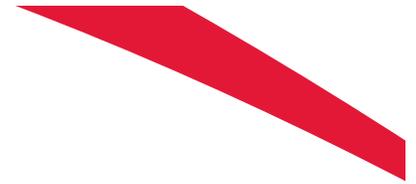




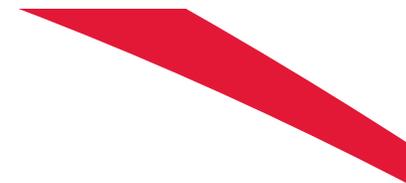
UNIVERSITY of MARYLAND
CHARLES REGIONAL MEDICAL CENTER



Charles County Community Health Needs Assessment



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Charles County Health Needs Assessment Executive Summary

From July 2020 to February 2021, the University of Maryland Charles Regional Medical Center undertook a comprehensive assessment of the health needs of Charles County, Maryland.

To provide a comprehensive assessment of the health needs of the county, a plan was developed which included five different sources of data: a long online survey of Charles County resident perceptions of health and health behaviors, a short paper survey on health perceptions throughout the county, a focus group with community stakeholders, key informant interviews of community leaders and stakeholders, and a quantitative data analysis of secondary, published data. Data collection occurred between July 2020 and December 2020.

The use of the multiple data collection methods strengthened the validity of the assessment's findings and ensured that Charles County residents had an opportunity to participate in the assessment process and feel invested in its outcome.

Due to the COVID-19 pandemic and the limitations on in-person gatherings, only one small focus group was conducted in December 2020. This focus group targeted individuals working in healthcare and community roles focusing on access to care and chronic disease prevention and management. A total of eight people participated in this focus group.

The biggest issues to emerge from the focus groups included:

- Mental health resources and services
- Substance use disorders
- Transportation
- Chronic disease management
- Obesity/overweight
- COVID-19

561 Charles County residents completed the 27-question online survey that was created using Survey Monkey. The link to the survey was available on the University of Maryland Charles Regional Medical Center website and the Charles County Department of Health website. The first section of the survey asked participants about their perception of health and health services within the county. The second section asked them about their health behaviors, in order to determine their risk for the development of certain health conditions.

Most of the respondents were from Charles County (90.6%). The second largest percentage of respondents was from St. Mary's County (4.1%). Only 1.7% reported living outside of Southern Maryland (Charles, Calvert, St. Mary's, or Prince George's). Approximately 68.5% of the respondents were between the ages of 45-74 years. The highest percentage was in the 65-74-year age group (27.1%). The overwhelming majority of the respondents were female (77.4%). Minorities made up 26% of the total survey population. African Americans comprised 22.5% of the respondents. Approximately 3% of the survey respondents self-identified as Hispanic.

Charles County Health Needs Assessment Executive Summary

The survey participants were a highly educated group with 83.7% reporting having had any amount of college education. Just under half of the group had completed an undergraduate degree or higher (47.4%). Most of the participants were employed and working full-time. Individuals with a household income less than \$60,000 made up one-fifth of the 2020 survey (20.2%).

Nearly all of the survey participants (98.6%) reported having health insurance. The majority of the participants also reported having dental insurance (78.6%) though this percentage is smaller than those reporting health insurance. Many of the respondents also had vision insurance (64.3%). Only 1.1% of the survey population reported having no type of insurance.

The biggest health problems that surfaced from the online survey included: crime, overweight/obesity, infectious disease, drug/alcohol use, and affordable housing. The protective health behaviors that Charles County residents were displaying included: always wearing a seat belt, washing hands after using bathroom or making food, practicing safe sex, getting a flu shot, and following road safety rules.

Some risk factors that Charles County residents possessed that may lead to chronic disease included: not participating in physical activity each day, not eating enough fruits and vegetables, not performing self exams for cancer, not getting enough sleep at night, and not using sunscreen regularly.

The online survey participants were also asked about access to health care: 88.2% have had a routine doctor's visit in the past 12 months and 96.2% receive their routine health care in a primary care physician or provider's office.

Many residents (75.3%) were able to see a doctor when needed. If they were unable to see the doctor when needed, the most common reasons were that there were no available appointments (29.3%) or that it was too expensive, and they could not afford it (3.5%).

More than three-quarters of respondents (78%) travel outside of Charles County for medical care at some point. Only 5.8% reported that they always travel outside the county for care. The most common medical services that people receive outside of Charles County are specialist doctor appointments (61.4%), dental appointments (22.2%), primary care doctor appointments (19.0%), and surgeries (19.0%). The most common responses among participants were that the quality is better elsewhere (37.1%) and services are not available in Charles County (23.6%).

A short five-question survey was distributed throughout the county regarding perceptions of health within the county. A total of 755 short surveys were completed. Ongoing survey collection was conducted at the Charles County Department of Health; the University of Maryland Charles Regional Medical Center's Diabetes Education Center, Wound Healing Center, and Outpatient Rehabilitation. Short surveys were collected during blood drives at the University of Maryland Charles Regional Medical Center (CRMC) and the La Plata American Legion.

Charles County Health Needs Assessment Executive Summary

CRMC also coordinated with the Charles County Public schools to survey individuals at the meal distribution sites. The meal distribution sites included Indian Head Elementary (Indian Head), JC Parks Elementary (Indian Head), Milton Somers Middle School (La Plata), and Mt. Hope/Nanjemoy Elementary School (Nanjemoy). Particular emphasis was given to the western region of the county that is more geographically isolated. The community was also surveyed at large events such as Charles County Community Resource Day, United Way pop-up events, blood drives, the Indian Head Farmer's Market, and other community outreach events.

The biggest health problems identified by the short community survey included: obesity, drug and alcohol use, mental health, diabetes, and high blood pressure/stroke.

The short survey also identified factors that prevent people from receiving the health care that they need. The most commonly cited barriers to needed health care were lack of health insurance (35.4%) and care is too expensive/can't afford it (47.4%). Under "Other," several people explained that there is a shortage of county providers accepting Medicaid, current providers are not accepting new patients, quality of providers is better elsewhere, fear of COVID-19 keeps people from seeking care, lack of dental health coverage, lack of awareness of available services, no Veterans Affairs clinic nearby, long wait times to see providers, people cannot take the time off work for health care services, stigma surrounding mental health treatment, fear from past negative experiences, provider stereotyping and stigmatizing patients with certain health conditions, lack of providers in the western region of the county, and alternative treatments like acupuncture and massage are not covered by insurance providers.

Short survey participants were asked if sufficient services are available to address the health conditions in Charles County. Many of the respondents answered that they did not know or they left it blank. This leads us to believe that additional outreach and awareness campaigns are needed to educate people on available services in Charles County.

Access to care in rural Charles County received the greatest number of "many services available" responses, followed by mental health and obesity. Mental health received the greatest number of responses for "some services available" followed by infectious disease, access to food and nutritious meals, dental health, and drug and alcohol use. High blood pressure received the greatest number of responses in the "no services available" category.

Quantitative data was analyzed for various health topics including: mortality, population and demographic data, natality, infant mortality, social determinants of health, heart disease, stroke, hypertension, access to health care/health un-insurance, cancer, asthma, injuries, diabetes, obesity, arthritis, dementia/Alzheimer's disease, communicable disease, environmental health, sexually transmitted diseases, HIV/AIDS, mental health, dental health, substance use, disabilities, and tobacco use.

Charles County Health Needs Assessment Executive Summary

The current assessment findings are an update from the Fiscal Year 2018 community health needs assessment report and health improvement plan. 38% of the objectives outlined in the Charles County Health Improvement Plan reached their anticipated goals in the given time frame.

Thanks to the work of the Partnerships for a Healthier Charles County and its teams, the Charles County Health Improvement Plan objectives have been met for:

- Preventable Hospital Stay Rate Decreased
- Number of County Providers Increased
- Percentage of Adults at a Healthy Weight Increased

Charles County Health Improvement Plan objectives that were not met include:

- Mental Health Emergency Department Visit Rate Increased
- Addictions-Related Emergency Department Visit Rate Increased
- Diabetes Emergency Department Visit Rate Stayed the Same
- Childhood Obesity Percentage Increased
- Hypertension Emergency Department Visit Rate Increased

The data from this community health needs assessment will be used to develop the next Charles County Health Improvement Plan and subsequent action plans. These provide the county with measurable outcomes and benchmarks for three-year program implementation.

Focus Groups:

A critical part of the needs assessment process is to invite community members to express their perceptions of health status. Qualitative data cumulated from this process is used in conjunction with the quantitative health data to determine the most important health issues within the county.

Due to the COVID-19 pandemic and the limitations on in-person gatherings, only one small focus group was conducted in December 2020. This focus group targeted individuals working in healthcare and community roles focusing on access to care as well as chronic disease prevention and management. A total of eight people participated in this focus group.

The focus group followed a pattern of health-related questioning. The questions included:

Question 1: What do you believe is the greatest health issue affecting Charles County?

Question 2: What do you perceive to be the biggest health problems/issues affecting the community?

Question 3: What are challenges and problems of the community?

Question 4: Since the 2018 community health needs assessment, have you seen improvements in health in Charles County?

Question 5: What are the strengths of the community?

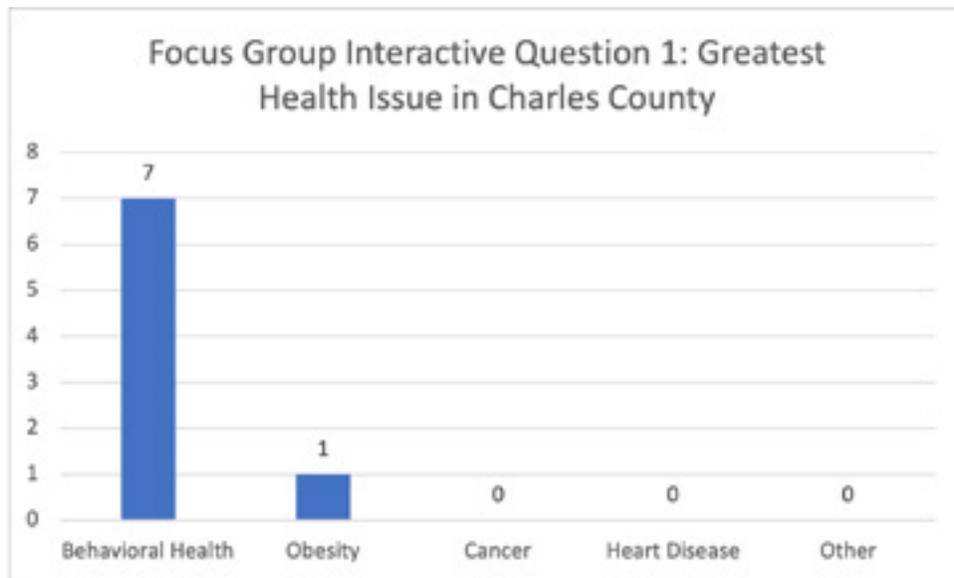
Question 6: Are there adequate resources to address health conditions in Charles County?

Question 7: What are your suggestions and recommendations to improve health locally?

In addition to the discussion questions, participants were given the opportunity to answer multiple-choice, interactive questions. The answers to those questions lead into the discussion questions.

Interactive Question 1: What do you believe is the greatest health issue affecting Charles County?

Obesity and Behavioral Health were the most commonly reported health conditions for Interactive Question 1. Approximately 87.5% of the focus group participants felt that behavioral health was the greatest health problem in Charles County. This is an increase from the last needs assessment where 60% chose behavioral health as the greatest health problem in the county. Obesity was the second most common choice with 12.5%. The choices of cancer, heart disease, and other were not chosen by the focus group participants as the greatest health issues for Charles County.



Interactive Question 2: Since the 2018 community health needs assessment, have you seen improvements in health in Charles County?

Most of the focus group participants felt that improvements have been made in terms of health in Charles County since the last needs assessment report. They acknowledged that there is more recognition of services. They also expressed that their answers differed pre- and post-COVID-19 pandemic. Pre-pandemic, there were more providers and more access to transportation. Post pandemic, those providers can pick whether to see patients in person or through telehealth. Some of the providers and practices have been temporarily closed when the providers themselves ended up sick.

Participants acknowledged that overall health has improved in the county; however, they did not feel that mental health has gotten better in Charles County. There are difficulties in getting care and getting it in a timely manner. Providers do not take every form of health insurance.

In terms of access to services addressing substance use disorders, the participants felt that improvements had been made in the last three years. The increased presence of peer recovery specialists is cited as a milestone for the county. Peer recovery specialists are able to engage those who have experienced an overdose and support them in finding options for treatment and/or harm reduction.

Since the 2018 needs assessment, has health improved in Charles County?	Count (#)	Percent (%)
<i>Improved</i>	6	75%
<i>Stayed the same</i>	2	25%
<i>Worse</i>	0	0%
<i>I don't know</i>	0	0%

Interactive Question 3: Are there adequate resources to address health conditions in Charles County?

All of the respondents felt that more resources are needed to address health conditions in Charles County. There is not a place to advertise programs and services. People are not going to know about the evidence-based programs and services in the county unless we find more ways to get information out about them. The participants recognized that there is always room to do more and improve on current processes.

Discussion questions:

1. What do you perceive to be the health problems/issues of the local community?

Behavioral Health was identified as a health issue for the local community, especially during the time of COVID-19 due to socialization, isolation, and fear. The behavioral health issues that were already there have been amplified during this time of crisis. Resources for behavioral health are limited, and it is hard to get an appointment with a provider in a timely fashion. During the pandemic, there has been a rise in depression and domestic violence. All ages are dealing with issues of mental health and isolation. One respondent described how it controls how you think and how you react. You may engage in other unhealthy behaviors such as carb loading or substance and alcohol use. Financial stress is also having an impact on households due to the loss of income during the pandemic.

Obesity was also highlighted as an issue in Charles County. Obesity contributes to all other health conditions. It makes co-morbid conditions such as heart disease, hypertension, diabetes, and depression worse. People are eating more fast food. During the pandemic, many restaurants created new options for delivery. Participants cited how it is cheaper and more affordable to eat bad than good.

Participants were concerned about cancer in the county. They felt that people may delay preventative care, testing, and symptoms checks due to the fear of COVID-19 exposure in a clinical setting. This may lead to an increase in cancer diagnoses at a later stage.

Unnecessary hospital emergency department utilization was also cited as a health issue in the county. Some individuals in the local community use the hospital emergency department instead

of community resources. It is part of the culture. The emergency department is the catch all. People think that this is the solution to take care of it quickly. They also know that the emergency department will not turn them away, even if they do not have health insurance. They do not know what else exists in the community. Additional health education is needed.

2. Are there barriers and gaps in services affecting health?

Access to Behavioral Health Services: There are insurance restrictions. They dictate where, when, and why. If local providers won't take a certain insurance then those individuals end up in the emergency department. Some insurance providers, like Kaiser Permanente, have limited resources in the area. Transportation was also stated as a barrier to accessing behavioral health services.

Health Literacy: Many people do not understand the instructions given at hospital discharge or the instructions given by their provider. They will not reach out for clarification unless the provider reaches out to them. There are people in the community who cannot read or write. Others have difficulty with math skills and determining when to take medications. One participant talked about how a person is not able to listen well when they do not feel well.

Insurance literacy is another component and whether people understand what is covered by their insurance. One solution is advocacy. Community members need advocates to address the real health issues they are having. There is a lack of communication and understanding between health care consumers and providers.

Understanding of disease processes: Once people are diagnosed with a health condition, such as diabetes, they struggle with how to adapt in real life. They do not always know how to implement behavioral changes in their world. For example, those with pre-diabetes may need assistance in learning how to cook for themselves in order to eat healthier. Previously, they may have relied on foods that were cheap and easy to acquire. If they do not have money or transportation to shop at the grocery store, they will get the cheap food that is convenient.

Access to grocery stores: Some parts of the county, including Indian Head, Nanjemoy, and Marbury, do not have access to large grocery stores. Some individuals, including seniors, do not shop every week so they buy up non-perishable foods that will keep. If transportation is an issue, they may shop at the dollar store where items are not the healthiest.

Healthcare Workforce: Some healthcare agencies have difficulty in finding people who want to stay at the agency and want to stay in the region. They know that they can make more money someplace else like Washington, D.C. or Baltimore.

Lack of technology for telehealth services: Virtual telehealth appointments only work if individuals have access to reliable internet and the equipment to connect. There is a large portion of seniors who do not want to set up the virtual meetings for telehealth. Participants proposed a hybrid system where residents have access to health education classes in person or virtual. The group also acknowledged that technology has many positive aspects including the potential to show needed health services and screenings as well as benchmarks for health.

3. What are the strengths of the community?

Charles County is known for its ability to collaborate. Agencies communicate well and are willing to move outside of their silos to work together to address issues. All partners are "at the table." The county hospital is partnering with other hospitals to address common issues that span beyond the county lines. The people involved in the health projects have the drive to continue to improve the county.

There are many new educational programs in the county to address chronic conditions. The county now offers outpatient diabetes education, chronic disease self management classes, mobile integrated health care, and a diabetes prevention program. There is also work to move outside of traditional settings to address chronic conditions such as encouraging blood pressure screenings in dental practices.

4. What key changes could the community implement to improve health locally?

Communication was the theme to come out of this discussion. The county physicians and providers need to work on communication with their patients, with the hospital, and with community services and programming. Communication to county residents on available services and how to access them was repeated in each group.

Funding is always a barrier that needs to be overcome in order to effectively implement needed strategies for change.

Some participants offered new and innovative strategies to improve health locally such as telehealth and alternative means of transportation.

The biggest issues to emerge from the focus groups included:

- Mental health resources and services
- Substance use disorders
- Transportation
- Chronic disease management
- Obesity/overweight
- COVID-19

Qualitative data from the focus groups on specific health topics has been incorporated into those particular sections of the needs assessment report.

Key Informant Interviews:

Due to the COVID-19 pandemic, in-person focus groups could not be safely conducted with county residents and community stakeholders to gather qualitative information and data on people's perceptions and opinions regarding the health status of the county. Therefore, focus groups were substituted with online key informant interviews. Survey Monkey was used to ask residents, partners, and stakeholders the same set of questions that were previously asked during focus groups.

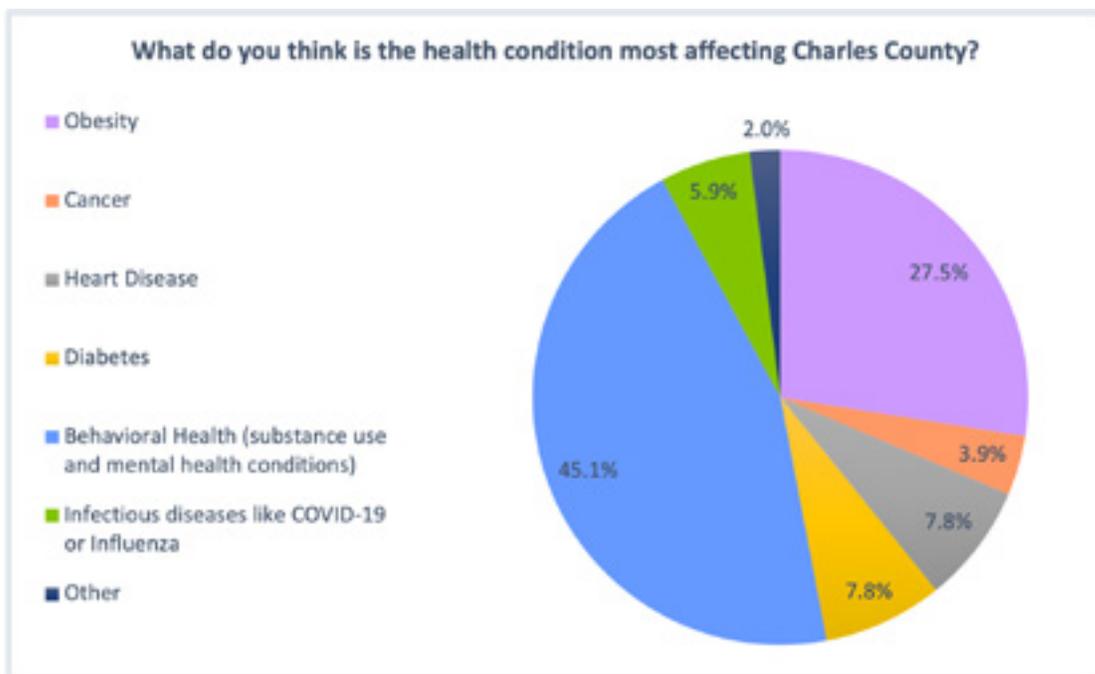
A total of 51 key informant interviews were completed between July 2020 and January 2021. The results of those interviews are presented below.

Interactive Question 1: What do you think is the health condition most affecting Charles County?

Behavioral Health and Obesity were the most commonly reported health conditions for Interactive Question 1. Approximately 45.1% of the participants felt that behavioral health was the health condition most affecting Charles County. Obesity was the second most popular response among participants with 27.5% of responses. This is an increase from the last needs assessment where only 22% of participants felt obesity was the health condition most affecting Charles County.

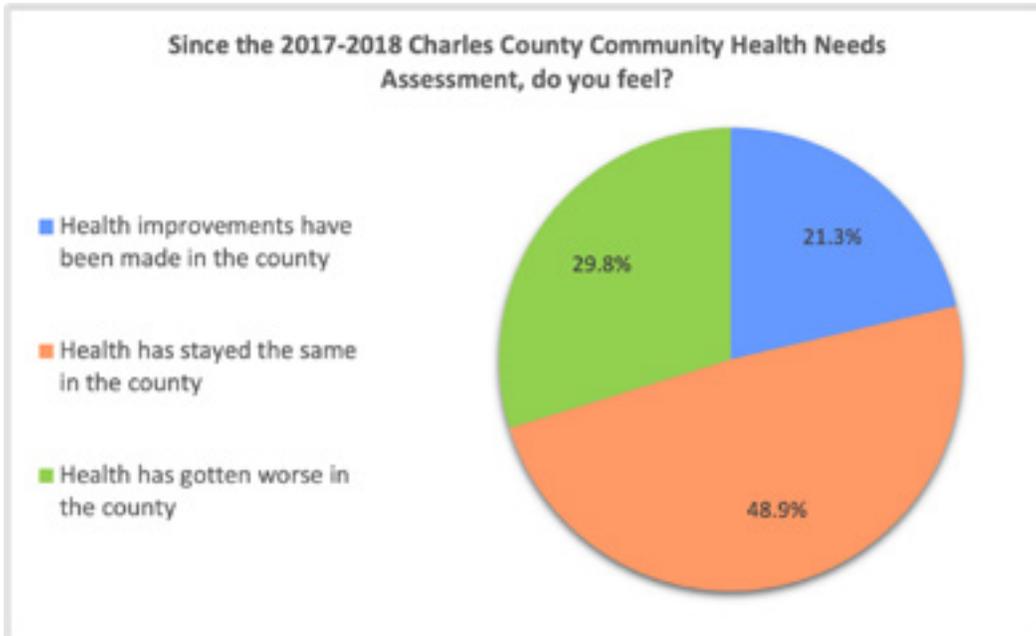
Almost half of participants reported a chronic disease as the most affecting health condition in Charles County.

Infectious Disease was added to the response options for the 2020 health needs assessment, and almost 6% of participants felt it was the health condition most affecting Charles County.



Interactive Question 2: Since the 2017-2018 Charles County community health needs assessment, do you feel?

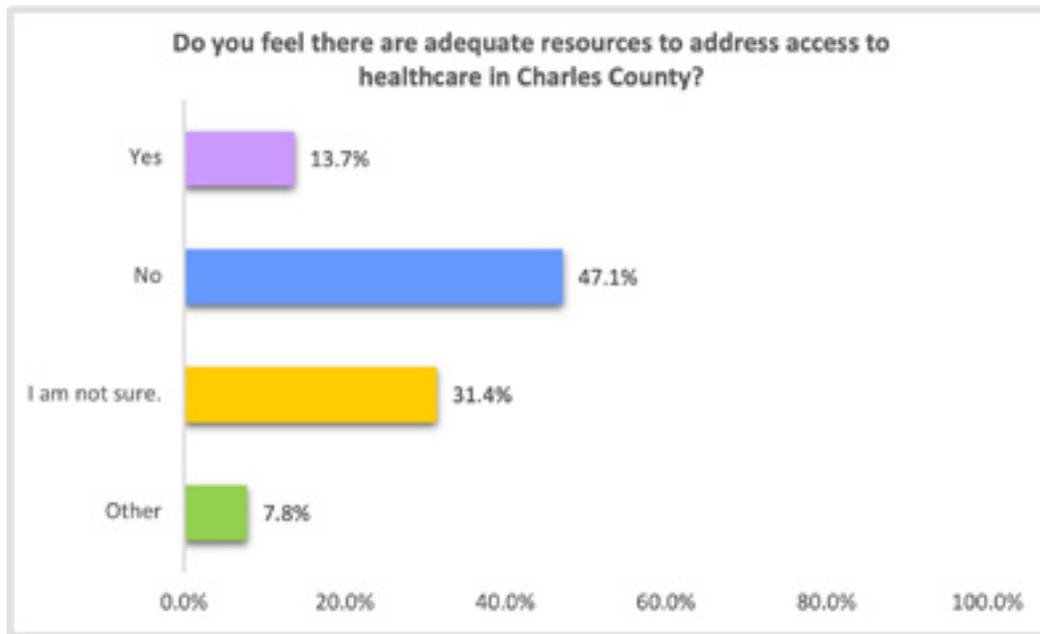
The largest percentage of participants reported that health has stayed the same in the county, with 48.9% of participants. The second most popular response amongst participants was that health has gotten worse in the county, with 29.8% of responses. This is an increase from the 2018 community health needs assessment where only 8% of participants felt that the health was worse in the county from the previous assessment. 21.3% of participants felt health improvements have been made in the county.



Interactive Question 3: Do you feel there are adequate resources to address access to healthcare in Charles County?

Almost half of focus group participants felt that there are not adequate resources to address access to healthcare in Charles County.

Of participants who chose “Other,” few felt indifferent and believe resources improved, but gaps still exist.



Open-ended questions:

1. What do you perceive to be the health problems/issues of the local community?

The open-ended responses from participants were analyzed and categorized by various health problems/issues. Many participants listed numerous health problems, which could fall into multiple categories that were created. The results from this question are as follows:

Chronic Disease

Chronic disease was the most popular response among participants. Open-ended responses that fell into this category included obesity, diabetes, cancer, heart disease, hypertension, heart disease, congestive heart failure, and COPD. Along with chronic disease, some participants were concerned about the impact of COVID-19 on individuals with these pre-existing conditions.

Resources to help manage chronic diseases, such as health care providers, were also a concern for participants.

Mental Health

Mental health was the second most common response among participants. Responses from participants related to mental health included stress, anxiety, substance use, lack of mental health resources, and access to mental health services.

Access to mental health services for children and the impact COVID-19 may have on the mental health of children and adults in the community were seen as current health issues in Charles County.

Behavioral Health

Behavioral health was the third most popular response among participants. Participants whose responses fell into this health issue category included concerns about poor lifestyle habits and risky behaviors among community members. Particular examples of poor lifestyle choices that participants provided included smoking, unhealthy eating habits, unsafe driving, and substance use.

Access to Care

Access to care was another health issue participants perceived as affecting the local community. Issues related to access to care that were reported include: lack of specialty services and local providers, limited resources, limited access due to COVID-19, access to preventative care, and access to care for low-income individuals.

Other health issues reported by participants included COVID-19, elderly patient care, transportation, and quality of care.

2. Are there barriers or gaps in services affecting health of the county?

Perceived barriers and gaps reported by participants in open-ended question number two reflect the answers to the previous question. Similar to the previous question, many participants listed multiple barriers they perceived exist in Charles County. The responses were analyzed and categorized.

Access to Care

Based on participant responses, the most significant barriers or gaps in health services in the county are those related to access to care. Barriers and gaps reported by participants included access to providers, specifically specialists, access to mental health care, lack of transportation, long wait times, access for children, and the lack of health resources in the community. Many participants also reported barriers for low income individuals and minorities in the county. Reported barriers for these population groups include transportation, health care costs, geographic location of services, and lack of knowledge about health care resources in the community.

Mental Health

Barriers or gaps in services related to mental health was another popular response among participants. Many participants reported that the county lacks mental health providers. Child mental health services were also a concern among participants, who reported there is a shortage of child psychiatrists. The cost of mental health services was perceived as a barrier in the county as well.

Other Health Barriers or Gaps

Other barriers or gaps participants reported included health education/low health literacy, elderly patient care, COVID-19, cost of healthy food options, lack of trust in the health care system, and inequality/racism.

3. What are the strengths of the community?

Partnerships within the community were identified as a strength among majority of the participants. Partnerships between both public and private organizations were mentioned and highly praised among participants. Other strengths mentioned included Health Department programs and community collaboration around health issues, including COVID-19.

4. What key changes could the community implement to improve health locally?

Access to care was a key change that many focus group participants reported they would like to see in the community to improve health. This includes access to care for low income individuals, access to mental health services, an increase in specialty providers in the county, access to health services in rural areas, pediatric health care, and an overall increase in health care providers in Charles County.

Along with access to care, the addition of more health services that target preventative care was a change that participants hope to see in the county. These services include nutrition and fitness programs, community clinics, weight loss programs, and preventative care education. With many participants reporting a concern for chronic disease in the community, preventative care initiatives may be a strategy to tackle the burden.

Lastly, collaboration and communication among organizations in the community was another key change participants believed could improve health. This includes better alignment among community organizations and stakeholders, engagement from community members, and partnerships.

Other key changes that were mentioned included elderly care, increased transportation throughout the community, COVID-19 safety practices, and more focus on low income health in the county.

Long Survey Results:

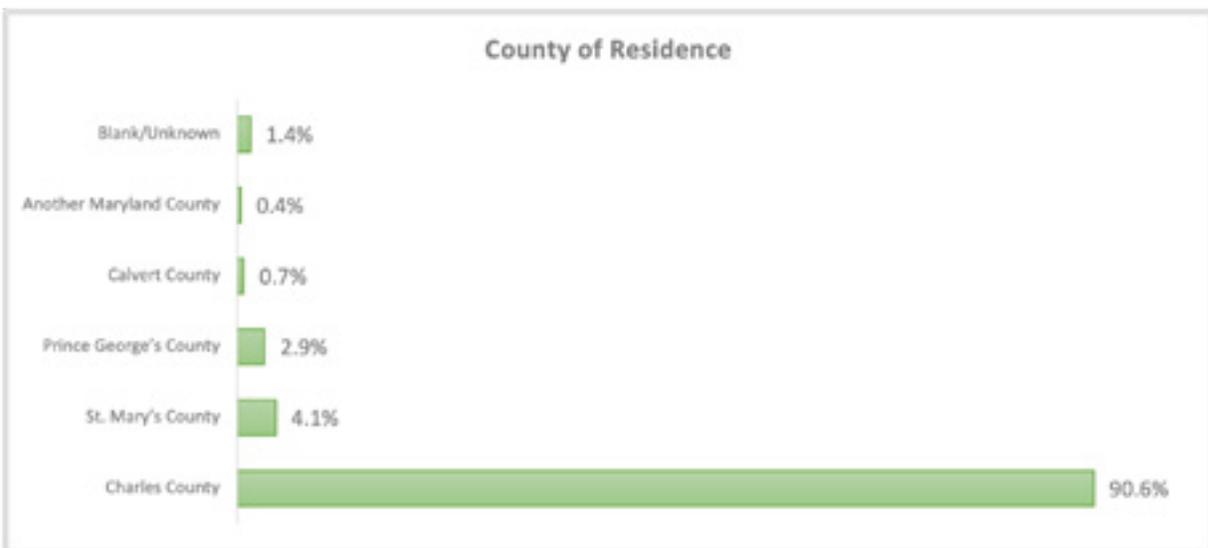
Introduction:

A 27-question online survey was developed in the summer of 2020. Some of the questions had several components. It was designed using Survey Monkey, and a link was provided on the University of Maryland Charles Regional Medical Center website and the Charles County Department of Health website. The first set of questions gathered demographic information for all participants. A second set of questions asked people about their own health status and their access to needed health care. A third set of questions asked participants about their risk factors for health conditions (example, fruit and vegetable intake, physical activity level, alcohol/tobacco use) to determine if they are at risk for certain health conditions and chronic diseases. The fourth set of questions asked participants about their perceptions of the state of health and health conditions within Charles County. A fifth set of questions asked participants perceptions of improvements within the county to improve health. Lastly, survey respondents were given the opportunity to comment on the state of health in the county and provide suggestions on how to improve the health status of Charles County.

