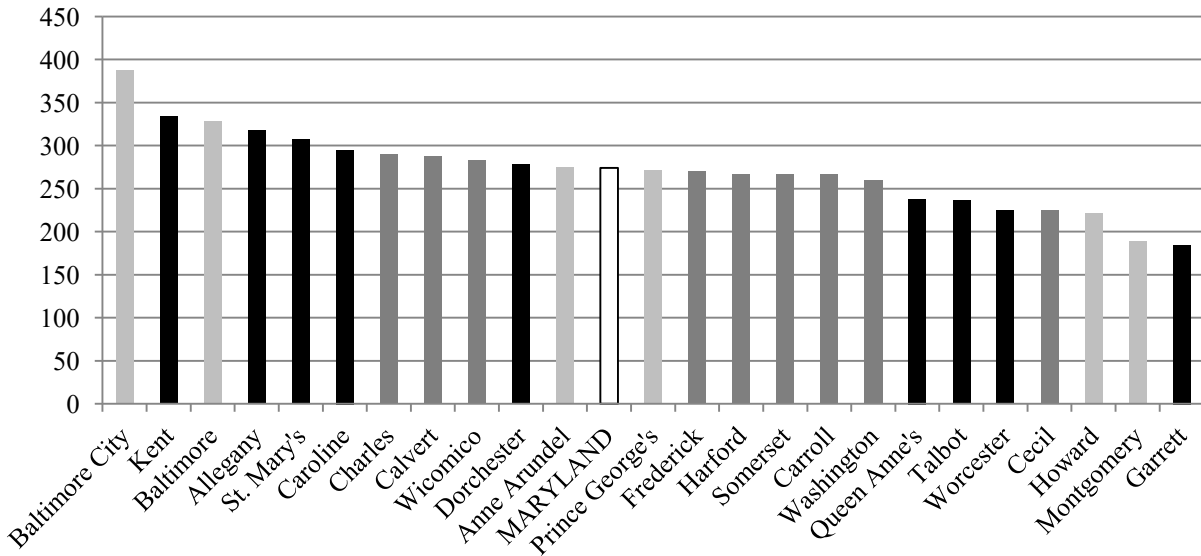
### **Use Rates for Inpatient Hospital Services, Nursing Homes, and Emergency Room Visits by Maryland County**

### Hospital inpatient use rate per 1,000 population for Maryland and Maryland Counties, Calendar Year 2012



Federally Designated Rural Area  
109.7/1,000 Population
  State Designated Rural Area\*  
94.9/1,000 Population
  Non-Rural Area  
102.6/1,000 Population
  Aggregate Group  
101.5/1,000 Population

### Hospital use rate per 1,000 for population over 65 years of age for Maryland and Maryland Counties, Calendar Year 2012

