MARYLAND RURAL HEALTH ASSOCIATION

2018 MARYLAND Rural Health Plan

MDRuralHealth.org
MDRuralHealthPlan.org

Maryland Department of Health
State Office of Rural Health

RMC
Rural Maryland Council

Robert Wood Johnson Foundation

ACKNOWLEDGMENTS

The Maryland Rural Health Association was tasked with updating the Maryland Rural Health Plan, a document that gives life to the health care status of rural Marylanders. This project would not be possible without the support from the State Office of Rural Health, the Rural Maryland Council, and the Robert Wood Johnson Foundation; for that we extend our sincerest gratitude.

The Maryland Rural Health Association would also like to extend its appreciation to the following organizations and individuals for their support in making the 2018 Maryland Rural Health Plan a success. Acknowledgements include:

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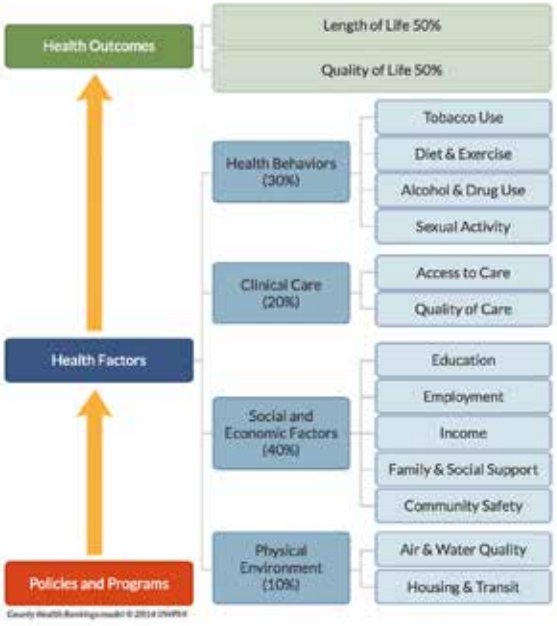
- Maryland Rural Health Association Board of Directors: PRESIDENT: Mark Boucot, Garrett Regional Medical Center; VICE-PRESIDENT: Susan Stewart, AHEC West; SECRETARY: Jennifer Berkman, Eastern Shore AHEC; TREASURER: Andrea Mathias, Worcester County Health Department; BOARD MEMBERS: Meena Brewster, St. Mary's Health Department; Stephanie Garrity, Cecil County Health Department; Annie Kronk, Retired from The Johns Hopkins Institutions; Michael Meit, NORC Walsh Center for Rural Health Analysis, NORC at the University of Chicago; Larry Polsky, Calvert County Health Department; John Ness, West Cecil Health Center, Inc.; Robert Stephens, Garrett County Health Department; Patti Willis, University of Maryland Shore Regional Health; Christine Wray, MedStar St. Mary's Hospital; STATE AGENCY LIAISON(S)/NON-VOTING: Temi Oshiyoye, State Office of Rural Health, Maryland Department of Health; Jennifer Witten, Maryland Hospital Association; Meredith Donaho, Rural Maryland Council; EX-OFFICIO MEMBER/NON-VOTING: Most recent past MRHA Board President: Lori Werrell, MedStar St. Mary's Hospital.
- Focus Group Moderators: Shelley Argabrite, Garrett County Health Department: Shannon Bingham, St. Mary's County Health Department; Mallory Callahan, Harford County Health Department; Melissa Clark, AHEC West; Daniel Coulter, Cecil County Health Department; Dennis DiCintio, Wicomico County Health Department; Jenifer Faulkner, Calvert County Health Department; Katherine Gunby, Worcester County Health Department; Maggie Kunz, Carroll County Health Department; Mary McPherson, Washington County Health Department; Angela Mercier, Dorchester County Health Department; Jenna Mulliken, St. Mary's County Health Department; Victoria Persetic, Calvert County Health Department; John Pesaniello, LCADC, Worcester County Health Department; Rebecca Rice, Kent County Health Department; Amber Starn, Charles County Health Department; Craig Stofko, Somerset County Health Department; Maryann Thompson, Queen Anne's County Health Department; Fredia Wadley, MD, Talbot County Health Department; Rissah Watkins, Frederick County Health Department

The Maryland Rural Health Association uses the following Robert Wood Johnson Foundation



MARYLAND RURAL HEALTH ASSOCIATION

2018 MARYLAND Rural Health Plan

EXECUTIVE SUMMARY

The updated Maryland Rural Health Plan is the result of a comprehensive examination of the rural health care needs of Maryland. This updated plan was made possible by a collaboration between the Maryland Rural Health Association (MRHA); the Maryland State Office of Rural Health; the Rural Maryland Council; and the Robert Wood Johnson Foundation.

The Maryland State Office of Rural Health reports that 25% of Marylanders live in rural communities. Rural residents may face structural, economical, and physical barriers to health care while rural health care providers seek strategies and opportunities to increase access and services available to their communities.

The Maryland Rural Health Plan examined existing county health plans, Community Health Needs Assessments, State Health Improvement Process (SHIP) data, results from a state appointed study on Maryland's Eastern Shore, and feedback from citizens and health care professionals in each of Maryland's rural counties to understand the state of rural health. Data was triangulated by topic. Themes found in multiple data sources emerged as key priorities. Findings were collated for the state, with county profiles highlighting their specific results. Preliminary findings were reviewed by the MRHA Board of Directors.

The resulting areas of need that were identified are:

I. Access to care: reduce barriers, remove gaps, and increase access to quality health care for rural Marylanders.
- Areas of concern include access to general practitioners, specialists, behavioral health and oral health providers, as well as urgent care and emergency facilities.

II. Sustainable funding mechanisms for health care services: secure permanent funding streams, explore new, innovative reimbursement systems, and work to improve funding regulations for all parts of health care infrastructure.
- Areas of concern were largely centered around hospitals, federally qualified health centers, and emergency medical services.

III. Care coordination: explore mechanisms to link health care consumers to services and improve coordination and collaboration between health care providers within rural Maryland.
- The two main needs around care coordination were expansion of care coordination services to more providers, and increase coordination and knowledge of services between health care entities.

IV. Chronic disease prevention and management: reduce the incidence of new chronic diseases and increase ability for people to manage their conditions.
- Findings show three main areas of concern: health program locations and costs, lack of assistance for programs from Medicaid and Medicare, and sliding scale fees for vulnerable populations.

V. Health literacy and health insurance literacy: explore ways to increase individual health literacy and health insurance literacy of consumers.

- The need was largely around the ability to understand health information and health insurance information, as well as transforming facilities/organizations to be easier for both health care professionals and consumers to navigate.

VI. Outreach and education: work with community-based services and health care infrastructure to provide outreach and education to citizens on relevant and emergent health issues.
- The need centered around the lack of awareness, knowledge, and accessibility of some of the outreach and education efforts in the community.

To accomplish sustained change, several recommendations in three categories were identified:

Policy Recommendations:
- Medical Transportation and Emergency Medical Services Reimbursement
- Establishment of a Plain Language Policy
- Behavioral Health Treatment Policy
- Telehealth Expansion and Reimbursement
- Study of Best Practices for Recruitment and Retention of Rural Providers
- Reimbursement for Care Coordination

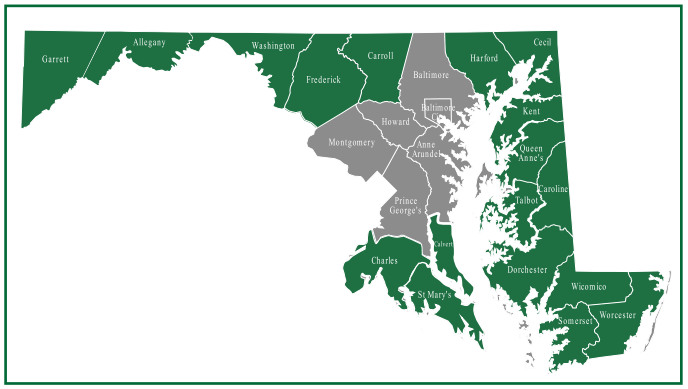
Systems-Based Recommendations
- Training for Transportation Professionals
- Telehealth Expansion and Medication Management
- Care Coordination and No Wrong Door Approach
- Database of Existing Resources for Rural Health
- School-Based Health Centers
- Mobile Health and Crisis Services
- Transportation Services
- Best Practices for the All Payer Model
- Community Trust Building
- Stigma Reduction
- Social Media and Marketing Services
- Expansion of Non-Clinical Health Professionals

Individual Recommendations
- Health Insurance Literacy Education
- Patient Advocacy
- Healthy Lifestyle Education
- Addressing the Unintended Consequences

The goal of each recommendation is to be general but specific enough to allow clarity for stakeholders to understand each recommendation's intent, while allowing flexibility to meet specific county needs. The Maryland Rural Health Plan seeks to document needs, as well as serve as a roadmap to creating healthier rural communities.

MRHA will now work with state-wide partners to begin actualizing changes based on the outlined findings. Please visit the Maryland Rural Health Plan website to stay up-to-date on the implementation of the updated Maryland Rural Health Plan.

OVERVIEW OF RURAL MARYLAND



Rural communities throughout Maryland are varied, differing in population density, remoteness from urban areas, economic make-up, and social characteristics. Rural Maryland represents almost 80 percent of Maryland's land area and 25 percent of its population.

The state and federal government define rural jurisdictions differently. This publication defines "rural" at the state's level of acknowledgment in which rural Maryland is made up of eighteen of the twenty-four counties in the state as show in green in the above map: Allegany, Calvert: Allegany, Calvert, Caroline, Carroll, Cecil, Charles, Dorchester, Frederick, Garrett, Harford, Kent, Queen Anne's, Somerset, St. Mary's, Talbot, Washington, Wicomico, and Worcester.

Maryland law states that "many rural communities in the State face a host of difficult challenges relating to persistent unemployment, poverty, changing technological and economic conditions, an aging population and an out-migration of youth, inadequate access to quality housing, health care and other services, and deteriorating or inadequate transportation, communications, sanitations, and economic development infrastructure," (West's Annotated Code of Maryland, State Finance and Procurement § 2-207.8b, http://mgaleg.maryland.gov/2018rs/statute_google/gsf/2-207.pdf). The Robert Wood Johnson Foundation identifies four interdependent sectors which impact rural health: health behaviors, clinical care, social and economic factors, and physical environment. These encompass and build on the Annotated Code by providing more context for each focus area.

While rural Maryland provides a rich culture for its communities, it has negative implications in terms of access to health care. Rural Maryland is scattered with Medically Underserved Areas and Populations (MUA/P), and Health Professional Shortage Areas (HPSA). Maryland's county health departments play a vital role in the health of their communities; this is especially evident in those rural Maryland counties with a limited health care system. And while Maryland is one of the richest states, there is great disparity in how wealth is distributed. The greatest portion of wealth resides around the Baltimore/Washington Region, with the close proximity to many government facilities and for-profit businesses. Further away from the I-95 corridor, differences in the social and economic environment are very apparent.

Maryland's landscape stretches from the Appalachian Mountains to the Atlantic Ocean. Healthy People 2020 acknowledges some of the distinctive cultural, social, economic and geographic characteristics that define rural America and place rural populations at greater risk for a myriad of diseases and health disorders (Southwest Rural Health Research Center, https://srhrc.tamhsc.edu/). Residents of rural Maryland are acutely aware of these disparities, but not always aware of programs aimed at creating solutions. The Maryland Rural Health Plan, last updated in 2007, aims at addressing these health concerns. The goal of the Maryland Rural Health Plan is to continually revitalize the voice of the rural counties, address the gaps in health care, and identify resources that can help bring quality health care closer to those residing in rural Maryland.

PLAN DEVELOPMENT

FUNDING

The Maryland Rural Health Association (MRHA) was contracted by the Maryland State Office of Rural Health, Maryland Department of Health (MDH) to complete an update of Maryland's Rural Health Plan. MRHA was able to leverage these funds and secure additional funding from the Rural Maryland Council and Robert Wood Johnson Foundation. The partnership between these four organizations has made this project possible at the level of detail and attention it deserves to shed light on Maryland's most vulnerable rural populations.

TYPES OF DATA AND ITS ANALYSIS

MRHA compiled primary and secondary data to develop the Plan. The goal of using multiple data sources was to a) create county-specific snapshots of the health care infrastructure, b) provide shared data findings from both consumers and providers from each county, and c) draw conclusions and recommendations to create a cohesive picture of rural health in Maryland.

1. **Community Health Needs Assessments**

   All rural county Community Health Needs Assessments that were available as of June 1, 2017 are incorporated into the findings. The top three priority areas from each county are highlighted within this report.

2. **Focus Group Data**

   MRHA conducted two focus groups in each rural county. The first focus group sought the voice of health care consumers, while the second sought provider insight on the status of health care. The questions were developed by Dr. Virginia Brown, University of Maryland Extension, with review, input and approval from MRHA's Executive Director, Board of Directors, as well as MDH staff. Feedback and edits were integrated into the focus group scripts. Prior to data collection, the focus group questions and research methods were approved by the University of Maryland Institutional Review Board.

   Focus group moderators were recruited from each county health department and/or community organizations. A training was conducted by Dr. Brown to review study goals and questions, data usage, and provide training on how to effectively moderate focus groups. Moderators worked collaboratively to recruit and conduct focus groups. Focus group moderators from neighboring counties were asked to conduct one another's groups to reduce potential discomfort from consumers speaking openly and honestly about the status of health care. Focus group participants were recruited from each county using the following methods: advertisements, word of mouth, letters, personal invitations and other related methods.

   Prior to starting the focus groups, moderators discussed the purpose of the study, use of data and how participants were to be protected. Participants signed a study consent form acknowledging they understood this information prior to the study group. Finally, they were asked to complete a demographic information form so that there is a record of who contributed to the findings. Focus groups were recorded and notes were taken to capture all data. After the focus group, each moderator prepared a snapshot of who participated, a general overview of responses, and a description of group interactions.

Consent forms, notes, demographic forms, field reports, and audio files were scanned and uploaded into the study Dropbox; hard copies were sent to Dr. Brown. Once received, moderators were asked to destroy copies of all materials to preserve the anonymity of study participants. A thematic analysis was conducted on the focus group data. Focus groups were reviewed individually, with findings coded by category and question. Findings were compared to the field reports and a fidelity check was conducted to ensure validity of results.

3. **Rural Health Care Delivery Work Group**

   The findings from the Senate Bill 707 Rural Health Care Delivery Work Group on the five mid-shore counties of the Eastern Shore (Caroline, Dorchester, Kent, Queen Anne's, Talbot) are highlighted and incorporated into the final review.

4. **Secondary Data**

   MRHA collaborated with MDH in accessing the State Health Improvement Plan (SHIP) data, which reports findings from 2014 and 2015. Demographic information was also extrapolated from the 2010 Census and Maryland Vital Statistics websites. Additional data was collected from various sources and publications, which are referenced in Appendix III: Sources of Data.

ROLE OF THE BOARD

MRHA has an interactive and engaged Board of Directors. The Board is comprised of rural health leaders from across the state and has representation from each rural region of Maryland. Board members participated in this project from inception to fruition: from reviewing focus group scripts; to providing staff support for the focus groups; and continually providing feedback on the draft versions. The MRHA Board of Directors played an integral role in the success of this project.

WHAT THE DATA TELLS US

COMMUNITY HEALTH NEEDS ASSESSMENTS

Local county health departments and hospital systems conduct Community Health Needs Assessments to create a plan to improve health outcomes. Every county is not on the same cycle and each county has designed the assessment based on their county's needs. This results in different questions being asked and different plan formats being used. Therefore, these alone could not be used to create the Maryland Rural Health Plan; rather it is one piece contributing to its development. Below is a summary of key findings from all of Maryland's rural Community Health Needs Assessments broken down by the Robert Wood Johnson Foundation framework from page 2. MRHA used the Community Health Needs Assessments from each rural county that were available as of June 1, 2017.

Social & Economic Factors (40%) and Physical Environment (10%)

Education, employment, income, family and social support, community safety, air and water quality, and housing and transit all impact health and can contribute to the presence or prevention of health conditions. Ensuring a community has a supportive infrastructure is crucial to improving the health and wellness of the community.

The following were identified by most Community Health Needs Assessments as priorities:

- Access to care and providers
- Social determinants of health

Accessing care and providers is the first step in receiving quality health care. Inadequate access to care and providers can be caused by a variety of factors such as lack of transportation, insufficient providers, poor provider retention, and hours of service that are incompatible with residents' schedules. Access to care can also include affordability and literacy of the health care system. Access to care and providers is a broad term to describe a large problem that has been identified as a priority in rural Maryland.

Finally, addressing social determinants of health are noted as high importance to many communities. Social determinants include affordable housing, access to affordable and healthy food, and social support for those seeking health care. Addressing any of the previously listed social determinants of health not only improves health, but also can direct a community towards health and wellness.

Health Behaviors (30%) and Clinical Care (20%)

Rural Maryland counties identified the following as their most concerning health conditions: obesity, diabetes, heart disease, behavioral health, and cancer. Obesity is a risk factor for many chronic health conditions and adverse health outcomes. In order to address this concern, health care providers may focus on nutrition education, creating an environment compatible with physical activity, and increasing social support for weight loss.

Diabetes was also identified as a priority health condition. For those who already have diabetes, complications can be minimized through proper nutrition, exercise, and diligent monitoring of blood glucose levels. Rural Marylanders would benefit greatly from diabetes management, prevention programs, and community support.

The next priority health condition is heart disease. Heart disease risk can be decreased by exercise and proper nutrition. Smoking is another risk factor that should be examined in order to decrease the prevalence of heart disease in rural Maryland. Physical activity programs, nutrition education, and smoking cessation programs have the potential to go a long way in preventing heart disease.