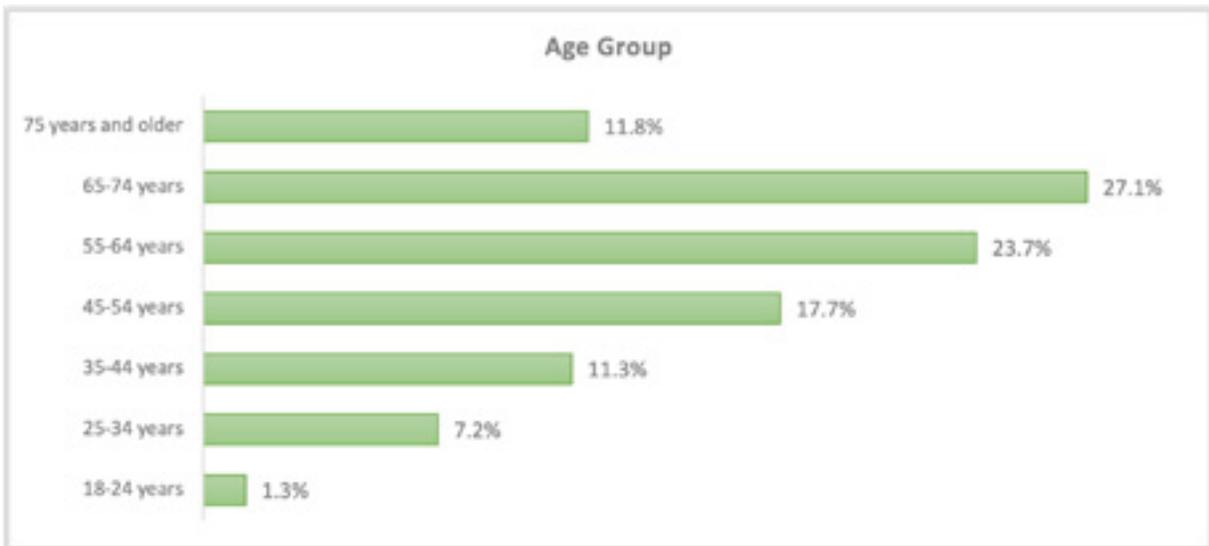
There was a total of 561 participants who took the survey. Some questions were not completed by all survey participants. Not every question was applicable to every participant. Some questions were skipped. Data for each question was compiled and analyzed.

Demographic Information:

A majority of the survey participants were residents of Charles County (90.6%). The second largest population was from neighboring St. Mary's County (4.1%). Residents of neighboring counties were included in the analysis since there is a lot of movement between the counties. A large portion of individuals work or spend time in Charles County.



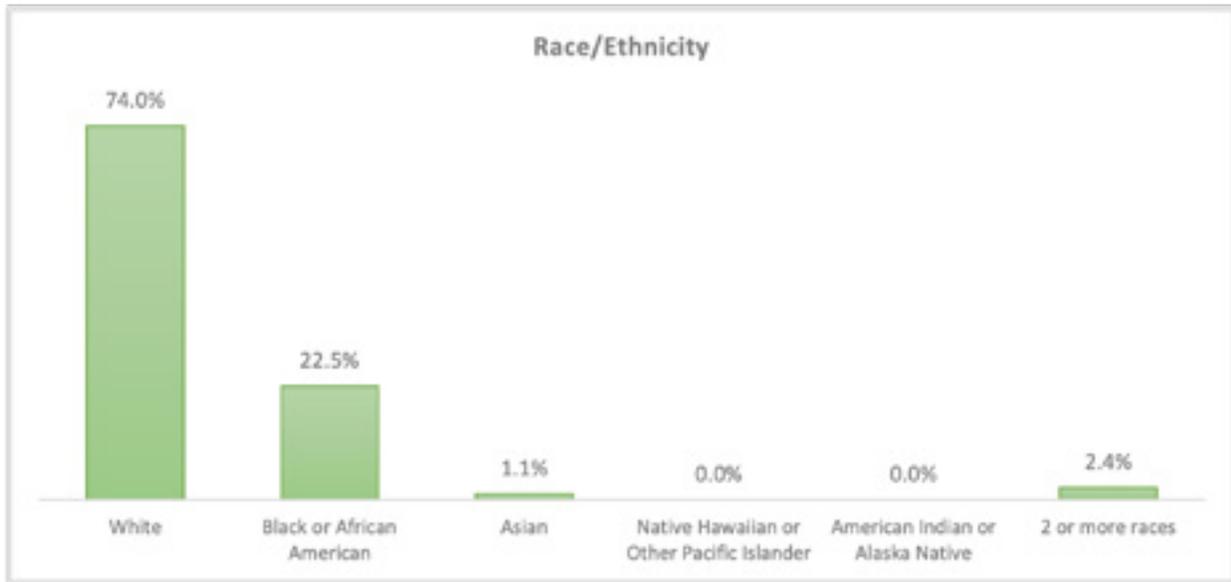
Survey participants varied among all age groups, with a majority of participants being over the age of 35 years. The largest percentage of survey participants were from the 65-74 age group with 27.1% of total participants.



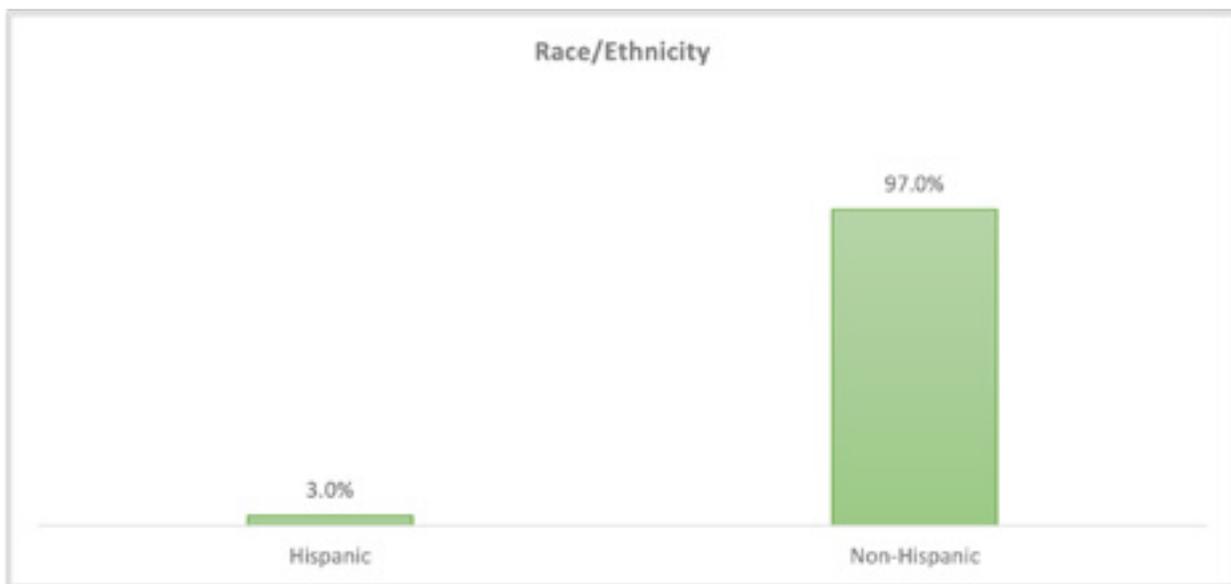
The majority of the long survey participants were female (77.4%). We worked very hard to increase participation among Charles County males and managed to increase from 20% in the 2018 survey to 22.6% in the 2020 survey.



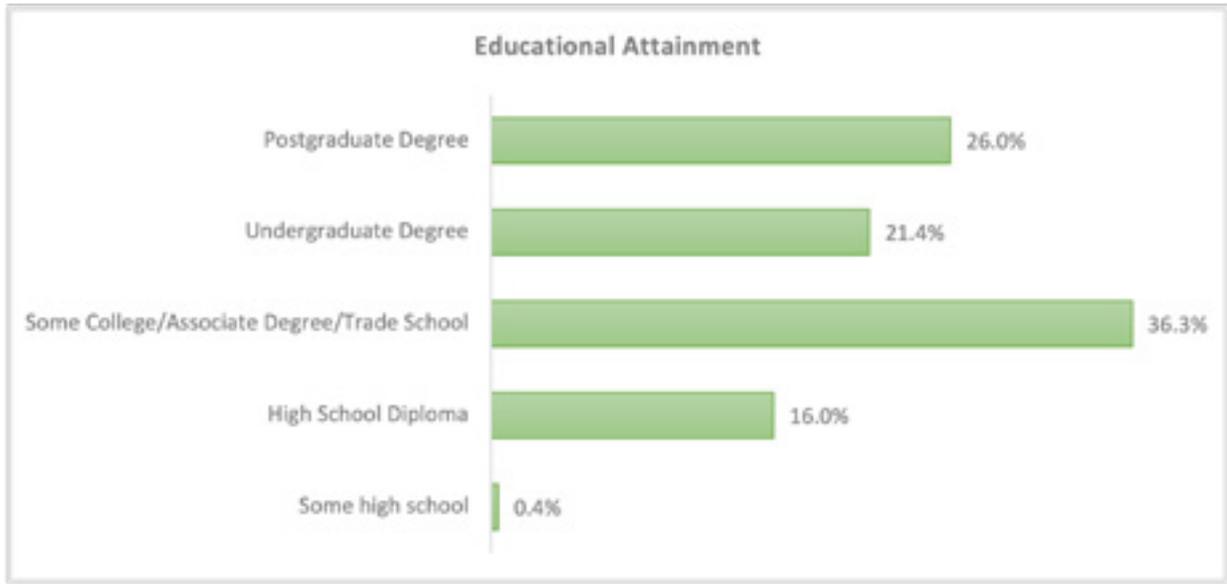
Minorities made up about 26% of all survey participants. Black or African American comprised 22.45% of survey participants, followed by two or more races (2.41%) and Asian (1.11%).



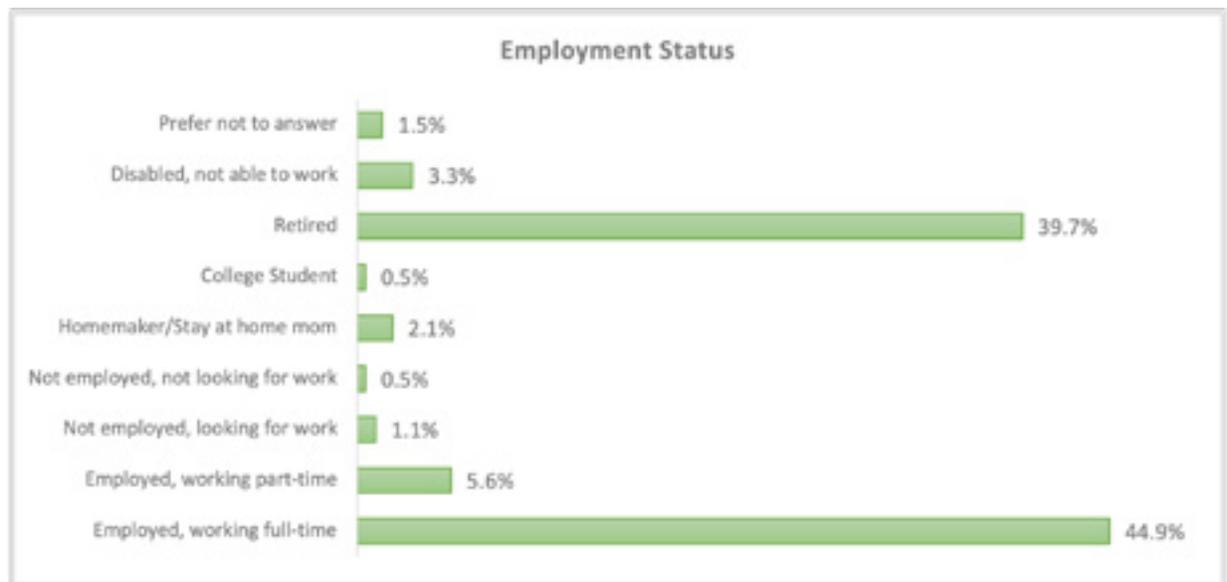
Participants were asked to give their ethnicity. Approximately 3% of the survey respondent's self-identified as Hispanic. This percentage is lower from the 2018 survey, where 4% of participants identified as Hispanic. The county's overall Hispanic population is about 5.8% (U.S. Census Bureau).



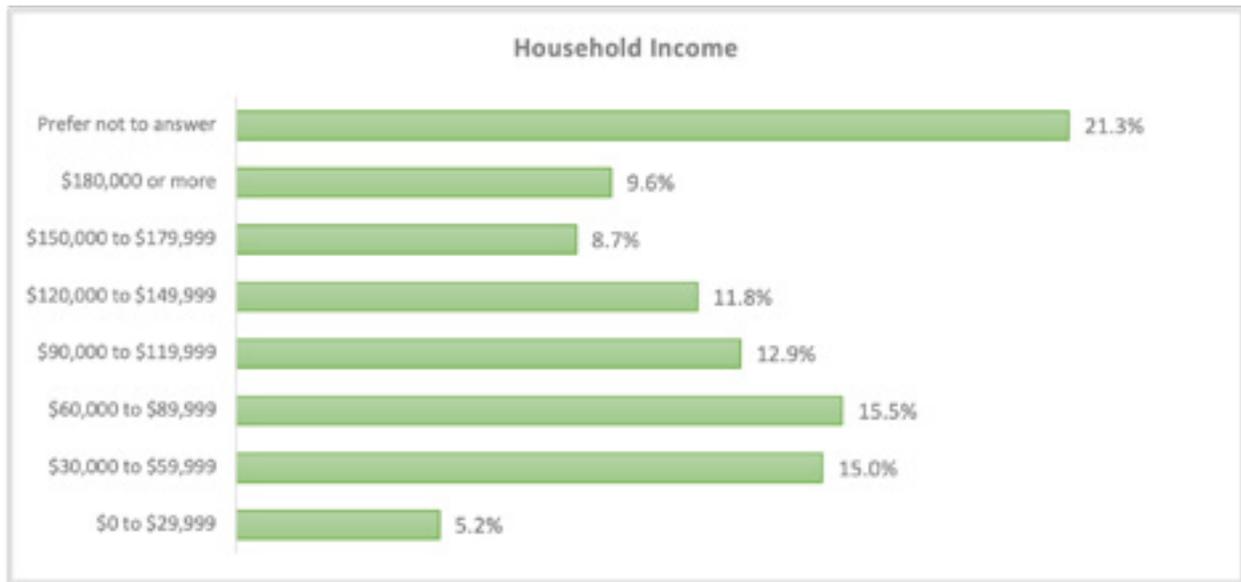
Survey participants were also asked to identify their educational attainment level. The majority of participants were highly educated with 83.7% having at least some type of college education. The largest participant group had some college education, an associate degree or trade school education with 36.3% of total respondents. The second largest group were participants with a postgraduate degree, with 26.0%.



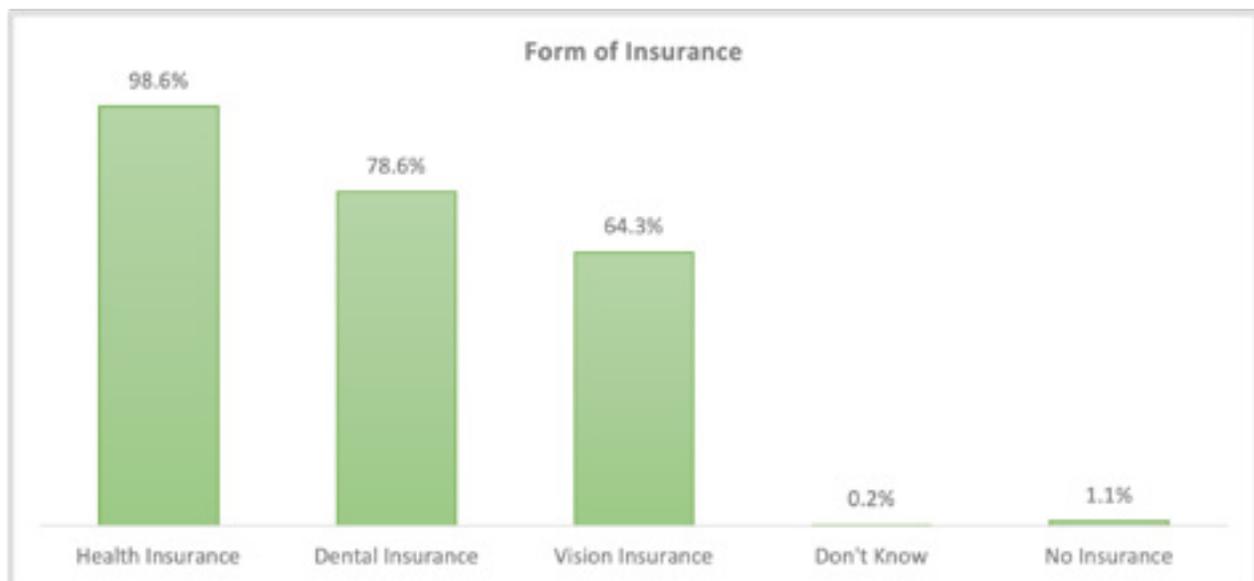
Along with educational attainment level, participants were also asked their employment status. Most survey participants reported being employed full time, with 44.9% of total responses. The second largest group were those who reported as being Retired, with 39.7% of total survey responses. It should be noted that this large employment status group may be related to the large amount of survey participants who were in the 65-74 age range group. Participants were asked to check all labels that were applicable. For example, they may be a full-time student who is also employed part-time.



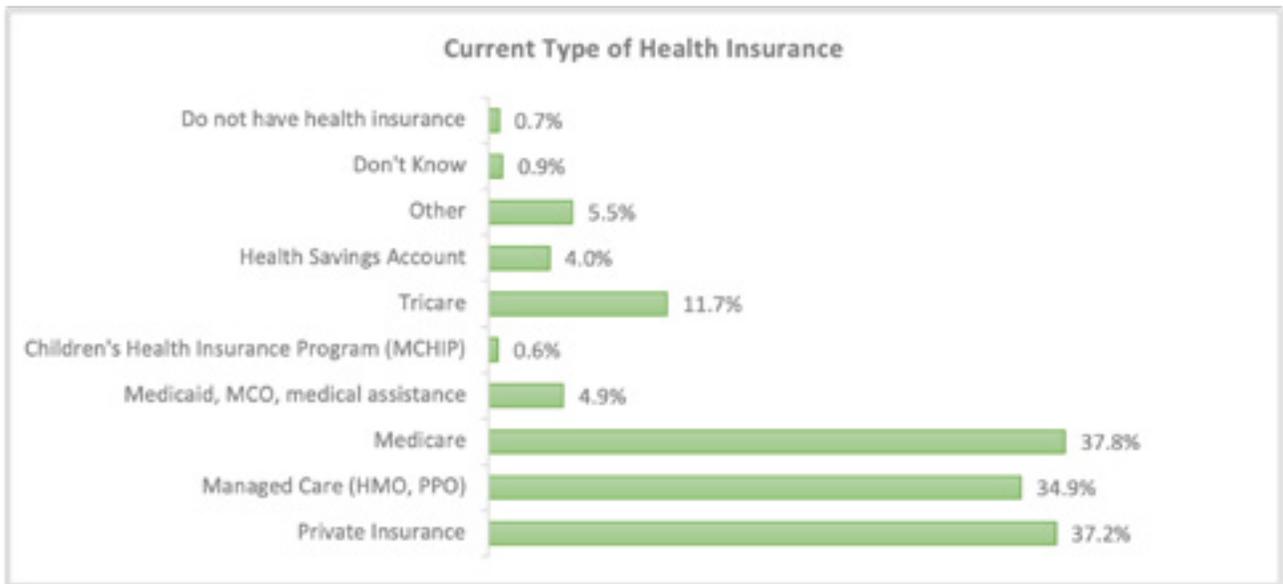
Participants were asked to report their household income. Unlike previous years, “Prefer not to answer” was the most common response for survey respondents, with 21.3% of total responses. This is a significant increase from the 2018 survey, that reported only 8.8% of survey respondents preferred not to answer the household income question. The second largest response was a household income of \$60,000-\$89,999 per year (15.5%), followed by \$30,000-\$59,999 (15.0%).



The participants were asked to report all types of health insurance that they currently have. Nearly all the survey participants (98.6%) reported having health insurance. Majority of the participants also reported having dental insurance (78.6%), although this percentage is lower than the 2018 survey where 85.92% of participants reported having dental insurance. A large number of participants also reported having vision insurance (64.3%). Only 1.1% of survey participants reported having no forms of insurance.

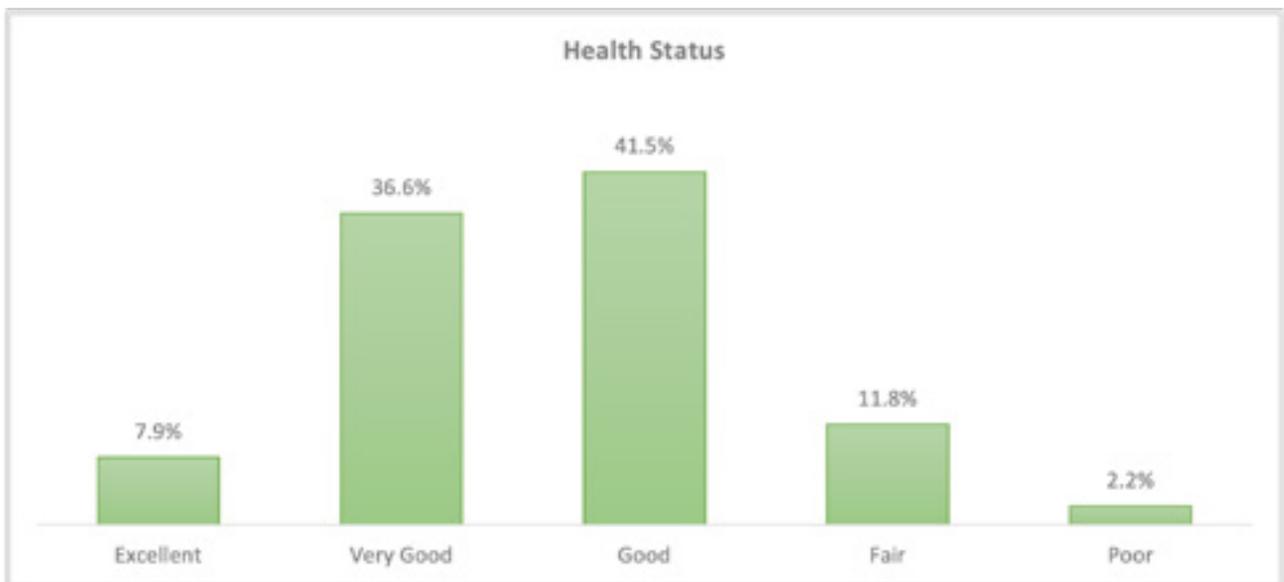


Among those having health insurance, Private insurance, Managed Care (HMO, PPO), and Medicare were the most common among survey participants with 37.2%, 34.9%, and 37.8% of total participants, respectively. Only 0.7% reported that they do not have health insurance.

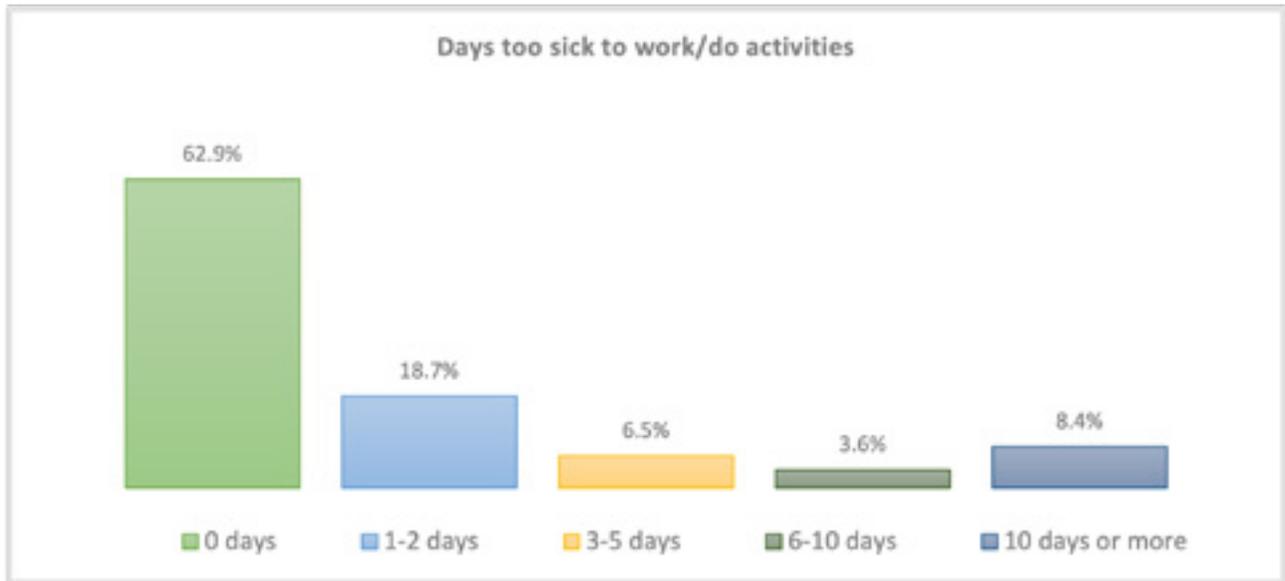


Health Status:

Participants were asked to rate their current health status as poor, fair, good, very good, or excellent. The most common answers were "Good" (41.5%) and "Very Good" (36.6%). 14.0% reported that they were in fair to poor health. That is an increase from the 2018 survey where only 12.4% reported being in fair to poor health, and an increase from the 2015 survey where only 8% reported that they were in fair to poor health. From 2015 to 2020, there has been a 6% increase in survey participants reporting their health being fair or poor.

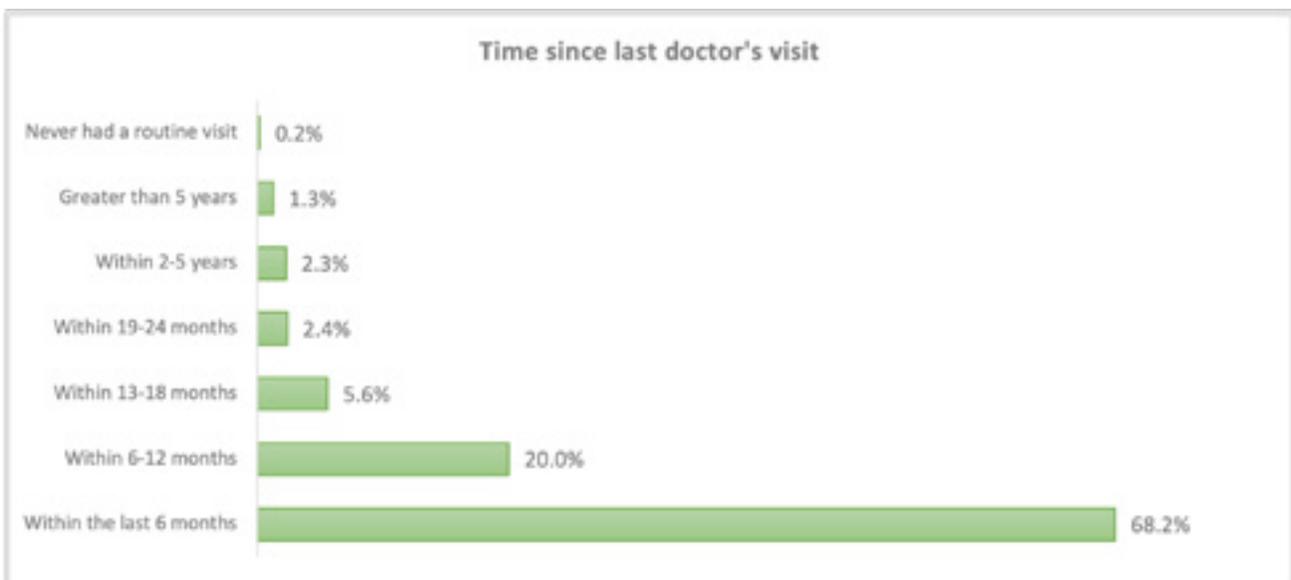


Participants were asked how many days in the past month they were too sick to work or do activities. Two-thirds of the respondents reported that there were no days in the past month that sickness prevented them from work or activities (62.9%). Among those reporting sick days, most reported having been prevented from work or activities 1-2 days in the past month (18.7%). Ten or more days in the past month was the second most common response among those who reported sick days (8.4%). This percentage is up 3.8% from the 2018 survey.



Access to Care

Most of the survey participants reported having a routine doctor's visit in the last 12 months (88.2%). This percentage is up from the 2018 survey where 84.8% of participants reported having a routine doctor's visit in the last 12 months. Only 0.2% reported that they have never had a routine doctor's visit.

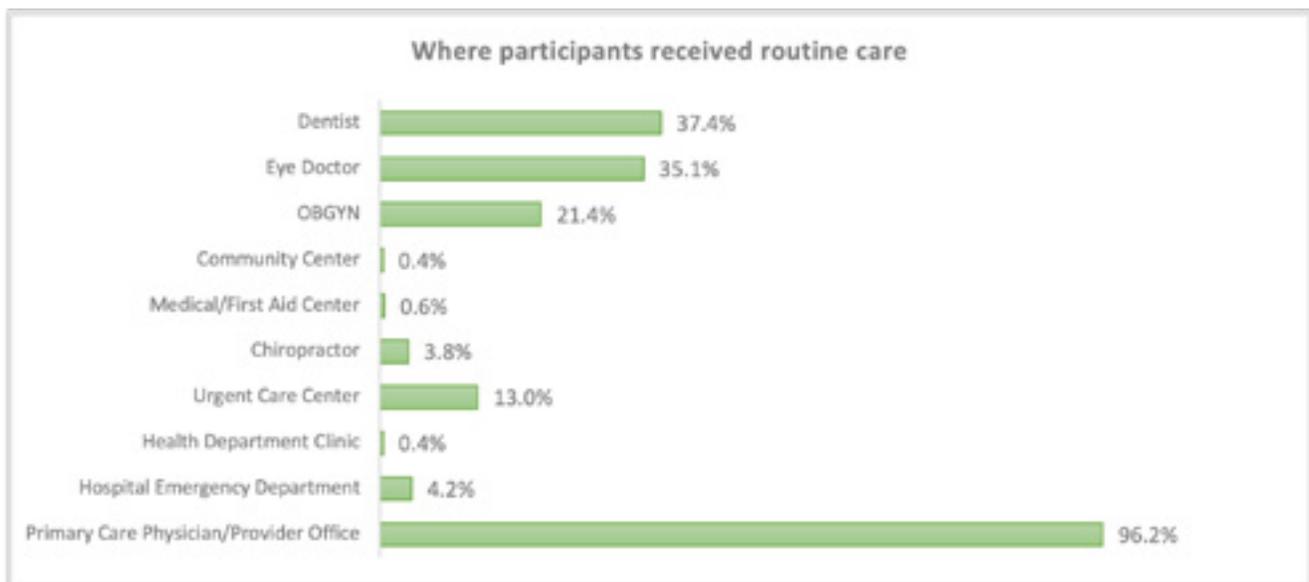


Most of the survey participants received their routine health care by a primary care physician or in a provider office (96.2%). In addition to routine medical care, 37.4% went to a dentist, 35.1% went to an eye doctor, and 21.4% went to an OB/GYN.