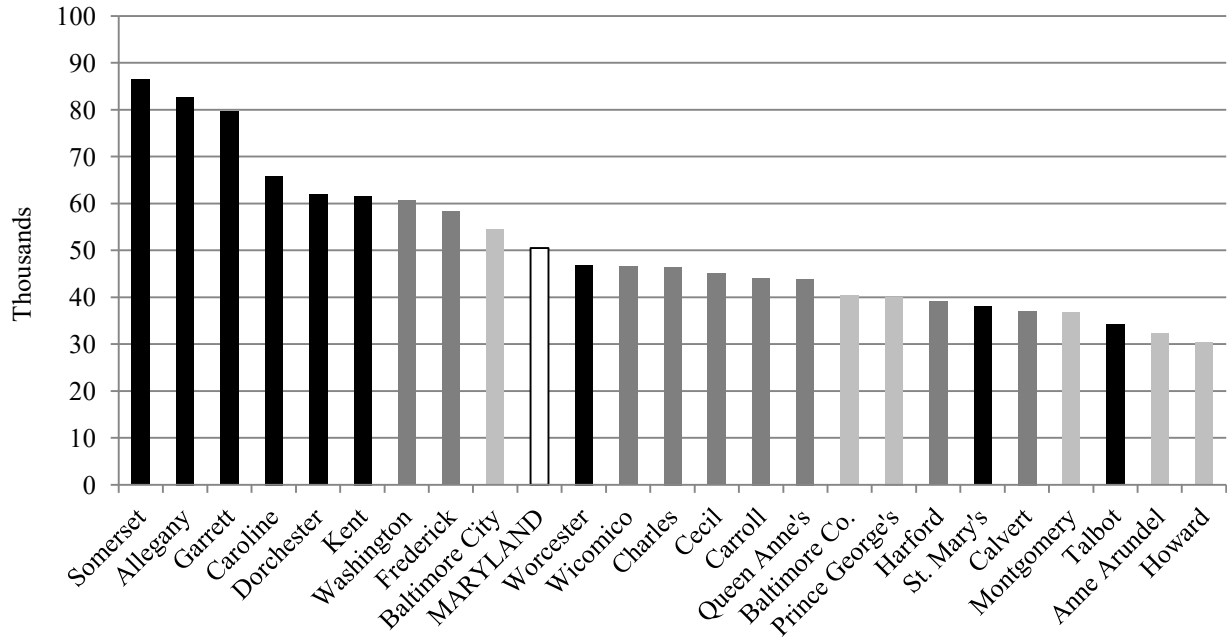


Federally Designated Rural Area  
269.4/1,000 Population
  State Designated Rural Area\*  
267.8/1,000 Population
  Non-Rural Area  
277.8/1,000 Population
  Aggregate Group  
274.2/1,000 Population

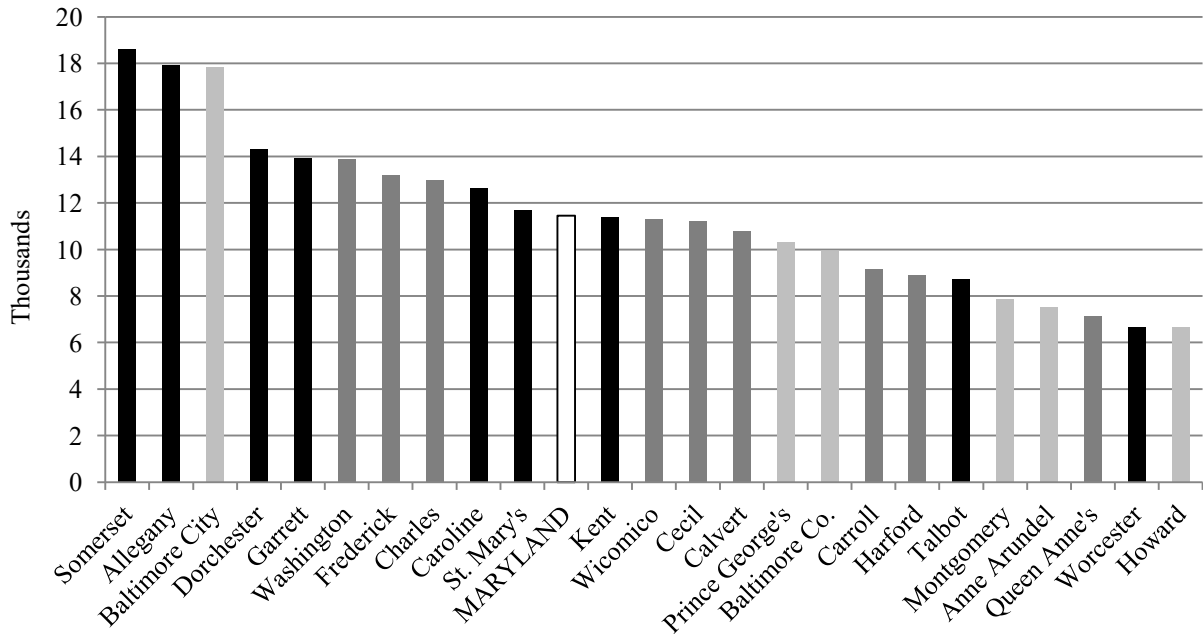
\* Parts of Frederick, Washington, Baltimore, and Calvert County are federally-designated

Source: Maryland and DC Hospital Inpatient Discharges & U.S. Census Bureau State and County QuickFacts

**Nursing home use rate (patient days per 1,000 population)  
85 and older population for Maryland and Maryland Counties, 2009**



**Nursing home use rate (patient days per 1,000 population)  
75-84 population for Maryland and Maryland Counties, 2009**