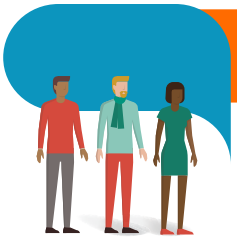
Behavioral health is discussed by many counties as being a top health concern. Behavioral health includes mental health, substance abuse, and other behavioral risk factors such as sexual practices and preventative screenings. Intervention at a young age is critical for many behavioral health problems. Understanding the root of behavioral health conditions, and setting up a supportive environment for those suffering from behavioral health conditions, will greatly improve the life of rural Marylanders.

Many counties expressed a desire for more screening and prevention services within their counties. Counties wanted to offer annual screenings for diseases such as diabetes and cancer, expand outreach and health education, and emphasize safety in order to minimize health risk behaviors.

Rural Marylanders are also concerned with cancer prevalence in their communities. There are many different types of cancer and those diagnosed with cancer have varying outcomes. Cancer screenings, lifestyle changes such as smoking cessation and healthy eating, and HPV vaccinations are evidence-based ways to approach cancer prevention. Setting up an environment where these can be easily obtained may decrease new incidences of cancer or improve the outcome of those already diagnosed.

FOCUS GROUP DATA

Both consumer and provider focus groups were asked to discuss current availability of health care providers and services, barriers to use, gaps in service, and provided recommendations on how to address them. Additionally, they were each asked about community health services and ways to expand their access. Providers were asked to discuss the implementation of the Total Cost of Care All-Payer Model. Finally, all were also asked to brainstorm potential solutions they would implement to increase the health of their county.



CONSUMER FOCUS GROUPS

ACCESS BARRIERS

Health care consumers face a variety of barriers when seeking care. Running into access barriers can be frustrating and prevents consumers from receiving the best possible care. Health care consumers throughout rural Maryland discussed the following five things as the biggest barriers to accessing care:

- **Transportation**
- **Health insurance**
- **Overbooked providers**
- **Hours of services**
- **Lack of care coordination**

Consumers identified transportation as the most common barrier to care. Bus routes are not comprehensive enough to allow all people to travel to appointments on time without having to commit an unreasonable portion of their day. Some county health care services provided transportation for health care consumers, but these services are often dependent on income, excluding a large percentage of the population.

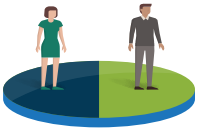
Health insurance coverage and networks was another common barrier that consumers face when seeking health care. Health insurance does not cover everything, and each insurance plan is different. Consumers discussed having to pay out of pocket for tests that their doctors had recommended because health insurance would not cover the exam. Some people struggle to afford co-pays, deductibles, or prescription costs. Finally, navigating the system and identifying in-network providers was difficult, or at times limiting, when few options are available in the area.

Consumers in rural Maryland also identified overbooked providers as a barrier to accessing services. A shortage of primary care providers and specialists in rural areas causes long wait times for appointments. Because of this, consumers spoke of needing to use urgent care or emergency department physicians as their primary care physician. This action causes overuse of emergency medical services and prevents those with actual emergencies from receiving care.

TOTAL CONSUMER FOCUS GROUP PARTICIPANTS
from 18 Rural Counties

151

109 FEMALES **42** MALES



50% Married
50% Single

The majority of participants who indicated him or herself as a parent, reported raising two children.

White	69%
Black/African American	29%
Hispanic or Other	2%

AGES

≤ 24	1%
25-34	12%
35-44	10%
45-54	18%
55-64	24%
65-74	20%
≥ 75	9%
Unknown	6%

EDUCATION

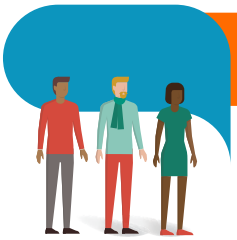
Some participants selected more than one education level.

Did Not Graduate High School	7%
High School Diploma	93%
Some Higher Education	24%
Associate's Degree	9%
Bachelor's Degree	18%
Master's Degree or Higher	18%

INCOME

< $25,000	44%
$25,000 - $34,999	11%
$35,000 - $49,999	15%
$50,000 - $74,999	16%
$75,000 - $99,999	6%
$100,000+	8%

Most participants reported their health as being good or very good.



CONSUMER FOCUS GROUPS

In addition to the long wait times, service hours that are currently offered by primary care doctors, specialists, and urgent care are a barrier for many rural Marylanders. Hours of service are not compatible with a typical work schedule and lack of evening and weekend hours force consumers to choose between prioritizing health and their career.

Lack of care coordination was another barrier that health care consumers discussed. Consumers discussed having to travel long distances to have their health care needs met and felt providers did not understand what a burden the lack of coordination was on consumers and their families. Consumers would like assistance in identifying local services to help care for and manage their health, including providers and community services.

GAPS

Health care consumers in rural Maryland identified several gaps in health care services. The more remote areas experienced even more drastic gaps, as often services are isolated in the hubs of rural counties. Three gaps that consumers noted most were:

1. **Lack of specialists and oral health services was the most commonly discussed gap in the consumer focus groups.**
   Consumers discussed having to travel out of the county and sometimes up to three hours in order to see a specialist. Further, access to pediatric specialists seemed to have a larger gap than adult specialists. This puts a burden on the entire family as they are forced to travel long distances and be put on long waiting lists.

2. **Lack of behavioral health was another gap that many consumers noted.**
   Many counties do not have enough providers or the proper infrastructure, such as inpatient rehabilitation, to meet county needs. Once again, the gap in behavioral health care services is emphasized when seeking behavioral health services for children or adolescents.

3. **Oral health services available to rural Maryland residents is lacking.**
   Not only are there not enough oral health providers in rural areas, but also payment for these services can be costly and assistance for oral health services is limited.

CONSUMER FOCUS GROUPS

POTENTIAL SOLUTIONS

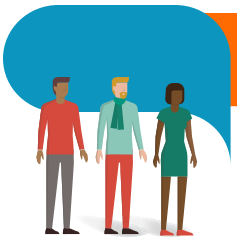
Health care consumers also were able to give unique solutions for these barriers and gaps. The most commonly agreed upon ideas were:

- **Recruit and retain providers**
- **Peer support groups**
- **Health education in schools**

Consumers discussed several ways to recruit and retain providers. Creating a scholarship program for local youth interested in health care was one suggested way to recruit providers that already have a stake in the community. This would likely be more effective than identifying young doctors from non rural areas who do not see the draw of rural medicine.

Peer support groups were suggested to address the lack of behavioral health counselors, and lack of health care providers in general. These groups could range from the typical recovery groups to diabetes management peer groups, and would draw from resources already in place in the community.

Consumers would also like to see more health education in the schools. They would like to have increased access to prevention services before children reach late adolescence. Residents want children to learn about practical ways they can achieve the best health care possible. This could lead to a cultural shift toward prioritizing health and preventative care.

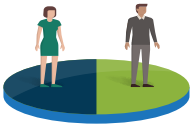


PROVIDER FOCUS GROUPS

TOTAL HEALTH CARE PROVIDERS OR PARTNERS
from 18 Rural Counties

178

141 FEMALES
37 MALES



102
Work for public organizations

146
Work for not-for-profit organizations

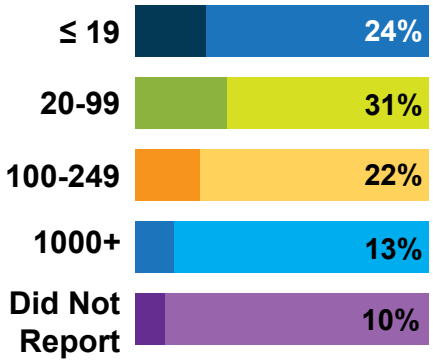
White	82%
Black/African American	12%
Asian-American	6%
Hispanic or Latino	3%

(Some participants selected more than one category.)

EDUCATION

High School Diploma	4%
Some College	9%
Associate's Degree	9%
Bachelor's Degree	26%
Master's Degree	52%

Size of Organization
(by number of employees)



ACCESS BARRIERS

Barriers occur when a service or provider is present, but a social, infrastructure and/or personal factor prevents access. Identifying and limiting these barriers ensures that more people will be able to access the health care services that are already present in their county. Providers throughout rural Maryland identified the following five barriers:

- **Transportation**
- **Stigma and culture**
- **Insurance coverage and affordability**
- **Awareness of services**
- **Health literacy and health insurance literacy**

According to health care professionals, transportation is the most common barrier patients encounter when seeking health care. Every county discussed transportation as being a barrier that limits access to health care. Transportation insufficiencies include bus routes not being comprehensive enough, hours of operation being limited or lack of medical transportation. When in existence, many bus routes are seen as having unreasonable schedules that would require people to take an entire day off work in order to make an hour-long appointment. Other communities have no public transit system at all, requiring people to use friends or family, volunteers or even pay for commercial transportation, if available, to facilities.

The limited availability of affordable health insurance plans and high out of pocket costs are barriers for many in rural Maryland. Many providers are concerned for the working poor- those making too much to qualify for government assistance, but too little to realistically afford copays, deductibles, or prescriptions. In addition to the cost of insurance

PROVIDER FOCUS GROUPS

and often times limited coverage, people often struggle to navigate the insurance system and are unaware of which procedures are covered.

Health literacy and health insurance literacy are related to all other barriers. Patients may be unaware of what resources they need and how to get the kind of treatment they require. Use of plain language in health care would allow more people to feel empowered as advocates for their health.

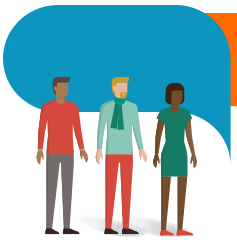
The health department is for the use by anyone in the county, with many of the programs offered without income restrictions. However, many people feel that using the health department is something to be ashamed of. Stigma about behavioral health treatment was also discussed as a possible barrier preventing people in rural counties from seeking treatment. Health care providers discussed the possibility of patients having preconceived ideas about what kind of people need behavioral health care and do not want to identify with those stigmas. Eliminating these stigmas is a difficult task because it is ingrained in culture, and cultural shifts take time.

In addition, limited staff and hours, cultural beliefs about health care, including fear of deportation, and poor advertisement for health care services were discussed as possible barriers. Many counties had a lot of resources that went unused because residents are unaware of the different services available to them.

GAPS

As medically underserved areas, many rural counties have gaps in health care services. These gaps include a lack of heath care services, facilities, or inadequate services that do not meet the needs of the county. Identifying and filling the gaps in service allows residents in rural Maryland to have access to the best possible health care services. The providers identified the following gaps:

- **Lack of behavioral and oral health services, and language skills**
  Lack of behavioral health care providers and services was discussed as the top gap in service for rural Maryland. Further, behavioral health problems were discussed as the most common health problem in many counties. Increasing behavioral health care, especially for adolescents, will help those who are suffering from a wide range of behavioral health problems and promote a more robust society.



PROVIDER FOCUS GROUPS

Another service gap is oral health providers. Residents are often put on long waiting lists for oral health care due to the increased need and growing population of many rural counties. There is also a lack of government assistance for oral health care, preventing many from being able to afford the dental work they may need.

Health care providers also discussed translation services as a gap for rural Maryland. Maryland is becoming increasingly diverse and not all health care providers are set up to provide care to those who speak languages other than English. Providers would like an increase in language services in order to serve everyone in the county.

Lack of stable funding, lack of social support, and inadequate resources for older adults and adolescents were other gaps identified as problematic for rural Maryland.

POTENTIAL SOLUTIONS

The health care providers in the community know the specific needs of their community members and have generated innovative and creative ideas about how to improve the health care of the community. The most commonly discussed ideas were:

- Community health centers
- Telehealth services
- Mobile health units
- Database of existing resources

Many providers suggested creating a community health center that would include a “no wrong door” policy in order to better coordinate care. This would serve as a one stop shop for services and comprehensive care for residents that is streamlined, effective, and seamless.

In order to address the barrier of transportation, telehealth and mobile health units were suggested as a new or supplemental service to already existing similar services. Telehealth would allow for health care professionals to remotely care for patients, thus eliminating the barrier of attracting and retaining doctors and specialists to rural Maryland. Mobile health units are resources available already in many rural counties, but the services offered in these units and the availability of these services to all residents is limited. Expanding the mobile health unit services would allow more residents to be served without a complete and costly overhaul of public transportation.

PROVIDER FOCUS GROUPS

Providers would like to see a database of all the community resources that would allow consumers to see what services are already available in the county and any requirements for their use. Many counties have resources available to residents, but do not see these programs being used as often as they would like. Raising awareness of programs through this kind of database would optimize already existing programs in the community.

RURAL HEALTH CARE DELIVERY WORKGROUP

MRHA was a member of the Rural Health Care Delivery Workgroup established by Senate Bill 707 in 2016. This year-long study assessed the unique challenges facing the health system serving the five Mid-Shore counties of Maryland's Eastern Shore: Caroline, Dorchester, Kent, Queen Anne's, and Talbot.

The Workgroup recognized that health care systems of the future need to accommodate a culturally diverse population; this includes a growing number of vulnerable residents, elders with chronic health conditions, and that addressing social determinants of health is crucial in promoting a healthy society. Also, stakeholders must support an integrated care delivery system that promotes health equity, quality, and comprehensive services across a continuum of care.

The Workgroup's recommendations can be broadly placed into three categories. Each of the final recommendations promote policies that:

- foster collaboration and build coalitions in rural areas to serve rural communities;
- bring care as close to the patient as possible to improves access; and
- foster participation in statewide models and programs in rural Maryland.

Key Workgroup recommendations include:

1. **Establish a Mid-Shore Coalition:** bringing together community residents and leaders from health care, emergency medical services, public health, behavioral health, oral health, social services, transportation, education, business and law enforcement who would accelerate identifying the most pressing needs and prioritizing actions to address them.
2. **Create a "rural community health demonstration program:"** allowing clinicians to test new delivery models before scaling them to other rural communities in Maryland and, where applicable, urban communities. One example includes creating Patient-Centered Health Neighborhoods that can serve as a coordinated one-stop shop for diverse health needs.
3. **Invest in expanding the health care workforce, community-based health literacy, and technology:** including the creation of incentives to attract and retain the health workforce, such as a loan repayment program for local residents, and investments to expand the capacity of residents, health care workers and others to support health and well-being.

The final report outlining each recommendation in detail can be found here:
http://mhcc.maryland.gov/mhcc/pages/home/workgroups/workgroups_rural_health.aspx

The Workgroup's recommendations tie in very closely to many of the findings from the focus groups and data collection for the Maryland Rural Health Plan. While it is important to note the obvious overlap between the two projects, not all Workgroup recommendation may be feasible for other rural counties across Maryland that are more geographically isolated or that differ topographically and demographically. Not only is there no one-size-fits-all solution to the five Mid-Shore counties, but this rings especially true when considering all 18 rural counties across Maryland. Appendix I: County Profiles highlight each rural county's distinctiveness.

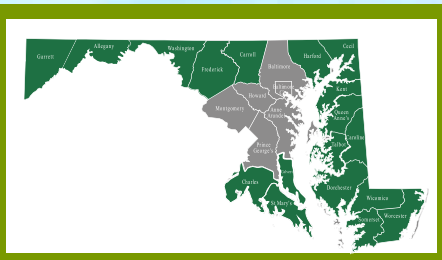
SECONDARY DATA

Quantitative data was collected from the Maryland State Health Improvement Process (SHIP), as well as US Census 2010 website and Maryland's Vital Statistics website. Data was gathered on the following measures as they best relate to the areas of concern highlighted by most rural county Community Health Needs Assessments:

- Teen Birth Rate
- Early Prenatal Care
- Adults Who Are Not Overweight or Obese
- Adolescents Who Have Obesity
- Adults Who Currently Smoke
- Adolescents Who Use Tobacco
- Children Receiving Dental Care in the Last Year
- Uninsured Emergency Department (ED) Visits
- Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence

A Look Into Maryland's Rural Health Data

The table below shows the data for each county and the Maryland average for each measure.