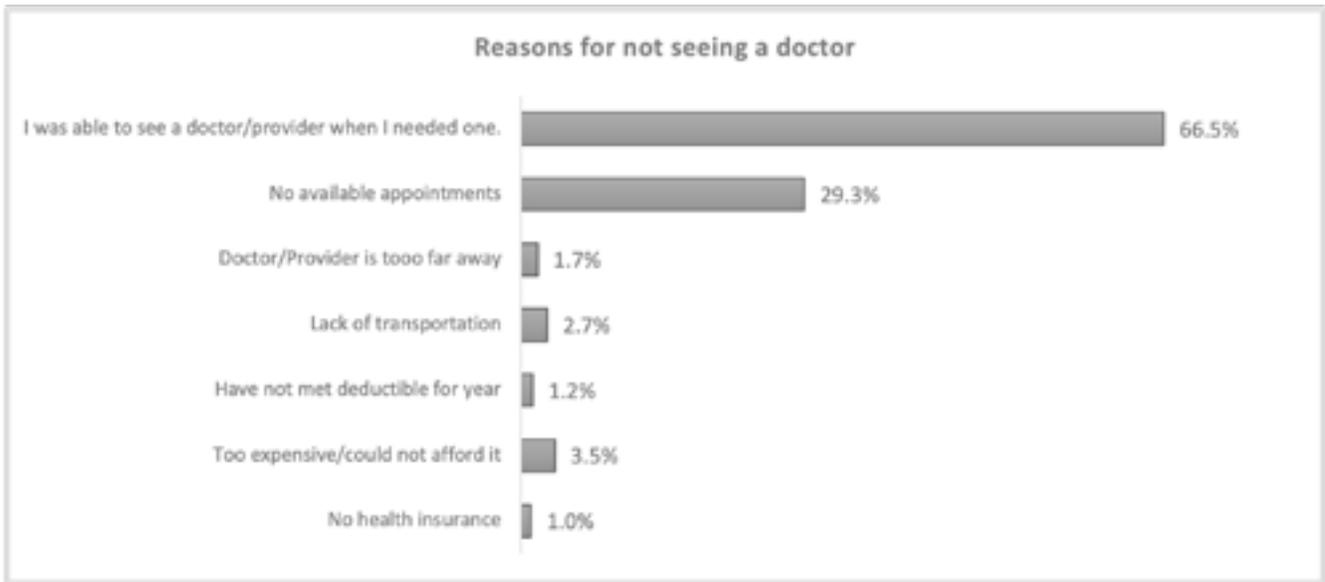
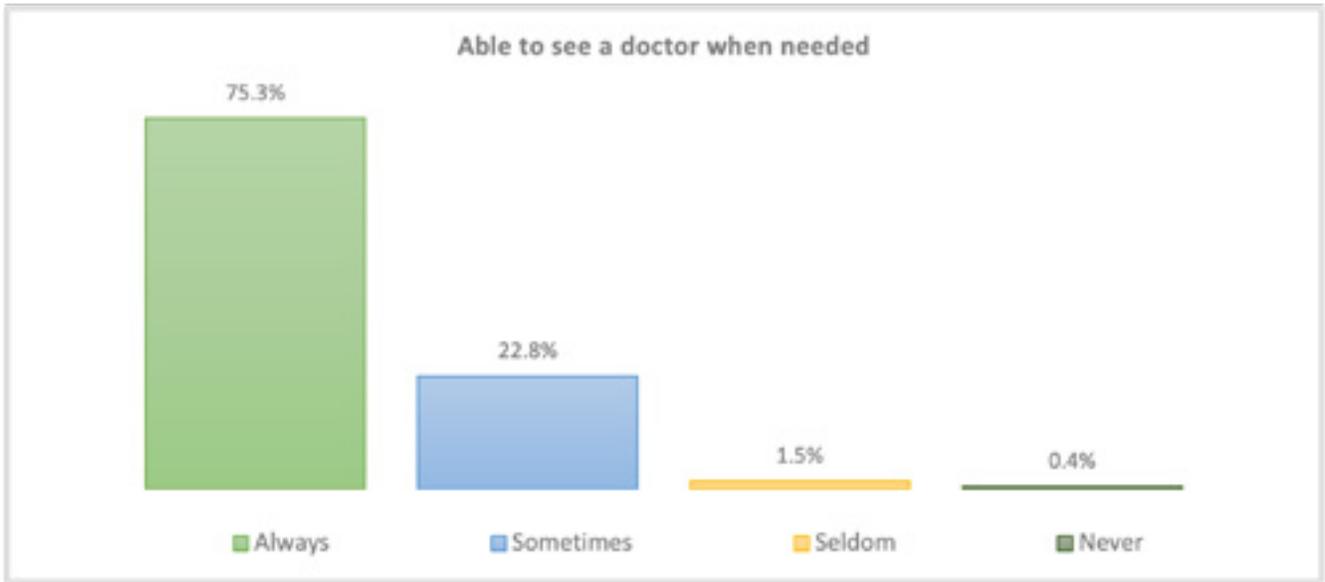
There was also a large population who reported that they get their routine care at an urgent care center (13.0%). However, this percentage is down from the 2018 survey where 15.6% of survey participants reported receiving their routine care at an urgent care center.

Of the survey respondents, 4.2% reported that they received their routine care at a hospital emergency department. This percentage is up from the 2018 survey where 2.4% of survey participants reported receiving their routine care at a hospital emergency department.

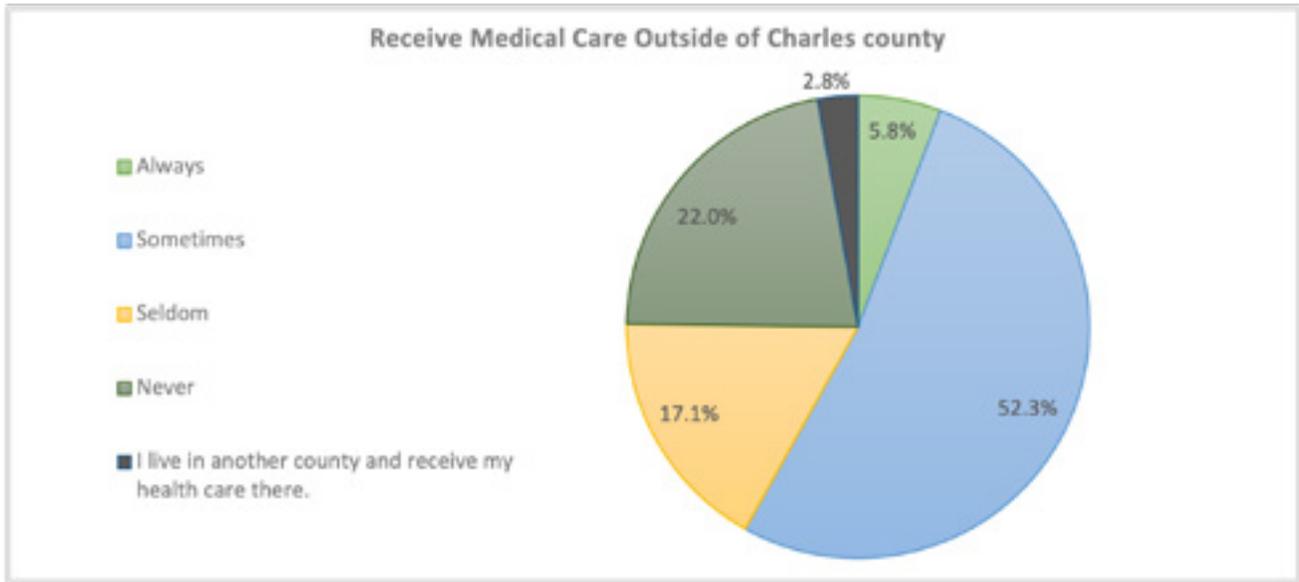
It is believed that the routine care by the listed specialists (dentist, eye doctor) was underreported. Participants were asked to check all locations that applied; however, it is theorized that they did not read all the responses and checked only primary care physician/provider office even if they also routinely see the dentist.



Majority of the survey participants were able to see the doctor when needed (75.3%). Just under 2% of survey participants reported that they were seldom or never able to see a doctor when needed. If they were unable to see the doctor when needed, the most common reasons were that there were no available appointments (29.3%) or that it was too expensive, and they could not afford it (3.5%). These reasons for not seeing a doctor are similar to the 2018 survey responses.

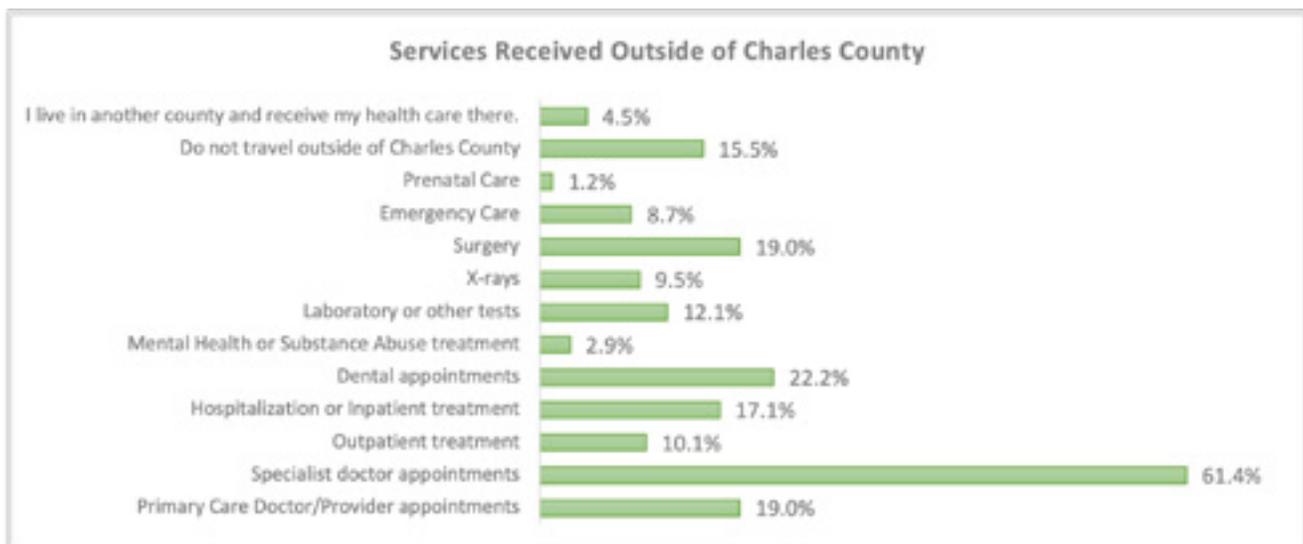


When asked if they receive medical care outside of Charles County, 22.0% of participants responded that they never received care outside the county. This is an increase from the 2018 survey where 15.9% of participants responded that they never receive care outside Charles County. Over half of the participants (52.3%) claimed that they sometimes receive medical care outside Charles County. This percentage is up over 2% from the 2018 survey.

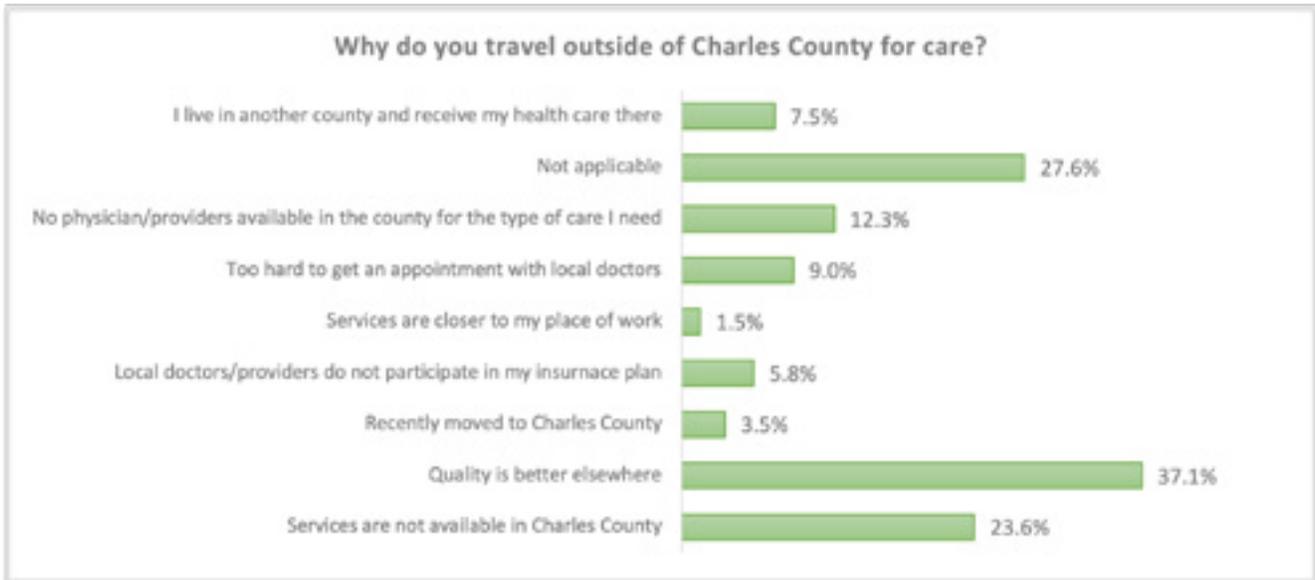


Participants were asked what medical services they received outside of Charles County. They were asked to check all services that were applicable. The most common medical services that people receive outside of Charles County are specialist doctor appointments (61.4%), dental appointments (22.2%), primary care doctor appointments (19.0%), and surgeries (19.0%).

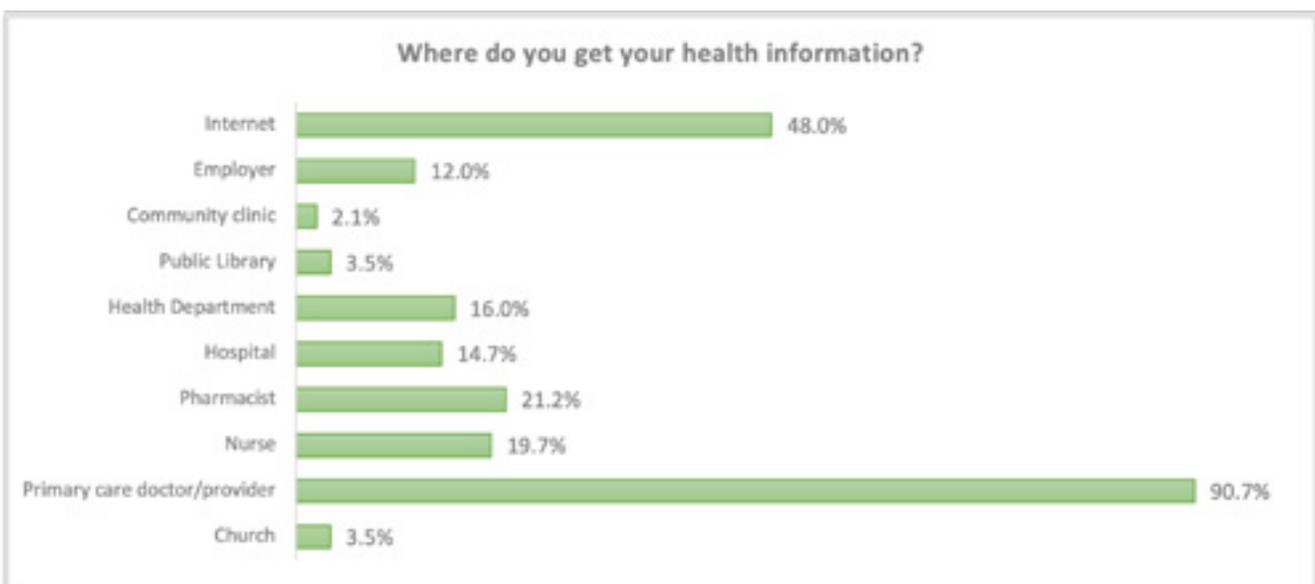
The percentage of participants who receive medical services from a specialist provider increased from 58.6% to 61.4% from 2018 to 2020. Dental appointments received outside of Charles County also increased from 2018 to 2020, from 18.5% to 22.2%. The percentage of participants who receive primary care doctor care outside the county decreased from 24.4% in 2018 to 19.0% in 2020.



Participants were also asked why they chose to receive those medical services outside of Charles County. The most common responses among participants were that the quality is better elsewhere (37.1%) and services are not available in Charles County (23.6%). Of the participants, 27.6% indicated that this question was not applicable to them.



Primary Care doctors/providers and the Internet are highly used methods for receiving health information among survey participants. This particular question stresses the importance of educating local health care providers and emphasizes the need for accurate medical information on the Internet and for employee wellness programming.



Behavioral Risk Factors:

The Top Protective Factors (greatest percentage reporting that they consistently do these activities) include:

- Always wear seat belt (97.1%)
- Always wash hands after using bathroom or before making food (85.9%)
- Always get a flu shot each year (66.7%)
- Always follow road safety rules (63.5%)
- Never misuse prescription opioids or use heroine (80.0%)
- Never use other illegal drugs (80.1%)
- Never use smokeless tobacco (chew, snuff, dip) (78.1%)
- Never smoke e-cigarettes (77.2%)
- Never use marijuana (73.0%)
- Never smoke cigarettes, cigars, pipes, cigarillos (67.0%)
- Never drink more than 5 alcoholic beverages in one sitting (67.6%)
- Never drink more than 3 alcoholic beverages per day (64.6%)
- Never get exposed to second hand smoke at home or work (61.1%)
- Always take a vitamin or supplement daily (58.6%)

The Top Risk Factors that increase the chances of chronic/infectious disease or injury (lowest percentage reporting that they always do these activities) include:

- Participate in 30 minutes of physical activity each day (14.6%)
- Eat 5 servings of fruit and vegetables a day (8.8%)
- Perform self-exams for cancer (10.8%)
- Get 7-9 hours of sleep each night (21.5%)
- Use sunscreen regularly (22.0%)
- Practice safe sex (ex. Use a condom, get tested) (37.0%)

Risk and Behavioral Factors	Always	Most of the time	Sometimes	Rarely	Never	Not Applicable	Total
Use a seatbelt	507	11	1	1	2	0	522
Wear a helmet while riding a bicycle	85	25	18	16	34	338	516
Wear a helmet while riding a scooter, ATV, or motorcycle	75	3	3	5	8	421	515
Eat 5 or more servings of fruits and vegetables each day	46	178	199	82	17	2	524
Eat fast food more than once a week?	10	33	144	249	78	11	525
Drink more than 5 alcoholic beverages in one sitting?	1	3	20	68	354	78	524
Drink more than three alcoholic beverages per day?	0	1	25	77	338	82	523
Smoke cigarettes, cigars, pipes, or cigarillos?	19	12	9	14	362	109	525
Smoke e-cigarettes?	1	2	2	3	403	111	522
Use smokeless tobacco (chew, snuff, dip)?	0	0	2	0	409	113	524
Get exposed to second hand smoke at home or work?	10	6	28	59	319	100	522
Use marijuana?	7	6	11	9	382	108	523
Misuse prescription opioids or use heroin?	0	0	0	1	420	104	525
Use other illegal drugs?	1	0	0	0	414	102	517
Perform self-exams for cancer?	56	102	154	101	88	19	520
Wash hands after using the bathroom or before making food?	451	70	3	1	0	0	525
Use sunscreen regularly?	115	153	120	66	45	25	524
Get a flu shot every year?	348	45	27	24	70	8	522
Practice safe sex (ex. use a condom, get tested)?	190	22	8	6	23	264	513
Take a vitamin or supplement daily?	306	72	58	30	47	9	522
Get 7-9 hours of sleep each night?	112	177	128	75	28	1	521
Feel stressed out or overwhelmed?	35	81	234	113	41	16	520
Follow road safety rules?	329	160	13	2	0	14	518
Participate in 30 minutes of physical activity each day?	76	151	189	86	14	6	522

Health Issues:

Participants were given a list of 33 different health issues and conditions that affect Charles County residents. They were asked their perceptions of health by rating what problem level these particular issues present to the community: not a problem, slight problem, a moderate problem, a serious problem, or not sure.

24. How serious are these health problems/conditions in Charles County?						
Answer Options	Serious Problem	Moderate Problem	Slight Problem	Not a Problem	Not sure/Don't Know	Total
Drug Use	198	115	14	22	147	496
Obesity/Overweight	181	138	41	14	117	491
Affordable housing	177	102	50	29	134	492
Crime	151	171	62	26	86	496
Infectious Diseases (i.e. COVID-19)	150	136	74	26	107	493
Mental health	148	112	46	23	162	491
High Blood Pressure	146	128	27	19	174	494
Homelessness	146	123	54	25	140	488
Affordable health care	143	126	37	22	163	491
Alcohol Use	142	146	24	27	155	494
Diabetes/Sugar	140	127	39	20	167	493
Tobacco Use	138	123	43	23	165	492
Public Transportation	133	97	71	38	151	490
Highway Safety/Traffic Accidents	132	139	70	26	126	493
Cancer	129	116	28	22	198	493
Health Insurance	123	120	52	19	181	495
Heart Disease	114	127	24	19	200	484
Domestic Violence	108	139	33	23	188	491
Dental health	97	129	53	30	177	486
Stroke	93	112	50	17	221	493
Access to health care	91	135	66	48	153	493
Veteran Health	89	89	51	28	232	489
Child Abuse and Neglect	86	117	41	26	225	495
After school programs for kids	79	89	69	36	217	490
Disability Services	76	110	52	26	224	488
Asthma and lung diseases	68	128	41	20	236	493
Suicide	66	96	61	29	242	494
Environmental Health/Air Quality	51	106	99	43	191	490
Injuries	43	103	78	21	236	481
Flu/Pneumonia	42	105	83	35	221	486
Prenatal and Infant health	34	101	61	32	262	490
Traumatic Brain Injuries and Concussions	32	66	61	32	295	486
Sexually transmitted diseases	31	76	47	30	306	490
HIV/AIDS	24	58	56	35	314	487

The top five health issues seen as a problem at any level were: crime, overweight/obesity, infectious disease, highway safety/traffic accidents, and affordable housing.

The top five most seriously viewed health issues were: drug use, overweight/obesity, affordable housing, crime, and infectious disease.

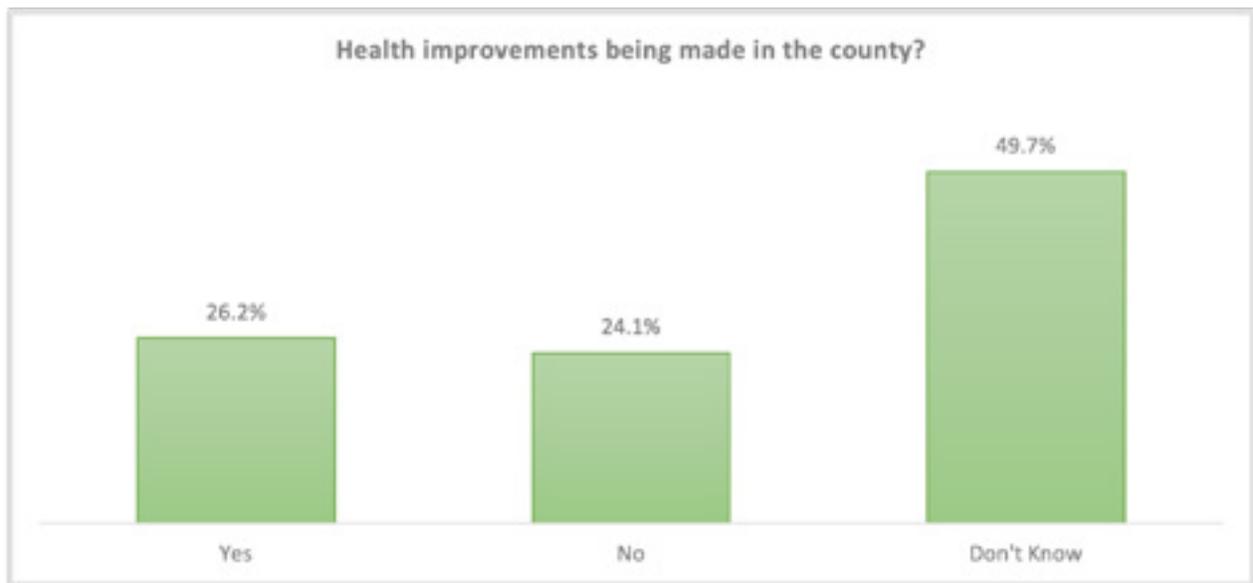
The top five health issues seen as a moderate problem were: crime, alcohol use, highway safety/traffic accidents, domestic violence, and obesity/overweight.

The top five health issues seen as a slight problem were: environmental health/air quality, flu/pneumonia, injuries, infectious diseases, and public transportation.

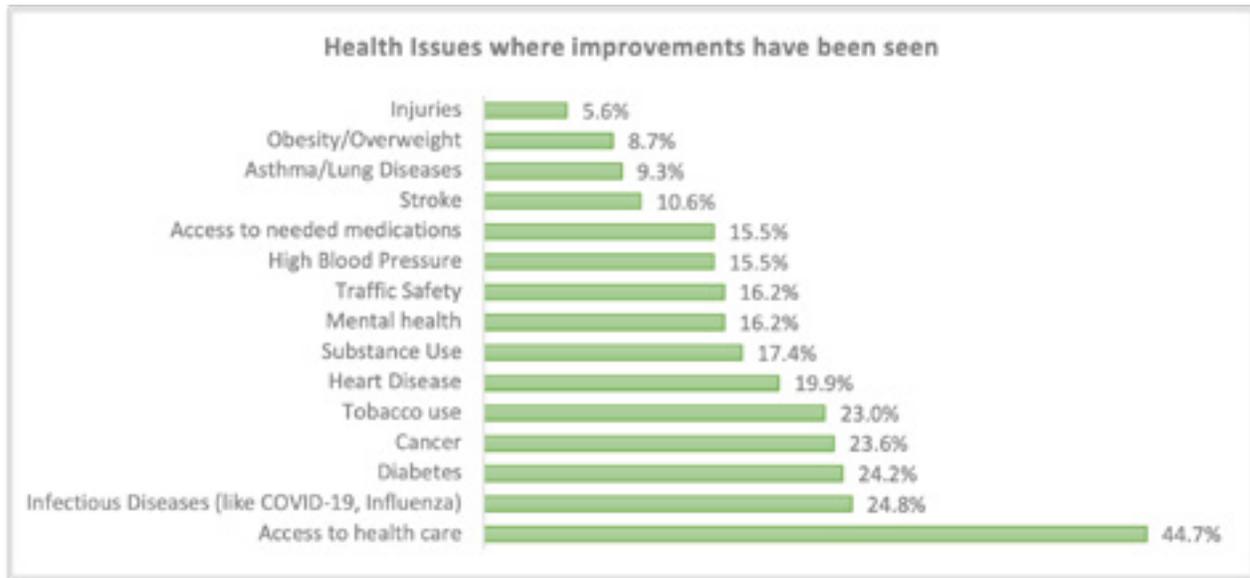
The top five health issues not seen as a problem in Charles County were: Access to health care, environmental Health, public transportation, after school programs for kids, and Flu/Pneumonia.

Health Improvements in Charles County:

Of the survey participants, 26.2% claimed they have seen health improvements in Charles County. This percentage has decreased from the 2018 survey, where one-third (33%) of participants claimed they saw health improvements in Charles County.



The top five health issues where participants have seen improvements include: access to health care, infectious diseases, diabetes, cancer, and tobacco use. 44.7% of the respondents have seen improvements to increase access to health care within the county. This percentage is down from the 58% of participants who saw improvements in access to health care in 2018.



Additional Long Survey Results: Most Serious Health Issues among Various Populations

Long survey data was stratified to determine the most serious health issues reported among different county populations. Only groups with a sample size greater than 50 participants were included to maintain data validity. The groups included in this analysis were: men, women, minorities, households with an income less than \$60,000, individuals with a low education level (high school diploma or less), and individuals with a high education level (some college or greater).

Data was first analyzed by those participants who reported health issues/conditions as a “serious problem.” The top five most serious health issues vary among the populations analyzed. Drug use was seen as the most serious health issue among three out of the six population groups. These populations included women, individuals with a low education level, and individuals with a high education level. Affordable housing ranked in the top five serious health issues for five out of the six groups, and ranked number one for minorities.

Obesity was also seen as a top 5 serious health issue among five of the population groups, and was ranked number one among men.

Among the top ranked serious health issues by population, four are health issues related to substance use disorders.

Top 5 Most Serious Health Issues, by Population:	#1	#2	#3	#4	#5
Men	Obesity/Overweight	Tobacco Use	Drug Use	Infectious Diseases (i.e. COVID-19)	High Blood Pressure
Women	Drug Use	Affordable housing	Obesity/Overweight	Crime	Mental health
Minorities	Affordable housing	Homelessness	Health Insurance	Obesity/Overweight	Mental health
Low Income (Household income <\$60,000)	Alcohol Use	Affordable housing	Obesity/Overweight	Drug Use	Affordable health care
Individuals with low education level (High school diploma/GED or less)	Drug Use	Crime	Alcohol Use	Cancer	Affordable housing
Individuals with high education level (Some college, undergraduate degree, postgraduate /professional degree)	Drug Use	Obesity/Overweight	Affordable housing	Infectious Diseases (i.e. COVID-19)	Mental health

Table 1: Top five most serious health issues, by population. The health issues/conditions were ranked by those that had the largest sum of participants who reported these issues as a “serious problem.”

Data was also analyzed by those participants who saw a health issue/condition as a problem on any level. This included participants who ranked a health issue as a “serious problem,” “moderate problem,” or “slight problem.”

Crime was seen as the number one health issue among five out of the six population groups. These groups included men, women, minorities, individuals with a low education level, and individuals with a high education level. Crime was ranked second among low-income participants, following affordable housing.

Obesity was ranked second among a majority of the population groups. These population groups included men, women, minorities, and individuals with a high education level. Obesity was ranked third among low-income individuals and individuals with a low education level.

Infectious disease ranked in the top five health issues among men, women, minorities, individuals with a low education level, and individuals with a high education level.

Highway safety/traffic accidents were seen as a top five health issue for four out of the six population groups.

Men, women, minorities, and individuals with a high education level reported the same top three health issues within Charles County. These issues were crime, obesity/overweight, and infectious diseases, respectively.

Women and individuals with a high education level had the same top five health issues ranking. It should be noted that this may be because majority of participants who reported having a high education level were women.

Top 5 Health Issues seen as a problem on any level, by Population:	#1	#2	#3	#4	#5
Men	Crime	Obesity/Overweight	Infectious Diseases (i.e. COVID-19)	Tobacco Use	Alcohol Use
Women	Crime	Obesity/Overweight	Infectious Diseases (i.e. COVID-19)	Highway Safety/Traffic Accidents	Affordable housing
Minorities	Crime	Obesity/Overweight	Infectious Diseases (i.e. COVID-19)	Affordable housing	Highway Safety/Traffic Accidents
Low Income (Household income <\$60,000)	Affordable housing	Crime	Obesity/Overweight	Affordable health care	Highway Safety/Traffic Accidents
Individuals with low education level (High school diploma/GED or less)	Crime	Homelessness	Obesity/Overweight	Infectious Diseases (i.e. COVID-19)	Drug Use
Individuals with high education level (Some college, undergraduate degree, postgraduate /professional degree)	Crime	Obesity/Overweight	Infectious Diseases (i.e. COVID-19)	Highway Safety/Traffic Accidents	Affordable housing

Table 2: Top five health issues seen as a problem on any level, by population. The health issues/conditions were ranked by those that had the largest combined sum of participants who reported these issues as a “serious problem,” “moderate problem,” or “slight problem.”

Short Survey Results:

Introduction:

A short five-question survey was developed to distribute throughout the county for additional qualitative data from July 1, 2020 through January 15, 2021. A total of 755 surveys were completed throughout the community. Short survey data collection was particularly difficult during a pandemic since many of the community events were canceled including the Charles County Fair and Mission of Mercy.

Particular emphasis was given to the collection of data among the county's vulnerable populations including the medically underserved, the homeless, and the geographically isolated. Ongoing survey collection was conducted at the Charles County Department of Health; the University of Maryland Charles Regional Medical Center's Diabetes Education Center, Wound Healing Center, and Outpatient Rehabilitation. Short surveys were collected during blood drives at the University of Maryland Charles Regional Medical Center (CRMC) and the La Plata American Legion. CRMC also coordinated with Charles County Public Schools to survey individuals at the meal distribution sites. The meal distribution sites included Indian Head Elementary (Indian Head), J.C. Parks Elementary (Indian Head), Milton Somers Middle School (La Plata), and Mt. Hope/Nanjemoy Elementary School (Nanjemoy). Particular emphasis was given to the western region of the county that is more geographically isolated. The community was also surveyed at large events such as Charles County Community Resource Day, United Way pop-up events, blood drives, the Indian Head Farmer's Market, and other community outreach events.

From August 17-23, 2020, NCR Health was contracted by CRMC to conduct an online version of the short survey. An invitation was sent to recipients who met the criteria established by CRMC. All recipients were given the option to opt out of the survey. A total of 275 surveys were completed online by NCR Health. The results of those short surveys have been combined with the paper short surveys for a total of 755 completed short surveys.

The results of all the surveys combined are presented below.