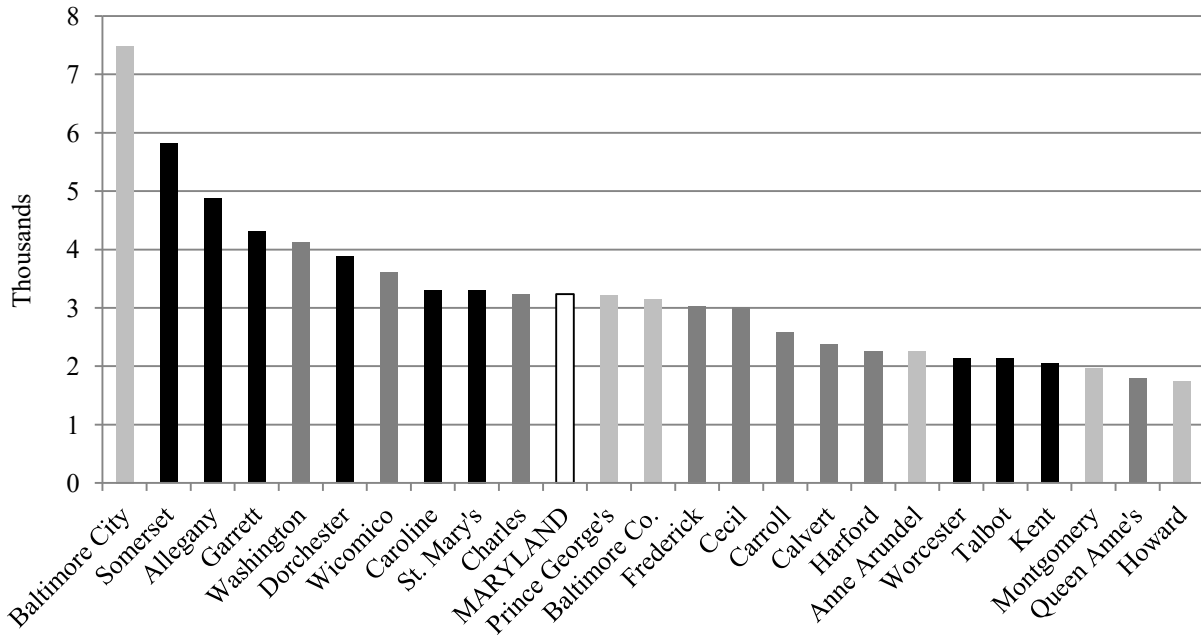


Federally Designated Rural Area
  State Designated Rural Area\*
  Non-Rural Area
  Aggregate Group

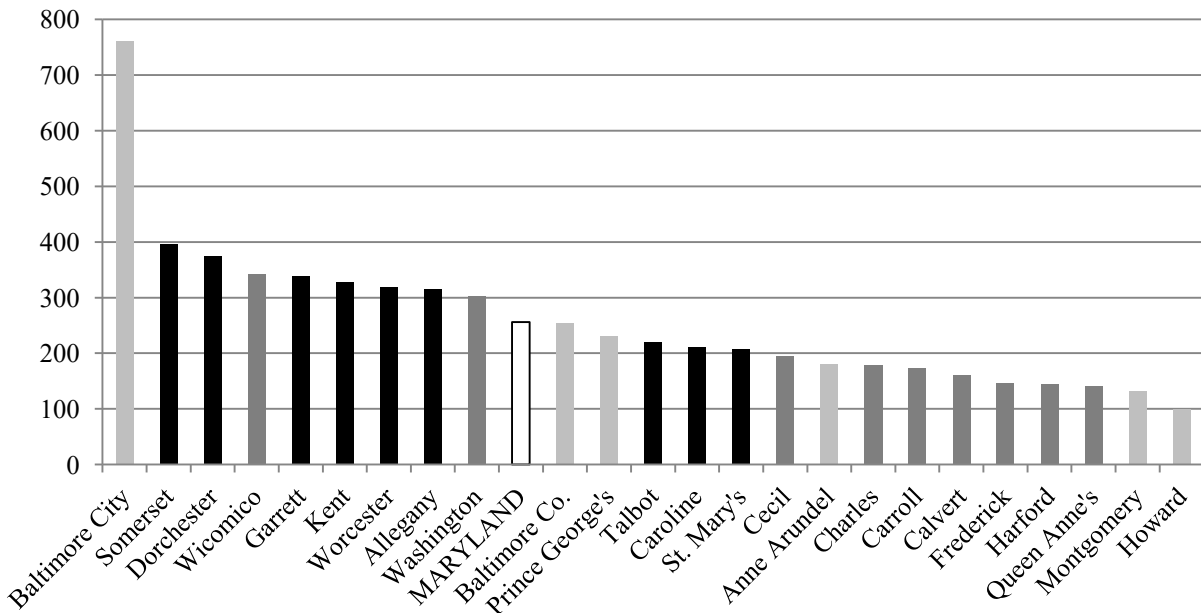
\* Parts of Frederick, Washington, Baltimore, and Calvert County are federally-designated

Source: Maryland Health Care Commission & U.S. Census Bureau

**Nursing home use rate (patient days per 1,000 population)  
65-74 population for Maryland and Maryland Counties, 2009**