	Teen Birth Rate *(per 1000 teenage females)*	Early Prenatal Care	Adults Who Are Not Overweight or Obese	Adolescents Who Have Obesity *(only 2014 data available)*	Adults Who Currently Smoke	Adolescents Who Use Tobacco *(only 2014 data available)*	Children Receiving Dental Care in the Last Year	Uninsured Emergency Department (ED) Visits	Total Number of Drug and Alcohol-Related Deaths Occurring in Maryland by Place of Occurrence **
Allegany	24.7	77.2%	27.2%	13.5%	22.1%	24.9%	58.4%	5.6%	22
Calvert	9.6	72.1%	22.8%	10.1%	15.5%	20.7%	58.6%	4.8%	20
Caroline	27.0	76.7%	21.2%	13.9%	23.5%	26.1%	72.1%	6.8%	3
Carroll	6.8	75.9%	31.7%	8.9%	11.6%	15.0%	56.0%	5.4%	40
Cecil	18.3	78.2%	44.4%	14.1%	17.5%	25.2%	55.5%	5.8%	32
Charles	15.3	67.6%	23.1%	12.3%	18.4%	17.9%	50.7%	8.5%	22
Dorchester	50.7	78.1%	25.6%	17.2%	19.8%	24.9%	68.7%	6.8%	1
Frederick	11.0	77.5%	39.1%	9.1%	21.6%	16.3%	68.1%	9.3%	40
Garrett	31.8	80.9%	38.9%	16.0%	29.4%	33.0%	72.2%	5.8%	5
Harford	8.8	78.6%	27.7%	10.0%	20.7%	19.2%	60.2%	3.4%	50
Kent	18.2	81.9%	27.2%	12.8%	*	22.9%	71.9%	4.7%	3
Queen Anne's	6.8	75.3%	32.9%	11.7%	17.2%	24.3%	69.9%	5.1%	4
Somerset	22.5	80.5%	31.2%	17.5%	25.0%	27.5%	68.8%	7.6%	6
St. Mary's	14.8	77.2%	31.3%	10.3%	14.5%	22.6%	56.0%	6.9%	18
Talbot	15.4	76.3%	40.8%	10.3%	*	21.6%	73.2%	6.6%	5
Washington	24.7	70.2%	31.6%	14.3%	22.0%	23.7%	58.6%	9.8%	64
Wicomico	20.0	78.8%	34.5%	11.9%	23.0%	21.5%	64.4%	10.0%	18
Worcester	20.9	80.4%	40.4%	13.5%	*	22.5%	63.8%	7.4%	16
MARYLAND	**16.9**	**66.9%**	**35.0%**	**11.5%**	**15.1%**	**16.4%**	**64.3%**	**10.7%**	**1259**

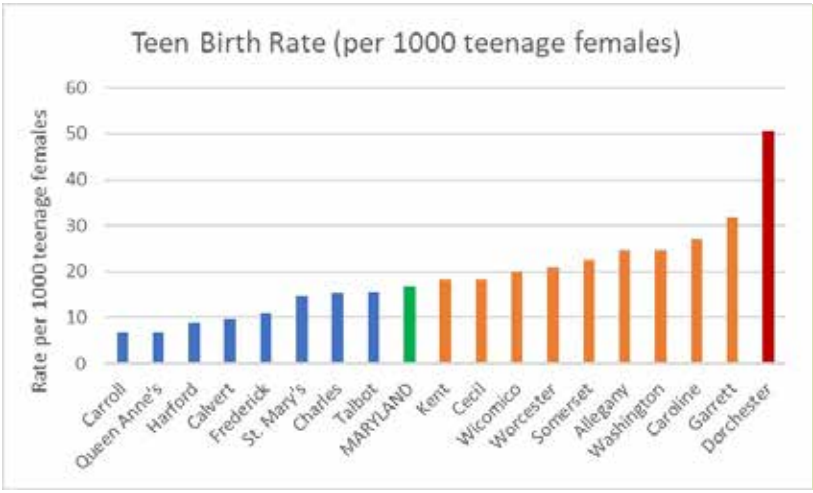
All data is from 2015 unless otherwise indicated. Additional "Data Details" can be found in Appendix II. This table includes data provided by the Maryland State Health Improvement Process (SHIP); the Maryland SHIP does not endorse this report or its conclusions.

* Data for this county did not meet the threshold required for reporting so was therefore withheld for privacy purposes.

** Data provided here is from the "Drug- and Alcohol- Related Intoxication Death in Maryland, 2015" report found here: https://bha.health.maryland.gov/OVERDOSE_PREVENTION/Documents/2015%20Annual%20Report_final.pdf
Also, it is important to note that this is the data for where the death OCCURRED, not the county where the individual RESIDED/LIVED.

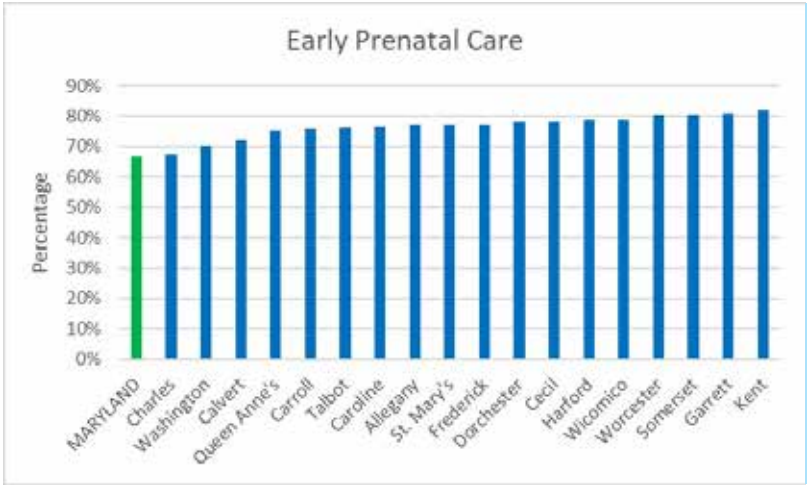
The previous table titled “A Look Into Maryland’s Rural Health Data” shows the data for each rural county as well as for the state of Maryland, for comparison purposes. A summary of each data measure follows:

- All data is from 2015 unless otherwise indicated
- The x-axis for each chart represents Maryland’s Rural Counties
- For additional “Data Details” please view the previous data table footnotes as well as Appendix II



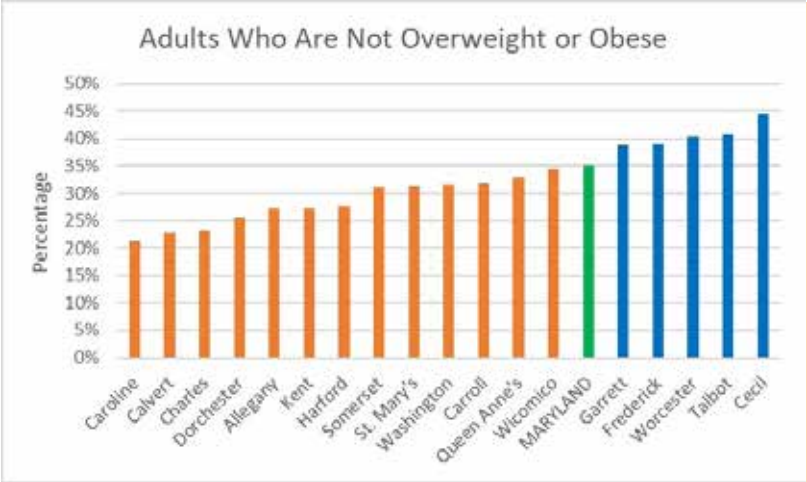
16.9

The 2015 Maryland teen birth rate (per 1000 teenage females) is 16.9. Eight rural counties have a teen birth rate less than the statewide teen birth rate, ranging from 6.8 in Queen Anne’s and Carroll Counties, to 15.4 in Talbot County. For the ten counties with teen birth rates greater than the Maryland teen birth rate, the range is 18.2 in Kent County to 50.7 in Dorchester County.



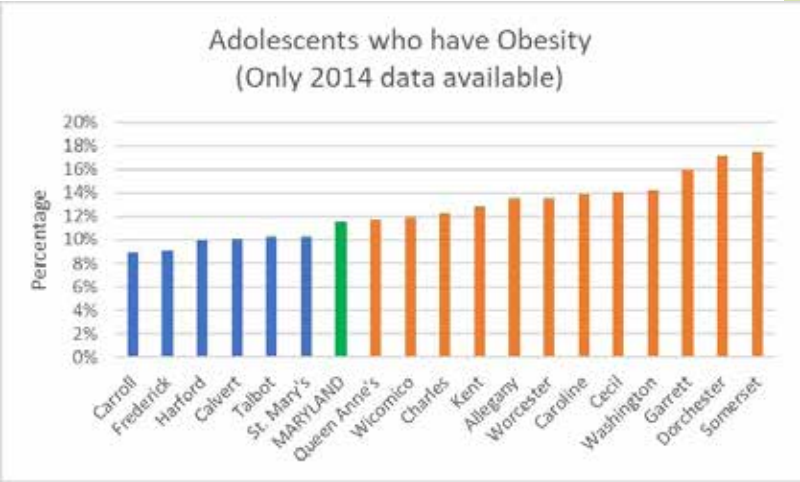
66.9%

The percentage of pregnant women in 2015 in Maryland receiving early prenatal care, beginning in the first trimester, is 66.9%. Each Maryland rural county has the same or a greater percentage of women receiving early prenatal care than the statewide percentage, ranging from 67.6% in Charles County to 81.9% in Kent County.



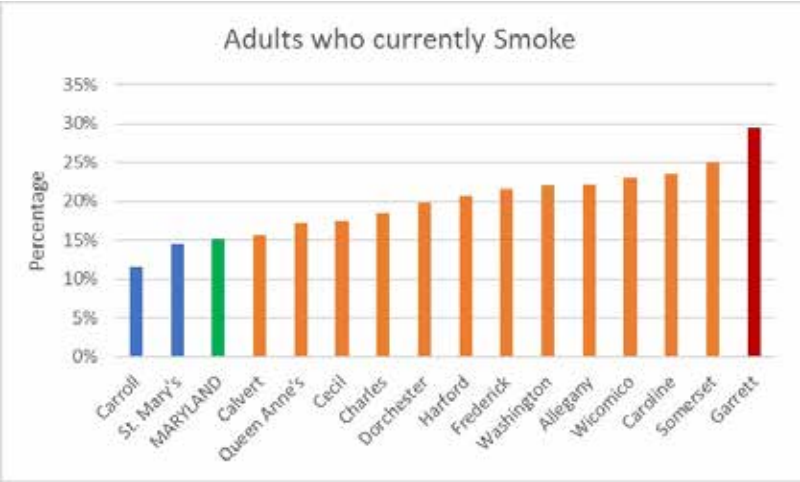
35.0%

The percentage of Maryland adults in 2015 who are not overweight or obese is 35.0%. A little over seventy percent of rural counties have a lower percentage than the statewide percentage, ranging from 21.2% in Caroline County to 34.5% in Wicomico County. Almost thirty percent of rural counties have a higher percentage than the statewide percentage of adults who are not overweight or obese, ranging from 38.9% in Garrett County to 44.4% in Cecil County.



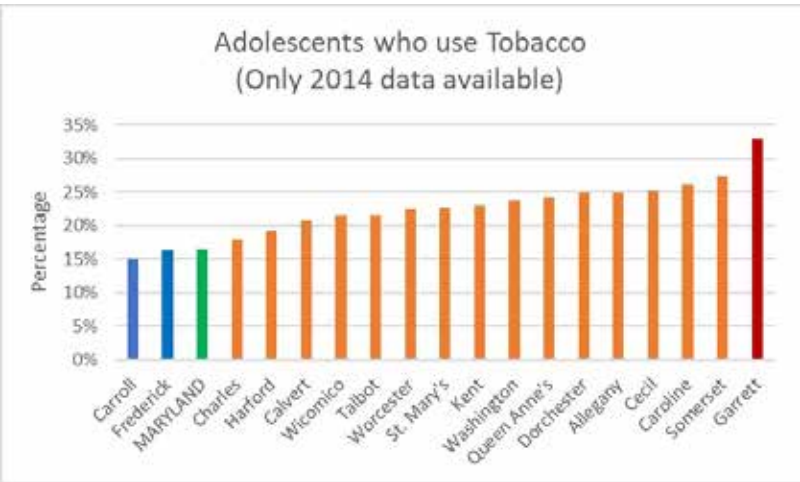
11.5%

The percentage of Maryland adolescents who have obesity, based on 2014 data, is 11.5%. One-third of the rural counties have a lower percentage compared with the statewide percentage, ranging from 8.9% in Carroll County to 10.3% in Talbot and St. Mary's Counties. The remaining two-thirds of counties have an equal or greater percentage of adolescents who have obesity, when compared with the state, ranging from 11.7% in Queen Anne's County to 17.5% in Somerset County.



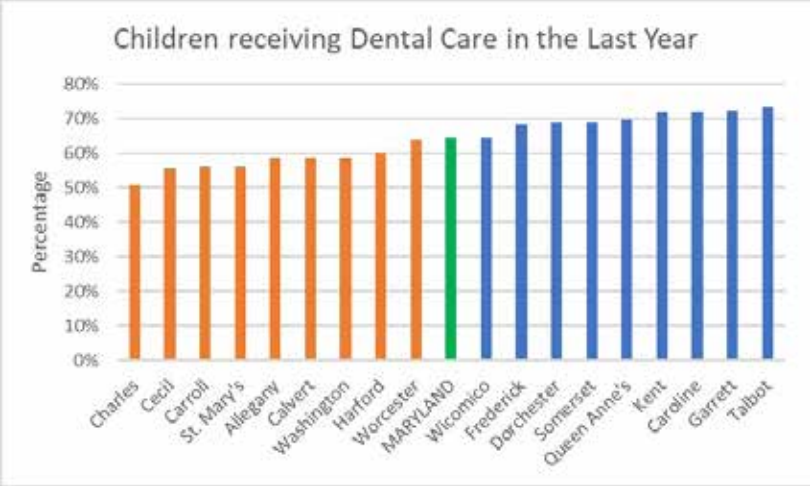
15.1%

The percentage of Maryland adults in 2015 who currently smoke is 15.1%. Only two counties have an equal or lower percentage than the state: Carroll County, 11.6%, and St. Mary's County, 14.5%. The remaining thirteen rural counties have a higher percentage of adults who smoke, when compared with the statewide percentage, ranging from 15.5% in Calvert County to 29.4% in Garrett County. Data from Kent, Worcester, and Talbot Counties were not reported because they did not meet the threshold required for reporting and were therefore withheld for privacy purposes.



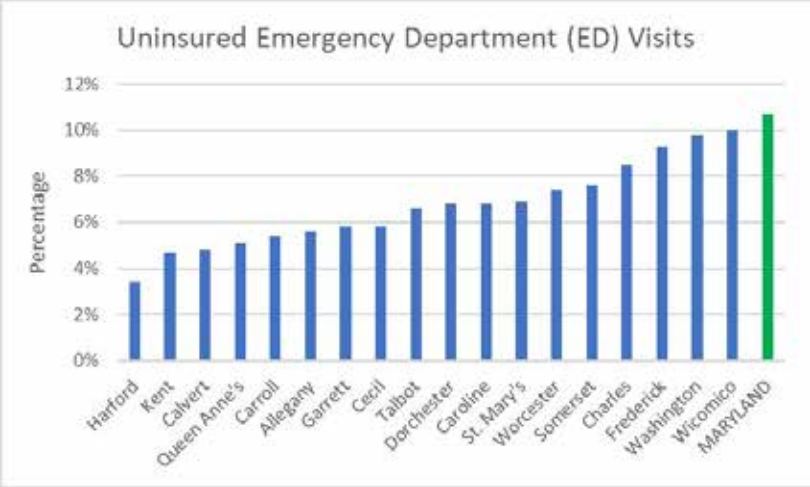
16.4%

The percentage of Maryland adolescents, according to 2014 data, who use tobacco products is 16.4%. Sixteen rural counties have a greater percentage of tobacco usage among adolescents than the state percentage. These counties range from 17.9% in Charles County to 33%, almost two times the statewide percentage, in Garrett County. Only two rural counties, Carroll and Frederick, have a smaller percentage of adolescents who use tobacco when compared with the state percentage.



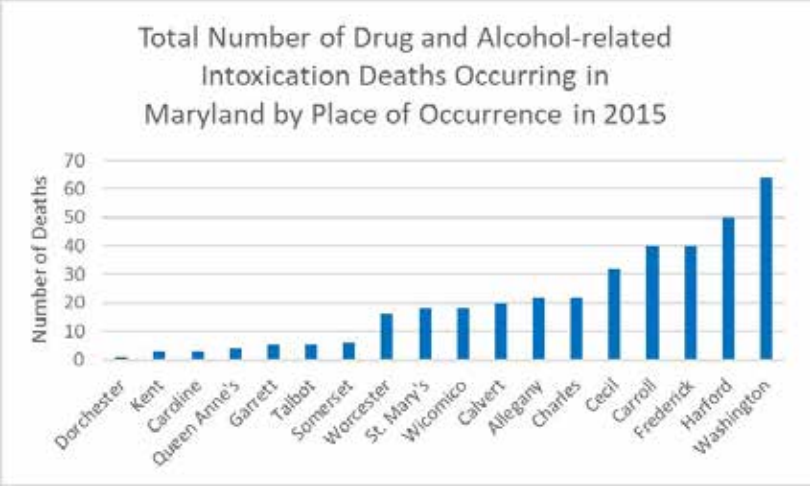
64.3%

In 2015, the percentage of Maryland children receiving dental care is 64.3%. Half of the rural counties report a smaller percentage of children receiving dental care than the statewide percentage, while the other nine rural counties report percentages equal or greater than the state. County results range from 50.7% in Charles County to 73.2% in Talbot County.



10.7%

In 2015 in Maryland, the percentage of uninsured Emergency Department (ED) visits is 10.7%. The percentage of uninsured ED visits in the rural counties ranges from 3.4% in Harford County to 10.0% in Wicomico County, all of which are lower than the statewide percentage.



1259

The total number of drug and alcohol-related intoxication deaths in Maryland by place of occurrence in 2015 is 1259. Of these deaths, 29.3% occur in rural counties. The county with the fewest drug and alcohol related deaths is Dorchester County, with 1 death, and the county with the highest number of deaths is Washington County, with 64.

SUMMARY OF FINDINGS

Throughout all combined data sources, several common themes emerged as most crucial to improving Maryland's rural health. The themes identified in the majority of data sources include the following:

- **Access to Care**
- **Sustainable Funding Mechanisms for Health Care Services**
- **Care Coordination**
- **Chronic Disease Prevention and Management**
- **Health Literacy, Health Insurance Literacy, and Health Literate Organizations**
- **Outreach and Education to Health Care Consumers**

ACCESS TO CARE

Reduce barriers, remove gaps, and increase access to quality health care for rural Marylanders.

Access to care was the top concern throughout rural Maryland. In county-based plans, 72% of rural counties specifically identified access as a priority, while the other five counties had it as an underlying consideration or barrier to addressing specific health conditions.

HIGHLIGHTED CONCERNS

- Long waits
- Limited appointment availability
- Limited time during appointments
- Retention of qualified doctors
- Travel time
- Incorrect usage of emergency medical services due to lack of services and coordinated care
- Lack of oral health providers
- Overcrowded waiting rooms
- Cost of emergency services
- Confidentiality concerns
- Transportation

General Practitioners

As stated previously, several rural Maryland counties are classified as physician shortage areas. In the focus groups, both providers and consumers discussed having long waits or limited availability for appointments. While some health care providers had experimented with flexing hours, having walk-in appointments, or weekend hours, this was not available in all areas and had varying degrees of success.