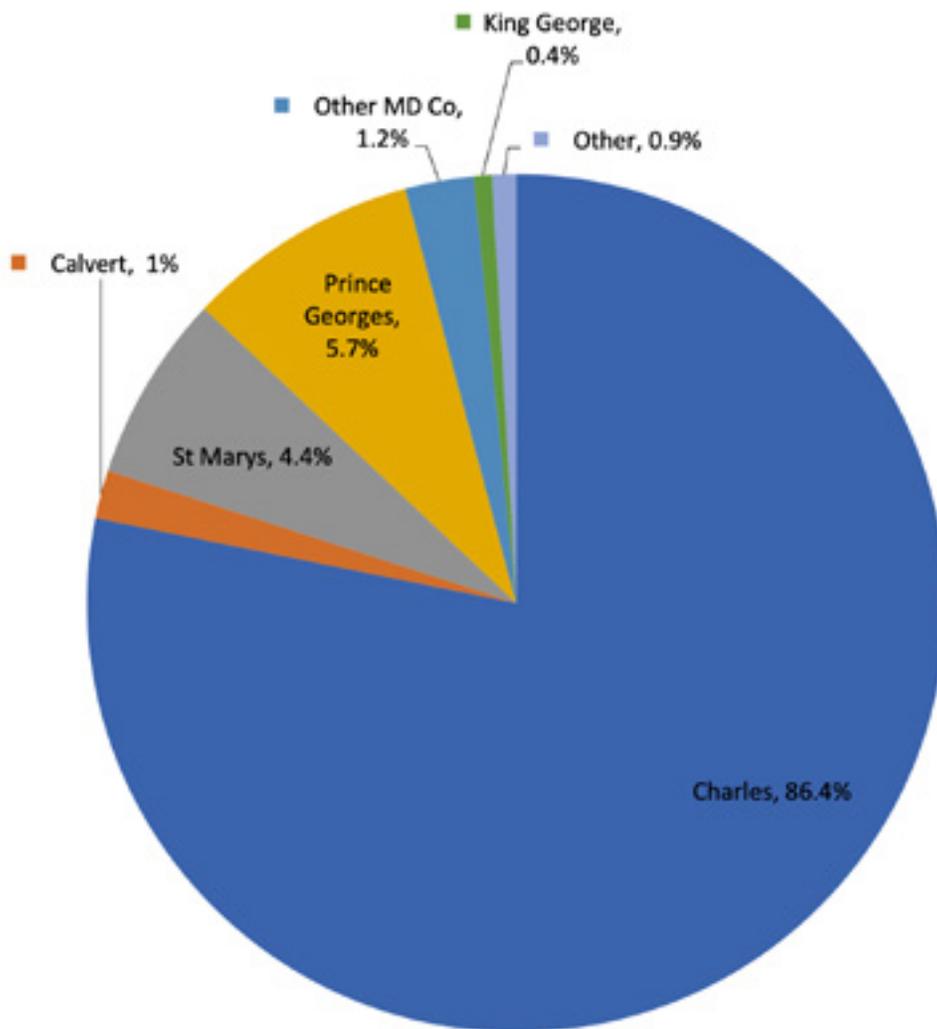
All accumulated surveys:

Question 1: County of residence?

The majority of the short survey respondents were residents of Charles County (86.4%). There were individuals from Calvert, St. Mary's, and Prince George's counties and individuals from King George, Virginia and Washington, D.C. Their answers were included since individuals may work, spend time, or access medical care in Charles County.

<u>County of residence</u>	<u>Count</u>
<i>Charles County</i>	652
<i>St. Mary's County</i>	33
<i>Calvert County</i>	8
<i>Prince George's County</i>	43
<i>Other Maryland County</i>	9
<i>King George County, Virginia</i>	3
<i>Other</i>	7

Short Survey: County of residence



Question 2: What do you believe to be the biggest health problems in Charles County today?

Half of the respondents (50.3%) felt that obesity is the biggest health issue in Charles County. It was the most commonly marked answer to Question 2. The second health issue most commonly cited by survey respondents was diabetes (47.7%).

Other health conditions that ranked high as major health problems include: alcohol and drug use (46.1%), mental health (44.0%), and high blood pressure/stroke (41.3%).

Issues that participants rarely reported as significant health problems included injuries (6%), asthma (18.4%), and traffic accidents and highway safety (17.7%).

Percentages will not equal 100% since short survey participants were permitted to check as many health conditions that applied.

Biggest Health Problems:	Response Count	Response Percent
<i>Access to Care/No Health Insurance</i>	189	25%
<i>Alcohol and Drug Use</i>	348	46.1%
<i>Asthma/Lung Diseases</i>	139	18.4%
<i>Cancer</i>	257	34%
<i>Dental Health</i>	146	19.3%
<i>Diabetes</i>	360	47.7%
<i>High Blood Pressure/Stroke</i>	312	41.3%
<i>Heart Disease</i>	263	34.8%
<i>Injuries</i>	45	6%
<i>Mental Health</i>	332	44%
<i>Other</i>	43	5.7%
<i>Overweight/Obesity</i>	380	50.3%
<i>Tobacco/Smoking</i>	231	30.6%
<i>Traffic Accidents/Highway Safety</i>	134	17.7%

Write-ins included sexually transmitted infections, HIV/AIDS, affordable housing, COVID-19, domestic violence, childhood and adolescent trauma, gastrointestinal disorders, MRSA, medical marijuana, racism, access to quality care, seizures, overcrowding, and dialysis.

Question 3: What do you think are the problems that keep you or other Charles County residents from getting the health care they need?

The most commonly cited barriers to needed health care was lack of health insurance (35.4%) and care is too expensive/can't afford it (47.4%). Under "Other," several people explained that there is a shortage of county providers accepting Medicaid, current providers are not accepting new patients, quality of providers is better elsewhere, fear of COVID-19 keeps people from seeking care, lack of dental health coverage, lack of awareness of available services, no Veterans Affairs clinic nearby, long wait times to see providers, people cannot take the time off work for health care services, stigma surrounding mental health treatment, fear from past negative experiences, provider stereotyping and stigmatizing patients with certain health conditions, lack of providers in the western region of the county, and alternative treatments like acupuncture and massage are not covered by insurance providers.

Barriers to getting health care:	Response Count	Response Percent
<i>Couldn't get an appointment with my doctor</i>	145	19.2%
<i>Doctor is too far away from my home</i>	108	14.3%
<i>Local doctors are not on insurance plan</i>	169	22.4%
<i>No health insurance</i>	268	35.4%
<i>No transportation</i>	150	19.9%
<i>Service is not available in my own county</i>	113	15.0%
<i>Too expensive/Can't afford it</i>	358	47.4%
<i>Other</i>	122	16.2%

Question 4: Do you have any ideas or recommendations to help decrease the health problems in the county or to solve the problems with access to health service?

Commonly cited Ideas and recommendations for improving the status of health in Charles County included:

- Access to providers within the county: faster access, recruitment to the county, particularly specialists
- Health insurance: availability and acceptance of all types of insurance, particularly Medicaid, by local physicians
- Lower cost of health services and medications
- Eating healthier
- Exercising more
- Better and increased communication and health education through health fairs, free screenings, information seminars, public service announcements
- Transportation to medical services, assistance for county seniors
- Free and low-cost fitness and recreational opportunities including rec centers and walking paths
- Expansion of community outreach programs, i.e., mobile van

Question 5: Are sufficient services and resources available in Charles County to address these health issues/conditions?

Responses varied for every health condition listed. Many of the respondents answered that they did not know or they left it blank. This leads us to believe that additional outreach and awareness campaigns are needed to educate people on available services in Charles County.

There weren't many respondents that felt like there are "many services available" for any of the listed health conditions. Access to care in rural Charles County received the greatest number of "many services available" responses, followed by mental health and obesity.

Respondents were given the option of "some services available" in Charles County to address this issue. Mental health received the greatest number of responses for some services available followed by infectious disease, access to food and nutritious meals, dental health, and drug and alcohol use.

High blood pressure received the greatest number of responses in the "no services available" category. This was followed closely by services for diabetes, access to food and nutritious meals, and dental health.

Resource Availability:	Many services available	Some services available	No services available	I don't know	Blank
<i>Heart Disease</i>	6	116	83	157	393
<i>Cancer</i>	9	115	72	158	401
<i>Diabetes</i>	6	129	96	128	396
<i>Asthma</i>	9	118	76	142	410
<i>Smoking/Tobacco Use</i>	10	111	69	148	417
<i>Drugs and Alcohol Use</i>	11	133	79	122	410
<i>Stroke</i>	10	100	72	155	418
<i>High Blood Pressure</i>	8	106	106	128	407
<i>Traffic/Highway Safety</i>	19	96	58	170	412
<i>Overweight/Obesity</i>	22	123	54	144	412
<i>Access to care for children and adults</i>	14	126	90	117	408
<i>Mental Health</i>	29	154	53	117	402
<i>Dental Health</i>	20	136	92	106	401
<i>Access to care in rural Charles County</i>	39	107	49	150	410
<i>Access to needed prescriptions</i>	12	123	88	127	405
<i>Access to food and nutritious meals</i>	16	143	97	104	395
<i>Infectious Diseases/COVID-19</i>	13	141	65	135	401

Location:

The location of data collection was recorded to ensure that all county populations have had a chance to voice their opinions on health in the county. The medically underserved population was surveyed at the Charles County Department of Health clinics and Community Resource Day. The elderly was surveyed at the hospital outpatient clinics and centers. The western and rural region of the county was surveyed at the school meal distribution sites and the farmer’s market. Families were surveyed at the health department and the University of Maryland Charles Regional Medical Center. Surveys were also available in Spanish and made available at the health department and community events. Only seven surveys were completed using the Spanish form.

Location of Data Collection:	Count
<i>CRMC Blood Drive</i>	42
<i>United Way Pop-Up Events</i>	140
<i>Charles County Department of Health</i>	19
<i>American Legion La Plata Blood Drive</i>	63
<i>CRMC Diabetes Education Center</i>	6
<i>CRMC Wound Healing Center</i>	9
<i>Indian Head Elementary Meal Distribution Site</i>	9
<i>Indian Head Farmer’s Market</i>	34
<i>JC Parks Elementary Meal Distribution Site</i>	40
<i>Milton Somers Middle School Meal Distribution Site</i>	12
<i>Mt Hope/Nanjemoy Elementary Meal Distribution Site</i>	16
<i>CRMC Birthing Center</i>	10
<i>CRMC Outpatient Rehabilitation</i>	16
<i>Community Resource Day</i>	60
<i>NCR Health Online Survey</i>	275
<i>Chronic Disease Self-Management Program</i>	4

Conclusions of Short Survey Analysis:

Over half of the respondents (50.3%) felt that obesity is the biggest health issue in Charles County. It was the most commonly marked answer to Question 2. The second health issue most commonly cited by survey respondents was diabetes (47.7%). The most commonly cited barriers to needed health care was lack of health insurance (35.4%) and care is too expensive/can’t afford it (47.4%).

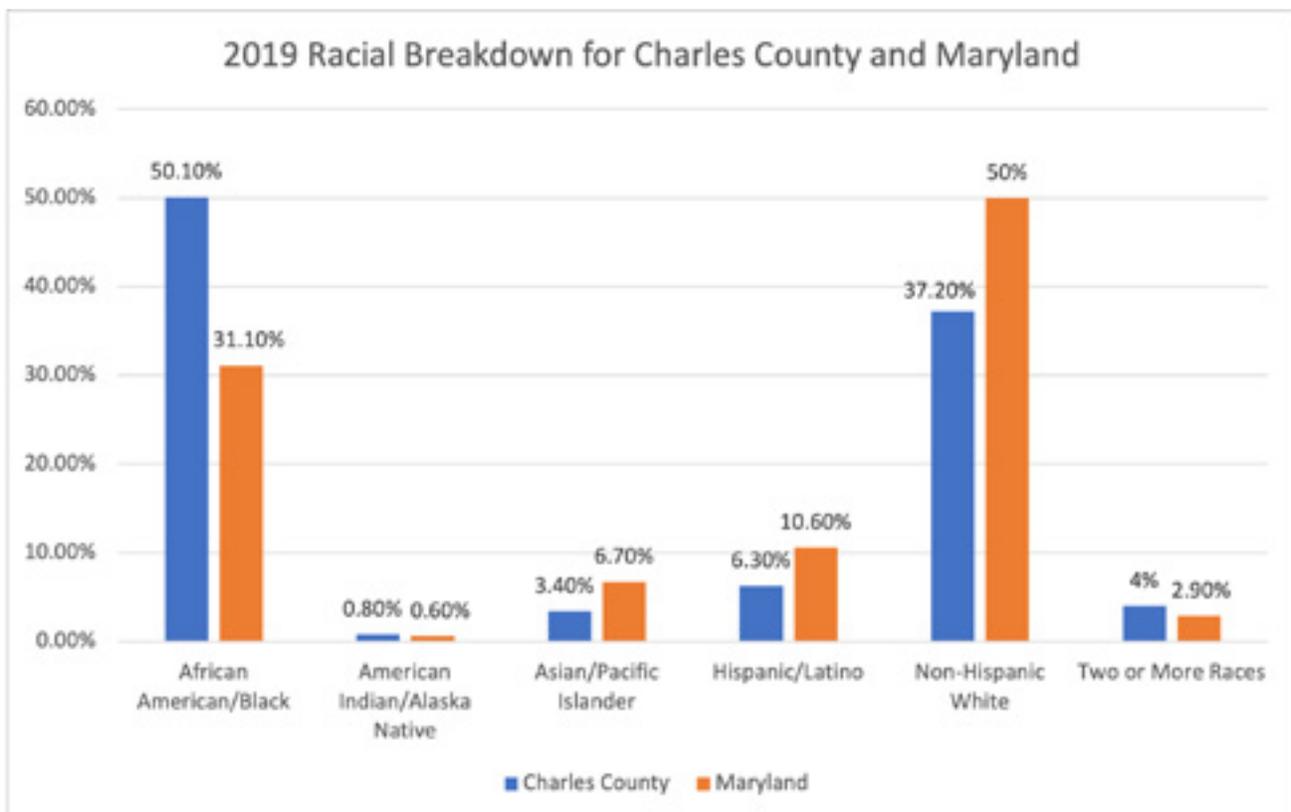
Charles County residents felt that there were no services in the county for diabetes, access to food and nutritious meals, and dental health. Many of the suggestions and ideas presented by survey respondents focused around the availability of low-cost or free health and dental services, more providers in the county, more education and awareness of county resources, and community outreach and education.

Charles County Geographic and Demographic Profile:

Charles County is a largely rural jurisdiction located approximately 23 miles south of Washington, D.C. It is one of five Maryland counties that are part of the Washington, DC-MD-VA metropolitan area. At 458 square miles, Charles County is the eighth largest of Maryland's 24 counties and accounts for about 5% of Maryland's total landmass. The northern part of the county is the "development district" where commercial, residential, and business growth is focused. The major communities of Charles County are La Plata, the county seat; Port Tobacco, Indian Head, and St. Charles; and the main commercial cluster of Hughesville-Waldorf-White Plains. Approximately 60% of the county's residents live in the greater Waldorf-La Plata area. Charles County has experienced rapid growth since 1970, expanding its population from 47,678 to 146,551 in the 2010 census.

The 2019 Charles County population estimate was 163,257. The magnitude of growth can be seen in the changes in population density. The 2000 census showed that there were 219.4 individuals per square mile; by the 2010 census, this estimate rose to 320.2 individuals per square mile. The percent change in the population growth for Charles County from 2010 to 2019 was greater than the change seen in the Maryland state population growth (11.4% vs. 4.7%).

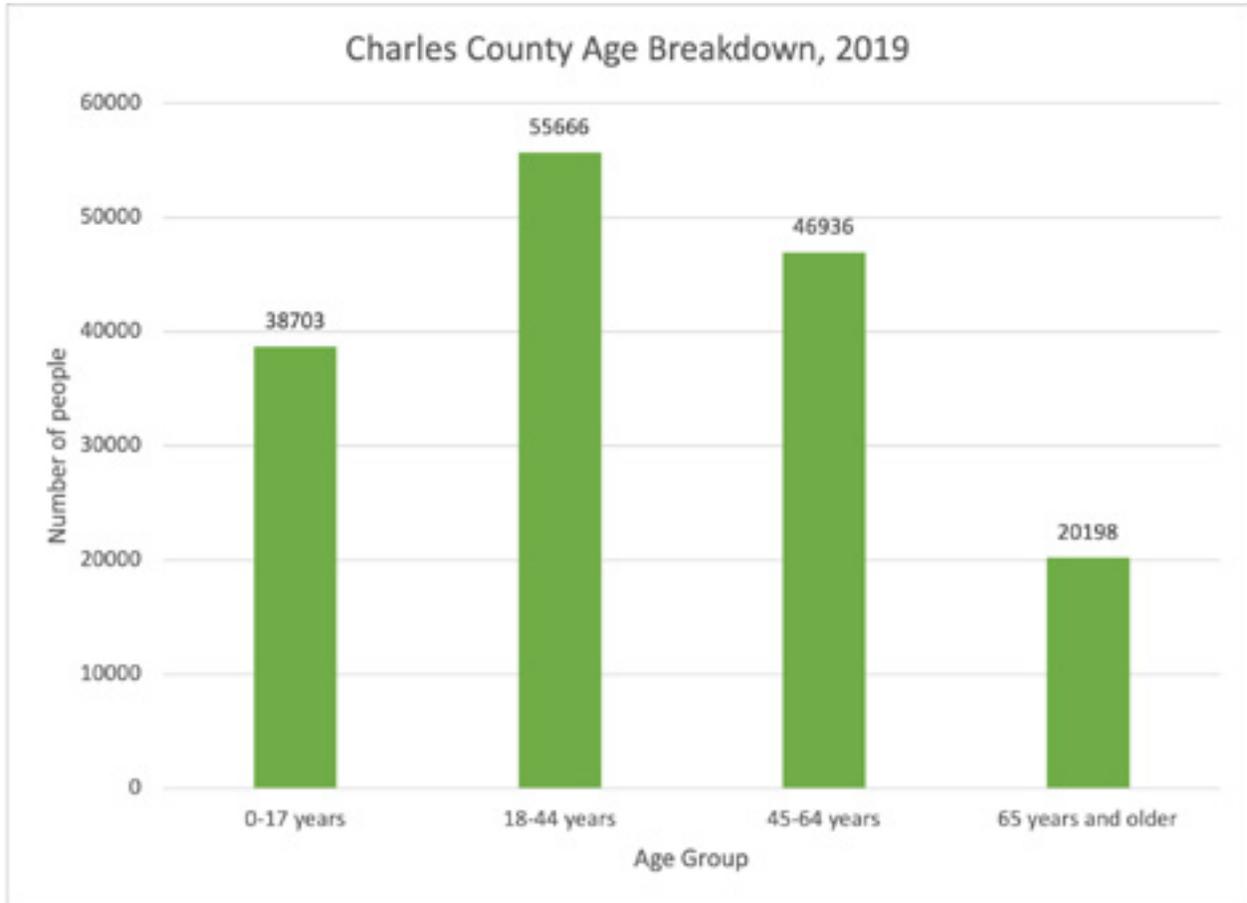
As the population of the county changes, the diversity of the county also increases. The African American population has experienced the greatest increase. In 2000, African Americans made up 26% of the total Charles County population; by 2019, they comprise 50.1% of the total county population. As of 2019, minorities make up roughly 58.4% of the Charles County population. The Hispanic community has also seen increases over the past few years. They now comprise 6.3% of the total county population. This is one of the highest percentages among the 24 Maryland jurisdictions. Charles County also has one of the largest American Indian/Native American populations in the state of Maryland at 0.8% of the total county population.



Source: U.S. Census Bureau; Charles County Quick Facts; 2019

The 2019 Charles County gender breakdown is approximately 50/50. Males make up 48.2% of the population, and females make up 51.8% of the county population.

The age breakdown of the Charles County population shows a young population between the ages of 18-44 years (34.5%). The juvenile population (under 17 years) makes up 24.0% of the Charles County population. The 65+ age group has increased from 9% in 2010 to 12.4% in 2018. The age group 45-64 years has also seen increases from 27% in 2013 to 29.1% in 2018.



Source: Maryland Department of Health and Mental Hygiene. 2018 MD Vital Statistics Report.

Transportation

The percent change in the population growth for Charles County has been slightly greater than the change seen in the Maryland population growth. This growth has created transportation issues for the County, in particular for the “development district” in the northern part of the county where many residents commute to Washington, D.C., to work. The average work commute time for a Charles County resident is 45 minutes which is higher than the Maryland average of 33.2 minutes (Source U.S. Census Bureau’s 2015-2019 American Community Survey five-year estimates). Public transportation consists of commuter buses for out-of-county travel and the county-run VanGo bus service for in-county transportation.

Source: 2015-2019 US Census Bureau’s American Community Survey 5-year estimates

Economy

Employment and economic indicators for the county are fairly strong. The 2015-2019 U.S. Census American Community Survey estimates that 66.6% of the Charles County population is currently in the labor work force. The 2015-2019 five-year estimate for Charles County found that approximately 6.4% of Charles County individuals are living below the poverty level; however, this is lower than the Maryland rate of 9%. The Charles County median household income was \$100,003, well above the Maryland median household income of \$84,805. The diversity of the county is also represented in the business community with 46% of all Charles County businesses being minority-owned firms. This is higher than the state of Maryland at 38%.

Source: 2015-2019 U.S. Census Bureau's American Community Survey five-year estimates

Education

Charles County has a larger percentage of high school graduates than Maryland (93.2% vs. 90.2%); however, Charles County has a smaller percentage than Maryland of individuals with a bachelor's degree or higher (28.9% vs. 40.2%).

Source: 2015-2019 U.S. Census Bureau's American Community Survey five-year estimates

Housing

There is a high level of home ownership in Charles County (76.9%). There is a greater percentage of home owners in Charles County than the percentage of homeowners for Maryland (76.9% vs. 66.9%). The median value of a housing unit in Charles County is similar to the Maryland average (\$313,300 vs. \$314,800). The average household size in Charles County is 2.78 persons.

Source: 2015-2019 U.S. Census Bureau's American Community Survey five-year estimates

Social, Economic, and Housing Factors:	Charles County	Maryland
Living in same house 1 year ago, pct 1 yr old & over, 2015-2019	89.2%	86.4%
Foreign born persons, percent, 2015-2019	6.3%	15.2%
Language other than English spoken at home, pct age 5+, 2015-2019	8.2%	19.0%
High school graduates, percent of persons age 25+, 2015-2019	93.2%	90.2%
Bachelor's degree or higher, pct of persons age 25+, 2015-2019	28.9%	40.2%
Veterans, 2015-2019	16,132	365,356
Currently in labor force, 16+ years, 2015-2019	66.6%	67.1%
Mean travel time to work (minutes), workers age 16+, 2015-2019	45.0	33.2
Housing units, 2019	61,838	2,470,316
Homeownership rate, 2015-2019	76.9%	66.9%
Median gross rent, 2015-2019	\$1682	\$1392
Median value of owner-occupied housing units, 2015-2019	\$313,300	\$314,800
Households, 2015-2019	56,520	2,205,204
Persons per household, 2015-2019	2.78	2.67
Per capita money income in past 12 months (2019 dollars) 2015-2019	\$41,717	\$42,122
Median household income, 2015-2019	\$100,003	\$84,805
Persons below poverty level, percent, 2015-2019	6.4%	9.0%

Source: 2015-2019 U.S. Census Bureau, American Community Survey five year estimates, Charles County and Maryland

Life Expectancy

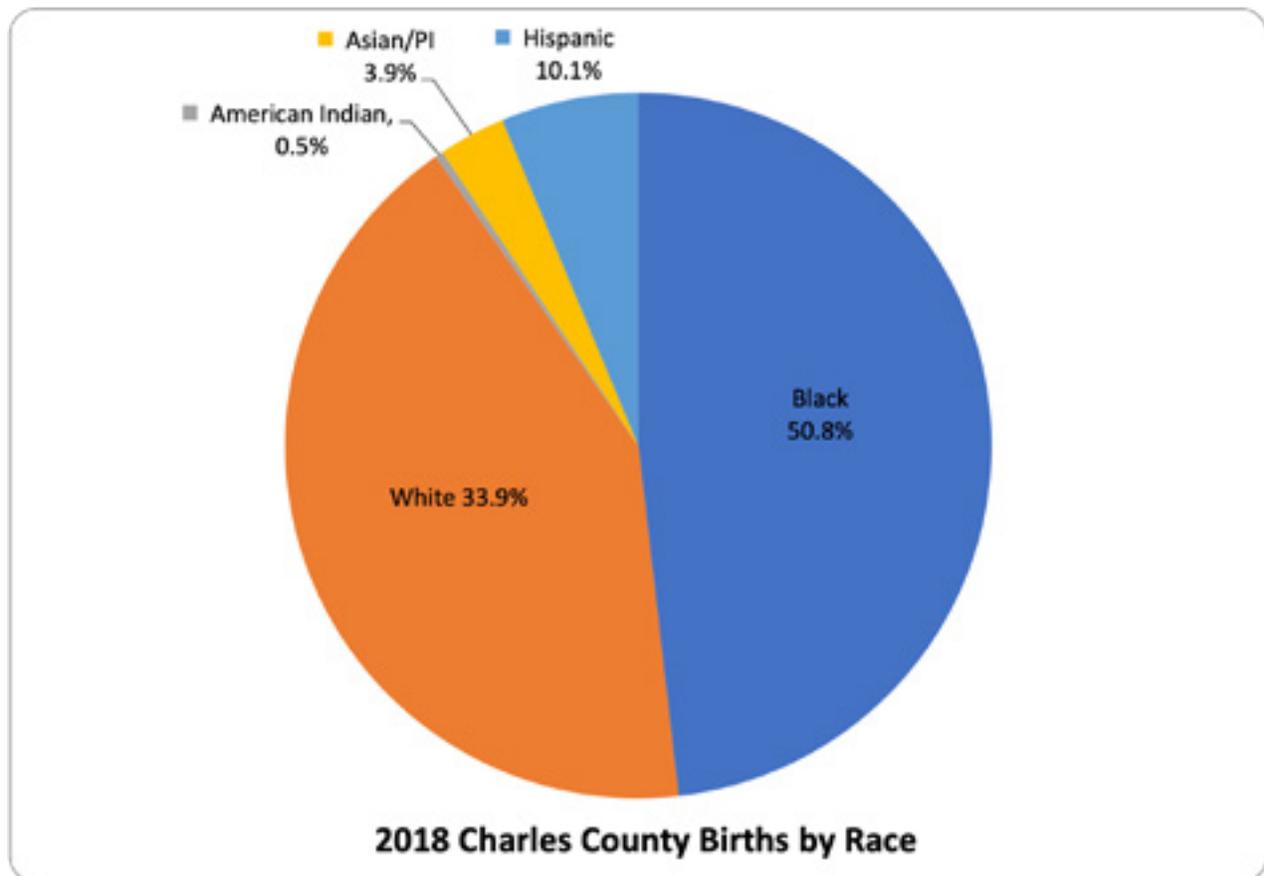
The life expectancy for a Charles County resident, as calculated for 2018, was 78.5 years. This is slightly below the state average life expectancy of 79.2 years.

Source: 2018 Maryland Vital Statistics Report

Births

There were 1,867 births in Charles County in 2018. Charles County represents 46% of the births in Southern Maryland and 2.6% of the total births in Maryland for 2018. Minorities made up over half of the babies born in Charles County in 2018 (66%).

Source: 2018 Maryland Vital Statistics Report



Source: 2018 Maryland Vital Statistics Report

In Charles County, birth rates were highest among the Hispanic population at 19.4 per 1,000 county population, compared to 11.9 for Blacks and 9.8 for Whites.

For all Charles County births and for Charles County non-Hispanic White, non-Hispanic Black, and Hispanic births, the most common age group for the mother was between 25-29 years. In 2018, there were no mothers less than 15 years and one mother greater than 49 years.

The birth rate for Charles County mothers aged 25-29 was 106.5. This is higher than the general fertility rate of 58.1 total births per 1,000 Charles County women aged 15-44 years. It is also higher than any other age group in Charles County.

2018 Births: Age of Mother	Total	Under 15	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49	50+	Not Stated
Charles County Total	1867	0	16	59	308	563	561	283	75	1	1	0
White	799	0	8	25	121	244	270	104	26	1	0	0
Black	971	0	8	34	176	291	254	163	44	0	1	0
Hispanic	189	0	7	9	23	66	45	32	7	1	0	0

2018 Birth Rates per 1,000 births	Overall	Under 15	15-19	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49
Charles County All races	58.1	**	14.0	4.6	31.1	63.1	106.5	103.5	50.7	13.5	**

**Rates based on less than 5 events are not calculated because rate instability.

Over one-third of the babies born in Charles County in 2018 were the first birth order (37.2%). Only a small percentage was the fifth or greater (4.2%).

Birth Order	1st	2nd	3rd	4th	5 or more	Not stated	Total
Charles County	695 (37.2%)	608 (32.6%)	336 (18.0%)	150 (8.0%)	78 (4.2%)	0	1867

Of all live births in 2018, 43.5% were to unmarried mothers. Of the unmarried mothers, 64.5% were African American.

Unmarried Mothers	All races	White	Black	American Indian	Asian/PI	Hispanic
Charles County	814 (43.5% of all live births)	190 (23.3%)	525 (64.5%)	6 (0.7%)	6 (0.7%)	84 (10.3%)

The percentage of women in Charles County receiving first trimester prenatal care was 62.2%, which was below the Maryland state average percentage of 66.7%. Charles County percentages for Whites, American Indians, Asians/Pacific Islanders, and Hispanics were below the Maryland state average percentages. Charles County percentage for Black/African American was similar to the Maryland state average percentages (60.4% vs. 60.8%). The largest disparity was seen in the American Indian population (60.0% for Charles County and 69.8% for Maryland).

In Charles County, Hispanic mothers received the least amount of first trimester prenatal care (45.5%). The highest percentages of women receiving first trimester prenatal care were seen in the White population (68.0%) and Asian/Pacific Islander population (68.9%).

Receiving 1st Trimester Prenatal Care	All races	White	Black	American Indian	Asian/PI	Hispanic
Charles County	1161 (62.2%)	431 (68.0%)	577 (60.8%)	6 (60.0%)	51 (68.9%)	86 (45.5%)
Maryland	47,378 (66.7%)	23,312 (77%)	13,709 (60.4%)	88 (69.8%)	3632 (70.5%)	6455 (51.8%)

In Charles County, American Indians reported the largest percentage of late or no prenatal care (20%). This may be due to the small case counts on a county level. Small changes can impact the percentage. Charles County in general had a higher percentage of mothers with late or no prenatal care than Maryland mothers overall and for most races.

Receiving late or no Prenatal Care	All races	White	Black	American Indian	Asian/PI	Hispanic
Charles County	166 (8.9%)	49 (7.7%)	93 (9.8%)	2 (20%)	4 (5.4%)	18 (9.5%)
Maryland	4905 (6.9%)	1301 (4.3%)	2086 (9.2%)	12 (9.5%)	282 (5.5%)	1189 (9.5%)

Low birth weight means that a baby is born weighing less than 2500 grams. Of the births in Charles County, 10% were low birth weight in 2018. The highest percentage of low-birth-weight babies was among Charles County Blacks at 13.6%.

Low Birth Weight	All races	White	Black	American Indian	Asian/PI	Hispanic
Charles County	187 (10.0%)	40 (6.3%)	129 (13.6%)	0	4 (5.4%)	10 (5.3%)
Maryland	6292 (8.9%)	2502 (8.3%)	2848 (12.5%)	15 (11.9%)	478 (9.3%)	864 (6.9%)

Very low birth weight is defined as a baby weighing less than 1,500 grams at birth. For Charles County, the largest percentage of very low birth weight babies is among the Black population (2.7%). This is also true for Maryland Blacks.

Very Low Birth Weight	All races	White	Black	American Indian	Asian/PI	Hispanic
Charles County	37 (2.0%)	9 (1.4%)	26 (2.7%)	0	1 (1.4%)	1 (0.5%)
Maryland	1205 (1.7%)	327 (1.1%)	650 (2.9%)	2 (1.6%)	74 (1.4%)	148 (1.2%)

The percentage of births leading to cesarean section in Charles County in 2018 was 33.3%. The largest percentage was seen among Charles County American Indians with 60% of babies delivered by c-section. All Charles County percentages, overall and by race, are lower than state percentages, except Charles County American Indian. This may be due to the small case counts for this small population.

Cesarean Section Delivery	All races	White	Black	American Indian	Asian/PI	Hispanic
Charles County	622 (33.3%)	179 (28.2%)	364 (38.4%)	6 (60%)	22 (29.7%)	48 (25.4%)
Maryland	24043 (33.8%)	9685 (32%)	8887 (39.1%)	46 (36.5%)	1789 (34.7%)	3537 (28.4%)

In 2018, 1,549 out of 1,867 Charles County babies were born in the state of Maryland (83.0%). However, only 694 of those babies were born in Charles County (37.2%). This is much lower than the percentage for other surrounding jurisdictions. Half (50%) of Calvert County babies were born in Calvert County, and 73.2% of St. Mary’s County babies are born in St. Mary’s County. Over half of Charles County babies (1,173 or 62.8%) were born in another Maryland county.

Place of Birth	All Births	State Total	MD Co. same as residence	MD Co other than residence	DC	Other State
Charles County	1867	1549	694	855	124	194

Demographic Data by Charles County ZIP code:

There is much variation in demographic structure among the Charles County ZIP codes. The larger ZIP codes located in the eastern and northern regions of the county display wide diversity in race and ethnicity. The smaller ZIP codes, particularly those in the southern and western regions, are less diverse, less populated, and comprised mostly of individuals identifying as White alone.