**Nursing home use rate (patient days per 1,000 population)  
0-64 population for Maryland and Maryland Counties, 2009**

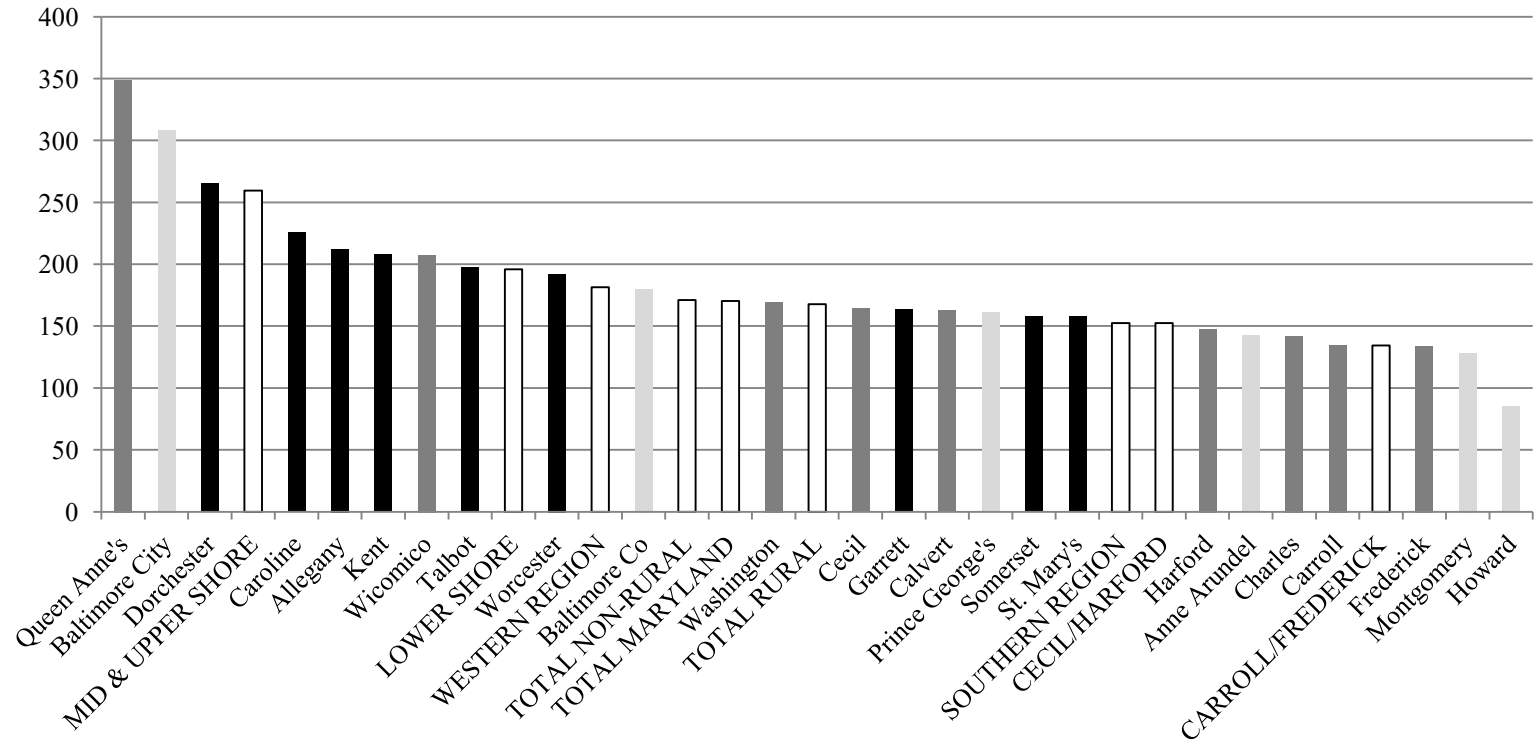


Federally Designated Rural Area
  State Designated Rural Area\*
  Non-Rural Area
  Aggregate Group

\* Parts of Frederick, Washington, Baltimore, and Calvert County are federally-designated

Source: Maryland Health Care Commission & U.S. Census Bureau

**Hospital and freestanding medical facility emergency department use rate (ED visits per 1,000 population) for Maryland and Maryland Counties, Calendar Year 2011**



Federally Designated Rural Area  
  State Designated Rural Area\*  
  Non-Rural Area  
  Aggregate Group

\* Parts of Frederick, Washington, Baltimore, and Calvert County are federally-designated

Source: Maryland Health Care Commission & U.S. Census Bureau