There was also a sense among consumers that providers shuffled them through like pieces on an assembly line, spending limited time during each appointment in a rush to get to the next patient. Some voiced the desire to change doctors, while others acknowledged that there are few, if any, options for other providers in their area. For those who liked their doctor, many stated they had them for years and are not looking forward to someday having to find a new one.

In some provider focus groups, the recruitment and retention of providers was discussed. They acknowledged that many providers are attracted to rural areas as a way to help get medical loans repaid; keeping

them after this repayment was difficult, especially for young doctors. A handful of counties stated the main barriers to retention of qualified doctors are the lack of good jobs for highly educated or qualified spouses and a perceived inadequacy of the county school system.

Specialty Care, Behavioral Health, and Oral Health Services

The issue of access and service gaps was more profound for specialists. This issue included not only physical health, but behavioral and oral health services, as well.

Access to specialists is limited throughout Rural Maryland. This is primarily due to the large medical hubs within Maryland: DC Metropolitan area, Greater Baltimore region, and the Annapolis area. While some specialists have set up practice in rural Maryland, most people talked about having to travel to access providers. This travel time can be up to three or more hours each way from the Western-most and Eastern-most ends of the state.

Behavioral health services include both substance abuse and mental health conditions. In the Community Health Needs Assessments, fifteen of the eighteen counties indicated that behavioral health is a priority area. Focus group participants, both consumer and provider, discussed the need for more providers and facilities throughout rural Maryland. Needs included certified behavioral health providers, hospital facilities and beds for those in crisis, rehabilitation facilities for those in recovery, social support groups, and medication management from current providers, including Suboxone. The lack of behavioral health services for adolescents was especially concerning to many focus group participants.

Lack of services and coordinated care has led many people in crisis to incorrectly or over use emergency medical services, travel across multiple counties or to neighboring states to seek care, or forego treatment altogether. Some primary care providers are becoming certified to dispense Suboxone to help fill the service gap, but this practice does not appear to be widespread. Peer support services (including Peer Recovery Specialists) have been established to help citizens recover. However, both providers and consumers expressed the need to further expand these services.

Lack of services and coordinated care has led many people in crisis to incorrectly or over use emergency medical services, travel across multiple counties or to neighboring states to seek care, or forego treatment altogether.

Oral health was discussed as a need in both the Community Heath Needs Assessments and focus groups. While not explicitly identified in all the county plans, many discussed oral health in context to overall gaps and access issues. While there was an acknowledgement that children have access to more oral health resources, large gaps in adult coverage remained. This seemed to be mostly among adults on government-sponsored health insurance as there are not enough oral health providers that accepted the insurance. Further, mandating coverage will not fix the lack of providers in the rural regions, nor will it require providers to accept Medicaid.

Emergency and Urgent Care Services

Access to different types of emergency or urgent medical services varied regionally throughout rural Maryland. On the Western shore, there is a hospital located in each county; on the Eastern shore, there is an average of 1 hospital for every 2 counties and access to urgent care facilities varies. Some focus groups discussed the local urgent care centers having limited hours of operation during evenings and weekends; this led to an increase in emergency department usage when urgent care may have been more appropriate.

The perception of care quality for hospitals left many wary of seeking their services. While many consumers are happy with their local hospital, this did not negate the discussion of various health service issues. People discussed overcrowding in waiting rooms and the cost of emergency department services made many wary of using them to get care. Finally, a few discussed privacy and confidentiality concerns when being seen in busy emergency departments.

Emergency medical services provide vital, life-saving services to those in need. Feedback from consumers and providers was largely positive, with many people commenting on the professionalism and empathy emergency medical service workers exhibit. On the Eastern shore, several focus groups discussed the establishment of Mobile Health/Crisis Units. While the partnership entities varied between counties, the goal of these units was to a) stabilize patients to prevent hospital admittance, b) provide emergency department diversion for behavioral health consumers, and c) provide wellness checks for high risk or high utilizer consumers in the region. Program success is largely due to interagency partnerships as the funding mechanism for emergency medical services is through transportation budgets and not medical services. This has led county emergency medical services to partner with county commissioners, urgent care facilities, case workers and others to provide funding and ensure program continuity. Anecdotally, the health care providers spoke of the success these programs had in preventing unnecessary hospitalizations among consumers.

Transportation

Transportation to and from health care facilities was an issue throughout rural Maryland for all types of health care appointments. Public transportation, including taxis, buses, car share services, and independent transportation professionals, is lacking in rural settings. While many counties have a bus system, its service hours and stops are limited. Many people discussed that the public bus system did not go beyond the city centers, thus preventing those living in the most rural areas from accessing them.

Transportation to and from health care facilities was an issue throughout rural Maryland for all types of health care appointments. Public transportation, including taxis, buses, car share services, and independent transportation professionals, is lacking in rural settings.

The medical transportation that is available to rural health consumers, and often times is covered by health insurance, appears to have several limitations for use. First, this service is often limited to those who qualify for medical assistance programs and can only be used by the consumer or, in cases of youth, by the consumer and one parent or guardian. Second, appointments often have to be made 48 hours in advance, thus eliminating usage for acute care appointments. Finally, the hours of operation tend to be limited, causing pickup to be early morning hours for midday appointments, regardless of office location.

SUSTAINABLE FUNDING MECHANISMS

Secure permanent funding streams, explore new and innovative reimbursement systems, and work to improve funding regulations for all parts of the health care infastructure.

Funding continues to be of concern among Maryland rural health services. The decrease in funding streams, or fear of these changes, was felt at all levels of health care.

HIGHLIGHTED CONCERNS

- Overuse of emergency services causing emergency department diversion or temporary closure of emergency departments
- Elimination of Medicaid expansion, reducing health care workforce or closing clinics
- Void in emergency medical service reimbursements

Hospitals

State regulations have shifted from a fee for service model to a value based payment model. All of Maryland's hospitals are given a global budget or "lump sum" payment to care for all patients in a given year. The Global Budget Revenue model was based on the Total Patient Revenue model that was previously or continuously used by many rural Maryland hospitals. The global budget incentivizes hospitals to prevent unnecessary hospital admissions and readmissions and help promote community-based care in their local communities. Global budget incentives encourage hospitals to reduce emergency department use and rewards hospitals for efforts that improve outcomes by reducing hospitalizations (medical adherence by consumers, coordination of follow-up appointments, etc.). Hospitals strive to provide efficient and clinically effective services as close to the patient as practical. A large increase in volume without a corresponding decrease in avoidable hospital use will challenge hospital resources that are limited under the global budget. At the same time, global budgets provide long-term financial stability, particularly for smaller hospitals with fluctuating volume.

Federally Qualified Health Centers

Many more Marylanders now have access to primary care services through Federally Qualified Health Systems, allowing for preventive care and health management outside of the hospital system. However, many are worried about how potential changes at the federal level will affect their services. In particular, providers are worried that elimination of Medicaid expansion may force reduction in the health care workforce or closing of clinics altogether.

Emergency Medical Services

Under Maryland regulations, emergency medical services are reimbursed under the transportation system and not medical services. This creates a void in reimbursements anytime emergency medical service personnel successfully divert patients from the hospital through stabilization in the home or through use of other care facilities. Grants, patient billing and other mechanisms are used to fund these programs, but a stable funding mechanism is seen as necessary for program growth.

CARE COORDINATION

Explore mechanisms to help link health care consumers to services and improve coordination and collaboration between health care providers and services within rural Maryland.

HIGHLIGHTED CONCERNS

- Limited ability to cohesively use electronic medical records throughout the health care system
- Lack of care coordination and services

Care coordination was a concept both explicitly named and discussed or described by many of the focus groups and Community Health Needs Assessments. For the purposes of this plan, we have adopted the Agency for Health Care Research and Quality's care coordination definition: *"Care coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshaling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care." (https://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/index.html)*

Levels and formality of care coordination can vary based on health insurance plans, complexity of illness, and availability of services and physicians. An example of minimal care coordination is the use of electronic medical records by multiple physicians to facilitate medical testing and care protocols for optimal health outcomes for a person. A more intensive form of care coordination can involve the assignment of a care coordinator or case manager to help manage and navigate a patient through multiple physician visits, procedures, and care recommendations.

Formal care coordination, through use of a case manager, is offered through limited plans. Medicare offers reimbursable coordination through its Medicare Part B (AAFP) Medicare Advantage Plans. For private insurers, care coordination is varied, with some plans offering no coordination and others offering them to special populations. With electronic medical records, there is no standard platform providers and facilities use, thus limiting their ability to be used cohesively throughout the health care system.

This holds true for the rural health infrastructure of Maryland, as well. Consumers discussed having to carry records from provider to provider because of the lack of coordinated medical records. Others discussed

how invaluable care coordination is for their health, while many others expressed the desire to have it expanded and available to more audiences.

Providers also shared their desire for care coordination. Many felt that the problem with rural health in their communities was not the lack of services, but the *lack of coordination and awareness* of services. Providers wanted a centralized, user-friendly, up-to-date database of rural health services that could be easily accessed and used to refer people to services. They felt this could help the population achieve and maintain their health.

CHRONIC DISEASE PREVENTION AND MANAGEMENT

Reduce the incidence of new chronic diseases and increase ability for people to manage their conditions.

HIGHLIGHTED CONCERNS

- Health program locations and costs for chronic diseases
- Lack of assistance for programs from Medicare or Medicaid
- Sliding scales used by very few programs

The prevention and management of chronic disease was defined as a priority by ALL counties in either the focus groups or their Community Health Needs Assessments. Chronic disease is one lasting three months or more, by the definition of the U.S. National Center for Health Statistics. Chronic diseases generally cannot be prevented by vaccines or cured by medication, nor do they just disappear.

Chronic diseases, including heart disease, stroke, cancer, and arthritis are among the most costly and preventable illnesses of all conditions (CDC, 2016). Seven of the ten top causes of deaths are chronic diseases, with heart disease and cancer accounting for 48% of deaths. In 2010, 86% of health care spending was for people with one or more chronic diseases, with heart disease and cancer alone costing an estimated $315.4 billion.

Preventing and managing chronic disease would lower health care costs, increase worker productivity and increase quality of life among rural Marylanders. This could be accomplished through chronic disease management services and programs, care coordination, and through the use of community health programs and services.

All counties documented community health programs that help lower the prevalence of chronic diseases. Current strategies and community health programs cited include the Living Well program (Maryland's name for the Stanford Chronic Disease Management Program), weight-loss services, YMCA-based programs, faith outreach, employee wellness programs and other related efforts. Further, many no-cost community resources, including parks and recreation services, were discussed and may serve as venues to promote healthy lifestyles and reduce chronic disease.

The two main barriers to access and use of programs are location and cost. Services and programs tended to be offered in county seats or city centers, making access for those with transportation issues limited. Additionally, most services had a cost associated with use, thereby creating a barrier for low-income individuals without assistance from Medicare or Medicaid. Sliding scales are used by a few select programs to increase access by low-income audiences and would be useful to explore with future efforts.

HEALTH LITERACY AND HEALTH INSURANCE LITERACY

Explore ways to increase individual health literacy and health insurance literacy of consumers.

HIGHLIGHTED CONCERNS

- Health insurance information too hard to access
- Health insurance too hard to understand
- Health care facilities too hard to navigate
- Difficult for providers to navigate the health care infrastructure

Several focus groups and Community Health Needs Assessments had an underlying message: *information can be too hard to access and understand, health insurance is complicated, and the health care facilities are too hard to navigate.* This was further complicated as care became more complex, necessitating the management of multiple doctors and medications, sometimes located in different areas of the state. Further, consumer skills and knowledge to understand the cost of care, and how to navigate networks and self-advocate is sporadic and variable. Finally, health care providers acknowledged and discussed the difficulties people had navigating the health care infrastructure to get the needed care.

These difficulties are directly related to the concepts of health literacy, health insurance literacy, and the availability of health literate organizations. Health literacy is the ability to access, understand and use health information to manage health. Research shows that only 12% of US adults has proficient health literacy at a given time (National

Assessment of Adult Literacy, https://nces.ed.gov/naal/). Health literacy is a fluid and dynamic concept, and an individual's level can change based on the health situation they find themselves.

Health insurance literacy is a related but more complicated concept. Health insurance literacy is the degree to which individuals have the knowledge, ability and confidence to find and evaluate information about health plans, select the best plan for their own financial and health circumstances, and use the plan once enrolled. Encompassing health literacy, financial literacy, numeracy and document literacy components, health insurance literacy expects consumers to navigate complex health insurance networks, understand how to calculate out of pocket costs, and know how to access care for them and their family.

These two components put the onus on individuals to understand their health, access information and use health insurance resources to manage care. Many have acknowledged that the consumer level burden is too great. Health literate organizations have been created to make it easier for people to navigate, understand and use information and services to take care of their health.

Increasing health literacy and health insurance literacy increases confidence and skills to use health insurance, increases adaptation of self-care management practices, and increases overall quality of life. Some facilities employ Insurance Enrollment professionals to help people purchase insurance and navigate the system, while others have partnered to deliver classes to teach people to effectively use their plans. Finally, health literate organizations enable organizations to better serve consumers and the community, thus increasing the likelihood of healthy lifestyle adaptation, controlling costs, and increasing overall quality of life.

OUTREACH AND EDUCATION

Work with community-based service providers and health care infrastructure to provide outreach and education to citizens on relevant and emergent health issues.

HIGHLIGHTED CONCERNS

- Lack of awareness and coordinated marketing efforts
- Unsure how to access programs or services
- Programs are not accessible to all

When trying to create and foster a culture of health throughout rural Maryland, both social and economic factors and the physical environment need to be targeted.

Outreach and education was cited by most focus groups and Community Health Needs Assessments as a necessary component to increase health outcomes. Topics were numerous and varied, ranging from parenting classes to cooking classes and positive youth development programs. All are seen as necessary components to not only increase current family health but also grow youth into healthy, thriving adults.

Further, there are numerous community partners cited as being able to assist in this effort. For instance, the YMCA was cited by many counties

as a low-cost facility that offered physical activity and health classes to all people. Senior centers are seen as a venue to increase the health and wellbeing of older adults. Hospital-based programs and health department services, including smoking cessation, the Living Well program, and healthy pregnancy programs for at-risk mothers, are seen as valuable to community health. Community Health Workers, from both public and private entities, are seen by many as valuable resources for community health, with more being desired to meet county needs. Finally, university partners including the University of Maryland Extension classes and 4-H, as well as private non-profit organizations, are also cited as available resources for health programs.

What was missing or preventing the use of these resources was the lack of awareness and coordinated marketing efforts. Similar to care coordination, not all people are aware these programs or services exist or are unsure about how to access them. Further, at times they are not accessible to all, limiting their use by everyone who could potentially benefit. More efforts need to be made to increase access and use of health outreach and education to rural Marylanders.

UNINTENDED CONSEQUENCES

Finally, consumers and providers discussed the emergence of two unintended consequences from recent health care reforms and public health crises. These are:

- **The perception that people are being discharged sicker from the hospital or not admitted to save money.**
- **People in pain management protocols are being mislabeled as addicts by the health care community.**

Consumers and providers alike perceive that people are being discharged earlier than before, making follow-up care with their providers more intensive. There was also discussion around the possible decrease in hospital admittance from the emergency department. Many reported seeing an increase in the number of people classified as “under observation” in the emergency department, lowering the number of admissions. While lowering hospital admission is ultimately the goal of the health system, the perception by many in the focus groups was that it may not be in the best interest of the patient.

The second unintended consequence is a result for the opioid epidemic. Many people deal with chronic pain issues and have pain management protocols requiring the use of opioids. The emergence and awareness of the opioid epidemic, coupled with continued changes in pharmacy networks, has caused people to change pharmacies. This behavior can appear to mimic drug seeking behavior, causing those with pain management needs to be mislabeled as “addicts” and experience stigma from the health care system.

Providers and consumers spoke of the need for current, up-to-date databases which can help pharmacies properly identify addicts and to expand pharmacy networks to include local, independent store-fronts that are more familiar with the needs of long-term clients.

The issues facing Maryland's rural health system are layered and multifaceted. To adequately address each issue and create positive, lasting change, a multifaceted approach to change is needed. Please note that while a recommendation may have been identified as targeting multiple findings, each recommendation will only be described once.

RECOMMENDATIONS

POLICY RECOMMENDATIONS

Medical Transportation & Emergency Medical Services Reimbursement

Medical transportation and emergency medical services are vital to people accessing and receiving care. Currently, emergency medical transportation services, publicly funded non-emergency medical transportation, and transportation programs funded through the state transportation budget are limited in their ability to fully meet local needs. There are many privately or grant-funded transportation programs that attempt to fill these holes, however major gaps still remain. Policy changes need to be explored and new regulations established to expand existing services and support continued diversion of unnecessary hospital admittance.

Establishment of a Plain Language Policy

The Federal Plain Writing Act of 2010 was passed requiring all federal agencies to "…improve the effectiveness and accountability of Federal agencies to the public by promoting clear Government communication that the public can understand and use." The Centers for Disease Control and Prevention subsequently adopted the policy and created the Clear Communication Index to assist agencies in adapting to the new policy. Based on the secondary data and focus group findings, a clear communication or plain language policy would be beneficial in helping Marylanders understand health information. Clear communication or plain language policy also includes large print, audio formats, video formats, or other accessible/alternative language formats based on county need.