The ZIP codes with the largest percentages of White alone were 20625 (Cobb Island) at 90% and 20645 (Issue) at 87.8%. Both ZIP codes are small and geographically isolated at the southern tip of Charles County.

The ZIP codes with the largest percentages of Black or African American alone were 20603 (Waldorf) at 57.1% and 20607 (Accokeek) at 66%. Accokeek and the Waldorf ZIP code of 20601 were the ZIP codes with the highest percentages of “Some Other Race” at 1.7 and 1.5%. All three ZIP codes are large and located in the northern, populated region of the county that borders Prince George’s County.

The ZIP codes with the largest percentages of American Indian/Alaskan Native alone were 20693 (Welcome) at 8.3% and 20675 (Pomfret) at 3.5%. Both ZIP codes are small, rural, and located centrally within Charles County.

The ZIP codes with the largest percentages of individuals with 2 or more races were 20612 (Benedict) at 17.8% and 20617 (Bryantown) at 12.4%. Both ZIP codes are small and located in the eastern region of the county.

The ZIP codes with the largest Hispanic percentages were 20632 (Faulkner) at 10.8% and 20616 (Bryans Road) at 9.1%. These ZIP codes are located in very different regions of the county. Faulkner is in the southern region, whereas, Bryans Road is in the northern region.

ZIP code Racial Composition	Total Pop.	White Alone	Black Alone	American Indian/Alaskan Native Alone	Asian/ Pacific Islander	Some Other Race	2 or more races	Hispanic
20601, Waldorf	25938	39.6%	49.7%	0.2%	3.5%	1.7%	5.4%	7.1%
20602, Waldorf	26345	29.4%	54.4%	1.0%	3.7%	0.1%	4.8%	6.7%
20603, Waldorf	30949	27.3%	57.1%	0.4%	4.8%	0.1%	4.5%	5.8%
20607, Accokeek	10744	16.0%	66.0%	0.8%	7.7%	1.3%	5.2%	3.1%
20611, Bel Alton	1499	71.6%	19.4%	1.0%	0.9%	0%	4.5%	2.5%
20612, Benedict	422	82.2%	0%	0%	0%	0%	17.8%	0%
20613, Brandywine	14116	25.9%	59.8%	1.5%	1.7%	0.2%	3.1%	7.7%
20616, Bryans Road	6221	25.4%	53.4%	0.5%	4.5%	0.5%	6.6%	9.1%
20617, Bryantown	748	81%	6.6%	0%	0%	0%	12.4%	0%
20622, Charlotte Hall	6309	72.5%	17.6%	0.8%	1.2%	0.1%	4.8%	3.0%
20625, Cobb Island	657	90%	8.4%	0%	1.7%	0%	0%	0%
20632, Faulkner	381	86.9%	0%	0%	0%	0%	2.4%	10.8%
20637, Hughesville	5207	71.2%	15.8%	0%	2.7%	0.4%	5.2%	4.7%
20640, Indian Head	10611	41.3%	44.2%	0.7%	3.0%	0%	6.0%	4.8%
20645, Issue	920	87.8%	8.6%	0%	0%	0%	3.6%	0%
20646, La Plata	20351	69.7%	20.0%	0.5%	3.1%	0%	3.6%	3.0%
20658, Marbury	965	54.4%	21.6%	1.9%	2.5%	0%	10.9%	8.8%
20659, Mechanicsville	23484	84.9%	9.6%	0%	1.1%	0%	1.8%	2.5%
20662, Nanjemoy	2895	57.7%	31.6%	0.3%	0%	0%	10.4%	0%
20664, Newburg	3489	73.5%	20.3%	0.6%	2.1%	0%	1.3%	2.1%
20675, Pomfret	1924	70.5%	15.5%	3.5%	1.4%	0%	6.9%	2.2%
20677, Port Tobacco	2544	75.5%	22.6%	0%	0%	0%	1.9%	0%
20693, Welcome	1006	75.1%	6.9%	8.3%	0%	0%	8.8%	0.9%
20695, White Plains	7860	37.4%	53.6%	0%	1.8%	0%	2.1%	5.1%

Age data by ZIP code:

In 2017, the median age in Charles County was 38.1 years. When comparing by ZIP code, the median age is the highest in the southeastern region of the county in the small, rural ZIP codes of 20612 (Benedict) at 65.9 years and 20617 (Bryantown) at 50.2 years. The median age is lowest in the more populated ZIP codes of Waldorf (20601 and 20602) and in Indian Head (20640) and Newburg (20664) which are located in the western region of the county. This may be due to the influx of young professionals living in the suburban areas of Waldorf and Indian Head and commuting each day into Washington, D.C., and Northern Virginia.

The ZIP codes with the largest Hispanic percentages were 20632 (Faulkner) at 10.8% and 20616 (Bryans Road) at 9.1%. These ZIP codes are located in very different regions of the county. Faulkner is in the southern region, whereas, Bryans Road is in the northern region.

2013-2017 Avg Median Age by ZIP code	Median Age (in years)
20601, Waldorf	37.3
20602, Waldorf	35.2
20603, Waldorf	35.7
20607, Accokeek	43.3
20611, Bel Alton	39.3
20612, Benedict	65.9
20613, Brandywine	42.7
20616, Bryans Road	35.9
20617, Bryantown	50.2
20622, Charlotte Hall	36.8
20625, Cobb Island	45.6
20632, Faulkner	41.1
20637, Hughesville	44.8
20640, Indian Head	34.7
20645, Issue	43.1
20646, La Plata	41.7
20658, Marbury	38.3
20659, Mechanicsville	40.1
20662, Nanjemoy	44.5
20664, Newburg	35.0
20675, Pomfret	47.3
20677, Port Tobacco	43.3
20693, Welcome	45.7
20695, White Plains	43.4

Geographic and Demographic Profile References:

1. 2019 Charles County Current Population Survey Data. United States Census Bureau. Available at: <https://www.census.gov/quickfacts/fact/table/US/PST045219>.
2. 2018 Maryland Vital Statistics Report. Charles County Demographic and Population Data. Maryland Department of Health. Available at https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.
3. 2015-2019 U.S. Census Bureau, American Community Survey five-year estimates, Charles County and Maryland. Available at <https://www.census.gov/quickfacts/fact/table/US/PST045219>.
4. Charles County Demographic and Population Data, County and ZIP code Level. 2013-2017 average and 2017 American Community Survey. United States Census Bureau. American FactFinder. Available at www.census.gov.

Qualitative Data Specific to the Geographic and Demographic Profile:

The focus group discussed the commuter population in Charles County. Due to its proximity to Washington, D.C., and Baltimore, many individuals who live in the county have long daily commutes for work. Participants expressed the need to get those commuting individuals involved in the community and make them aware of the health services that are available. They were concerned regarding their health status since many of them are sitting all day long. They are tired when they get home and are tempted to use fast food to feed their families. Programs on healthy eating options may be needed to educate this working population. It is also important to have a centralized location for health education resources where all citizens can go for information.

Charles County Vital Statistics Profile:

Marriage and Divorce:

A total of 822 marriage ceremonies were conducted in Charles County in 2018. Most of those marriages were Maryland residents (767).

Marriage	Total Marriages	Maryland Residents*	Non-MD Residents	% to non-MD residents
Charles County	822	767 (93.3%)	55	6.7%

*One or both of the partners are residents of Maryland.

Data on the age of the bride and groom and previous marital status are not available on a county level. In 2018, there were 59 divorces in Charles County. When examining the numbers of years of marriage at the time of their divorce, the most common response was 10-14 years.

Divorce and years of marriage at time of divorce	Total Divorces	<2 years	2-3 years	4-5 years	6-7 years	8-9 years	10-14 years	15-19 years	20-24 years	25+ years	Not stated
Charles County	59	1	7	4	3	4	14	12	6	8	0

Mortality:

Death Rates:

There were a total of 1,150 deaths in Charles County in 2018.

The 2016-2018 Charles County all-cause mortality rate was 745.7 per 100,000 population. This rate is higher than the Maryland state all-cause mortality rate of 717.5 per 100,000 population.

The number one cause of death for the time period 2018 and for the time period 2016-2018 was heart disease. The 2016-2018 Charles County heart disease death rate was 166.7 per 100,000. This is also higher than the Maryland state rate of 163.8 per 100,000.

Charles County had higher 2016-2018 mortality rates than Maryland for cancer, accidents, chronic lower respiratory disease, and diabetes mellitus.

2016-2018 Ten Leading Causes of Death by Count and Rate, Charles County and Maryland

Cause of Death	Charles County Number, 2018	Charles County Rate, 2016-2018*	Maryland Number, 2018	Maryland Rate 2016-2018*
<i>All Causes</i>	1150	745.7	50668	717.5
<i>Diseases of the Heart</i>	256	166.7	11697	163.8
<i>Cancer</i>	288	165.4	10936	152.6
<i>Chronic Lower Respiratory Disease</i>	53	32.4	2235	30.5
<i>Accidents</i>	50	38.8	2320	36.0
<i>Diabetes Mellitus</i>	47	26.3	1421	19.8
<i>Cerebrovascular Diseases</i>	45	31.2	2884	40.1
<i>Alzheimer's Disease</i>	23	***	1126	16.8
<i>Influenza and Pneumonia</i>	21	***	974	14.3
<i>Intentional Self-Harm (Suicide)</i>	18	***	652	9.8
<i>Essential Hypertension and Hypertensive Renal Disease</i>	16	***	622	

*Per 100,000 population

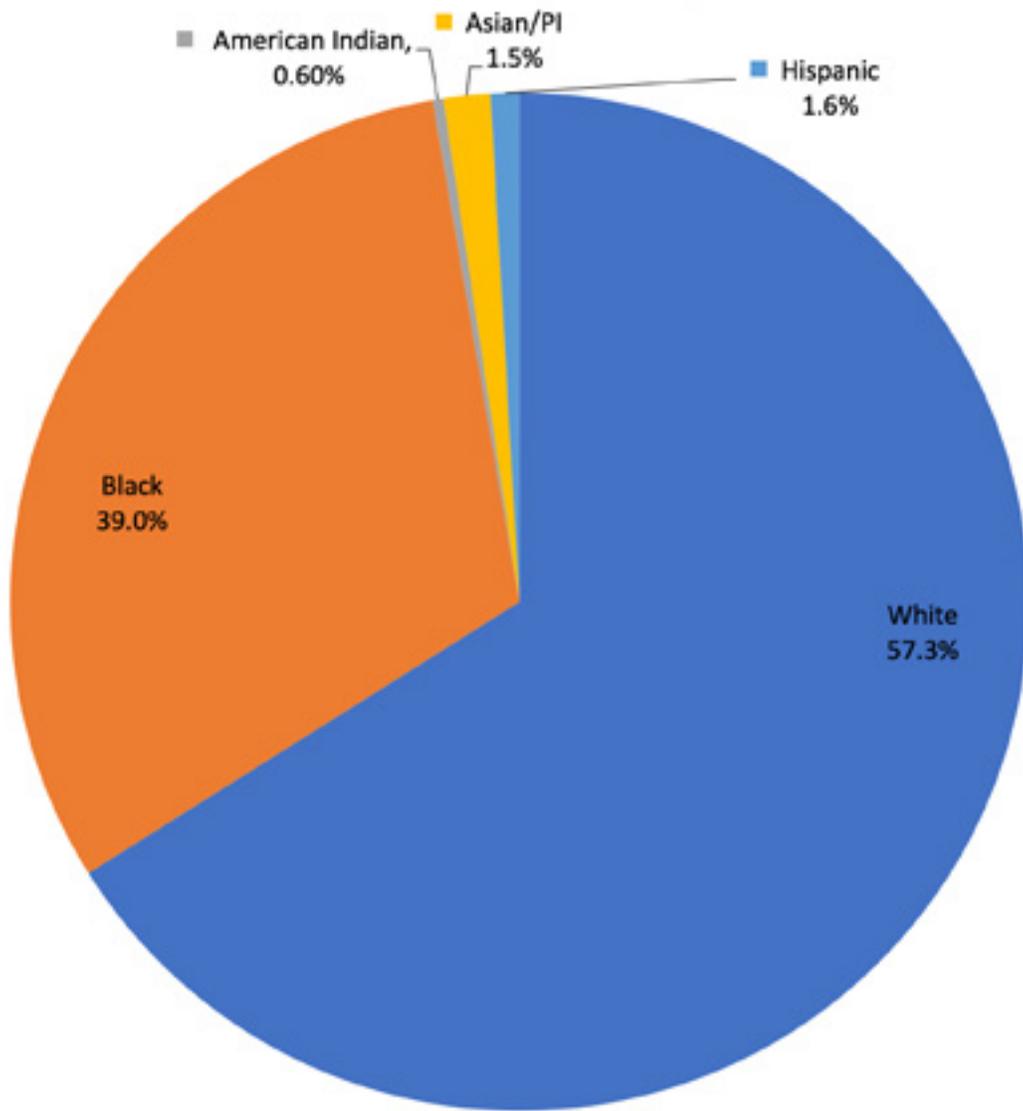
*** Age-adjusted death rates not calculated for jurisdictions with fewer than 20 deaths.

All Cause Deaths by Race:

Whites make up 57.2% of the deaths in Charles County. African Americans make up the second highest at 38.9% of the total deaths.

The rate among the White population is greater than the other races because they make up the majority of the aging population in the county. Almost two-thirds of the 65+ population in Charles County (60.2%) are White. The minority populations are moving into Charles County and are a younger population; therefore, they have lower mortality rates. The median age in Charles County is 34 years.

2018 Charles County Deaths by Race



When comparing by 2018 calculated crude death rates, the rate is much higher in the White population. The 2018 Charles County White death rate was 1,022.2 per 100,000. This is much higher than the Charles County total 2018 crude death rate of 712.1 per 100,000 and higher than the death rates for Blacks (560.0), for Asians and Pacific Islanders (276.1), American Indian (575.7), and for Hispanics (184.5).

2018 Crude Death Rates:	All Races	White	Black	American Indian	Asian/PI	Hispanic
<i>Charles County</i>	712.1	1022.2	560.0	575.7	276.1	184.5

All Cause Deaths by Age:

The number of reported deaths increased with age. The greatest number of deaths was seen in the 75-84 years age group. This age group accounted for one-quarter of the total county deaths for 2018.

Deaths by Age	All ages	<1 yr	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+
<i>Charles County</i>	1150	10	3	2	16	40	33	90	156	237	290	272

In 2018, there were 23 deaths in Charles County for children and adolescents ages 0-21 years.

Child Deaths	0-21 yrs	<1 yr	1-4 yrs	5-9 yrs	10-14 yrs	15-17 yrs	18-19 yrs	20-21 yrs
<i>Charles County</i>	23	10	3	0	2	4	3	1

Adolescent Violent Deaths:

There were four violent deaths to adolescents in Charles County in 2018. There were two accidents, and one suicide, and one assault.

Deaths from Selected Causes:

The number of deaths in Charles County for selected causes is presented on the next page.

All Causes of Death	1150
Tuberculosis	0
Septicemia	13
HIV Disease	1
Total Malignant Neoplasms	288
<i>Malignant Neoplasms of Stomach</i>	2
<i>Malignant Neoplasms of Rectum, Colon, and Anus</i>	24
<i>Malignant Neoplasms of Pancreas</i>	22
<i>Malignant Neoplasms of Trachea, Bronchus, and Lung</i>	50
<i>Malignant Neoplasms of Breast</i>	29
<i>Malignant Neoplasms of Cervix, Uteri, Corpus Uteri, and Ovary</i>	21
<i>Malignant Neoplasms of Prostate</i>	15
<i>Malignant Neoplasms of Urinary Tract</i>	14
<i>Non-Hodgkin's Lymphoma</i>	8
<i>Leukemia</i>	6
<i>Other Malignant Neoplasms</i>	97
Diabetes Mellitus	47
Alzheimer's Disease	23
Total Major Cardiovascular Diseases	332
Total Diseases of the Heart	256
<i>Hypertensive Heart Disease</i>	41
<i>Ischemic Heart Disease</i>	126
<i>Other Diseases of the Heart</i>	89
Essential Hypertension and Hypertensive Renal Disease	16
Cerebrovascular Diseases	45
Atherosclerosis	12
Other Diseases of the Circulatory System	3
Influenza and Pneumonia	21
Chronic Lower Respiratory Diseases	53
Peptic Ulcer	0
Chronic Liver Disease and Cirrhosis	13
Nephritis, Nephrotic Syndrome and Nephrosis	15
Pregnancy, Childbirth, and the Puerperium	0
Certain Conditions Originating in the Perinatal Period	6
Congenital Abnormalities	5
Sudden Infant Death Syndrome	1
Symptoms, Signs, and Abnormal Clinical and lab findings	2
All other Disease (residual)	219
Total Accidents	50
<i>Motor Vehicle Accidents</i>	19
<i>All Other Accidents</i>	31
Intentional Self Harm (Suicide)	18
Assault (Homicide)	15
All Other External Causes	28

Place of Death:

Of Charles County deaths, 20.9% occurred in a hospital, 11.8% occurred within a nursing home, and 10.78% were in a hospice facility. The other county deaths occurred outside of an institution such as a home.

Deaths in Hospitals	Number of Deaths Occurring in Hospitals: All Races	Number of Deaths Occurring in Hospitals: White	Number of Deaths Occurring in Hospitals: Black	Number of Deaths Occurring in Hospitals: Hispanic
<i>Charles County</i>	241	128	109	1

Deaths in Nursing Homes	Number of Deaths Occurring in Nursing Homes: All Races	Number of Deaths Occurring in Nursing Homes: White	Number of Deaths Occurring in Nursing Homes: Black	Number of Deaths Occurring in Nursing Homes: Hispanic
<i>Charles County</i>	136	71	60	2

Deaths in Hospices	Number of Deaths Occurring in Hospices: All Races	Number of Deaths Occurring in Hospices: White	Number of Deaths Occurring in Hospices: Black	Number of Deaths Occurring in Hospices: Hispanic
<i>Charles County</i>	124	76	42	2

Out of the 1,150 deaths to Charles County residents in 2018, 980 of those deaths occurred in Maryland (85%). In addition, 785 (68%) of the Charles County deaths occurred within Charles County.

Deaths in Institutions	Percent of All Deaths Occurring in Hospitals, Hospice, and Nursing Homes: All Races	Percent of All Deaths Occurring in Hospitals, hospice, and Nursing Homes: White	Percent of All Deaths Occurring in Hospitals, hospice, and Nursing Homes: Black	Percent of All Deaths Occurring in Hospitals, Hospice, and Nursing Homes: Hispanic
<i>Charles County</i>	43.5%	23.9%	18.3%	0.4%

Place of Death	All Deaths	Deaths within Maryland	Deaths within Charles County	Deaths within another Maryland county	Deaths with DC	Deaths in other states or countries
<i>Charles County</i>	1150	980	785	195	108	62

Infant Mortality:

In 2018, the Charles County infant mortality rate was lower than the Maryland state rate. When the Charles County infant mortality rates are compared by race, the rates appear to be higher in the African American population than the general county population.

2018 Data	Charles County Number	Charles County Rate	Maryland Number	Maryland Rate
Infant Mortality Rate (per 1000 live births)	10	5.4	432	6.1
Neonatal Mortality Rates (per 1,000 births)	7	3.7	296	4.2
Post neonatal Mortality Rates (per 1,000 births)	3	***	136	1.9
Fetal death rates (per 1,000 total deliveries: live births and fetal deaths)	6	3.2	503	7.0
Perinatal Mortality Rates (per 1,000 fetal deaths)	9	4.8	445	6.2

***Rates based on less than five events are not presented since such rates are not stable.

2018 Charles County Infant and Fetal Death Rates and Counts	Total	White	Black
Infant Mortality	10 (5.4)	2	8 (8.4)
Neonatal Mortality	7 (3.7)	1	6 (6.3)
Post neonatal Mortality	3	1	2
Fetal Mortality	6 (3.2)	1	4
Perinatal Mortality	9 (4.8)	1	7 (7.2)

Mortality Rates per 1,000 live births are presented in parentheses when available. Rates could not be calculated for cells with fewer than five deaths.

Infant Mortality Definitions:

Infant death: Death occurring to a person under one year of age.

Neonatal death: Death occurring to an infant under 28 days of age.

Post neonatal death: Death occurring to an infant between 28 days and one year of age.

Fetal death: Death before the complete expulsion or extraction from its mother of a product of human conception, irrespective of the duration of pregnancy.

Perinatal death: Death of a fetus of 28 or more weeks of gestation or of an infant less than 7 days of age.

Vital Statistics References:

1. 2018 Charles County Marriage, Divorce, Mortality and Infant Mortality Statistics. 2018 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.

Social Determinants of Health:

The social determinants of health are the conditions in which people are born, grow, live, work, and age. These circumstances are shaped by the distribution of money, power, and resources at global, national and local levels.

The places where we live, learn, work and play have a tremendous impact on our health. Receiving proper medical care and regular physicians' visits are essential for detecting and curing illness. Access to health care can only account for 10 to 15 percent of preventable deaths. Social factors such as housing, education, income, transportation, access to healthy affordable food, and employment greatly influence the health and quality of life in communities. These social factors, generally referred to as the social determinants of health, determine whether individuals have parks and playgrounds to exercise, full-service supermarkets to buy fresh and affordable fruits and vegetables, living-wage paying job opportunities to support their families, and other, necessary resources that allow them to thrive. As public health advocates, educators, and leaders, we must encourage people to make healthy choices, but must also remember that people can only make healthy choices if they have healthy options. ([Robert Wood Johnson Commission to Build a Healthier America](#))

Data on the social determinants of health was extracted for each Charles County ZIP code using the American Factfinder tool from the United States Census Bureau. Data is based on five-year average estimates from 2013-2017 American Community Surveys. Data is aggregated for a five-year period in order to increase the sample size and the validity of the statistics.

Disability:

Public health acknowledges that what defines individuals with disabilities, their abilities, and their health outcomes is directly related to their community, including their social and environmental circumstances. To be healthy, people of all abilities should have access to meaningful daily activities that add to their growth, development, fulfillment, and community contribution.

Some ZIP codes in Charles County are disproportionately affected by disabilities and may need additional individual and community supports in order to achieve health equity. The highest percentage of people with disabilities is 41.7% and is found in the ZIP code 20612 (Benedict). This is a very small, rural ZIP code that also has the highest median age of 65.9 years. This is not surprising since the prevalence of disabilities increases with age.

The lowest prevalence of disabilities was 4.8% in 20617, Bryantown, followed by 5.9% in the Waldorf ZIP code of 20603. This population has a much lower median age.

2013 - 2017 Percent of Population who are disabled	% of Total ZIP code Population who are disabled
20601, Waldorf	8.3%
20602, Waldorf	10.0%
20603, Waldorf	5.9%
20607, Accokeek	8.0%
20611, Bel Alton	12.9%
20612, Benedict	41.7%
20613, Brandywine	11.4%
20616, Bryans Road	6.5%
20617, Bryantown	4.8%
20622, Charlotte Hall	8.5%
20625, Cobb Island	6.2%
20632, Faulkner	17.1%
20637, Hughesville	7.9%
20640, Indian Head	9.1%
20645, Issue	9.6%
20646, La Plata	9.2%
20658, Marbury	11.4%
20659, Mechanicsville	10.9%
20662, Nanjemoy	10.5%
20664, Newburg	10.3%
20675, Pomfret	15.3%
20677, Port Tobacco	10.1%
20693, Welcome	9.0%
20695, White Plains	12.0%

Language:

Certain groups are at higher risk for having limited English language skills and low literacy, such as individuals who do not speak English at home and immigrants. Limited language skills and low literacy skills are associated with lower educational attainment and worse health outcomes. Having limited English proficiency in the United States can be a barrier to accessing health care services and understanding health information. For example, compared to older individuals who only speak English, older individuals with limited English proficiency are more likely to have no usual source of care, report lower self-rated health, and report feeling sad most or all of the time.

Language other than English spoken at home:

The highest percentages of individuals reporting that they speak a language other than English at home were in 20622, Charlotte Hall, and 20658, Marbury. Charlotte Hall is a large, rural ZIP code that straddles Charles and St. Mary's counties. This ZIP code is known for its large Amish community, who often speak the Pennsylvania German language. The other ZIP code, 20658, Marbury, is a very diverse, small, rural community on the western side of the county. This ZIP code has a large Hispanic population who comprise 8.8% of the total ZIP code population.

Conversely, those ZIP codes with no individuals reporting a language other than English being spoken at home are small, rural ZIP codes that are primarily composed of older Caucasians. These include 20612, Benedict, and 20617, Bryantown.

2013 - 2017 Language Other than English	% of Total ZIP code Population reporting a language other than English spoken at home
20601, Waldorf	8.7%
20602, Waldorf	9.1%
20603, Waldorf	9.6%
20607, Accokeek	9.6%
20611, Bel Alton	1.8%
20612, Benedict	0%
20613, Brandywine	8.1%
20616, Bryans Road	8.5%
20617, Bryantown	0%
20622, Charlotte Hall	10.3%
20625, Cobb Island	7.9%
20632, Faulkner	2.5%
20637, Hughesville	5.4%
20640, Indian Head	5.7%
20645, Issue	4.5%
20646, La Plata	7.9%
20658, Marbury	10.4%
20659, Mechanicsville	5.1%
20662, Nanjemoy	1.4%
20664, Newburg	4.0%
20675, Pomfret	5.3%
20677, Port Tobacco	3.1%
20693, Welcome	2.8%
20695, White Plains	4.9%

Foreign born:

It is not surprising that the largest prevalence of foreign born individuals reside in the northern part of the county in the Waldorf ZIP code of 20601 and in Accokeek, 20607. These ZIP codes are more diverse in race and ethnicity and are located closer to the District and Prince George's County.

Conversely, those ZIP codes with low foreign-born populations are small, rural ZIP codes that are primarily composed of older Caucasians. These include 20612, Benedict, 20645, Issue, and 20617, Bryantown.

2013-2017 Percent Foreign Born	% of Total ZIP code Population who are Foreign Born
20601, Waldorf	10.2%
20602, Waldorf	7.2%
20603, Waldorf	7.5%
20607, Accokeek	10.6%
20611, Bel Alton	0.9%
20612, Benedict	0%
20613, Brandywine	6.2%
20616, Bryans Road	5.5%
20617, Bryantown	0%
20622, Charlotte Hall	1.9%
20625, Cobb Island	7.6%
20632, Faulkner	0%
20637, Hughesville	6.2%
20640, Indian Head	5.1%
20645, Issue	0%
20646, La Plata	5.3%
20658, Marbury	2.5%
20659, Mechanicsville	2.5%
20662, Nanjemoy	0.8%
20664, Newburg	3.0%
20675, Pomfret	5.6%
20677, Port Tobacco	3.2%
20693, Welcome	3.8%
20695, White Plains	4.8%

Housing:

Housing quality refers to the physical condition of a person's home as well as the quality of the social and physical environment in which the home is located. Aspects of housing quality include air quality, home safety, space per individual, and the presence of mold, asbestos, or lead. Housing quality is affected by factors like a home's design and age. Poor-quality housing is associated with various negative health outcomes, including chronic disease and injury and poor mental health. The quality of a home's neighborhood is shaped in part by how well individual homes are maintained, and widespread residential deterioration in a neighborhood can negatively affect mental health.

Both home design and structure significantly influence housing quality and may affect mental and physical health. Steps, balconies, and windows are features of home design that may present a threat to safety, especially for individuals with physical disabilities. Breakable glass, low windowsills, and poorly constructed stairs may increase the risk of injury from a fall.

Lack of housing maintenance may lead to poor housing conditions inside the home (e.g., damaged appliances, exposed nails, or peeling paint) as well as poor housing conditions outside the home (e.g., damage to stairs and windows). These conditions may harm health by increasing exposure to hazards such as carbon monoxide, allergens, and lead in paint, pipes, and faucets. Carbon monoxide has been shown to cause heart damage, neurological impairment, and death. Likewise, even low levels of lead exposure can have serious effects on children's health and behavior.

Inadequate plumbing and lack of air conditioning in homes may also impact health. Corroded plumbing infrastructure (e.g., in Flint, Michigan) increases residents' exposure to lead and their risk of lead poisoning. Living in a home without air conditioning may increase the risk of vector-borne diseases, like dengue fever, if people leave unscreened windows open for ventilation.

Low-income families may be more likely to live in poor-quality housing that can damage health. These homes may be under-insulated, lack air conditioning, and cost more to heat, leaving homes either too hot or too cold, which has been linked to poorer health outcomes. For example, spending time in a cold home may raise blood pressure or even lead to a heart attack. In addition, residents of overcrowded homes may be at risk for poor mental health, food insecurity, and infectious diseases. Additionally, the homes of low-income families are more likely to have water leaks; these leaks are associated with mold growth, which has been shown to affect respiratory health and increase the likelihood of asthma, coughing, and wheezing.

Children and older adults with physical limitations may be especially susceptible to negative health outcomes when living in poor quality housing. Inadequately vented appliances in the home may result in increased exposure to carbon monoxide in utero, which may affect fetal development or even result in fetal death. Children's behaviors, such as hand-to-mouth activity, may increase their exposure to home pollutants. Older adults may experience serious injury from falls in the home, especially in homes with stairs, narrow doorways, or other obstacles.

Number of housing units available:

There are 76,304 housing units in Charles County. Just under half (41%) of those units are available in the Waldorf ZIP codes of 20601, 20602, and 20603.

There are also many small ZIP codes with low numbers of housing units such as 20632, Faulkner, with 125 housing units, 20612, Benedict, with 233 housing units, and 20632, Bryantown, with 306 housing units.

2013-2017 Housing Units	Number of housing units available
20601, Waldorf	9314
20602, Waldorf	10595
20603, Waldorf	11417
20607, Accokeek	3778
20611, Bel Alton	513
20612, Benedict	233
20613, Brandywine	5193
20616, Bryans Road	2328
20617, Bryantown	306
20622, Charlotte Hall	1742
20625, Cobb Island	447
20632, Faulkner	125
20637, Hughesville	1783
20640, Indian Head	4241
20645, Issue	392
20646, La Plata	7356
20658, Marbury	384
20659, Mechanicsville	8366
20662, Nanjemoy	1202
20664, Newburg	1562
20675, Pomfret	782
20677, Port Tobacco	895
20693, Welcome	418
20695, White Plains	2932

Household size:

The average household size in Charles County is 2.79 persons. The ZIP codes with the largest household sizes include 3.24 in Charlotte Hall, 3.11 in Bel Alton, and 3.10 in Port Tobacco. The ZIP codes with the smallest household sizes include 1.94 in Benedict and 2.44 in Bryantown. These are small ZIP codes with an older population. It is expected that they will have smaller households.

2013-2017 Average Household Size	Average Household Size (# of persons)
20601, Waldorf	2.93
20602, Waldorf	2.63
20603, Waldorf	2.83
20607, Accokeek	2.89
20611, Bel Alton	3.11
20612, Benedict	1.94
20613, Brandywine	3.01
20616, Bryans Road	2.85
20617, Bryantown	2.44
20622, Charlotte Hall	3.24
20625, Cobb Island	2.5
20632, Faulkner	3.05
20637, Hughesville	2.96
20640, Indian Head	2.72
20645, Issue	2.91
20646, La Plata	2.77
20658, Marbury	2.71
20659, Mechanicsville	3.05
20662, Nanjemoy	2.74
20664, Newburg	2.69
20675, Pomfret	2.53
20677, Port Tobacco	3.10
20693, Welcome	2.73
20695, White Plains	2.97

Home value:

The median home value in Charles County is \$294,000. There is much variation in median home values by ZIP code from \$220,700 in Indian Head to \$392,700 in Port Tobacco.

Charles County ZIP codes by Median Home Value Categories:

\$200,000-\$250,000: 20602, 20640

\$250,000-\$300,000: 20601, 20612, 20616, 20632, 20658, 20659, 20664

\$300,000-\$350,000: 20603, 20611, 20613, 20622, 20625, 20662, 20675, 20695

\$350,000-\$400,000: 20607, 20617, 20637, 20645, 20646, 20677, 20693

2013-2017 Median Home Value	Median Home Value (in dollars)
20601, Waldorf	\$275,500
20602, Waldorf	\$236,900
20603, Waldorf	\$303,800
20607, Accokeek	\$368,500
20611, Bel Alton	\$347,000
20612, Benedict	\$294,800
20613, Brandywine	\$349,800
20616, Bryans Road	\$263,100
20617, Bryantown	\$384,500
20622, Charlotte Hall	\$330,700
20625, Cobb Island	\$301,500
20632, Faulkner	\$268,500
20637, Hughesville	\$386,400
20640, Indian Head	\$220,700
20645, Issue	\$356,100
20646, La Plata	\$354,200
20658, Marbury	\$252,900
20659, Mechanicsville	\$296,700
20662, Nanjemoy	\$310,900
20664, Newburg	\$285,200
20675, Pomfret	\$317,600
20677, Port Tobacco	\$392,700
20693, Welcome	\$367,200
20695, White Plains	\$321,200

Home without indoor plumbing, phones, or kitchen facilities:

While the overwhelming majority of homes in Charles County have indoor plumbing, kitchen facilities, and phones, there are pockets where people live in homes without these facilities. For example, the ZIP code 20622, Charlotte Hall, has the highest percentage of homes without indoor plumbing (5.5%) and the highest percentage of homes without a phone (8.8%). It can be hypothesized that the Amish population living in that ZIP code accounts for the high percentage of homes without these modern conveniences.