Behavioral Health Treatment Policy

Behavioral health, its impact on individuals and families, and the difficulty with treatment dominated many conversations. One barrier to effective treatment is the limited number of providers and services in the area. Further, care coordination between behavioral health providers and other health practitioners was seen by many as limited in rural Maryland. A policy or study needs to occur to better understand the impact on behavioral health treatment.

Telehealth Expansion and Reimbursement

Telehealth programs are used throughout rural Maryland to increase access to health providers. However, there remains a gap between the number of health specialists and the need statewide. Telehealth could serve to fill part of this gap while new recruitment and retention efforts are developed to attract more rural health providers. To make this happen, medical reimbursement policies and stable funding streams need to be established, as well as stable infrastructure (broadband, etc.) in rural locations to support it.

Study of Best Practices for Recruitment and Retention of Rural Providers

One of the largest barriers to rural health is the recruitment and retention of providers. Virtually all data sources emphasized the difficulty of both finding qualified providers to work in rural areas and then retaining them once hired. This problem exists across disciplines, affecting primary care providers, specialists, behavioral health physicians, and oral health providers. To correct the problem, policy makers, administrators, rural health professionals, and others need to study barriers to recruitment and retention and identify best practices. After completion, an action plan to make changes should be developed and enacted to improve Maryland's rural health.

Reimbursement for Care Coordination

Care coordination or case management was identified throughout rural Maryland as a needed service for health system navigation. Research shows that care coordination can both improve health outcomes and reduce or control health care costs for the individual and system (Substance Abuse and Mental Health Services Administration, https://www.samhsa.gov/health-care-health-systems-integration). Currently, most people are only able to access reimbursable care coordination through Medicare with limited insurance companies offering it to other audiences. Mechanisms for expansion and reimbursement need to be explored to help control costs and achieve better health for rural Marylanders.

SYSTEMS-BASED RECOMMENDATIONS

Training for Transportation Professionals

Transportation and overall access to care was a concern for rural Maryland. Public transportation was often cited as having limited routes, while medical transportation was only available to certain health consumers. Further, the availability of handicapped-accessible vehicles and the training of transportation professionals to assist individuals with disabilities appears to be limited. An interagency and cross-sector approach should be used to ensure safe, medically appropriate transport of health care consumers. The health care system needs to better facilitate access for handicapped audiences through a) expanded access of specialized vehicles and b) appropriate training of medical transportation staff on how to work with special populations.

Telehealth Expansion and Medication Management

This recommendation further builds on the Policy Recommendation #4 and addresses one limitation of telehealth: medication management. Telehealth professionals are often called on to diagnose and treat rural health consumers that do not have local access to providers. During treatment, people are often prescribed medication to address and help manage their condition. This may require multiple adjustments to treatment protocols and immediate treatment of medication side effects. To ensure medication needs are properly monitored, a partnership between telehealth providers and on-site physicians needs to be established.

Care Coordination and No Wrong Door Approach

Several counties' focus groups discussed the invaluable nature of care coordination and how its expansion would positively impact consumer health. It is important for the health care system to explore innovative methods to institute care coordination. Potential avenues include a) funding by different organizations to establish shared care coordinators, b) a shared office space or no wrong door policy where each sector works together to direct consumers, and c) a continued community platform for health providers to share services and direct consumers.

Database of Existing Resources for Rural Health

This recommendation focuses on either the expansion of Maryland Access Point or the establishment of a new integrated database of rural health services. One barrier to programs and services cited was the lack of knowledge or awareness of its existence by both providers and consumers. During the focus groups, many participants were pleasantly surprised to learn about new resources, but frustrated there was not a centralized approach to share them. An online database of resources would allow consumers to be more aware of community programs and assist providers in reaching new audiences for services.

School-Based Health Centers

Access to and availability of health care providers was limited for adults and more challenging for youth.

People discussed the need for child specialists, particularly behavioral health, and the lack of qualified providers. Many people discussed having to travel long distances for child appointments, which necessitated the parent missing work and the child missing school. One approach to begin addressing these needs is through the establishment of school-based health centers in each county. This would enable providers to meet youth where they are. Further, mid-level health professionals, such as nurse practitioners and master's-level therapists, would be able to help identify health issues early and establish care.

Mobile Health and Crisis Services

The success of local mobile health and crisis services was discussed in several counties. While the programs varied by individual county needs, emergency medical service professionals are used for making health wellness visits with high utilizers to avoid hospitalization, stabilization services calls to prevent transport to hospitals, and providing crucial links between the physical health and mental health community. These programs have been successful in decreasing hospital admissions and readmissions and helping people stay in their community.

Policy Recommendation #1 advocates for the exploration and establishment of secure funding for these services. This system recommendation advocates for new partnerships between emergency medical service, hospitals, health providers and Community Health Workers throughout all rural Maryland for replication of this service. Several models exist for how the partnership can be structured, allowing each county to hear lessons learned and explore options that would work for them.

Transportation Services

As previously discussed, transportation services are truncated throughout rural Maryland. Bus stops and routes tend to be limited to city centers, preventing many of the most rural citizens from using it. Patchwork solutions, including volunteers, for-hire personal drivers (e.g. Uber, etc.) and private grant funding is used to augment the current system. The health care system needs to explore new transportation methods and cross-sector partnerships, including both formal and informal networks, to increase health care access.

Best Practices for the All Payer Model

As previously discussed, Maryland has transitioned to using a Global Budget Revenue model. While this approach may be new for some hospitals, there are a few rural hospitals who have been operating successfully on the model for years. Examination of practices and policies used by these hospitals can be studied to assist others in adjusting care and administration practices to this system.

Community Trust Building

During the focus groups, a few sessions discussed the distrust and tension between health care providers and consumers. In some cases, this had been existing for years while others seemed to indicate it was a new phenomenon. No matter the length of time, the lack of trust can be harmful to the system, consumer and community. The Maryland Center for Health Equity has created a trust-building program to help communities learn from one another, heal old wounds and start establishing a new, trust-based relationship.

Stigma Reduction

During some of the focus groups and many of the Community Health Needs Assessments, stigma was raised as a large barrier to care. In particular, stigma around being diagnosed and treated for behavioral health conditions and stigma about using health department resources was discussed. In some communities, the health department serves as one of the only primary care and behavioral health providers. To reduce and eliminate both barriers to treatment, the counties need to engage in both a marketing campaign and community education to increase understanding about services offered and increase understanding of behavioral health conditions.

Social Media and Marketing Services

Many focus groups discussed lack of knowledge about different community services and ways to access them. Three strategies should be explored. First, the development and expansion of a community resource database described in System-Based Recommendation #4 for use by the public. Second, services need to engage in comprehensive marketing campaigns to expose communities to their offerings and ways they can access them. Third, health promotion campaigns need to be developed to reach more diverse audiences and equip people with the necessary skills to improve their health and wellness.

Expansion of Clinical and Non-Clinical Health Professionals

Several data points discussed the need for the recruitment and retention of health professionals. Clinical Health Professionals are those who are employed in formal health settings and require credentialing prior to practicing. Currently, the process for reimbursement is laborious, leading to delayed or loss reimbursement, or loss of qualified professionals to other states. It is recommended that hospital administrators, state health professionals, and health insurance companies work together to review and streamline the current process. Many counties and agencies currently employ non-clinical health professionals to increase consumer access to services, facilitate the adaptation of health behaviors, and foster a healthy living environment statewide. This group includes, but is not limited to, Community Health Workers, peer support and recovery specialists, insurance enrollment professionals, extension educators and case managers. These professionals are positively viewed by most because of their acceptance by the community and success in reaching diverse groups. Availability and access to these professionals varies, limiting the audiences who can benefit from them. Expansion of these positions to new audiences and situating professionals in partner agencies would increase the system's ability to serve health care consumers.

INDIVIDUAL RECOMMENDATIONS

Health Insurance Literacy Education

Numerous counties and focus groups discussed the difficulty of people adequately accessing and using the health care system, understanding their benefits, tracking costs associated with care and general use of their health insurance plan. While the onus to navigate the system cannot be put solely on the individual, people do need to be educated on how to use the system. Health insurance education programs have been found to increase consumer confidence and capability in navigating the system. Community Health Workers and Insurance Enrollment professionals, and partnerships between these professionals and rural health organizations, should be expanded to meet this need.

Patient Advocacy

Patient advocacy was discussed in multiple focus groups. This pertained largely to patients being able to ask and communicate with physicians, ensuring that their needs as patients are recognized and met and that their voices are heard in health care decisions. There are a couple ways to accomplish this recommendation. First, formal advocates, either volunteers or employees, are used by many systems to help ensure medical care is patient-centered. These advocates can and do consist of Peer Recovery Specialists, Community Health Workers, and case managers situated in different agencies and organizations. Second, patient or family members can be educated on ways to ensure their voice and needs are part of the decision-making process. This will increase the likelihood of medical adherence and behavior change in the consumer's everyday life.

Healthy Lifestyle Education

The need for more consumer education about healthy lifestyles, disease prevention and management was discussed. This included nutrition and cooking classes, parenting skills,

gardening, tobacco cessation classes, chronic disease management and prevention, physical activity and other related topics. Many community organizations employ Community Health Workers and educators to offer these services with perceived success from community members. Ways to increase access to these services should be explored.

Addressing the Unintended Consequences

As previously discussed, there are two unintended consequences that emerged from the focus groups. First, both consumers and providers perceive that people are being discharged from the hospital sicker or do not understand why some patients are observed before being admitted or released. Second, consumers who have pain management issues have seen an increase in stigma and being mislabeled as addicts. To begin mitigation of these issues, the following recommendations have been made.

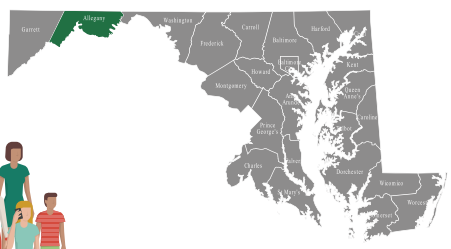
- **Patient Discharge and Hospital Admission**
  Increased patient education is necessary regarding the reasons for patient placement on observation versus admission, and the importance of treatment in the community versus in the hospital. The state also needs to conduct a comprehensive review of patients who are discharged and how well they recover in the community. While the perception is that people are sicker when leaving, it needs to be assessed by a rigorous research process.

- **Pain Management and Unintended Stigmatization**
  The state, pharmacies and other appropriate personnel need to update the CRISP database and ensure its continued use. This will help all pharmacies and appropriate medical personnel see the medical and medication history of patients and help identify those who may be drug-seeking and those with pain management issues. In many rural counties, people have personal relationships with long-standing independent pharmacies that understand their health history and needs, which may be an informal protective factor from stigma. An increase in the number of in-network pharmacies for Medical Assistance, Medicaid and Medicare to include local independent pharmacies would benefit rural residents. Finally, education and stigma reduction efforts need to be developed for health care providers.

APPENDIX I
County Profiles

Allegany
Calvert
Caroline
Carroll
Cecil
Charles
Dorchester
Frederick
Garrett
Harford
Kent
Queen Anne's
Somerset
St. Mary's
Talbot
Washington
Wicomico
Worcester

Allegany



TOTAL POPULATION

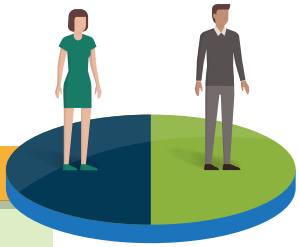
75,087

Important County Data

Teen Birth rate (per 1000 population)	24.7
Early Prenatal Care	77.2%
Adults Who are Not Overweight or Obese	27.2%
Adolescents Who have Obesity (only 2014 data available)	13.5%
Adults Who Currently Smoke	22.1%
Adolescents Who use Tobacco (only 2014 data available)	24.9%
Children Receiving Dental Care in the Last Year	58.4%
Uninsured ED Visits	5.6%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	22

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

48% FEMALES **52%** MALES



ETHNICITY

Hispanic or Latino	1.4%
Non-Hispanic or Latino	98.6%

RACE

White	89.2%
Black or African American	8.0%
American Indian and Alaska Native	0.2%
Asian	0.8%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	1.8%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
After hours health care
Lack of specialists

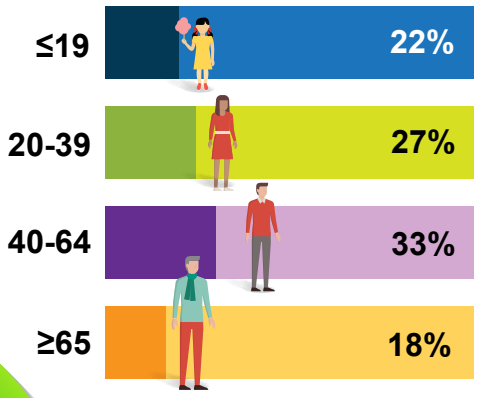
What Works
Diabetes clinic and cooking classes
Family support network for disabilities

PROVIDERS

Barriers and Service Gaps
Transportation
Stigma towards behavioral health
Lack of services outside the city

What Works
Home health care options and services
Health care system navigation

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Substance abuse

Poverty

Heart disease

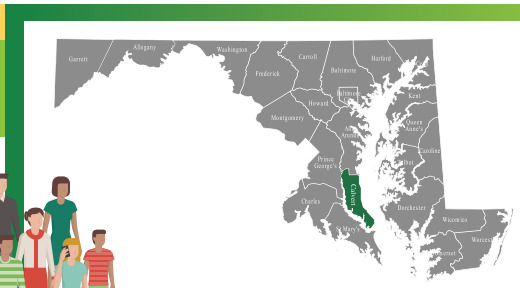
Consumer Solutions

- **More specialists are recruited and retained**
- **Database for locating providers and other services**

Provider Solutions

- **Increase behavioral health treatment**
- **Living wage for health care workers**
- **Early health education in schools**

Calvert



Important County Data

Teen Birth rate (per 1000 population)	9.6
Early Prenatal Care	72.1%
Adults Who are Not Overweight or Obese	22.8%
Adolescents Who have Obesity (only 2014 data available)	10.1%
Adults Who Currently Smoke	15.5%
Adolescents Who use Tobacco (only 2014 data available)	20.7%
Children Receiving Dental Care in the Last Year	58.6%
Uninsured ED Visits	4.8%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	20

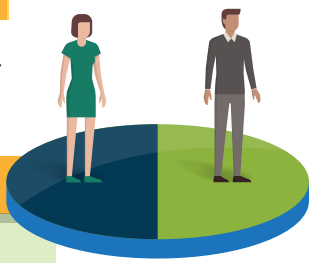
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

88,737

51% FEMALES

49% MALES



ETHNICITY

Hispanic or Latino	2.7%
Non-Hispanic or Latino	97.3%

RACE

White	81.4%
Black or African American	13.4%
American Indian and Alaska Native	0.4%
Asian	1.4%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.4%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Health insurance options
Lack of specialists and behavioral health

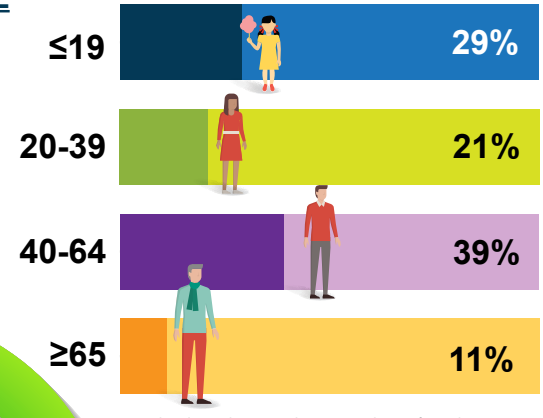
What Works
YMCA

PROVIDERS

Barriers and Service Gaps
Transportation
Care coordination
No behavioral health inpatient options

What Works
Mobile crisis units
Telehealth programs
Community health education

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Cancer prevention and treatment

Substance abuse and behavioral health

Access to care and providers

Consumer Solutions

- **Right care at the right time - on demand care**

Provider Solutions

- **Care coordination**
- **Trust building between providers and consumers**

Caroline

Important County Data

Teen Birth rate (per 1000 population)	27.0
Early Prenatal Care	76.7%
Adults Who are Not Overweight or Obese	21.2%
Adolescents Who have Obesity (only 2014 data available)	13.9%
Adults Who Currently Smoke	23.5%
Adolescents Who use Tobacco (only 2014 data available)	26.1%
Children Receiving Dental Care in the Last Year	72.1%
Uninsured ED Visits	6.8%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	3

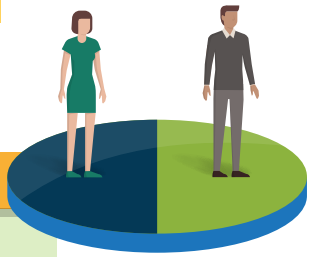
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

33,066

51% FEMALES

49% MALES



ETHNICITY

Hispanic or Latino	5.5%
Non-Hispanic or Latino	94.5%

RACE

White	79.8%
Black or African American	13.9%
American Indian and Alaska Native	0.3%
Asian	0.6%
Native Hawaiian or Other Pacific Islander	0.2%
Two or More Races or Some Other Race	5.2%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Health insurance networks
Lack of oral health care

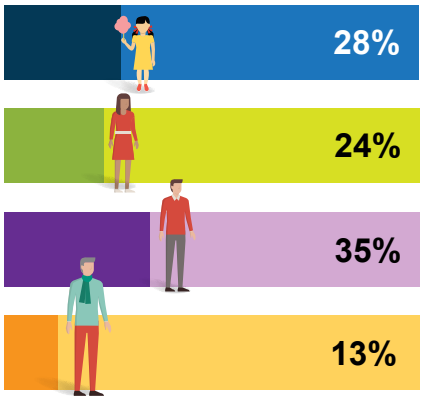
What Works
Emergency medical services
Community response to opioid crisis
Health department events

PROVIDERS

Barriers and Service Gaps
Transportation
Fear of deportation
Culture and stigma surrounding care

What Works
Telehealth programs
Mobile integrated health
Partners in Care volunteer program

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Obesity

Diabetes prevention and management

Heart disease/stroke

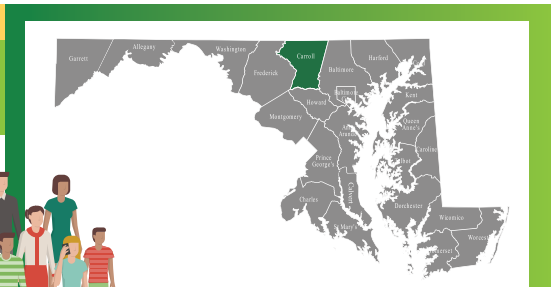
Consumer Solutions

- **Health education/holistic health center**
- **Youth activities**
- **Examine new ways to retain doctors**

Provider Solutions

- **Community health center with care coordination services**
- **Expansion of mobile integrated health**
- **Database of best practices**

Carroll



Important County Data

Teen Birth rate (per 1000 population)	6.8
Early Prenatal Care	75.9%
Adults Who are Not Overweight or Obese	31.7%
Adolescents Who have Obesity (only 2014 data available)	8.9%
Adults Who Currently Smoke	11.6%
Adolescents Who use Tobacco (only 2014 data available)	15.0%
Children Receiving Dental Care in the Last Year	56.0%
Uninsured ED Visits	5.4%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	40

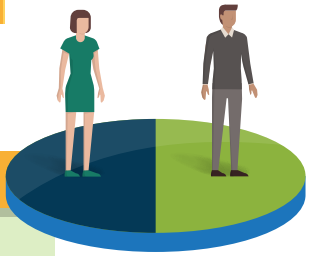
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

167,134

51% FEMALES

49% MALES



ETHNICITY

Hispanic or Latino	2.6%
Non-Hispanic or Latino	97.4%

RACE

White	92.9%
Black or African American	3.2%
American Indian and Alaska Native	0.2%
Asian	1.4%
Native Hawaiian or Other Pacific Islander	0.1%
Two or More Races or Some Other Race	2.2%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Health insurance-networks and cost

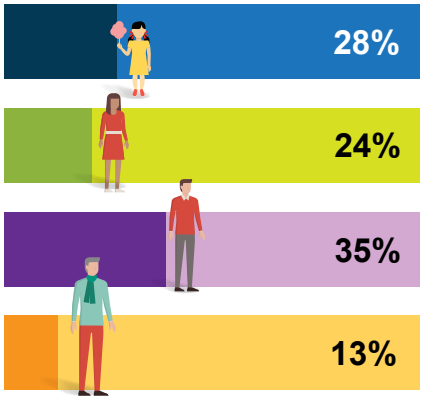
What Works
Carroll Health group
Peer suport groups

PROVIDERS

Barriers and Service Gaps
Transportation
Stigma and culture
Health insurance-networks and cost

What Works
Case managers and system navigators

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Health care access

Behavioral health

Prevention of chronic health conditions

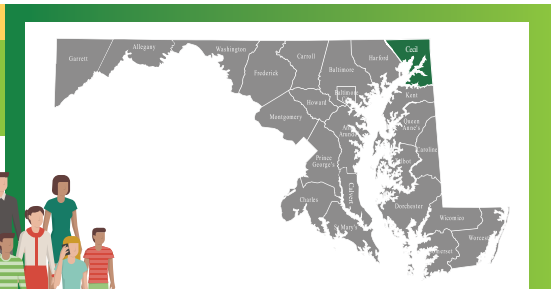
Consumer Solutions

- **Sober homes**
- **24/7 crisis beds for behavioral health**
- **More crisis intervention team police officers**

Provider Solutions

- **Peer mentors**
- **Behavioral health added to urgent care facilities**
- **Computer literacy for care coordination**

Cecil



TOTAL POPULATION

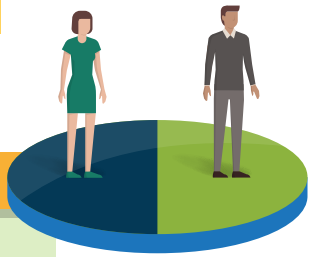
101,108

Important County Data

Teen Birth rate (per 1000 population)	18.3
Early Prenatal Care	78.2%
Adults Who are Not Overweight or Obese	44.4%
Adolescents Who have Obesity (only 2014 data available)	14.1%
Adults Who Currently Smoke	17.5%
Adolescents Who use Tobacco (only 2014 data available)	25.2%
Children Receiving Dental Care in the Last Year	55.5%
Uninsured ED Visits	5.8%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	32

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

50% FEMALES **50%** MALES



ETHNICITY

Hispanic or Latino	3.4%
Non-Hispanic or Latino	96.6%

RACE

White	89.2%
Black or African American	6.2%
American Indian and Alaska Native	0.3%
Asian	1.1%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.2%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Provider shortage
Health insurance-networks and cost

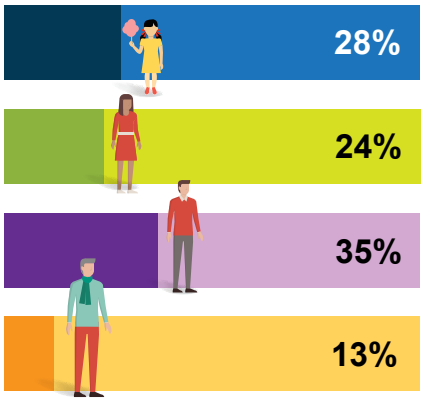
What Works
Emergency medical services
Access to behavioral health

PROVIDERS

Barriers and Service Gaps
Transportation
Limited staff
Health insurance-networks and cost

What Works
Telehealth
Collaborative partnerships
WATCH Teams (Wellness Action Teams of Cecil and Harford)

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Social determinants of health

Behavioral health

Prevention of chronic health conditions

Consumer Solutions

- **Peer support groups**
- **Expanded health insurance networks**
- **Preventive health (individual and societal)**

Provider Solutions

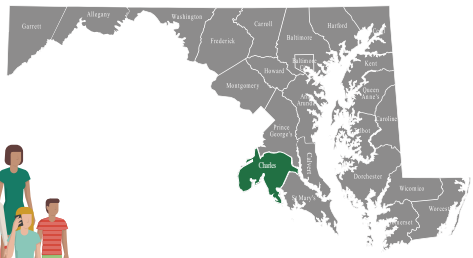
- **Care coordination with real-time data**
- **Integrated health centers throughout the county**
- **Mobile care unit**

Charles

Important County Data

Teen Birth rate (per 1000 population)	15.3
Early Prenatal Care	67.6%
Adults Who are Not Overweight or Obese	23.1%
Adolescents Who have Obesity (only 2014 data available)	12.3%
Adults Who Currently Smoke	18.4%
Adolescents Who use Tobacco (only 2014 data available)	17.9%
Children Receiving Dental Care in the Last Year	50.7%
Uninsured ED Visits	8.5%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	22

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

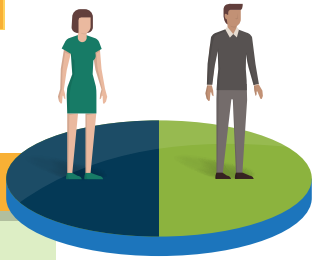


TOTAL POPULATION

146,551

52% FEMALES

48% MALES



ETHNICITY

Hispanic or Latino	4.3%
Non-Hispanic or Latino	95.7%

RACE

White	50.3%
Black or African American	41.0%
American Indian and Alaska Native	0.7%
Asian	3.0%
Native Hawaiian or Other Pacific Islander	0.1%
Two or More Races or Some Other Race	4.9%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Provider shortage
Lack of preventive care

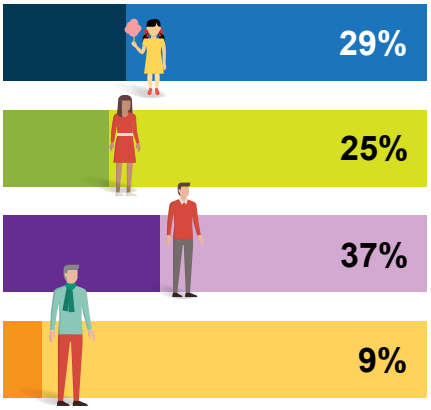
What Works
Mobile health unit
Community health fair
Partnerships

PROVIDERS

Barriers and Service Gaps
Transportation
Insurance
Adolescent mental health

What Works
Outpatient diabetes center
Workplace wellness
Partnerships

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Access to care

Behavioral health

Prevention of chronic health conditions

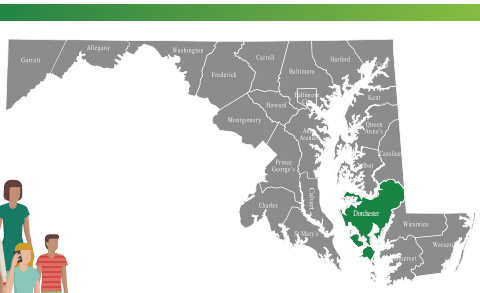
Consumer Solutions

- **Community garden**
- **Faith-based interventions**
- **Community center**

Provider Solutions

- **Link up mental health care with mobile health unit**
- **Partnerships with local farms**
- **Prevention programs**

Dorchester



Important County Data

Teen Birth rate (per 1000 population)	50.7
Early Prenatal Care	78.1%
Adults Who are Not Overweight or Obese	25.6%
Adolescents Who have Obesity (only 2014 data available)	17.2%
Adults Who Currently Smoke	19.8%
Adolescents Who use Tobacco (only 2014 data available)	24.9%
Children Receiving Dental Care in the Last Year	68.7%
Uninsured ED Visits	6.8%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	1

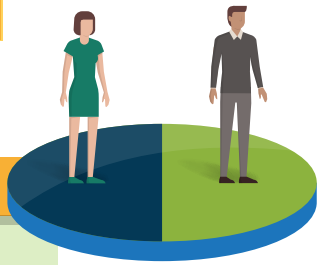
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

32,618

52% FEMALES

48% MALES



ETHNICITY

Hispanic or Latino	3.5%
Non-Hispanic or Latino	96.5%

RACE

White	67.6%
Black or African American	27.7%
American Indian and Alaska Native	0.4%
Asian	0.9%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.4%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Health education/Health care system education
Provider shortage
Rehab facility

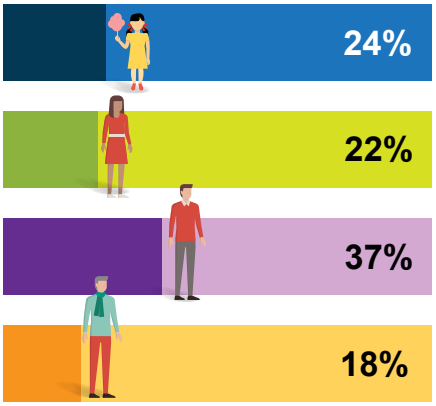
What Works
YMCA

PROVIDERS

Barriers and Service Gaps
Transportation
Behavioral health inpatient center
Care coordination

What Works
Mobile crisis
Community health education
Telehealth

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Obesity

Behavioral health

Cancer

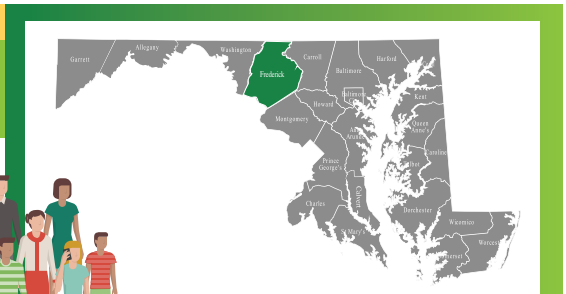
Consumer Solutions

- **On-demand care**

Provider Solutions

- **Care coordination**
- **Trust building between providers and consumers**

Frederick



Important County Data

Teen Birth rate (per 1000 population)	11.0
Early Prenatal Care	77.5%
Adults Who are Not Overweight or Obese	39.1%
Adolescents Who have Obesity (only 2014 data available)	9.1%
Adults Who Currently Smoke	21.6%
Adolescents Who use Tobacco (only 2014 data available)	16.3%
Children Receiving Dental Care in the Last Year	68.1%
Uninsured ED Visits	9.3%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	40

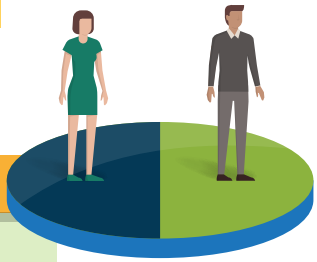
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

233,385

51% FEMALES

49% MALES



ETHNICITY

Hispanic or Latino	7.3%
Non-Hispanic or Latino	92.7%

RACE

White	81.5%
Black or African American	8.6%
American Indian and Alaska Native	0.3%
Asian	3.8%
Native Hawaiian or Other Pacific Islander	0.1%
Two or More Races or Some Other Race	5.7%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Limited health insurance networks for the underinsured
Lack of specialists
Behavioral health providers

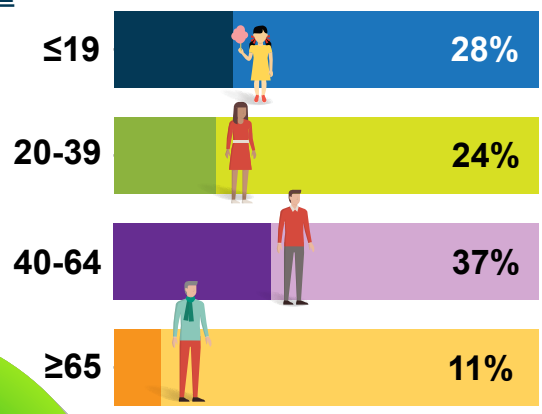
What Works
Department of Aging
Church meal programs
Police department opioid outreach

PROVIDERS

Barriers and Service Gaps
Transportation
Adolescent resources
Community involvement

What Works
Community baby shower
Group therapy
SOAR volunteer transit

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Chronic disease

Behavioral health

Cancer

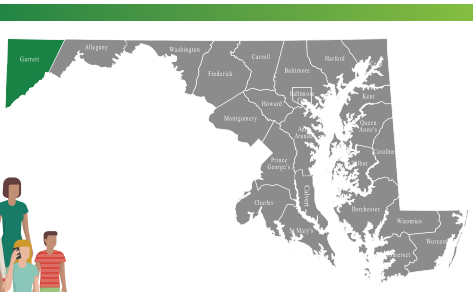
Consumer Solutions

- **Care coordination**
- **Scholarships for youth interested in health care**
- **Community center**

Provider Solutions

- **Care coordination**
- **Mental health intervention team**
- **Addiction services**

Garrett



Important County Data

Teen Birth rate (per 1000 population)	31.8
Early Prenatal Care	80.9%
Adults Who are Not Overweight or Obese	38.9%
Adolescents Who have Obesity (only 2014 data available)	16.0%
Adults Who Currently Smoke	29.4%
Adolescents Who use Tobacco (only 2014 data available)	33.0%
Children Receiving Dental Care in the Last Year	72.2%
Uninsured ED Visits	5.8%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	5

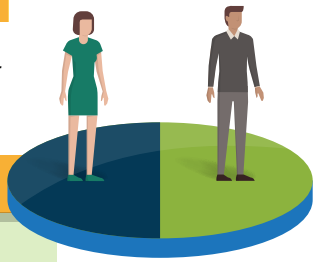
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

30,097

50% FEMALES

50% MALES



ETHNICITY

Hispanic or Latino	0.7%
Non-Hispanic or Latino	99.3%

RACE

White	97.8%
Black or African American	1.0%
American Indian and Alaska Native	0.1%
Asian	0.3%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	0.8%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Overbooked providers
Behavioral health providers

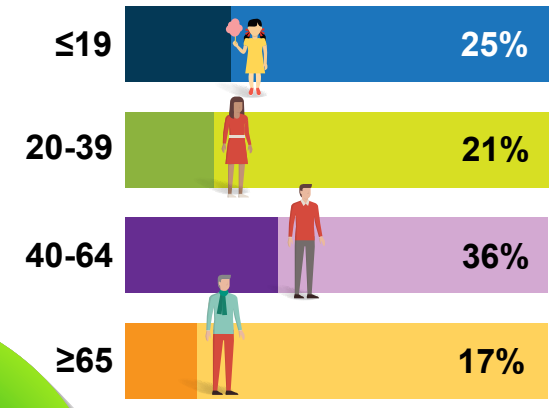
What Works
Emergency medical services
Patient medical home
New hospital-based program

PROVIDERS

Barriers and Service Gaps
Transportation
Hours of service
Stigma

What Works
Telehealth
Home health workers
Care coordination

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Chronic disease

Behavioral health

Nutrition and physical activity

Consumer Solutions

- **24 hour urgent care**
- **Health education in the schools**
- **Behavioral health center**

Provider Solutions

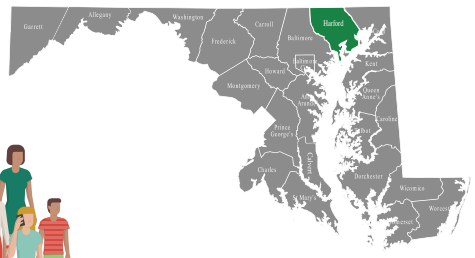
- **Mobile wellness center**
- **Health education in the schools**
- **Adult daycare**

Harford

Important County Data

Teen Birth rate (per 1000 population)	8.8
Early Prenatal Care	78.6%
Adults Who are Not Overweight or Obese	27.7%
Adolescents Who have Obesity (only 2014 data available)	10.0%
Adults Who Currently Smoke	20.7%
Adolescents Who use Tobacco (only 2014 data available)	19.2%
Children Receiving Dental Care in the Last Year	60.2%
Uninsured ED Visits	3.4%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	50