The ZIP code, 20662, Nanjemoy, also had a high percentage of homes without phones (5.2%) and a high percentage of homes without kitchen facilities (1.4%).

2013-2017 5 Year Estimates, Census	Homes Without Indoor Plumbing	Homes Without Kitchen Facilities	Homes Without Phone
20601, Waldorf	1.0%	0.2%	0.8%
20602, Waldorf	0.2%	1.5%	1.8%
20603, Waldorf	0%	0%	1.0%
20607, Accokeek	0.1%	0.3%	0.5%
20611, Belt Alton	0%	0%	0%
20612, Benedict	0%	0%	0%
20613, Brandywine	1.2%	1.0%	4.4%
20616, Bryans Road	0%	0%	2.0%
20617, Bryantown	0%	0%	0%
20622, Charlotte Hall	5.5%	0%	8.8%
20625, Cobb Island	0%	0%	0%
20632, Faulkner	0%	0%	0%
20637, Hughesville	0%	0%	0.4%
20640, Indian Head	0.1%	0.1%	1.2%
20645, Issue	0%	0%	0%
20646, La Plata	0%	0.4%	0.8%
20658, Marbury	0%	0%	0%
20659, Mechanicsville	0.7%	0.3%	3.0%
20662, Nanjemoy	0.9%	1.4%	5.2%
20664, Newburg	0%	0%	3.4%
20675, Pomfret	0%	0%	0%
20677, Port Tobacco	0%	0%	0%
20693, Welcome	0%	0%	0%
20695, White Plains	0%	0%	0.6%

Income:

Public health has long recognized the link between poor health and poverty. Science consistently shows that low incomes are a significant risk factor in disease incidence and severity as well as life expectancy.

A study published in April 2016 in the Journal of the American Medical Association examined more than 1 billion U.S. tax records from 1999 through 2014. They found that higher income was linked with longer life, with differences in life expectancy across income groups increasing over time.

In particular, the study found that the gap in life expectancy between the richest 1% and poorest 1% was more than 14 years for men and more than a decade for women. Inequality in life expectancy increased as well, with men and women in the top 5% of income distribution gaining about three years of life expectancy, while those in the bottom 5% gained virtually no additional years of life.

Median Income:

Employment and economic indicators for the county are fairly strong. The median household income in Charles County is \$93,973. However, there is significant variation when examining this data by ZIP code. The median household incomes among Charles County ZIP codes range from \$45,776 in 20601, Waldorf, to \$130,313 in 20693, Welcome. Other ZIP codes with a lower median household income include Bryantown, 20617, Indian Head 20640, and Faulkner, 20632.

2013-2017 Median Household Income	Median Household Income in Past 12 Months (in dollars)
20601, Waldorf	\$45,776
20602, Waldorf	\$87,546
20603, Waldorf	\$108,384
20607, Accokeek	\$121,524
20611, Bel Alton	\$91,071
20612, Benedict	Too few cases to compute estimate
20613, Brandywine	\$111,931
20616, Bryans Road	\$88,384
20617, Bryantown	\$69,100
20622, Charlotte Hall	\$91,458
20625, Cobb Island	Too few cases to compute estimate
20632, Faulkner	\$64,946
20637, Hughesville	\$124,806
20640, Indian Head	\$65,940
20645, Issue	\$122,083
20646, La Plata	\$98,737
20658, Marbury	\$70,000
20659, Mechanicsville	\$96,093
20662, Nanjemoy	\$75,638
20664, Newburg	\$79,375
20675, Pomfret	\$79,808
20677, Port Tobacco	\$109,125
20693, Welcome	\$130,313
20695, White Plains	\$101,310

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20637, Hughesville	\$124,806
20640, Indian Head	\$65,940
20645, Issue	\$122,083
20646, La Plata	\$98,737
20658, Marbury	\$70,000
20659, Mechanicsville	\$96,093
20662, Nanjemoy	\$75,638
20664, Newburg	\$79,375
20675, Pomfret	\$79,808
20677, Port Tobacco	\$109,125
20693, Welcome	\$130,313
20695, White Plains	\$101,310

Adult and Child Poverty:

The highest rates of childhood poverty in Charles County were located in two ZIP codes in the western side of the county: 20664, Newburg, at 24.2% of the population and 20640, Indian Head, at 14.1% of the population.

The highest rate of adult poverty in Charles County were located in the ZIP codes, 20675, Pomfret, at 13.3% and 20658, Marbury, at 10.6%. Adult poverty was also high in Nanjemoy (10.5%) and Newburg (10.1%).

Another indicator for assessing income is to examine the percentage of people who are spending greater than 35% of their income on gross rent. Gross rent is the contract rent plus the estimated average monthly cost of utilities (electricity, gas, and water and sewer) and fuels (oil, coal, kerosene, wood, etc.) if these are paid by the renter (or paid for the renter by someone else). Gross rent eliminates the differences resulting from a variety of practices associated with utilities and fuels as part of the rental payment. The estimated costs of water, sewer and fuels are reported on a 12-month basis but are converted to monthly figures for the tabulations. The median gross rent in Charles County is \$1618. This is above the national average gross rent of \$982.

When examining the percentage who are spending 35% of greater of their income on gross rent, the ZIP codes with the highest percentages were 20645 Issue (81.1%), 20607 Accokeek (83.3%), and 20637 Hughesville (67.0%). These ZIP codes are located in different parts of the county; however, they have high median household incomes and high home values as stated above.

2013-2017 Poverty levels	Child Poverty (% of total population)	Adult Poverty (% of total population)
20601, Waldorf	8.1%	5.3%
20602, Waldorf	12.1%	9.2%
20603, Waldorf	5.9%	3.4%
20607, Accokeek	5.1%	2.5%
20611, Bel Alton	5.1%	10.1%
20612, Benedict	Too few cases to compute estimate	8.8%
20613, Brandywine	6.6%	4.9%
20616, Bryans Road	10.1%	6.6%
20617, Bryantown	9.0%	7.3%
20622, Charlotte Hall	11.5%	7.4%
20625, Cobb Island	6.3%	9.0%
20632, Faulkner	0%	0%
20637, Hughesville	7.4%	5.7%
20640, Indian Head	14.1%	7.8%
20645, Issue	0%	1.7%
20646, La Plata	7.0%	4.2%
20658, Marbury	11.2%	10.6%
20659, Mechanicsville	8.3%	5.8%
20662, Nanjemoy	5.8%	10.5%
20664, Newburg	24.2%	10.1%
20675, Pomfret	2.1%	13.3%
20677, Port Tobacco	5.2%	6.7%
20693, Welcome	12.1%	2.4%
20695, White Plains	10.0%	3.9%

2013-2017 Gross Rent as Percent of Income	35% or more (in percent)
20601, Waldorf	42.1%
20602, Waldorf	37.80%
20603, Waldorf	49.5%
20607, Accokeek	83.3%
20611, Bel Alton	26.7%
20612, Benedict	0%
20613, Brandywine	38.0%
20616, Bryans Road	29.3%
20617, Bryantown	Too few samples to compute estimate
20622, Charlotte Hall	36.2%
20625, Cobb Island	50%
20632, Faulkner	0%
20637, Hughesville	67.0%
20640, Indian Head	57.8%
20645, Issue	81.1%
20646, La Plata	40.3%
20658, Marbury	33.0%
20659, Mechanicsville	46.4%
20662, Nanjemoy	26.8%
20664, Newburg	33.9%
20675, Pomfret	0%
20677, Port Tobacco	61.8%
20693, Welcome	18.0%
20695, White Plains	49.5%

Health Insurance Coverage:

One of the key components of access to health care is the availability of health insurance coverage. According to the 2018 Charles County Community Health Needs Assessment Report, cost is the number one reason why individuals in the county do not get the care that they need.

The ZIP codes with the highest uninsured rates include 20612, Benedict, and 20622, Charlotte Hall. The large Amish community would account for the high rate in Charlotte Hall. Those individuals tend to be self-pay and seek medical services only in emergencies.

Two ZIP codes were fully insured for health care: 20617, Bryantown, and 20632, Faulkner. This may be due to the small size of those ZIP codes. There was a limited sample size for those ZIP codes so the data may not be reliable.

2013-2017 Health Insurance	Health Insurance	Uninsured
20601, Waldorf	95.3%	4.7%
20602, Waldorf	96.9%	3.1%
20603, Waldorf	96.4%	3.6%
20607, Accokeek	95.6%	4.4%
20611, Bel Alton	93.4%	6.6%
20612, Benedict	87.7%	12.3%
20613, Brandywine	94.1%	5.9%
20616, Bryans Road	93.8%	6.2%
20617, Bryantown	100%	0%
20622, Charlotte Hall	86.7%	13.3%
20625, Cobb Island	97.0%	3.0%
20632, Faulkner	100%	0%
20637, Hughesville	96.1%	3.9%
20640, Indian Head	94.8%	5.2%
20645, Issue	98.5%	1.5%
20646, La Plata	95.6%	4.4%
20658, Marbury	97.0%	3.0%
20659, Mechanicsville	93.5%	6.5%
20662, Nanjemoy	97.6%	2.4%
20664, Newburg	94.8%	5.2%
20675, Pomfret	92.6%	7.4%
20677, Port Tobacco	96.3%	3.7%
20693, Welcome	98.9%	1.1%
20695, White Plains	97.5%	2.5%

Internet Access:

In the digital age, many forms of health information and education have moved online. Those with access to a computer and the internet can participate in online health education or telehealth services.

The highest rates of computer access are in Waldorf and Accokeek where the majority of the county population resides. This is a very suburban region of the county. The lowest rates of computer access are in Benedict, 20612, and Cobb Island, 20625. Benedict is a rural area in the eastern part of the county. Cobb Island is a rural area in the southwestern region of the county.

Access to broadband internet is lowest in rural ZIP codes of 20612, Benedict, 20625, Cobb Island, 20632, Faulkner, and 20662, Nanjemoy. The rates of broadband internet are highest in the suburban ZIP codes of 20603, Waldorf, and 20607, Accokeek.

2013-2017 Internet and Computer Access	Computer Access	Broadband Internet
20601, Waldorf	93.4%	89.2%
20602, Waldorf	89.3%	84.6%
20603, Waldorf	96.2%	96.20%
20607, Accokeek	97.6%	94.4%
20611, Bel Alton	81.0%	68.4%
20612, Benedict	44.2%	37.8%
20613, Brandywine	90.6%	82.30%
20616, Bryans Road	90.4%	80.1%
20617, Bryantown	77.5%	71.2%
20622, Charlotte Hall	83.9%	77.0%
20625, Cobb Island	56.7%	56.7%
20632, Faulkner	76.0%	52.0%
20637, Hughesville	89.3%	84.2%
20640, Indian Head	86.1%	77.2%
20645, Issue	92.7%	89.2%
20646, La Plata	88.7%	83.2%
20658, Marbury	78.4%	72.50%
20659, Mechanicsville	90.3%	82.0%
20662, Nanjemoy	71.8%	60.8%
20664, Newburg	78.9%	69.6%
20675, Pomfret	87.6%	84.6%
20677, Port Tobacco	87.3%	80.0%
20693, Welcome	92.40%	86.7%
20695, White Plains	93.4%	88.5%

Education:

“Education is the single most important modifiable social determinant of health,” said Anthony Iton, MD, JD, MPH, senior vice president for healthy communities at The California Endowment. “Income and education are the two big ones that correlate most strongly with life expectancy and most health status measures.”

Education is not just about what is learned in the classroom; it is also about the doors it unlocks to future well-being. U.S. women who were aged 25 years in 2005 who never finished high school could expect to live another 52 years, compared to another 57.3 years for women who completed high school, according to a 2010 National Center for Health Statistics report. Men who never finished high school could expect to live another 46.2 years, compared with 51.5 for those with high school diplomas.

Because of the relationship between education and health, Healthy People 2020 set goals related to education access. One of those goals, boosting the number of kids who graduate in four years as of ninth grade, is a Leading Health Indicator, meaning it is a priority for U.S. health under Healthy People 2020. Seventy-nine percent of public school students completed high school in four years as of the 2010-2011 school year. The goal is to increase that to 87% by 2020.

The building blocks of good health have their foundation in social and emotional skills learned during early childhood. “Early childhood programs such as preschool use games and social interactions to expose children to the concepts of problem solving and thinking ahead, which forces them to think about the consequences of their actions,” said W. Steven Barnett, PhD, director of the National Institute for Early Education Research at Rutgers University. “That is a practice carried into adulthood that may lead to better decision making about situations that could impact health.”

Charles County has a larger percentage of high school graduates than Maryland (92.7% vs. 89.8%); however, Charles County has a smaller percentage than Maryland of individuals with a bachelor’s degree or higher (28.5% vs. 39.0%).

The ZIP codes with the greatest percentages of residents with a high school diploma or higher include 20645, Issue, and 20658, Marbury. The ZIP codes with the lowest percentages of residents with a high school diploma or higher include 20622, Charlotte Hall, and 20662, Nanjemoy. Nanjemoy is a rural region of the county that is geographically isolated. It also has a low percentage of people with a bachelor’s degree or higher (10.8%).

The ZIP codes with the greatest percentages of residents with a bachelor’s degree or higher include 20607, Accokeek, 20617, Bryantown, and 20645, Issue. The ZIP codes with the lowest percentages with a bachelor’s degree or higher include 20625, Cobb Island, 20632, Faulkner, and 20662, Nanjemoy. All of the low ZIP codes are in rural regions of the county.

2013-2017 Education	High School Diploma or Higher	Bachelor's Degree or Higher
20601, Waldorf	93.0%	25.9%
20602, Waldorf	91.9%	24.8%
20603, Waldorf	94.5%	38.5%
20607, Accokeek	94.8%	44.0%
20611, Bel Alton	86.2%	17.8%
20612, Benedict	87.0%	26.5%
20613, Brandywine	93.8%	30.3%
20616, Bryans Road	93.5%	28.9%
20617, Bryantown	98.2%	42.4%
20622, Charlotte Hall	85.2%	17.6%
20625, Cobb Island	92.1%	10.3%
20632, Faulkner	94.9%	5.9%
20637, Hughesville	93.7%	29.5%
20640, Indian Head	91.6%	22.6%
20645, Issue	98.1%	41.2%
20646, La Plata	92.2%	30.5%
20658, Marbury	98.5%	15.0%
20659, Mechanicsville	90.5%	21.6%
20662, Nanjemoy	80.3%	10.8%
20664, Newburg	90.4%	14.6%
20675, Pomfret	87.0%	17.9%
20677, Port Tobacco	92.8%	35.8%
20693, Welcome	94.6%	31.2%
20695, White Plains	95.6%	30.4%

Transportation:

Access to affordable, convenient transportation plays a crucial role in health. The cost and time required for daily travel between home, work, school, day care, and groceries greatly impacts the quality of life for us all. Those who can afford it live where getting around is easier. Those who cannot afford it face long commutes, crowded buses, and often miss out on life-improving opportunities that they simply cannot get to on a reliable basis. A robust, affordable, and reliable transit system means better access to education and jobs, recreational and after-school activities, healthier food options, health care facilities, as well as friends and family.

In Charles County, most households have access to at least one vehicle. Most ZIP codes in Charles County have a no-vehicle rate of less than 5%. There are a few outliers such as 20612, Benedict, that has a no-vehicle rate of 29% and Charlotte Hall at 7.7%. Charlotte Hall may be explained by the presence of the Amish population who use carriages and bicycles as their primary means of transportation.

As stated previously, the sample size for the ZIP code 20612, Benedict, is very small, so caution should be taken before making any conclusions regarding the data. Even one change in response can skew the percentage in a small community.

2013-2017 Transportation	No Vehicle
20601, Waldorf	0.3%
20602, Waldorf	1.2%
20603, Waldorf	1.7%
20607, Accokeek	1.4%
20611, Bel Alton	0%
20612, Benedict	29.0%
20613, Brandywine	2.5%
20616, Bryans Road	3.9%
20617, Bryantown	0%
20622, Charlotte Hall	7.7%
20625, Cobb Island	0
20632, Faulkner	0%
20637, Hughesville	6.1%
20640, Indian Head	4.8%
20645, Issue	2.5%
20646, La Plata	3.0%
20658, Marbury	3.1%
20659, Mechanicsville	4.5%
20662, Nanjemoy	5.3%
20664, Newburg	1.8%
20675, Pomfret	2.2%
20677, Port Tobacco	4.1%
20693, Welcome	0%
20695, White Plains	0.8%

Mean time to work:

The mean travel time to work in Charles County is 43.9 minutes. This is longer than the state average of 32.7 minutes. Those in 20645, Issue, and 20693, Welcome, have the longest mean travel times to work. Those living in La Plata and Pomfret experience the smallest mean travel times to work. La Plata is the county seat of the county and runs along the main U.S. 301 corridor where the majority of commerce is located in the county.

2013-2017 Transportation	Mean Travel Time to Work (in minutes)
20601, Waldorf	41.8
20602, Waldorf	44.7
20603, Waldorf	45.9
20607, Accokeek	41.2
20611, Bel Alton	38.1
20612, Benedict	Number of cases are too small to compute
20613, Brandywine	44.7
20616, Bryans Road	46.7
20617, Bryantown	48.1
20622, Charlotte Hall	45.2
20625, Cobb Island	47.3
20632, Faulkner	41.1
20637, Hughesville	45.2
20640, Indian Head	44.0
20645, Issue	55.6
20646, La Plata	37.8
20658, Marbury	41.3
20659, Mechanicsville	41.1
20662, Nanjemoy	45.5
20664, Newburg	45.1
20675, Pomfret	35.9
20677, Port Tobacco	42.8
20693, Welcome	51.2
20695, White Plains	48.4

Employment:

Every day, many Americans are either working or looking for work. Multiple aspects of employment—including job security, the work environment, financial compensation, and job demands—may affect health.

Job benefits such as health insurance, paid sick leave, and parental leave can affect the health of employed individuals. Two key functions of health insurance are access to affordable medical care and financial protection from unexpected health care costs. Paid sick leave, another benefit offered by some employers, allows employees to seek medical care for themselves or dependent family members without losing wages. In addition, some employers offer maternity leave after the birth of a child; this leave is frequently unpaid. Maternity leave has been associated with a number of positive health outcomes for both women and children.

Unemployment can also have negative health consequences. Those who are unemployed report feelings of depression, anxiety, low self-esteem, demoralization, worry, and physical pain. Unemployed individuals tend to suffer more from stress-related illnesses such as high blood pressure, stroke, heart attack, heart disease, and arthritis. In addition, experiences such as perceived job insecurity, downsizing or workplace closure, and underemployment also have implications for physical and mental health.

The highest rates of unemployment in Charles County were in the ZIP codes 20617, Bryantown, at 8.3% and 20658, Marbury, at 12.7%. Marbury is a rural ZIP code in the western region of the county. Bryantown is located in the southeastern region of the county. The lowest unemployment rates were in the ZIP codes of 20612, Benedict (0%) and 20611, Bel Alton (1.8%). Both are small ZIP codes. With small sample sizes in large community surveys, they may be misrepresented. Caution should be taken before making any conclusions or assumptions on the data.

2013-2017 Unemployment	Unemployment Rate
20601, Waldorf	3.7%
20602, Waldorf	5.8%
20603, Waldorf	3.4%
20607, Accokeek	5.7%
20611, Bel Alton	1.8%
20612, Benedict	0%
20613, Brandywine	5.4%
20616, Bryans Road	2.4%
20617, Bryantown	8.3%
20622, Charlotte Hall	3.0%
20625, Cobb Island	3.2
20632, Faulkner	7.6%
20637, Hughesville	4.1%
20640, Indian Head	7.1%
20645, Issue	5.8%
20646, La Plata	4.5%
20658, Marbury	12.7%
20659, Mechanicsville	2.7%
20662, Nanjemoy	8.4%
20664, Newburg	2.4%
20675, Pomfret	8.0%
20677, Port Tobacco	4.3%
20693, Welcome	3.1%
20695, White Plains	5.0%

Social Determinants of Health References:

1. Social Determinants of Health ZIP code level data on Employment, Education, Income, Transportation, Computer Access, Disability, Health Insurance, Poverty, Housing, Language. 2013-2017 average and 2017 American Community Survey. United States Census Bureau. American FactFinder. Available at www.census.gov.

Qualitative Data Pertaining to Social Determinants of Health:

On the long survey, 53.7% of the respondents felt that transportation is a problem in Charles County. 23.7% felt that transportation is a serious problem.

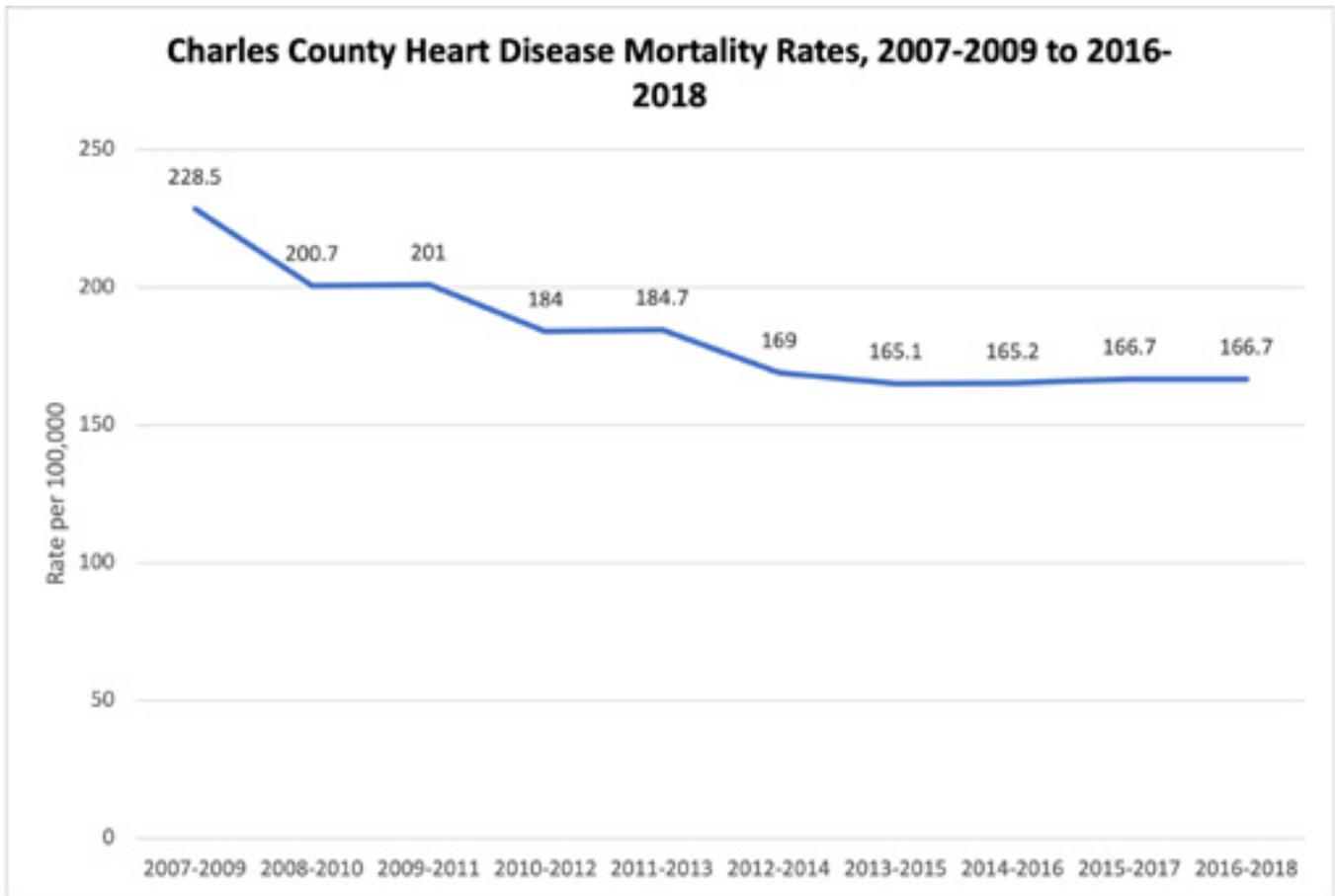
The Burden of Heart Disease, Stroke, and Their Risk Factors:

Heart Disease:

Mortality:

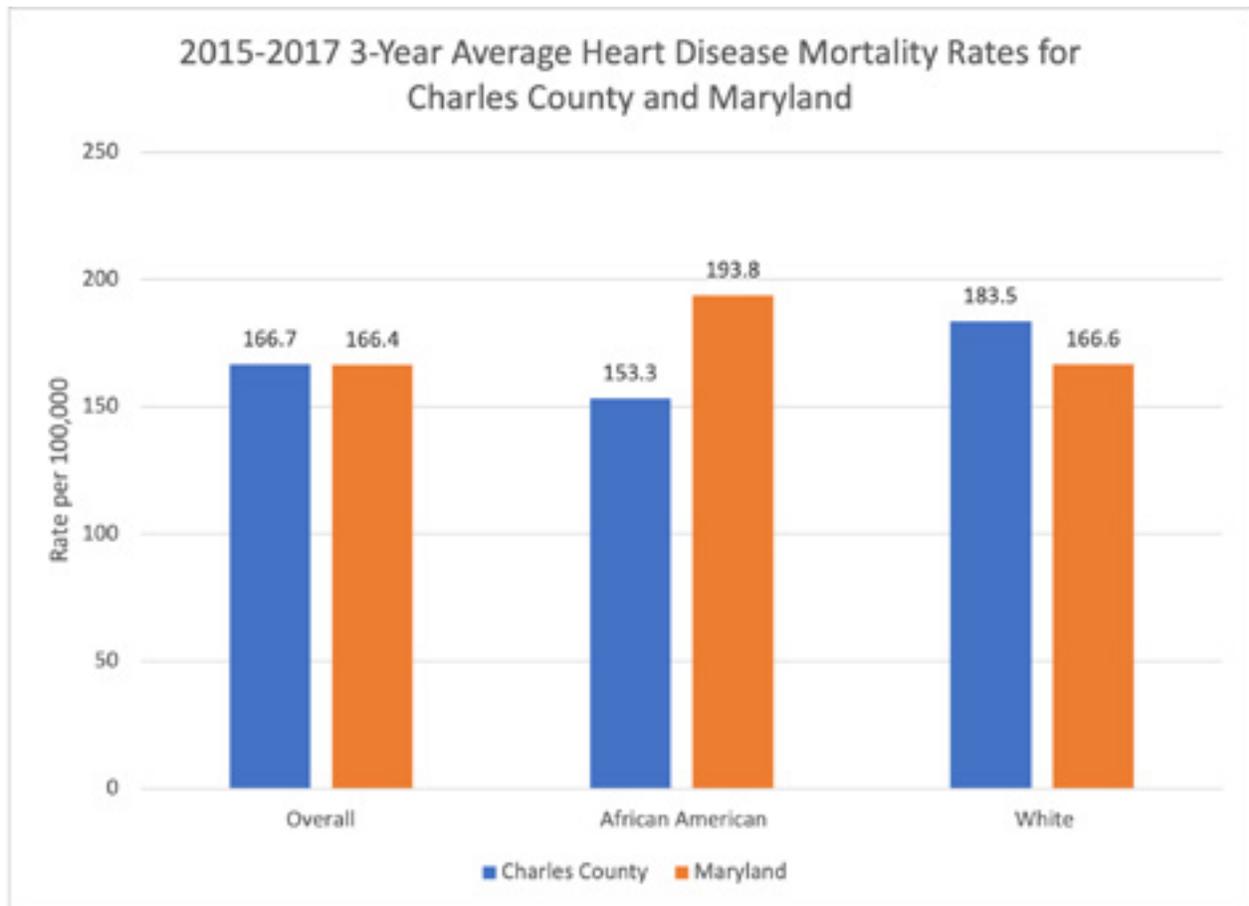
Heart disease is the second leading cause of death in Charles County. In 2018, a total of 332 Charles County residents died from major cardiovascular diseases and 256 of those deaths were from heart disease (77%). This constitutes a 2018 Charles County crude heart disease death rate of 158.5 per 100,000. Deaths due to heart disease made up 22.2% of the total Charles County deaths in 2018.

The 2016-2018 (three-year average) Charles County age-adjusted heart disease death rate was 166.7 per 100,000. This was the highest rate for any cause of death in Charles County. The Charles County heart disease death rate is slightly below the Maryland state average rate of 163.8 per 100,000. However, this difference is not statistically significant. The Charles County heart disease mortality is the 7th lowest among the Maryland jurisdictions. The 2016-2018 Charles County heart disease mortality rate is a small increase from the 2014-2016 Charles County heart disease mortality rate of 166.7 per 100,000.



Racial disparities exist on a county level for heart disease mortality. Charles County Whites have a higher heart disease mortality rate than Charles County African Americans (183.5 vs. 153.3). Due to small case counts, heart disease mortality rates cannot be calculated on a county level for Hispanics and Asians.

The heart disease mortality rate for Charles County African Americans of 153.3 per 100,000 was well below the Maryland African American rate of 193.8 per 100,000. The heart disease mortality rate for Charles County Whites of 183.5 per 100,000 was, however, above the Maryland White rate of 166.6 per 100,000.



Prevalence:

Estimates on the prevalence of coronary heart disease and angina in Charles County can be calculated using the Maryland Behavioral Risk Factor Surveillance System or BRFSS. The BRFSS also provides estimates on the number of Charles County residents who have suffered a heart attack. 2019 BRFSS data is available with age-adjusted and weighted responses for the Charles County population.

Heart Attack Prevalence:

2019 Charles County BRFSS participants were asked if they have ever had a heart attack. Once weighted, it is estimated that 4.2% of Charles County residents have ever suffered a heart attack. This is above the 3.1% reported for Maryland.

Ever had a heart attack:	<i>weighted percentage</i>
<i>Charles County</i>	4.2%
<i>Maryland</i>	3.1%

Angina and Coronary Heart Disease Prevalence:

When asked if a doctor or health professional has ever told them that they have angina or coronary heart disease, 3.9% of Charles County residents reported having angina or coronary heart disease. This is above the 2.6% reported for Maryland.

Ever have angina or coronary heart disease:	<i>weighted percentage</i>
<i>Charles County</i>	3.9%
<i>Maryland</i>	2.6%

Doctor Diagnosed Heart Disease:

When asked if a doctor or health professional has ever told them that they have heart disease (angina, coronary heart disease, and/or heart attack), 5.4% of Charles County reported having heart disease. This is above the 4.5% reported for Maryland.

Ever have heart disease:	<i>weighted percentage</i>
<i>Charles County</i>	5.4%
<i>Maryland</i>	4.5%

Doctor Diagnosed Cardiovascular Disease:

When asked if a doctor or health professional has ever told them that they have cardiovascular disease (angina, coronary heart disease, stroke, and/or heart attack), 7.5% of Charles County reported having cardiovascular disease. This is above the 6.4% reported for Maryland.

Ever have cardiovascular disease:	<i>weighted percentage</i>
<i>Charles County</i>	7.5%
<i>Maryland</i>	6.4%

Stroke:

Mortality:

Stroke, or cerebrovascular disease, is the 6th leading cause of death in Charles County. In 2018, a total of 45 Charles County residents died from a stroke. This constitutes a 2018 Charles County crude stroke death rate of 27.9 per 100,000. Deaths due to stroke made up 3.9% of the total Charles County deaths in 2016.

The 2016-2018 (three-year average) Charles County age-adjusted stroke death rate was 31.2 per 100,000. This was the 5th highest rate among causes of death in Charles County. The Charles County stroke death rate is below the Maryland state average rate of 40.1 per 100,000.

Atherosclerosis is the build-up of cholesterol plaque in the walls of arteries causing obstruction of blood flow. Plaques may rupture causing acute occlusion of the artery by clot. In 2018, there were a total of 12 deaths in Charles County due to atherosclerosis.

Prevalence:

Estimates on the prevalence of stroke in Charles County can be calculated using the Maryland Behavioral Risk Factor Surveillance System or BRFSS. 2019 BRFSS age-adjusted and weighted estimates were used for this analysis.

2019 Charles County BRFSS participants were asked if they have ever had a stroke. It is estimated that 3.1% of Charles County residents have ever suffered a stroke. This is higher than the 2.8% reported for Maryland for the same time period. The Charles County stroke prevalence of 3.1% is down from 4.6% reported in 2014.

Ever had a stroke:	<i>weighted percentage</i>
<i>Charles County</i>	3.1%
<i>Maryland</i>	2.8%

Hypertension or High Blood Pressure:

Mortality:

Hypertension, or high blood pressure, is the 10th leading cause of death in Charles County. In 2018, a total of 16 Charles County residents died from essential hypertension or hypertensive renal disease. Hypertension deaths make up 1.3% of the total deaths in Charles County (2016).

Prevalence:

Maryland 2019 BRFSS data was used to determine Charles County’s hypertension prevalence estimates. All percentage estimates are weighted to reflect the county population.

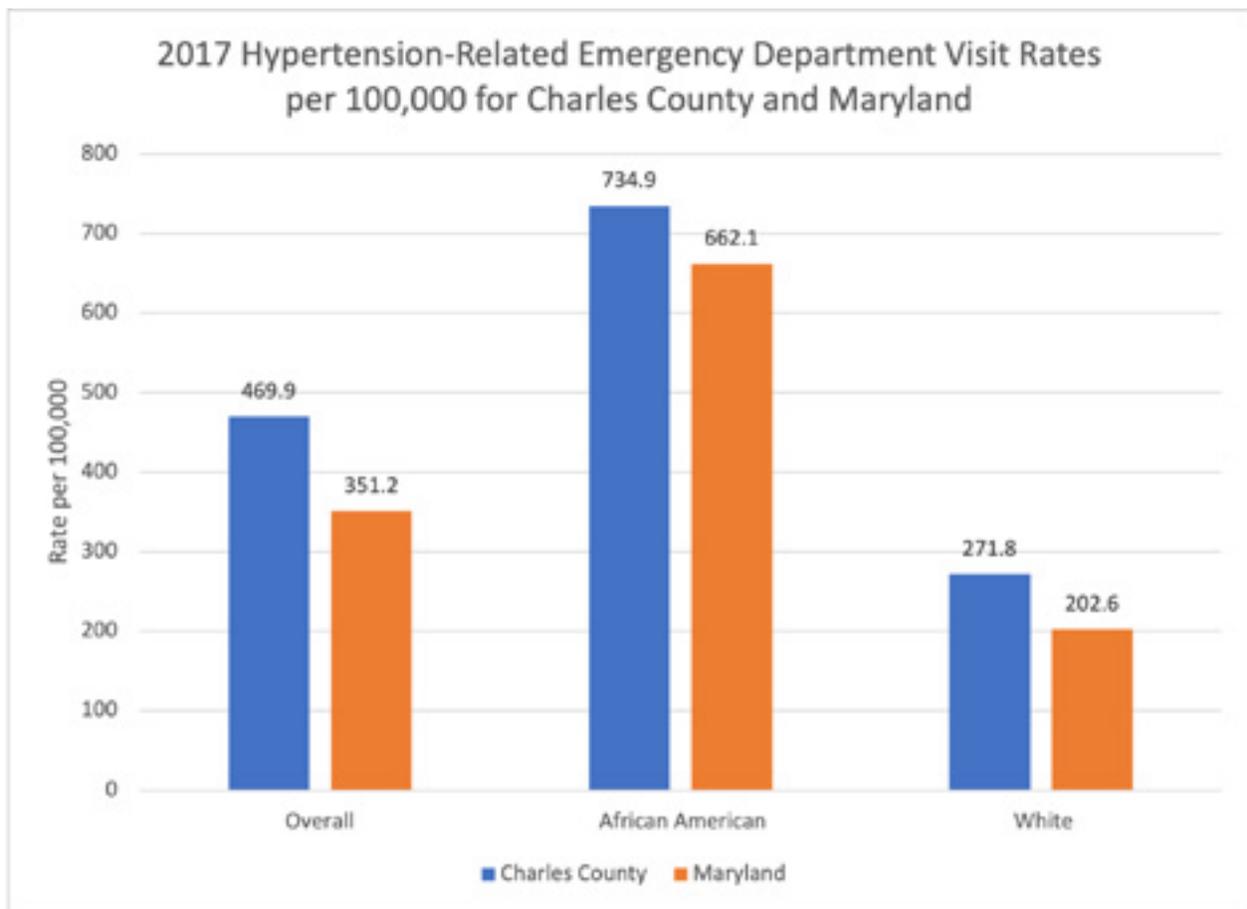
The 2019 BRFSS asked participants if they have ever been told by a health professional that they have high blood pressure. 36.1% of Charles County residents reported that they have been told by a health professional that they have high blood pressure. This is higher than the Maryland percentage of 32.2%.

Among those who reported that they have hypertension, 65.3% reported that they are currently taking medication to control their high blood pressure. This percentage is higher than the Maryland state average percentage of 61.7%.

Emergency Department Visit Rates for Hypertension:

The 2017 Charles County Emergency Department (ED) Visit Rate for Hypertension was 469.9 per 100,000 population. This rate was higher than the Maryland ED hypertension visit rate of 351.2. It was also an increase from the 2014 Charles County Hypertension ED visit rate of 347.7 per 100,000 population reported in the last needs assessment report. Charles County has seen an increase in the hypertension ED visit rate each year starting from a rate of 201.4 per 100,000 in 2008 to 469.9 per 100,000 in 2017.

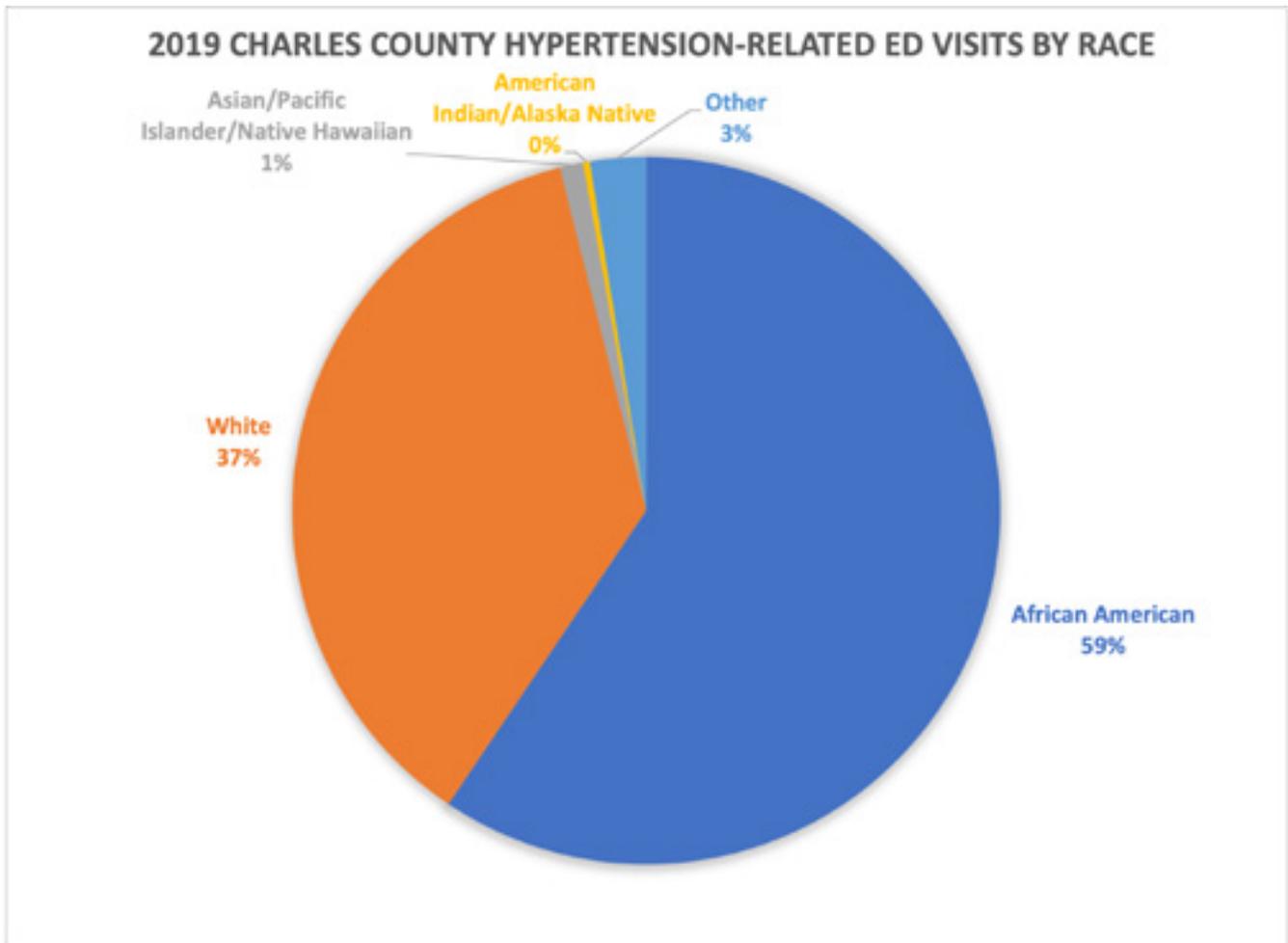
There are racial disparities in the hypertension ED visit rate in Charles County. Charles County African Americans had a hypertension ED visit rate of 734.9 per 100,000 compared to 271.8 per 100,000 for Charles County Whites.



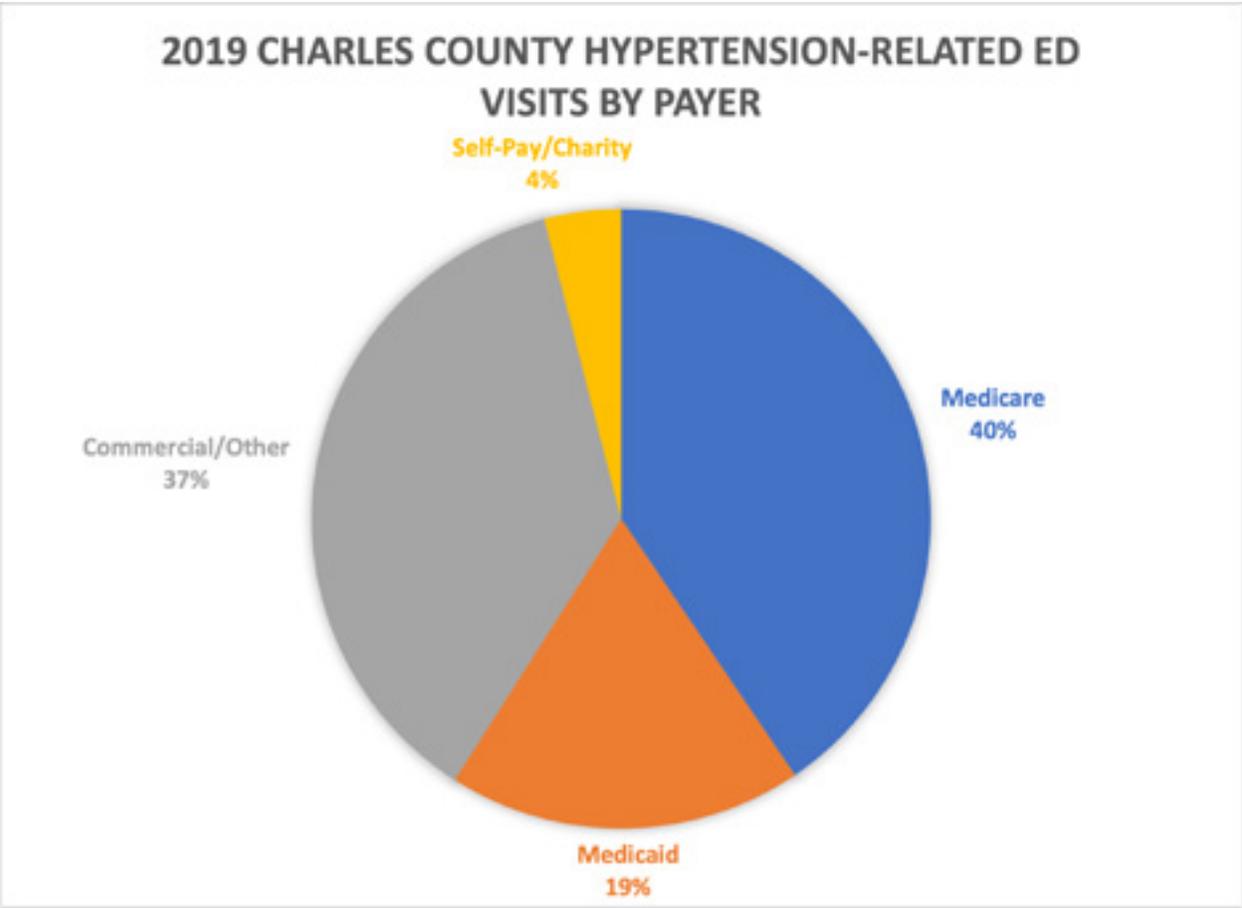
The Chesapeake Regional Information Sharing for our Patients (CRISP), is the health information exchange for the state of Maryland. CRISP Reporting Services provides public health dashboards with queries for emergency department and inpatient stays by demographics for many health conditions, including hypertension.

In 2019, there were 8,924 emergency department (ED) visits for Charles County residents related to hypertension. 77% of those ED visits were at the University of Maryland Charles Regional Medical Center. The next highest facility was MedStar Southern Maryland Hospital with 7% of the ED visits. In Charles County, females have more hypertension-related ED visits than males (5,078 vs. 3,846).

Charles County African Americans are disproportionately affected by hypertension-related ED visits and make up 59% of the total hypertension-related ED visits for Charles County residents.



When examining my payer source, the largest payer is Medicare followed by Commercial/Other insurance.

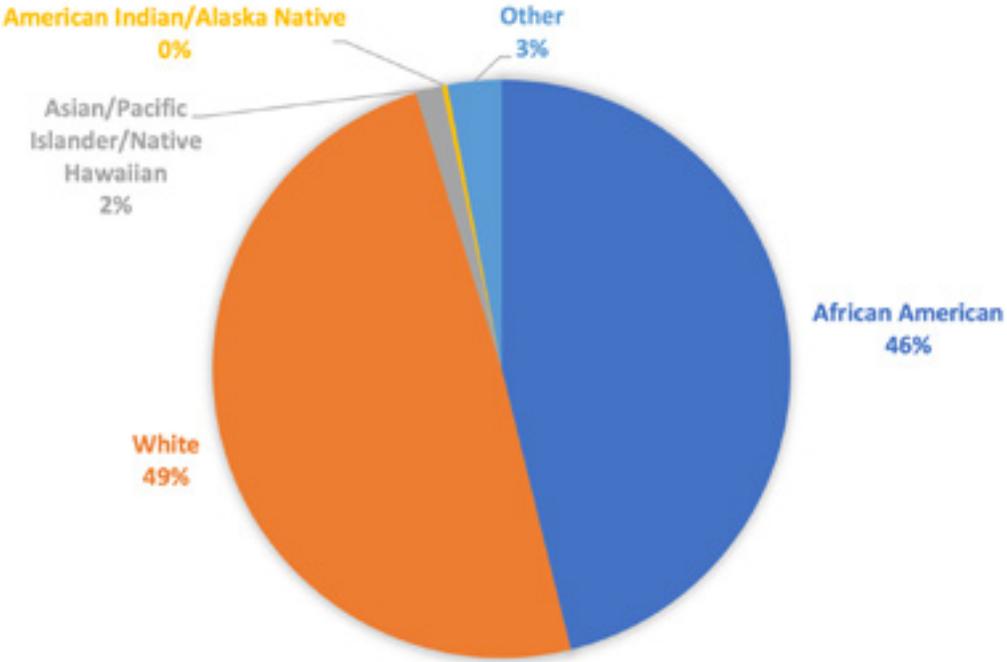


The age group with the largest number of hypertension-related ED visits is the 55-59-year-old age group who had 1,192 visits in 2019. They are followed closely by those aged 60-64 years and those aged 50-54 years.

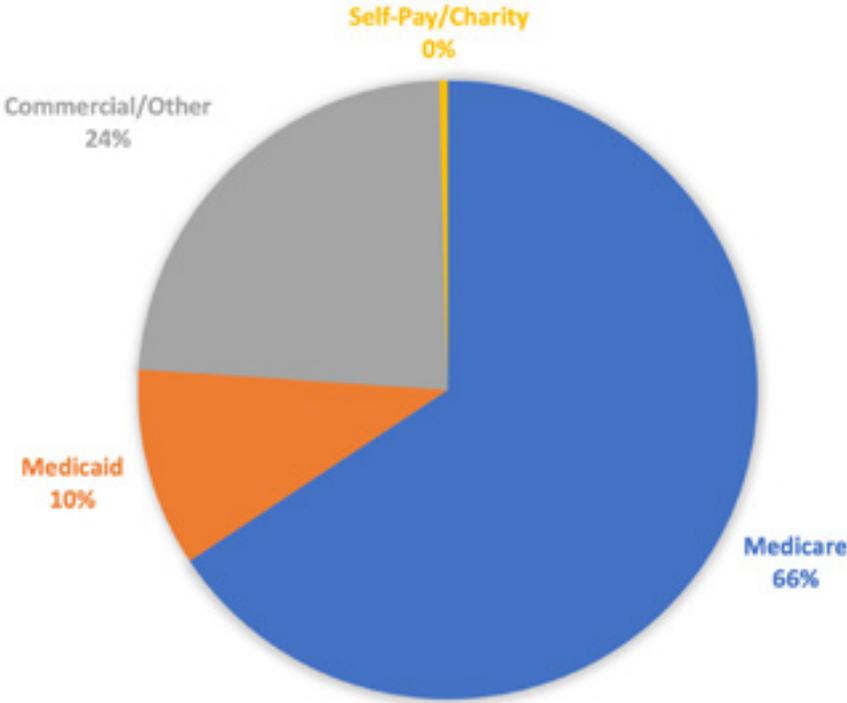
2019 Charles County Hypertension-Related ED Visits by Age Group	Count
0-4 years	<11
5-9 years	<11
10-14 years	<11
15-17 years	<11
18-24 years	62
25-29 years	172
30-34 years	273
35-39 years	448
40-44 years	575
45-49 years	782
50-54 years	1055
55-59 years	1192
60-64 years	1091
65-69 years	819
70-74 years	777
75-79 years	707
80-84 years	498
85+ years	524

The same data source can be used to examine hypertension-related Inpatient visits for Charles County for 2019. Females have more hypertension-related inpatient visits than males (2,599 vs. 2,397). Charles County Whites and African Americans make up the majority of the hypertension-related inpatient visits. Medicare is the largest payer source for hypertension-related patient stays (66%). The age group with the most inpatient visits are those aged 75-79 years.

2019 CHARLES COUNTY HYPERTENSION-RELATED INPATIENT VISITS BY RACE



2019 CHARLES COUNTY HYPERTENSION-RELATED INPATIENT VISITS BY PAYER



2019 Charles County Hypertension-Related ED Visits by Age Group	Count
0-4 years	<11
5-9 years	<11
10-14 years	<11
15-17 years	<11
18-24 years	62
25-29 years	172
30-34 years	273
35-39 years	448
40-44 years	575
45-49 years	782
50-54 years	1055
55-59 years	1192
60-64 years	1091
65-69 years	819
70-74 years	777
75-79 years	707
80-84 years	498
85+ years	524

Heart Disease/Stroke/Hypertension References:

1. 2018 Charles County Heart Disease, Stroke, and Hypertension Mortality Rates, Overall and by gender and race. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.
2. 2019 Charles County Heart Disease, Heart Attack, and Stroke Prevalence. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.
3. 2019 Charles County Hypertension. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.

4. 2017 Charles County and Maryland Hypertension Emergency Department Visit Rates by race. Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.
5. 2019 Charles County Emergency Department and Inpatient Visits by Demographic. CRISP Reporting Services. Public Health Dashboards. Chesapeake Regional Information Sharing for our Patients (CRISP). Available at: <https://reports.crisphealth.org>.

Qualitative Data Relating to Heart Disease, Stroke, and High Blood Pressure:

On the long community health survey, 26 health issues were listed and participants were asked to rate the severity of those issues in Charles County. Over half of the participants (53.7%) viewed high blood pressure as a health problem in the county. Approximately one-quarter of the participants (26.0%) listed high blood pressure as a “serious problem.” On the same listing, heart disease was listed as a health problem by 47.2% of the survey participants. One-fifth of the participants (20.3%) felt that heart disease was a serious problem in the county. Stroke was listed as a health problem by 45.5% of the respondents. 16.6% viewed stroke as a “serious problem.”

Long survey participants were asked if they have seen improvements in the county on any of 13 listed health topics. 19.9% reported that they have seen improvements in the county regarding heart disease, 15.5% reported that they have seen improvements in the county regarding high blood pressure, and 10.6% reported that they have seen improvements in the county regarding stroke.

Long survey participants were also asked a series of questions regarding risk factors that might increase their chances for chronic disease such as high blood pressure/stroke and heart disease. Some of the risk factors included physical activity, healthy eating, and stress levels. Only 8.8% reported that they always eat five or more servings of fruits and vegetables each day; 14.6% always get an hour of physical activity each day; 58.6% take a vitamin each day, and 7.3% never feel stressed out.

Short survey participants were asked what the biggest health problems are in Charles County. High blood pressure/stroke was the 5th most commonly answered health topics on the short survey with 312 listed it as the one of the biggest health problems (41.3%). 263 people felt that heart disease was one of the biggest health problems in Charles County (34.8%).

Short survey respondents recognized community resources to address heart disease, stroke, and high blood pressure. 16.2% reported that the county had some or many resources for heart disease. 14.7% reported that the county had some or many resources to address stroke. 15.1% felt that the county had some or many resources for high blood pressure.

Heart disease was cited by 7.8% of key informant interviews as the health condition most affecting Charles County.

Charles County Cancer Incidence and Mortality: A state and jurisdictional comparison

Introduction:

2018 Maryland Vital Statistics Report:

Cancer is the leading cause of death in Charles County. In 2018, a total of 288 deaths occurred in Charles County from cancer (2018 Maryland Vital Statistics Report).

The 2018 Charles County all-cancer site crude death rate was 178.3 per 100,000 population. This rate is lower than the Maryland state average cancer death rate of 181.0 per 100,000. This rate is an increase from the 2016 Charles County all-cancer site crude death rate of 160.4 per 100,000.

The age-adjusted 2016-2018 Charles County all-cancer mortality rate was 165.4 per 100,000. This was above the Maryland state average rate of 152.6 per 100,000. The Charles County 2016-2018 rate is an increase from the 2014-2016 Charles County all cause cancer mortality rate of 158.3 reported in the last needs assessment report. Three-year periods are often combined to increase sample size and therefore increase the validity of the mortality rates.

The greatest number of cancer deaths were from cancer of the lung, trachea, or bronchus (50) and other sites (97). Lung, trachea, and bronchus cancer accounted for nearly one-fifth of all 2018 cancer deaths (17.4%). This cancer site was followed by other cancer sites, breast, and colon/rectum/anus.

Charles County Deaths by Cancer Site:	Number of Deaths
Stomach	2
Colon/Rectum/Anus	24
Pancreas	22
Trachea, Lung, Bronchus	50
Breast	29
Cervix, Uteri, Ovary	21
Prostate	15
Urinary Tract	14
Non-Hodgkin's Lymphoma	8
Leukemia	6
Other	97

2019 Maryland DHMH Cigarette Restitution Fund Program's Cancer Reports:

Cancer incidence and mortality data for the time period 2012-2016 and for 2016 only are presented below. Data was extracted from the Cigarette Restitution Fund Program's 2019 Cancer Report. Charles County rates for overall cancer rates, as well as site specific rates, were compared to the United States and Maryland average rates as well as the rates for the neighboring jurisdictions of Calvert and St. Mary's counties.

All Cancer Sites Incidence:

2016 Results:

For the year 2016, Charles County had a total of 756 new cases of cancer overall; this corresponds to a 2016 all site incidence rate of 451.5 per 100,000 population. Charles County had the 8th lowest all cancer site incidence rate among the 24 Maryland jurisdictions. This rate is higher than the Maryland average rate, the U.S. national rate, the Calvert County rate, and the St. Mary's County rate.

When stratified by gender, Charles County males have generally higher cancer incidence rates than Charles County females. The 2016 all cancer site incidence rate for Charles County males was 524.9 versus 401.3 for Charles County females.

When stratified by race, rates are higher for the White population than the African American population in Charles County. The white all site incidence rate was 490.5 compared to the black all site rate of 397.6 and the other race all site rate of 325.6.

When compared with the Maryland state average rate for all cancer site incidences, Charles County males have a higher rate than Maryland males. Charles County females have a lower rate than Maryland females. Charles County African Americans have a lower incidence rate to the rate for Maryland African American males. Charles County Whites have a higher rate than Maryland Whites.

Number of New Cancer Cases for 2016: All Cancer Sites Combined

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	31079	15307	15765	21021	8307	1295
<i>Charles County</i>	756	387	369	454	266	26
<i>Calvert County</i>	467	242	225	397	65	<6
<i>St. Mary's County</i>	463	231	232	377	75	7

S: Case counts were suppressed to prevent disclosure of data in other cells.

2016 All Cancer Site Incidence Rates (per 100,000 population)

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	443.6	481.6	419.1	453.0	430.4	286.1
<i>Charles County</i>	451.5	524.9	401.3	490.5	397.6	325.6
<i>Calvert County</i>	429.8	471.4	399.7	434.5	436.7	**
<i>St. Mary's County</i>	378.8	382.7	376.0	370.2	456.8	**

** Rates are not calculated for case counts less than 15.

All site cancer incidences rates were also examined for the Hispanic population in Maryland. A total of 1,025 Hispanic Marylanders were diagnosed with cancer in 2016; this corresponds to an all-site incidence rate of 292.2 per 100,000 population. For the Southern Maryland region, there were 31 new cancer cases in the Hispanic population with an all-site incidence rate of 304.2 per 100,000. There were 18 cases from Charles County with an all-site incidence rate of 385.2.

2012-2016 Combined Results:

The 12-16 Charles County all site incidence rate was 438.5 per 100,000. This rate is less than the Maryland state average rate of 443.9 and similar to the U.S. average rate of 435.1. The Charles County rate is lower than the Calvert County rate of 455.0 but higher than the St. Mary’s County rate of 418.7. For this time period, Charles County has the 6th lowest all cancer site incidence rate among the 24 Maryland jurisdictions.

Disparities between the White and Black populations in Charles County are seen for the time period 2012-2016. The all-site incidence rate for the white population was 467.1 which was higher than the black all site incidence rate of 403.0. The Other Race all site incidence rate was much lower at 239.9 per 100,000. This may be due to small numbers of people in the county who represent the “Other Race” category. This population has been migrating into Charles County in the last decade and tends to be younger. Therefore, they are a small portion of the county’s overall deaths and cancer deaths each year.

Cancer still continues to disproportionately affect the male population. From 2012-2016, the Charles County all site incidence rate for males was 510.9 compared to 385.0 for females. Charles County males have a higher all site incidence rate compared to males in Calvert County, St. Mary’s County, and Maryland. The Charles County female all cause incidence rate was the 3rd lowest for that category among the 24 Maryland jurisdictions; the Charles County male all cause incidence rate is the 13th lowest in the state.

2012-2016 All Cancer Site Incidence Rates (per 100,000 population)

	Total	Male	Female	White	Black	Other
Maryland	443.9	483.1	418.4	453.6	437.8	260.4
Charles County	438.5	510.9	385.0	467.1	403.0	239.9
Calvert County	455.0	490.3	429.8	460.2	454.4	172.1
St. Mary’s County	418.7	438.2	402.2	421.0	410.1	216.7

** Rates are not calculated for case counts less than 15.

All Cancer Sites Mortality:

2016 Results:

In 2016, there were 252 deaths in Charles County attributed to cancer. This constitutes a mortality rate of 158.0 per 100,000. Charles County had the 10th lowest all sites mortality rate among the Maryland jurisdictions for 2016. This rate is slightly higher than the Maryland state average rate of 156.5 but lower than the St. Mary's county rate (160.8) and the Calvert County rate (176.9).

On a county level, Charles County African Americans experienced slightly higher all site mortality rates than Charles County Whites (156.8 for Whites and 171.3 for African Americans). A disparity is also seen on a state level where African Americans have a higher all-site mortality rate than Whites or Asian/Pacific Islander.

All site mortality rates by gender mirror the same trends as the incidence rates. Males experienced greater all site mortality rates than females. This was true for Charles County, Maryland, Calvert, and St. Mary's County. In Charles County, the 2016 all site mortality rate for males was 189.3 compared to 140.0 for females in the county.

Number of Deaths in 2016: All Cancer Site Combined

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	10911	5472	5439	7392	3174	345
<i>Charles County</i>	252	126	126	145	s	<10
<i>Calvert County</i>	184	99	85	158	25	<10
<i>St. Mary's County</i>	186	102	84	151	s	<10

<10= Case counts were suppressed to prevent disclosure of data in other cells.
s = Death counts are suppressed to prevent disclosure of data in other cell(s)

Number of Deaths in 2016: All Cancer Site Combined

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	156.5	183.2	138.4	154.7	176.2	83.0
<i>Charles County</i>	158.0	189.3	140.0	156.8	171.3	**
<i>Calvert County</i>	176.9	221.3	149.8	180.1	179.0	**
<i>St. Mary's County</i>	160.8	186.5	138.1	157.0	195.0	**

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

For the time period 2012-2016, the Charles County all cancer site mortality rate was 167.2 per 100,000. Charles County had the highest rate among the three Southern Maryland jurisdictions. Charles County's rate is the 13th lowest all site mortality rate among the Maryland jurisdictions. The Charles County rate falls between 10% below and 10% above the United States national rate (161.0 per 100,000).

The 2012-2016 White all cancer sites mortality rate is higher than the Charles Black rate (170.7 vs. 165.9). The Charles County White all site mortality rate was higher than the Maryland White state average rate (170.7 vs. 158.6). The Charles County African American all site mortality rate was below than the state average rate for African Americans (165.9 vs. 179.4). The Charles County Other Race all site mortality rate was higher than the Maryland Other Race state average rate (106.3 vs. 85.8).

From 2012-2016, males were more likely to die from cancer than females. Charles County males had an all-site mortality rate of 199.3 versus 145.7 for Charles County females. The Charles County rates for males and females were slightly higher than Maryland state average rates.

2012-2016 All Cancer Site Mortality Rates (per 100,000 population)

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	160.3	190.0	140.1	158.6	179.4	85.8
<i>Charles County</i>	167.2	199.3	145.7	170.7	165.9	106.3
<i>Calvert County</i>	166.3	196.8	146.2	165.2	190.6	**
<i>St. Mary's County</i>	176.8	213.2	145.6	177.5	188.5	**

** Rates are not calculated for case counts less than 15.

Lung/Bronchus Cancer Incidence:

2016 Results:

The 2016 Charles County lung cancer incidence rate was 40.7 per 100,000 population. This is the 5th lowest lung cancer incidence rate in the state of Maryland. The Charles County rate is below the Maryland state average rate of 54.0 per 100,000.

A comparison of county rates by race found that rates for Whites exceeded the rates of African Americans (48.4 vs. 33.3). If you compare White lung cancer incidence rates, Charles County has a lower rate than the Maryland state average rate (48.4 vs. 57.0). Charles County African Americans had a lower rate than the Maryland state average rate (33.3 vs. 50.4).

The incidence of lung cancer was also higher among men than women (58.3 vs. 26.8 in Charles County). Charles County men have a lower rate (58.3) than the Maryland state average rate of 59.9 for men.

Number of New Cases 2016: Lung Cancer

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	3803	1858	1945	2728	941	120
<i>Charles County</i>	69	44	25	48	s	<6
<i>Calvert County</i>	60	23	37	54	6	0
<i>St. Mary's County</i>	78	34	44	65	13	0

S= Case counts were suppressed to prevent disclosure of data in other cells.

2016 Lung Cancer Incidence Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	54.0	59.9	49.6	57.0	50.4	28.7
<i>Charles County</i>	40.7	58.3	26.8	48.4	33.3	**
<i>Calvert County</i>	56.4	48.9	65.3	60.7	**	0
<i>St. Mary's County</i>	68.6	60.6	75.0	68.8	**	0

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

Between 2012-2016, the Charles County lung cancer incidence rate was 50.9 per 100,000 population. This rate is lower than the Maryland state average rate (55.6). This rate is lower than the rates for the other Southern Maryland jurisdictions. It is also lower than the United States average rate of 53.4 per 100,000 population.