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

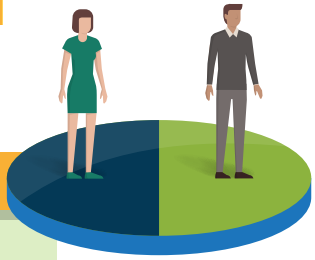


TOTAL POPULATION

244,826

51% FEMALES

49% MALES



ETHNICITY

Hispanic or Latino	3.5%
Non-Hispanic or Latino	96.5%

RACE

White	81.2%
Black or African American	12.7%
American Indian and Alaska Native	0.2%
Asian	2.4%
Native Hawaiian or Other Pacific Islander	0.1%
Two or More Races or Some Other Race	3.4%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Limited hours
Health insurance - costs and networks

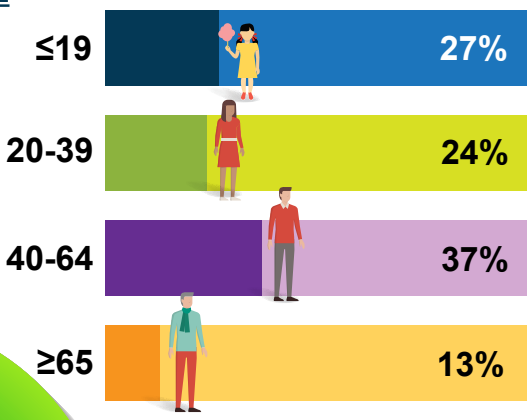
What Works
Emergency medical services
Healthy Harford
Community events

PROVIDERS

Barriers and Service Gaps
Transportation
Health insurance - uninsured and underinsured
Stigma

What Works
Behavioral health services in the school system
Interdisciplinary team/interagency coordination

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

- Chronic disease
- Behavioral health
- Maternal and child health

Consumer Solutions

- **Community clinics**
- **Behavioral health rehab**
- **Care coordination**

Provider Solutions

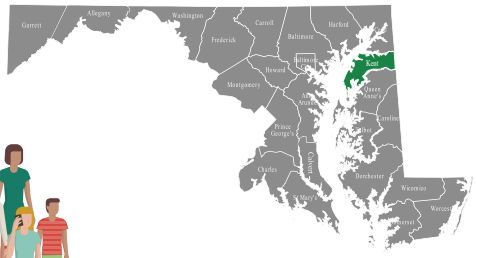
- **No wrong door/care coordination**
- **Reimbursement of emergency medical services**
- **Health education in the schools**

Kent

Important County Data

Teen Birth rate (per 1000 population)	18.2
Early Prenatal Care	81.9%
Adults Who are Not Overweight or Obese	27.2%
Adolescents Who have Obesity (only 2014 data available)	12.8%
Adults Who Currently Smoke	*
Adolescents Who use Tobacco (only 2014 data available)	22.9%
Children Receiving Dental Care in the Last Year	71.9%
Uninsured ED Visits	4.7%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	3

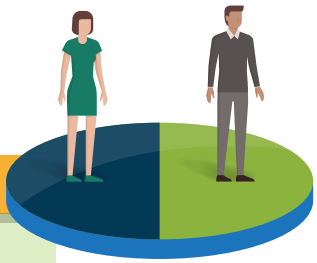
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.
** Data for this county did not meet the threshold required for reporting so was therefore withheld for privacy purposes.*



TOTAL POPULATION

20,197

52% FEMALES **48%** MALES



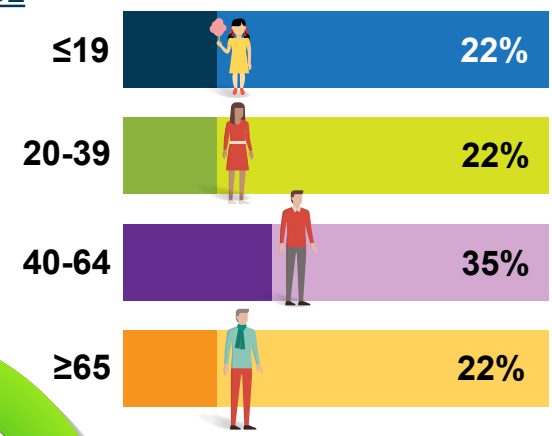
ETHNICITY

Hispanic or Latino	4.5%
Non-Hispanic or Latino	95.5%

RACE

White	80.1%
Black or African American	15.1%
American Indian and Alaska Native	0.2%
Asian	0.8%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.8%

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Patient advocacy
Health insurance - costs and networks

What Works
Community health outreach education
Parks and recreation
Employee wellness

PROVIDERS

Barriers and Service Gaps
Transportation
Low cost community health services
Lack of specialists

What Works
Coordinating care with the health department
Increase in detox beds
Satellite offices

COUNTY PRIORITIES

Chronic disease

Behavioral health

Access to care

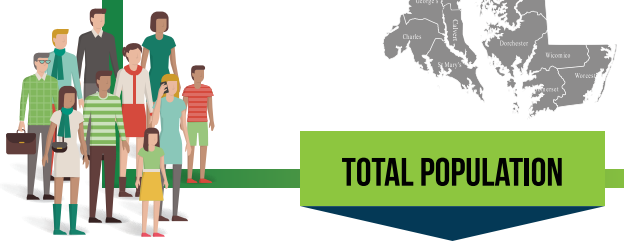
Consumer Solutions

- **Free clinic**
- **Women's health**
- **Health center in each county**

Provider Solutions

- **Care coordination**
- **Specialists**
- **Older adult services**

Queen Anne's



Important County Data

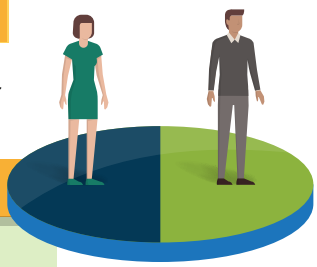
Teen Birth rate (per 1000 population)	6.8
Early Prenatal Care	75.3%
Adults Who are Not Overweight or Obese	32.9%
Adolescents Who have Obesity (only 2014 data available)	11.7%
Adults Who Currently Smoke	17.2
Adolescents Who use Tobacco (only 2014 data available)	24.3%
Children Receiving Dental Care in the Last Year	69.9%
Uninsured ED Visits	5.1%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	4

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

47,798

50% FEMALES **50%** MALES



ETHNICITY

Hispanic or Latino	3.0%
Non-Hispanic or Latino	97.0%

RACE

White	88.7%
Black or African American	6.9%
American Indian and Alaska Native	0.3%
Asian	1.0%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.1%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Treatment of behavioral health
Health insurance - costs and networks

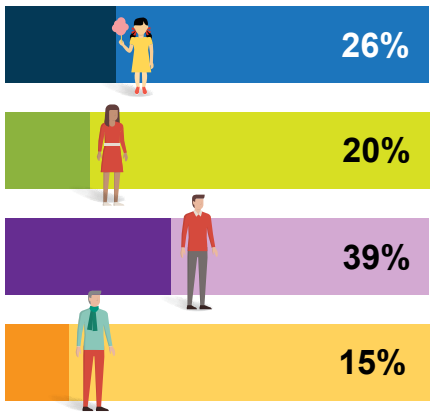
What Works
Nursing program at Chesapeake College
Telehealth

PROVIDERS

Barriers and Service Gaps
Transportation
Community behavioral health services
Lack of stable funding

What Works
Mobile crisis
Community dental clinics
Pharmacy delivery

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

- Obesity
- Behavioral health
- Access to care/ prevention

Consumer Solutions

- **Physician employment incentives to stay**
- **Integrated health centers**
- **Dental care for all**

Provider Solutions

- **Invest in youth**
- **Elderly services**
- **Behavioral health**

Somerset

TOTAL POPULATION

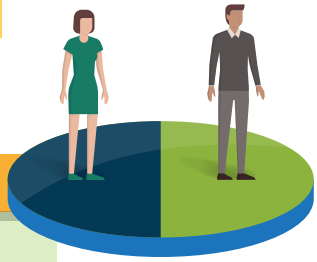
26,470

Important County Data

Teen Birth rate (per 1000 population)	22.5
Early Prenatal Care	80.5%
Adults Who are Not Overweight or Obese	31.2%
Adolescents Who have Obesity (only 2014 data available)	17.5%
Adults Who Currently Smoke	25.0%
Adolescents Who use Tobacco (only 2014 data available)	27.5%
Children Receiving Dental Care in the Last Year	68.8%
Uninsured ED Visits	7.6%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	6

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

47% FEMALES **53%** MALES



ETHNICITY

Hispanic or Latino	3.3%
Non-Hispanic or Latino	96.7%

RACE

White	53.5%
Black or African American	42.3%
American Indian and Alaska Native	0.4%
Asian	0.7%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.1%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Behavioral health support services
Health insurance networks

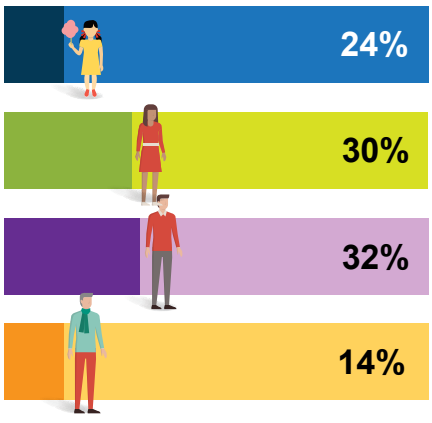
What Works
Emergency medical services
Consumer advocates

PROVIDERS

Barriers and Service Gaps
Transportation
Language
Health insurance and cost of services

What Works
Patient navigators
Weekend service hours

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Health risks

Prevention

Access to care

Consumer Solutions

- **Free clinics and health services**
- **Peer support**
- **Rehab and recovery centers**

Provider Solutions

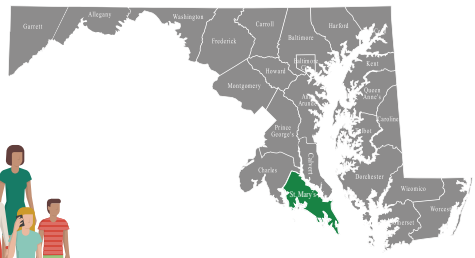
- **Invest in youth**
- **Elderly services**
- **Behavioral health**

St. Mary's

Important County Data

Teen Birth rate (per 1000 population)	14.8
Early Prenatal Care	77.2%
Adults Who are Not Overweight or Obese	31.3%
Adolescents Who have Obesity (only 2014 data available)	10.3%
Adults Who Currently Smoke	14.5%
Adolescents Who use Tobacco (only 2014 data available)	22.6%
Children Receiving Dental Care in the Last Year	56.0%
Uninsured ED Visits	6.9%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	18

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

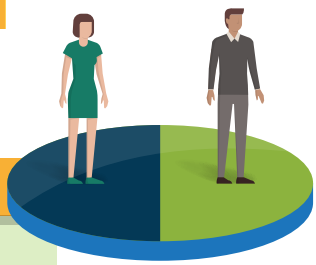


TOTAL POPULATION

105,151

50% FEMALES

50% MALES



ETHNICITY

Hispanic or Latino	3.8%
Non-Hispanic or Latino	96.2%

RACE

White	78.6%
Black or African American	14.3%
American Indian and Alaska Native	0.4%
Asian	2.5%
Native Hawaiian or Other Pacific Islander	0.1%
Two or More Races or Some Other Race	4.1%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Overbooked providers and wait times
Lack of specialists
Cultural barriers

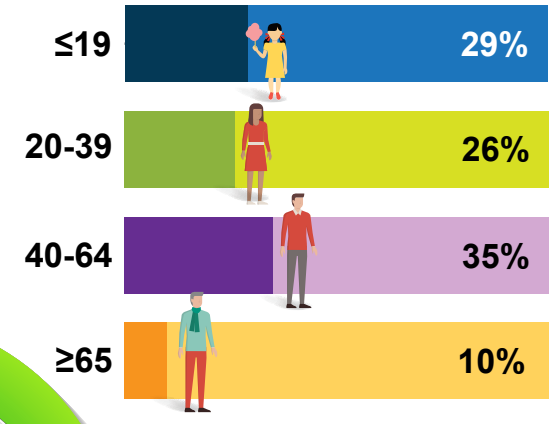
What Works
Dental van
Community outreach events

PROVIDERS

Barriers and Service Gaps
Transportation
Health insurance - qualification, network costs, etc.
Language

What Works
Telehealth
Provider outreach
Increased case management

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Chronic disease

Social determinants of health

Obesity

Consumer Solutions

- **Care coordination**
- **Assisted living**
- **Behavioral health services**
- **Emergency medical services**

Provider Solutions

- **Integrated behavioral health and physical health services**
- **Scholarships for students to stay in community**
- **Free fitness center**

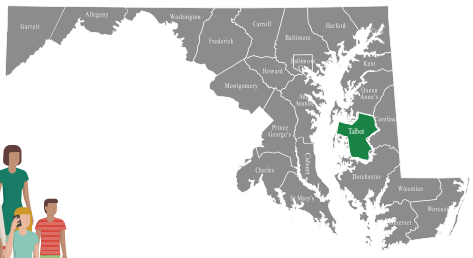
Talbot

Important County Data

Teen Birth rate (per 1000 population)	15.4
Early Prenatal Care	76.3%
Adults Who are Not Overweight or Obese	40.8%
Adolescents Who have Obesity (only 2014 data available)	10.3%
Adults Who Currently Smoke	*
Adolescents Who use Tobacco (only 2014 data available)	21.6%
Children Receiving Dental Care in the Last Year	73.2%
Uninsured ED Visits	6.6%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	5

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

** Data for this county did not meet the threshold required for reporting so was therefore withheld for privacy purposes.*

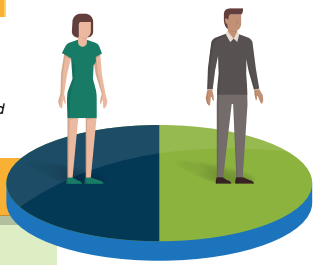


TOTAL POPULATION

37,782

52% FEMALES

48% MALES



ETHNICITY

Hispanic or Latino	5.5%
Non-Hispanic or Latino	94.5%

RACE

White	81.4%
Black or African American	12.8%
American Indian and Alaska Native	0.2%
Asian	1.2%
Native Hawaiian or Other Pacific Islander	0.1%
Two or More Races or Some Other Race	4.3%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Care coordination
Dental health care

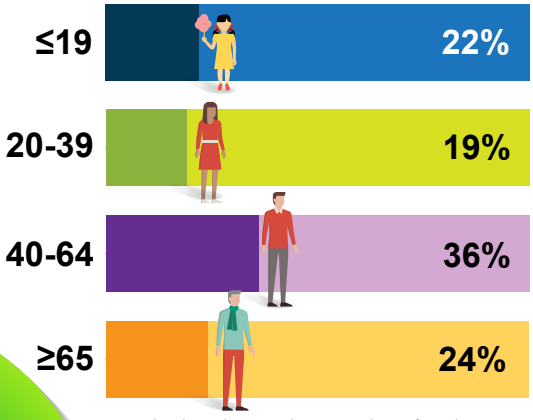
What Works
Senior centers
Parks and recreation

PROVIDERS

Barriers and Service Gaps
Transportation
Health insurance - networks
Jobs for well-educated spouses and reciprocity laws

What Works
Mobile crisis
Flexible appointments and open access days
School health facilities

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Health status monitoring

Shortage analysis

Priority to areas of greatest need

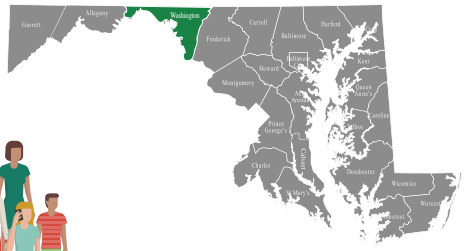
Consumer Solutions

- **Care coordination between agencies**
- **Incentives to bring specialists to communities**

Provider Solutions

- **Telehealth with medical oversight by primary care provider**
- **Data infrastructure for real-time decisions**
- **Living wage for citizens**

Washington



Important County Data

Teen Birth rate (per 1000 population)	24.7
Early Prenatal Care	70.2%
Adults Who are Not Overweight or Obese	31.6%
Adolescents Who have Obesity (only 2014 data available)	14.3%
Adults Who Currently Smoke	22.0%
Adolescents Who use Tobacco (only 2014 data available)	23.7%
Children Receiving Dental Care in the Last Year	58.6%
Uninsured ED Visits	9.8%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	64

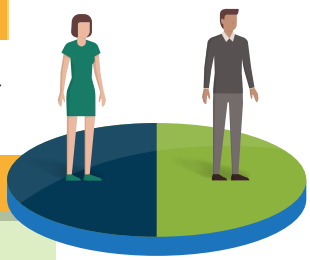
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

147,430

49% FEMALES

51% MALES



ETHNICITY

Hispanic or Latino	3.5%
Non-Hispanic or Latino	96.5%

RACE

White	85.1%
Black or African American	9.6%
American Indian and Alaska Native	0.2%
Asian	0.1%
Native Hawaiian or Other Pacific Islander	1.4%
Two or More Races or Some Other Race	3.6%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Health insurance - networks and acceptance
Behavioral health
Overbooked providers

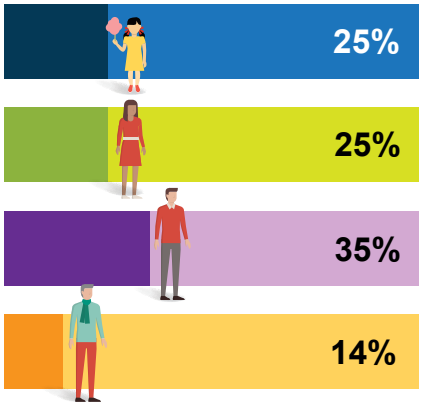
What Works
Nurse case managers
Quality of specialists at Robinwood medical facilities

PROVIDERS

Barriers and Service Gaps
Transportation
Health insurance - high co-pays/out of pocket costs
Dental health

What Works
Care coordination
Probation period for new patients

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Obesity

Behavioral health

Health care affordability

Consumer Solutions

- **Disease prevention (cancer and heart)**
- **Food systems overhaul**
- **Drug prevention and education**

Provider Solutions

- **Mobile health**
- **Case management/care coordination**
- **Urgent Care in areas of low provider access (neighborhood clinics)**

Wicomico

Important County Data

Teen Birth rate (per 1000 population)	20.0
Early Prenatal Care	78.8%
Adults Who are Not Overweight or Obese	34.5%
Adolescents Who have Obesity (only 2014 data available)	11.9%
Adults Who Currently Smoke	23.0%
Adolescents Who use Tobacco (only 2014 data available)	21.5%
Children Receiving Dental Care in the Last Year	64.4%
Uninsured ED Visits	10.0%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	18

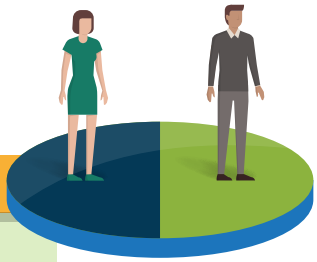
The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

TOTAL POPULATION

98,733

52% FEMALES

48% MALES



ETHNICITY

Hispanic or Latino	4.5%
Non-Hispanic or Latino	95.5%

RACE

White	68.7%
Black or African American	24.2%
American Indian and Alaska Native	0.2%
Asian	2.5%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	4.4%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Health insurance - networks and underinsured
Behavioral health
Overbooked providers

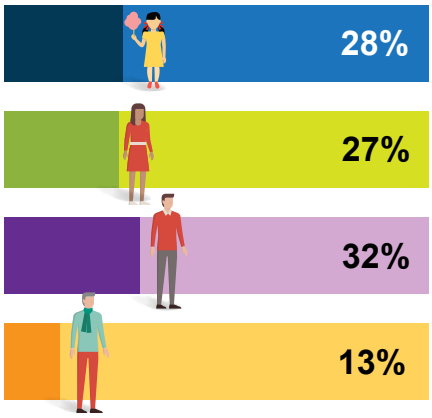
What Works
Smoking cessation classes
Transitional mental health services from adulthood
Emergency medical services

PROVIDERS

Barriers and Service Gaps
Health care navigation
Culture
Care coordination

What Works
Hospital-specific transportation
Community health events

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Chronic disease

Behavioral health

Access to health care

Consumer Solutions

- **Rehab facility and transportation**
- **Integrated health centers with transportation**
- **Access to new and cutting edge drugs**

Provider Solutions

- **Care coordination via website**
- **Community-based health workers**
- **Medicare gap funding**

Worcester

Important County Data

Teen Birth rate (per 1000 population)	20.9
Early Prenatal Care	80.4%
Adults Who are Not Overweight or Obese	40.4%
Adolescents Who have Obesity (only 2014 data available)	13.5%
Adults Who Currently Smoke	*
Adolescents Who use Tobacco (only 2014 data available)	22.5%
Children Receiving Dental Care in the Last Year	63.8%
Uninsured ED Visits	7.4%
Total Number of Drug and Alcohol-related Intoxication Deaths Occurring in Maryland by Place of Occurrence	16

The above data is a direct copy of the data provided in the chart on page #8 of this document. Please review the footnotes on that page for additional details, sources, and information.

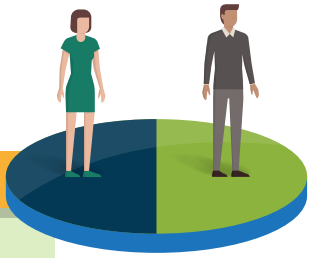
** Data for this county did not meet the threshold required for reporting so was therefore withheld for privacy purposes.*

TOTAL POPULATION

51,454

51% FEMALES

49% MALES



ETHNICITY

Hispanic or Latino	3.2%
Non-Hispanic or Latino	96.8%

RACE

White	82.0%
Black or African American	13.6%
American Indian and Alaska Native	0.3%
Asian	1.1%
Native Hawaiian or Other Pacific Islander	0.0%
Two or More Races or Some Other Race	3.0%

What the People Said...

CONSUMERS

Barriers and Service Gaps
Transportation
Care coordination
Dental

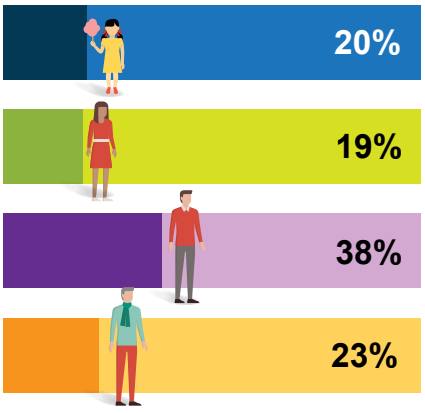
What Works
Health Department
Emergency medical services

PROVIDERS

Barriers and Service Gaps
Transportation
Lack of specialists
Behavioral health services

What Works
BRIDGE program
Telehealth
Community health outreach

AGE



The above demographic county data is from the 2010 US Census website: www.census.gov/2010census

COUNTY PRIORITIES

Access to care

Health risk behaviors

Behavioral health

Consumer Solutions

- **Diversion program with police and youth**
- **Multiple methods of education and communication**
- **Health education in the schools**

Provider Solutions

- **Transportation for the elderly**
- **Primary care provider in every town**

APPENDIX II
Maryland SHIP Data Detail

Measure Name	SHIP Website Description	Source	Numerator	Denominator	Threshold	Censorship (if below threshold)	Calculation & Metric
Adults Who Currently Smoke	This indicator shows the percentage of adults who currently smoke. 7,500 adults in Maryland die each year due to tobacco-related causes, and 150,000 more suffer from tobacco-related diseases such as COPD, emphysema or cancers. Non-smokers – especially young children (and even pets) – are also affected by tobacco through exposure to the toxins found in secondhand smoke.	Maryland DHMH Behavioral Risk Factor Surveillance System (BRFSS) (www.marylandbrfss.org)	Maryland adults who reported currently smoking cigarettes some days or every day	Maryland adults age 18 and over	50 or relative standard error >=30.0%	Rate not reported. Count not reported.	Weighted (Numerator / Denominator) * 100 = Single-Year Calculation
Adults Who Are Not Overweight or Obese	This indicator shows the percentage of adults who are not overweight or obese. In Maryland in 2015, of adults considered obese, 52% had high blood pressure, 44% had high cholesterol, and 21% had diabetes. Healthy weight can aid in the control of these conditions if they develop.	Maryland DHMH Behavioral Risk Factor Surveillance System (BRFSS) (www.marylandbrfss.org)	Maryland adults with BMI of less than 25 kg/m2	Maryland adults age 18 and over.	50 or relative standard error >=30.0%	Rate not reported. Count not reported.	Weighted (Numerator / Denominator) * 100 = Single-Year Calculation
Prenatal Care, Early	This indicator shows the percentage of pregnant women who receive prenatal care beginning in the first trimester. Inadequate prenatal care services have been linked to higher rates of infant mortality, low birth weight and pre-term deliveries. While Maryland as a whole ranks better than the National average and the Healthy People 2020 Target, disparities still exist. Due to the change in methodology for collecting information on the Maryland birth certificate, data collected in 2010 and after are not comparable to data collected in earlier years.	Maryland DHMH Vital Statistics Administration (VSA) Annual Report	Number of mothers who began prenatal care in the first trimester	Number of live births from Maryland DHMH Vital Statistics Administration (VSA) - Number of mothers with "Not Stated" prenatal care	5	Rate not reported if below threshold. Counts may be available upon request.	(Numerator / Denominator) * 100
Teen Birth Rate	This indicator shows the rate of births to teens ages 15-19 years (per 1,000 population). Teen pregnancy is linked to a host of social problems such as poverty, lack of overall child well-being, out-of-wedlock births, lack of responsible fatherhood, health issues, school failure, child abuse and neglect and at-risk behaviors.	Maryland DHMH Vital Statistics Administration (VSA) Annual Report	Number of births to mothers 15-19 years of age	Population of females aged 15-19 years from Maryland DHMH Vital Statistics Administration (VSA)	5	Rate not reported if below threshold. Counts may be available upon request.	(Numerator / Denominator) * 1,000
Uninsured ED Visits	This indicator shows the percentage of persons without health (medical) insurance who seek care through the Emergency Department. People without health insurance are more likely to be in poor health than the insured. Lack of health insurance can result in increased visits to the emergency department and decreased routine care visits with a primary care provider.	Maryland Health Services Cost Review Commission (HSCRC), Research Level Statewide Outpatient Data Files	Number of emergency department visits when the primary payor is self-pay or no charge	Total number of emergency department visits	Numerator <50 OR Denominator <1000.	Rate not reported if below threshold.	(Numerator / Denominator) * 100; Single-year calculation
Children Receiving Dental Care In The Last Year	This indicator reflects the percentage of children (aged 0-20 years) enrolled in Medicaid (320+ days) who received at least one dental visit during the past year. Poor oral health can lead to problems with nutrition, growth, school and workplace readiness, and speech. Adoption and use of recommended oral hygiene measures are critical to maintaining overall health.	Maryland Medicaid Service Utilization	Children aged 0 to 12 and 13 to 20 years in the fee-for-service (FFS) Medicaid or full HealthChoice managed care organization (MCO) programs. Enrollees in the following coverage groups were excluded from the analysis: undocumented immigrants (X02), Breast and Cervical Screening Program (W01), and Family Planning Program (P10). Individuals enrolled in the Primary Adult Care (PAC) program (S09) were also excluded because dental services are not a required benefit for these enrollees.	Children who had at least one dental visit during the measurement year. Dental visits were identified by FFS claims in the Medicaid Management Information System (MMIS2). For these measures, a dental visit is defined as one unique contact between a provider and an enrollee that may not exceed one per day.	7	Rate not reported. Counts not reported.	(Numerator / Denominator) * 100 = Single-Year Calculation
Adolescents Who Use Tobacco Products	This indicator shows the percentage of adolescents (public high school students) who used any tobacco product in the last 30 days. Preventing youth from using tobacco products is critical to improving the health of Marylanders. This highly addictive behavior can lead to costly illnesses and death to users and those exposed to secondhand smoke.	Maryland Youth Risk Behavior Survey (YRBS) (http://phpa.dhmh.maryland.gov/ccdpc/Reports/Pages/yrbs.aspx)	Number of adolescents (Maryland public high school youth) who reported using any kind of tobacco product	Number of persons attending Maryland public high schools (population) via Maryland Youth Risk Behavior Survey (YRBS)	50 and/or coefficient of variation > 0.30	Rate not reported if below threshold. Counts may be available upon request. Data is not presented for all years/ counties for the race /ethnicity category "Asian" because the populations are too small to display.	(Numerator / Denominator) * 100 = Single-Year Calculation
Adolescents Who Have Obesity	This indicator shows the percentage of adolescent public high school students who are obese. In the last 20 years, the percentage of overweight/obese children has more than doubled and, for adolescents, it has tripled. Overweight/obese children are at increased risk of developing life-threatening chronic diseases, such as Type 2 diabetes.	Maryland Youth Risk Behavior Survey (YRBS) http://phpa.dhmh.maryland.gov/ccdpc/Reports/Pages/yrbs.aspx	Number of adolescent public high school youth who have a Body Mass Index (BMI) (determined through self-reported height and weight) equal to or above the 95th percentile for age and gender	Number of adolescent public high school youth (population) via Maryland Youth Risk Behavior Survey (YRBS)	n<50 and/or coefficient of variation >.30	Rate not reported if below threshold. Counts may be available upon request.	(Numerator / Denominator) * 100 = Single-Year Calculation

APPENDIX III
References

Agency for Healthcare Research and Quality, Care Coordination
https://www.ahrq.gov/professionals/prevention-chronic-care/improve/coordination/index.html

American Academy of Family Physicians
http://www.aafp.org/home.html

Centers for Disease Control
https://www.cdc.gov/

Healthy People 2020
https://www.healthypeople.gov/

Maryland State Health Improvement Process (SHIP)
http://ship.md.networkofcare.org/ph/

Maryland General Assembly
http://mgaleg.maryland.gov/webmga/frm1st.aspx?tab=home

Maryland's Vital Statistics Administrations
https://health.maryland.gov/vsa/Pages/home.aspx

National Assessment of Adult Literacy (NAAL)
https://nces.ed.gov/naal/

Plain Language Act of 2010
http://www.plainlanguage.gov/plLaw/law/index.cfm

Substance Abuse and Mental Health Services Administrations (SAMHSA)
https://www.samhsa.gov/

Southwest Rural Health Research Center
https://srhrc.tamhsc.edu

United States Census
https://www.census.gov/2010census/popmap/ipmtext.php

MRHA also referenced the Community Health Needs Assessments from each rural Maryland county that was available as of June 1, 2017.

For additional resources and promising practices visit the Maryland Rural Health Plan website www.MDRuralHealthPlan.org

APPENDIX IV
DISSEMINATION & FEEDBACK

DISSEMINATION AND FEEDBACK OF UPDATED MARYLAND RURAL HEALTH PLAN

It was very important to MRHA and all stakeholders that this assessment process would be collaborative and inclusive. In addition to the collective nature of the data gathering, there was an extensive process put in place to ensure that feedback on the draft was both widespread and diverse.

The draft Maryland Rural Health Plan was shared extensively by MRHA as well as its partners and collaborators. The draft was posted on the MRHA website and the link was distributed widely. Additionally, MRHA held a working session at the 2017 Maryland Rural Health Conference on Friday, October 6, 2017 to garner feedback from conference participants.

Below is a list of organizations that participated in this feedback process, listed alphabetically:

Access Carroll	Eastern Shore Land Conservancy	Maryland Hospital Association	Rural Maryland Council
Adfinitas Health	Eastern Shore Oral Health Task Force	Maryland State Office of Rural Health	Somerset County Health Department
Affiliated Sante Group Eastern Shore Crisis Response	Family Healthcare of Hagerstown	Mary's Center	St. Mary's County Health Department
AHEC West	Family Services, Inc.	MCC Medical Clinic	Talbot County Health Department
Allegany County Health Department	Frederick County Health Department	McCready Memorial Hospital	The Lower Shore Clinic
Atlantic General Hospital	Frederick Memorial Hospital	MedChi, The Maryland State Medical Society	The Youth Ranch
Baltimore Area Health Education Center	Frostburg State University	MedStar St. Mary's Hospital	Three Lower Counties Community Services
Baltimore County Health Department	Garrett County Health Department	Mental Health Association of Frederick	Tri-County Council for the Lower Eastern Shore
Behavioral Health Administration, MDH	Garrett Regional Medical Center	Meritus Medical Center	Tri-State Community Health Center
Behavioral Health System Baltimore	Greater Baden Medical Services, Inc.	Mid Shore Behavioral Health, Inc.	Union Hospital of Cecil County
Bon Secours Baltimore Health System	Harford County Health Department	Mid-Atlantic Association of Community Health Centers	University of Maryland Charles Regional Medical Center
Brain Injury Association of Maryland	Health Care Financing, MDH	MidShore Regional Council	University of Maryland Eastern Shore
Calvert County Health Department	Health Partners	Mobile Medical Care	University of Maryland Extension
Calvert Memorial Hospital	Heron Point	Montgomery County Health Department	University of Maryland Harford Memorial Hospital
CalvertHealth Medical Center	Kennedy Krieger Institute	Mosaic Community Services	University of Maryland Medical Center at Dorchester
Caroline County Health Department	Kent County Health Department	Mountain Laurel Medical Center	University of Maryland Medical Center, Baltimore
Carroll County Health Department	Lifespan Network	NORC Walsh Center for Rural Health Analysis	University of Maryland Psychiatry
Carroll Hospital Center	Maryland Academy of Family Physicians	Office of Communications, MDH	University of Maryland School of Public Health
Cecil County Health Department	Maryland Area Health Education Center	Office of Governmental Affairs, Policy & Regulation, MDH	University of Maryland Shore Regional Health
Charles County Health Department	Maryland Association of County Health Officers	Office of Population Health Improvement, MDH	University of Maryland Upper Chesapeake Health
Chesapeake Voyagers, Inc.	Maryland Citizens' Health Initiative Education Fund, Inc.	Office of Process Transformation, MDH	Walden Sierra, Inc.
Choptank Community Health System, Inc.	Maryland Community Health Resources Commission	Office of Public Health Services, MDH	Washington County Health Department
Co-Chairs of Rural Health Care Delivery Workgroup	Maryland Dental Action Coalition	Owensville Primary Care	Way Station, Inc.
Cornerstone Montgomery	Maryland Department of Agriculture	Pascal Youth and Family Services	West Cecil Health Center
Crisfield Clinic	Maryland Department of Health	Peninsula Regional Medical Center	Western Maryland Health System
Dorchester County Health Department	Maryland Department of Natural Resources	People Encouraging People	Wicomico County Health Department
Eastern Shore Area Health Education Center	Maryland Head Start Association	Potomac Healthcare Foundation	Worcester County Health Department
Eastern Shore Entrepreneurship Center	Maryland Health Care Commission	Pressley Ridge	Worchester County Health Department
Eastern Shore Hospital Center	Maryland Health Services Cost Review Commission	Queen Anne's County Health Department	

MDRuralHealth.org
MDRuralHealthPlan.org