The lung cancer incidence rate for this time period for African Americans in Charles County is less than the rate for the Charles County white population (38.0 vs. 60.0). The African American lung cancer incidence rate is lower than the Maryland state average rate (53.8). It is lower than the Calvert County rate and the St. Mary's County rate. The Charles County white lung cancer incidence rate is higher than the Maryland state average rate (60.0 vs. 58.4) and is lower than the rates in the other Southern Maryland jurisdictions.

The rate of lung cancer incidence in Charles County was much higher for men than women (66.5 vs. 39.1). This difference is significant ($p < .05$). The rate among Charles County females was lower than the state; the rate among males was slightly higher than the state. The highest male lung cancer incidence rate in the Southern Maryland region was St. Mary's County (69.3); the highest female lung cancer incidence rate in the Southern Maryland region was Calvert County and St. Mary's County (both at 60.2).

2012-2016 Lung Cancer Incidence Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	55.6	62.8	50.4	58.4	53.8	26.0
<i>Charles County</i>	50.9	66.5	39.1	60.0	38.0	**
<i>Calvert County</i>	60.3	60.3	60.2	62.6	50.0	**
<i>St. Mary's County</i>	64.6	69.3	60.2	67.3	56.5	**

** Rates are not calculated for case counts less than 15.

Lung/Bronchus Cancer Mortality:

2016 Results:

In 2016, the lung cancer mortality rate in Charles County was 34.6 per 100,000, which is lower than the Maryland state average rate of 37.5 per 100,000. The Charles County 2016 lung cancer mortality rate was lower than the Calvert County rate of 44.8 and lower than the St. Mary's County rate of 45.9.

For all jurisdictions analyzed, the lung cancer mortality rate for men was greater than the rate for women. In Charles County, men were 1.7 times more likely to die from lung cancer in 2016 than women.

2016 lung cancer mortality rate for Blacks in Charles County was slightly higher than the mortality rate for Charles County Whites (39.0 vs. 35.9).

Number of Lung Cancer Deaths, 2016

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	2639	1375	1264	1889	684	66
<i>Charles County</i>	54	30	24	33	s	<10
<i>Calvert County</i>	46	26	20	39	<10	<10
<i>St. Mary's County</i>	54	27	27	40	s	<10

S= Case counts were suppressed to prevent disclosure of data in other cells.

Lung Cancer Mortality Rates, 2016

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	37.5	45.3	31.8	39.3	37.7	16.4
<i>Charles County</i>	34.6	46.1	27.4	35.9	39.0	**
<i>Calvert County</i>	44.8	53.9	36.2	44.8	**	**
<i>St. Mary's County</i>	45.9	48.4	43.3	41.6	**	**

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

The Charles County 2012-2016 lung cancer mortality rate was 39.8 per 100,000. This rate is similar to the Maryland state average rate of 40.1. The Charles County rate is lower than the other two Southern Maryland counties: 44.4 in Calvert and 50.0 in St. Mary's. The Charles County lung cancer mortality rate also falls 10% below and 10% above the United State national rate of 41.9 per 100,000.

The Charles County lung cancer mortality rates are higher for men than women. Charles County men were 1.9 times more likely to die from lung cancer from 2012-2016 than Charles County women. Charles County's rate for men was higher than the state average rate (54.3 vs. 48.3).

When comparing rates by race, Whites in Charles County had a greater rate of lung cancer mortality than African Americans (45.8 vs. 32.6). The lung cancer mortality rate among Charles County whites was higher than the Maryland state average rate, and the lung cancer mortality rate among Charles County African Americans was lower than the Maryland state average rate.

Lung Cancer Mortality Rates, 2012-2016

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	40.1	48.3	34.2	41.6	40.5	17.8
<i>Charles County</i>	39.8	54.3	28.9	45.8	32.6	**
<i>Calvert County</i>	44.4	46.1	42.3	45.2	44.0	**
<i>St. Mary's County</i>	50.0	62.3	39.0	49.6	58.6	**

** Rates are not calculated for case counts less than 15.

Colon and Rectal Incidence:

2016 Results:

For 2016, Charles County had a colon and rectal cancer incidence rate of 39.6 per 100,000. This rate is higher than the Maryland state average rate of 35.4 per 100,000.

The colon and rectal cancer incidence rates for Charles County males is higher than Charles County females for 2016 (50.9 vs. 33.1). The Charles County male colon and rectal cancer incidence rate for 2016 was 50.9 per 100,000, which is higher than the Maryland state average rate for males at 38.4. The Charles County female colon and rectal cancer rate is 33.1, similar to the Maryland state rate of 32.9.

The 2016 Charles County White colon and rectal cancer incidence rate was higher than the Charles County African American rate (43.9 vs. 37.4). The Charles County White colon and rectal cancer incidence rate was higher than the Maryland state rate as well as the rates of the other Southern Maryland counties. The 2016 Charles County African Americans colon and rectal cancer incidence rate was higher than the Maryland African American colon and rectal cancer incidence rate.

Number of New Colon and Rectal Cancer Cases, 2016

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	2450	1205	1243	1621	679	112
<i>Charles County</i>	64	34	30	41	21	<6
<i>Calvert County</i>	41	25	16	34	7	0
<i>St. Mary's County</i>	31	15	16	23	6	<6

S= Case counts were suppressed to prevent disclosure of data in other cells.

2016 Colon and Rectal Cancer Incidence Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	35.4	38.4	32.9	35.2	36.3	24.7
<i>Charles County</i>	39.6	50.9	33.1	43.9	37.4	**
<i>Calvert County</i>	37.0	45.9	28.7	36.5	**	0
<i>St. Mary's County</i>	24.4	**	24.9	22.4	**	**

** Rates are not calculated for case counts less than 15.

Colon and Rectal Cancer Mortality:

2016 Results:

The Charles County colon and rectal cancer mortality rate for 2016 was 14.3 per 100,000. This is slightly above the Maryland state average rate of 13.8. Rates for Calvert and St. Mary's are not available due to small case counts.

Gender and race comparison cannot be done since case counts were too few to calculate mortality rates.

Number of Colon and Rectal Cancer Deaths, 2016

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	949	488	461	619	301	29
<i>Charles County</i>	24	s	<10	12	s	<10
<i>Calvert County</i>	15	<10	<10	14	<10	<10
<i>St. Mary's County</i>	17	s	<10	14	<10	<10

S= Case counts were suppressed to prevent disclosure of data in other cells.

2016 Colon and Rectal Cancer Mortality Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	13.8	16.2	11.8	13.1	16.4	6.9
<i>Charles County</i>	14.3	**	**	**	**	**
<i>Calvert County</i>	**	**	**	**	**	**
<i>St. Mary's County</i>	**	**	**	**	**	**

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

The 2012-2016 Charles County colon and rectal cancer mortality rate of 16.4 per 100,000 is higher than the Maryland state average rate of 14.1 and the other Southern Maryland counties (14.0 for Calvert and 13.4 for St. Mary's County).

Charles County males were more likely to die from colon and rectal cancer than Charles County females (17.3 vs. 15.1). This trend was also seen for Maryland and the other Southern Maryland counties.

2012-2016 Charles County colon and rectal cancer mortality rates for African Americans were higher than the rates for Charles County Whites (19.4 vs. 14.5).

2012-2016 Colon and Rectal Cancer Mortality Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	14.1	16.9	11.9	13.2	17.9	7.4
<i>Charles County</i>	16.4	17.3	15.1	14.5	19.4	**
<i>Calvert County</i>	14.0	16.2	12.3	14.5	**	**
<i>St. Mary's County</i>	13.4	18.3	8.9	13.2	**	**

** Rates are not calculated for case counts less than 15.

Breast Cancer Incidence:

2016 Results:

The 2016 Charles County breast cancer incidence rate was 122.2, which was lower than the Maryland state average rate of 128.9 per 100,000. The Charles County rate was higher than the St. Mary's County (106.2) and Calvert County, which had a rate of 106.7 per 100,000.

The Charles County White breast cancer incidence rate was 125.1 per 100,000, which was lower than the Maryland state White average rate of 127.4. The Charles County Black breast cancer incidence rate was 120.8 per 100,000, which was lower than the Maryland state average rate of 131.8. The Charles County White breast cancer incidence rate was higher than the Charles County Black rate (125.1 vs. 120.8).

Number of New Breast Cancer Cases, 2016

	Total	White	Black	Other
<i>Maryland</i>	4818	3053	1453	237
<i>Charles County</i>	111	57	48	<6
<i>Calvert County</i>	61	48	10	<6
<i>St. Mary's County</i>	67	56	11	0

S= Case counts were suppressed to prevent disclosure of data in other cells.

2016 Breast Cancer Incidence Rates

	Total	White	Black	Other
<i>Maryland</i>	128.9	127.4	131.8	92.9
<i>Charles County</i>	122.2	125.1	120.8	**
<i>Calvert County</i>	106.7	98.3	**	**
<i>St. Mary's County</i>	106.2	108.7	**	**

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

From 2012-2016, Charles County had a breast cancer incidence rate of 123.1. This rate was lower than the Maryland state average rate of 130.1 and the Calvert County rate of 137.7 and higher than the St. Mary's County rate of 110.4. It is 10% below to 10% above the US rate of 126.0 per 100,000.

The Charles County White breast cancer incidence rate was 130.7, which was less than the Maryland White state average rate (131.1). The Charles County Black breast cancer incidence rate was below to the Maryland state average rate for Blacks (117.4 vs. 130.6).

Charles County African Americans had a lower incidence of breast cancer (117.4) than Charles County White women (130.7) from 2012-2016.

2012-2016 Breast Cancer Incidence Rates

	Total	White	Black	Other
<i>Maryland</i>	130.1	131.1	130.6	85.7
<i>Charles County</i>	123.1	130.7	117.4	75.1
<i>Calvert County</i>	137.7	141.4	132.2	**
<i>St. Mary's County</i>	110.4	112.7	108.4	**

** Rates are not calculated for case counts less than 15.

Breast Cancer Mortality:

2016 Results:

The 2016 Charles County breast cancer mortality rate was 31.7 per 100,000. This rate was higher than Maryland state average rate of 21.3 per 100,000. This was the highest rate among the Maryland jurisdictions with a calculated rate.

Breast cancer mortality rates could not be calculated by race or gender for 2016 due to small case counts.

Number of Breast Cancer Deaths, 2016

	Total	White	Black	Other
<i>Maryland</i>	829	498	302	29
<i>Charles County</i>	29	16	s	<10
<i>Calvert County</i>	14	13	<10	<10
<i>St. Mary's County</i>	16	13	<10	<10

S= Case counts were suppressed to prevent disclosure of data in other cells.

2012-2016 Breast Cancer Incidence Rates

	Total	White	Black	Other
<i>Maryland</i>	21.3	19.0	27.8	12.0
<i>Charles County</i>	31.7	**	**	**
<i>Calvert County</i>	**	**	**	**
<i>St. Mary's County</i>	**	**	**	**

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

From 2012-2016, Charles County experienced a breast cancer mortality rate of 25.6 per 100,000. The 2012-2016 Charles County rate is higher than the Maryland state average rate of 22.2 for the same time period, though the difference is not statistically significant. The Charles County rate is higher than the rate for St. Mary's County (25.3) and lower than for Calvert County (26.3). The Charles County breast cancer mortality rate is 10-25% above the United States breast cancer mortality rate of 20.6 per 100,000.

The 12-16 Charles County African American breast cancer mortality rate was 28.2, which was higher than the rate for Charles County Caucasians of 23.5 per 100,000. Rates by race could not be calculated for the other Southern Maryland counties due to small case counts.

2012-2016 Breast Cancer Mortality Rates

	Total	White	Black	Other
<i>Maryland</i>	22.2	20.7	27.5	10.1
<i>Charles County</i>	25.6	23.5	28.2	**
<i>Calvert County</i>	26.3	25.9	**	**
<i>St. Mary's County</i>	25.3	25.3	**	**

** Rates are not calculated for case counts less than 15.

Prostate Cancer Incidence:

2016 Results:

The 2016 Charles County prostate cancer incidence rate was 161.8 per 100,000. This rate is higher than the Maryland state average rate of 124.6. The Charles County incidence rate is higher than the rates in the other Southern Maryland counties (113.8 in Calvert and 90.1 in St. Mary's counties).

Disparities are seen for African Americans in terms of prostate cancer incidence. The 2016 Charles County African American prostate cancer incidence rate was 179.8, which was higher than the rate for Charles County Caucasians of 142.3 per 100,000. This disparity is also seen on the state level where Maryland African Americans had a rate of 181.8 and Maryland Whites had a rate of 105.8 per 100,000.

Number of New Prostate Cancer Cases, 2016

	Total	White	Black	Other
<i>Maryland</i>	4259	2480	1573	138
<i>Charles County</i>	130	67	56	<6
<i>Calvert County</i>	64	49	15	0
<i>St. Mary's County</i>	55	41	12	<6

S= Case counts were suppressed to prevent disclosure of data in other cells.

2016 Prostate Cancer Incidence Rates

	Total	White	Black	Other
<i>Maryland</i>	124.6	105.8	181.8	65.5
<i>Charles County</i>	161.8	142.3	179.8	**
<i>Calvert County</i>	113.8	103.8	207.0	0
<i>St. Mary's County</i>	90.1	80.4	**	**

** Rates are not calculated for case counts less than 15.

2012-2016 Results:

The Charles County prostate cancer incidence rate for 2012-2016 was 143.1 per 100,000 population. This rate is higher than the Maryland state average rate of 120.3. Charles County had the highest 2012-2016 prostate cancer incidence rate among the 24 Maryland jurisdictions. The Charles County rate was also higher than the other Southern Maryland counties for this time period (109.3 for Calvert and 85.9 for St. Mary's). The Charles County rate is more than 25% above the United States rate of 106.8 per 100,000.

Disparities are again visible for African Americans. The 2012-2016 Charles County African American prostate cancer incidence rate was 194.3, which was significantly higher than the rate for Charles County Caucasians of 115.5 per 100,000. This disparity is also seen on the state level

where Maryland African Americans had a rate of 180.4 and Maryland Whites had a rate of 102.3. The same disparities were also seen for Calvert and St. Mary's counties.

The 2012-2016 Charles County African American prostate cancer incidence rate was higher than the Maryland state average rate and the other Southern Maryland counties. It is the eighth highest rate among the Maryland jurisdictions.

2012-2016 Prostate Cancer Incidence Rates

	Total	White	Black	Other
<i>Maryland</i>	120.3	102.3	180.4	55.4
<i>Charles County</i>	143.1	115.5	194.3	**
<i>Calvert County</i>	109.3	100.2	176.3	**
<i>St. Mary's County</i>	85.9	76.1	144.9	**

** Rates are not calculated for case counts less than 15

Prostate Cancer Mortality:

2016 Results:

For 2016, case counts for Charles, St. Mary's, and Calvert counties were too small to calculate prostate cancer mortality rates. The number of case counts is presented in the table below.

Number of Prostate Cancer Deaths, 2016

	Total	White	Black	Other
<i>Maryland</i>	558	315	58	<10
<i>Charles County</i>	12	<10	<10	<10
<i>Calvert County</i>	12	<10	<10	<10
<i>St. Mary's County</i>	<10	<10	<10	<10

2012-2016 Results:

The 2012-2016 Charles County prostate cancer mortality rate was 21.7 per 100,000. This rate is above the Maryland state average rate of 20.1. The Charles County rate is lower than the Calvert County rate of 28.4 and higher than the St. Mary's County rate of 20.6. The county prostate cancer mortality rate is 10-25% above the United States rate of 19.2 per 100,000.

Disparities are seen for the African American population. Charles County African Americans have a higher prostate cancer mortality rate of 34.9 compared to 17.9 for Charles County Whites.

2012-2016 Prostate Cancer Mortality Rates

	Total	White	Black	Other
Maryland	20.1	16.5	36.7	5.9
Charles County	21.7	17.9	34.9	**
Calvert County	28.4	24.5	**	**
St. Mary's County	20.6	19.5	**	**

** Rates are not calculated for case counts less than 15

Note: For three of the remaining cancer sites: oral, melanoma of the skin, and cervical, only 2012-2016 incidence data will be presented. Case counts for 2016 alone were few, and rate calculations could not be performed.

Oral Cancer Incidence:

The Charles County oral cancer incidence rate for 2012-2016 was 12.0 This rate is greater than the Maryland state average rate of 10.8. The Charles County oral cancer incidence rate is between 10% below and 10% above the United States rate of 11.3 per 100,000.

Charles County Whites had a higher oral cancer incidence rate than Charles County Blacks (14.4 vs. 7.0).

Males are disproportionately affected by oral cancer compared to women. The 12-16 Charles County oral cancer incidence rate for males was 19.2, which is significantly higher than the oral cancer incidence rate for women (5.7).

2012-2016 Oral Cancer Incidence Rates

	Total	Male	Female	White	Black	Other
Maryland	10.8	16.4	6.0	12.1	8.1	6.7
Charles County	12.0	19.2	5.7	14.4	7.0	**
Calvert County	13.9	21.1	7.1	13.5	**	0
St. Mary's County	15.6	21.9	9.5	15.8	**	**

** Rates are not calculated for case counts less than 15.

Note: For the remaining three cancer sites: oral, melanoma of the skin, and cervical, only 2012-2016 mortality data will be presented. Charles County case counts for 2016 alone were few, and rate calculations could not be performed.

Oral Cancer Mortality:

For 2012-2016, the Charles County oral cancer mortality rate was 3.0 per 100,000. This is higher than the Maryland state average rate of 2.4 per 100,000. The Charles County oral cancer mortality for 2012-2016 was 10-25% above the U.S. average rate of 2.5 per 100,000.

Even for a combined time period of 2012-2016, deaths due to oral cancer are few, and rate calculations by race and gender were not possible.

2012-2016 Oral Cancer Mortality Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	2.4	3.7	1.4	2.4	2.8	1.3
<i>Charles County</i>	3.0	**	**	**	**	**
<i>Calvert County</i>	**	**	**	**	**	**
<i>St. Mary's County</i>	**	**	**	**	**	**

** Rates are not calculated for case counts less than 15.

Melanoma of the Skin Incidence:

2012-2016 Results:

For 2012-2016, the Charles County melanoma cancer incidence rate 21.5 was per 100,000. This rate was less than the Maryland state average rate of 23.0 per 100,000, and it was less than the rates in the other Southern Maryland counties (Calvert 30.4 and St. Mary's 29.6). The Charles County rate was between 10% below and 10% above the United States rate of 23.2 per 100,000.

The incidence rate for melanoma cancer is higher for Charles County males than females (32.4 vs. 13.4). This rate difference is also seen on the state level for men and women (30.7 vs. 17.4).

A comparison of incidence rates by race can't be done due to small case counts for minorities. However, it should be noted that Charles County Whites had a higher melanoma cancer incidence rate (35.2) than Maryland Whites (33.6). On a state level, Maryland Whites were disproportionately affected by melanoma cancer incidence compared to Maryland African Americans (33.6 vs. 1.0).

2012-2016 Melanoma Incidence Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	23.0	30.7	17.4	33.6	1.0	1.5
<i>Charles County</i>	21.5	32.4	13.4	35.2	**	0
<i>Calvert County</i>	30.4	36.6	26.0	35.7	**	0
<i>St. Mary's County</i>	29.6	36.4	23.3	34.1	**	0

** Rates are not calculated for case counts less than 15

Melanoma of the Skin Mortality:

Mortality rates on a county level are not available due to small case counts. For the state of Maryland, the 2012-2016 melanoma of the skin cancer mortality rate was 2.2 per 100,000. The rates were much higher for males than females (3.6 vs. 1.3), and the rates were much higher for Whites than Blacks (3.1 vs. 0.4).

2012-2016 Melanoma of the Skin Mortality Rate

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	2.2	3.6	1.3	3.1	0.4	**
<i>Charles County</i>	**	**	**	**	**	**
<i>Calvert County</i>	**	**	**	**	**	**
<i>St. Mary's County</i>	**	**	**	**	**	**

** Rates are not calculated for case counts less than 15.

Cervical Cancer Incidence:

The 2012-2016 Charles County cervical cancer incidence rate was 5.4 per 100,000, which is below the Maryland state average rate of 6.3. Rates could not be calculated for Calvert County due to a small case count. St. Mary's County had a rate of 6.3. The Charles County had a cervical cancer incidence rate that was greater than 25% below the United States rate of 7.4 per 100,000.

A rate comparison by race is not included due to small case counts and the inability to calculate race-specific rates on a county level.

2012-2016 Cervical Cancer Incidence Rates

	Total	White	Black	Other
<i>Maryland</i>	6.3	6.0	6.9	4.9
<i>Charles County</i>	5.4	**	**	**
<i>Calvert County</i>	**	**	**	0
<i>St. Mary's County</i>	6.3	**	**	**

** Rates are not calculated for case counts less than 15.

Cervical Cancer Mortality:

Mortality rates on a county level are not available due to small case counts. For the state of Maryland, the 2012-2016 cervical cancer mortality rate was 1.9 per 100,000. The rate was double for Maryland African Americans compared to Maryland Whites (2.8 vs. 1.6).

2010-2014 Cervical Cancer Mortality Rates

	Total	White	Black	Other
<i>Maryland</i>	1.9	1.6	2.8	**
<i>Charles County</i>	**	**	**	**
<i>Calvert County</i>	**	**	**	**
<i>St. Mary's County</i>	**	**	**	**

** Rates are not calculated for case counts less than 15.

Cancer References:

1. 2018 Charles County and Maryland Cancer Mortality Statistics. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.
2. 2012-2016 and 2016 Charles County and Maryland Cancer Mortality Rates by Site. 2019 Maryland DHMH Cigarette Restitution Fund Program's Cancer Reports. Maryland Department of Health. Available at: https://phpa.health.maryland.gov/cancer/SiteAssets/Pages/surv_data-reports/2019%20CRF%20Cancer%20Report.pdf.

Qualitative Data Relating to Cancer:

On the long survey, Cancer had the 15th highest percentage of people reporting it as a serious health problem. 48.7% felt that it was a health problem in Charles County on any level, and 23% reported it as a "serious problem."

Of the long survey participants, 23.6% reported that they have seen improvements in Charles County in terms of cancer. There are many long-standing programs for early screening, detection, treatment, and support of cancer.

In regards to health behaviors and risk factors that could increase or decrease county residents' chances of developing cancer, 9.6% smoke cigarettes or cigars, 18.4% are exposed to secondhand smoke at home, 8.8% eat five or more servings of fruit and vegetables each day, 10% always perform cancer self-exams, 20.5% report always using sunscreen, and 14.6% participate in physical activity each day.

Over one-third of short survey participants (34%) felt that cancer is a big health problem in Charles County. 16.6% of respondents believe that there are some or many resources available in Charles County for cancer.

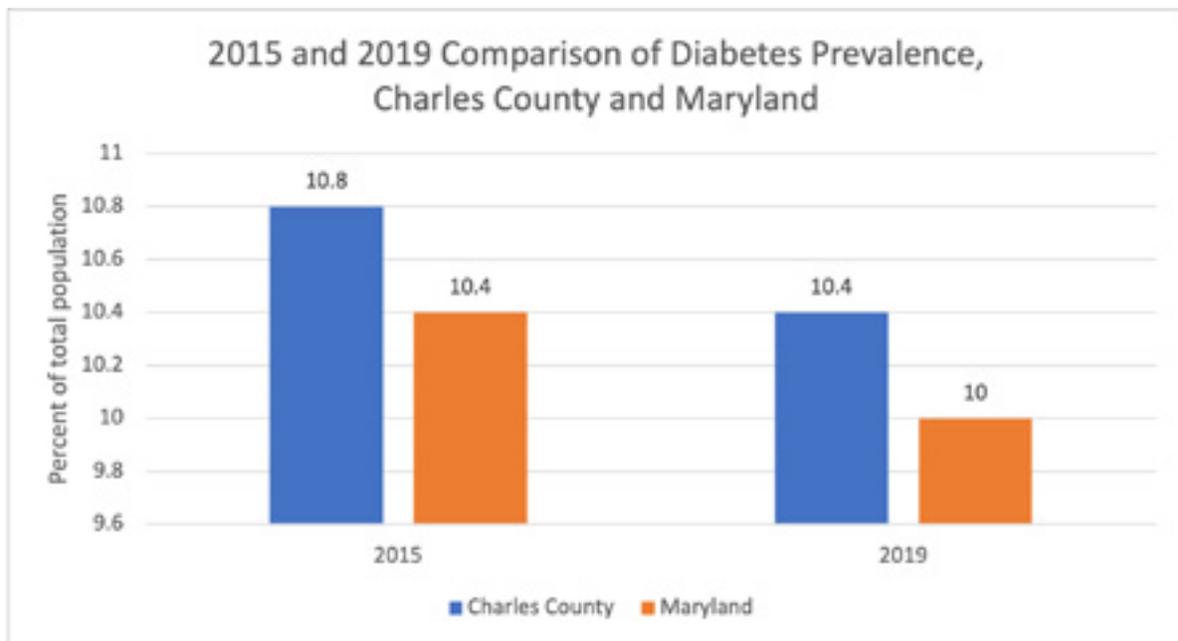
In the focus group, there was a discussion about the potential for an increase in late-stage cancer diagnoses due to delays in preventative screenings during the pandemic. Participants stressed the need for local providers and health agencies to educate the public on the need to continue age-appropriate cancer screenings.

Diabetes Mellitus:

Diabetes Prevalence:

The 2019 Maryland Behavioral Risk Factor Surveillance System (BRFSS) can be used to estimate diabetes prevalence within Charles County and Maryland. Diabetes prevalence percentages have been age-adjusted and weighted to reflect the Maryland and Charles County populations.

BRFSS participants were asked the question, “Have you ever been told by a doctor that you have diabetes?” The estimated prevalence of diabetes in Charles County is 10.4%, similar to the state diabetes prevalence of 10.0%. The county diabetes prevalence has decreased by 0.4% from the 10.8% reported in the 2019 community health needs assessment report. This is a positive trend after seeing diabetes prevalence estimates rise slightly each year for several years.



Diabetes Mellitus Death Rates

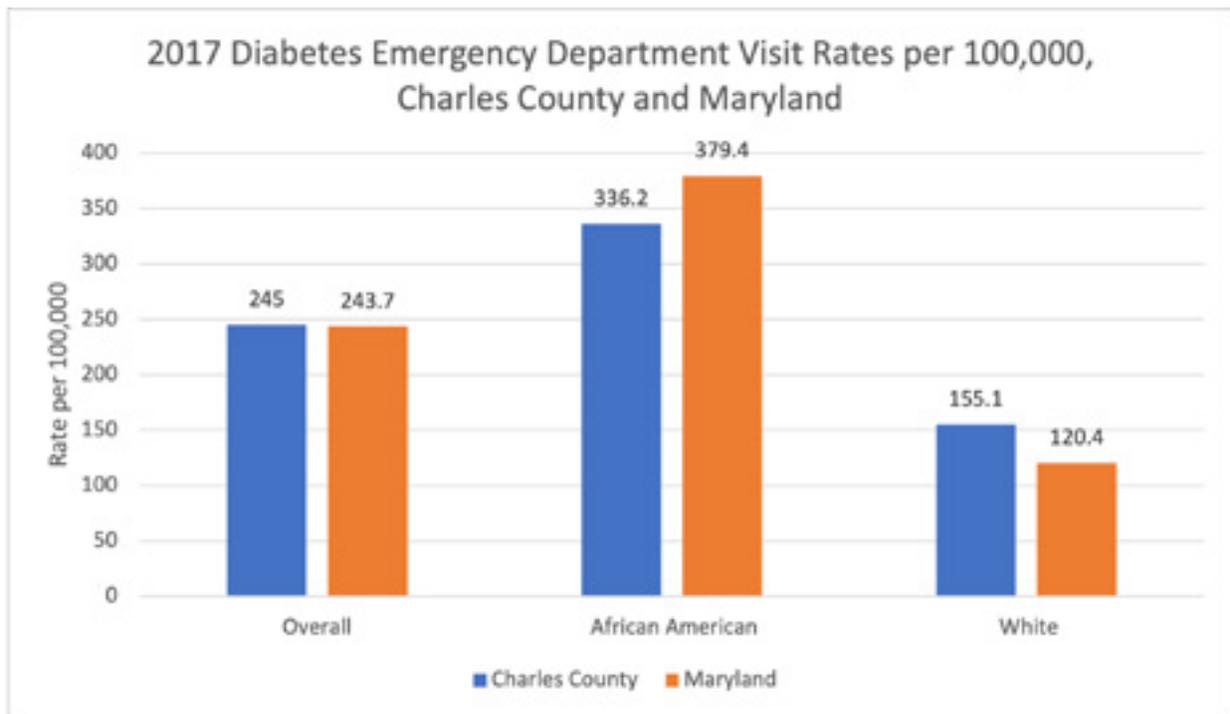
According to the 2018 Maryland Vital Statistics Report, there were 47 deaths in Charles County attributed to diabetes mellitus in 2018. When comparing the 2018 crude diabetes death rates per 100,000 population, the Charles County rate of 29.1 per 100,000 was greater than the state rate of 23.5 per 100,000 though the difference was not significant. The newest county diabetes death rate is an increase from the rate of 23.5 reported in 2018 community health needs assessment report.

Number of Diabetes Deaths and Crude Diabetes Death Rates, Charles County vs. Maryland, 2018		
Jurisdiction	Number of Deaths	Death Rate per 100,000
Charles County	47	29.1
Maryland	1421	23.5

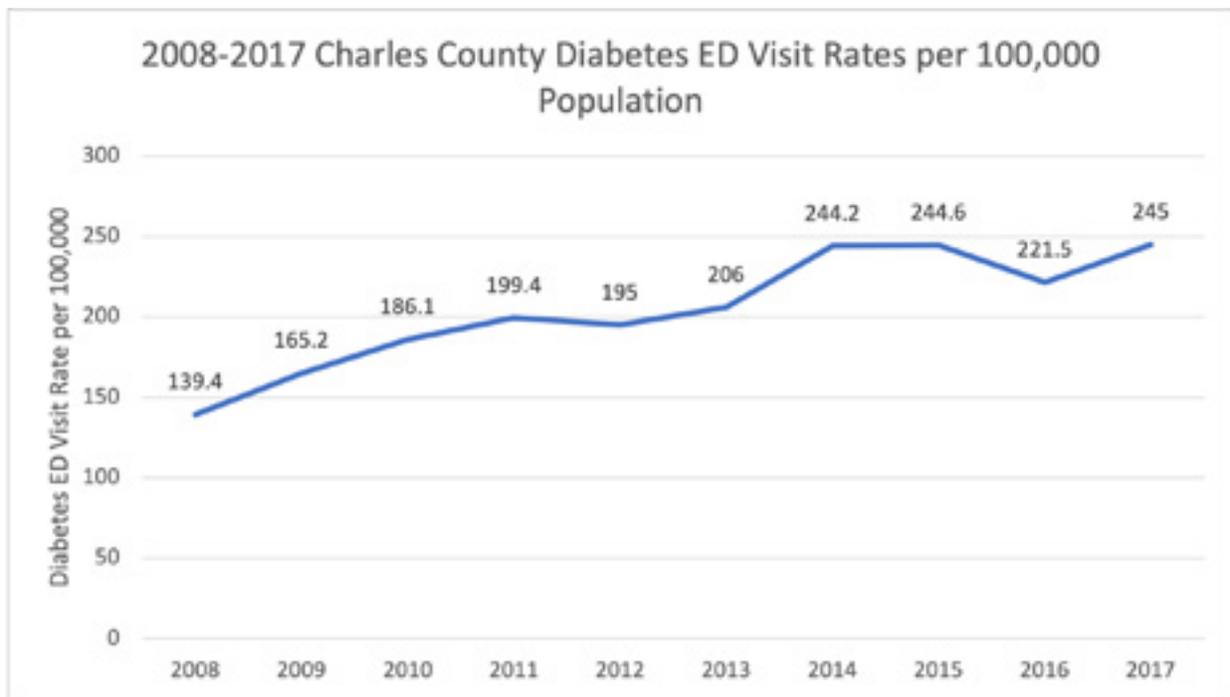
The age-adjusted death rate for diabetes mellitus for 2016-2018 in Charles County was 26.3 (per 100,000 populations). It was higher than the state diabetes death rate of 19.8 per 100,000, though the difference is not statistically significant. The 2016-2018 Charles County diabetes mortality rate is an increase from the 2014-2016 rate of 24.5 reported in the 2018 community health needs assessment report.

Diabetes Emergency Department Visit Rates:

The 2017 Charles County Diabetes Emergency Department (ED) Visit Rate was 245.0 per 100,000. This rate was similar to the Maryland state average rate of 243.7 per 100,000. Disparities can be seen on a state and county level where African Americans have a much higher diabetes ED visit rate than Whites. For Charles County, the African American diabetes ED visit rate was 336.2, which was significantly higher than the White rate of 155.1 per 100,000.



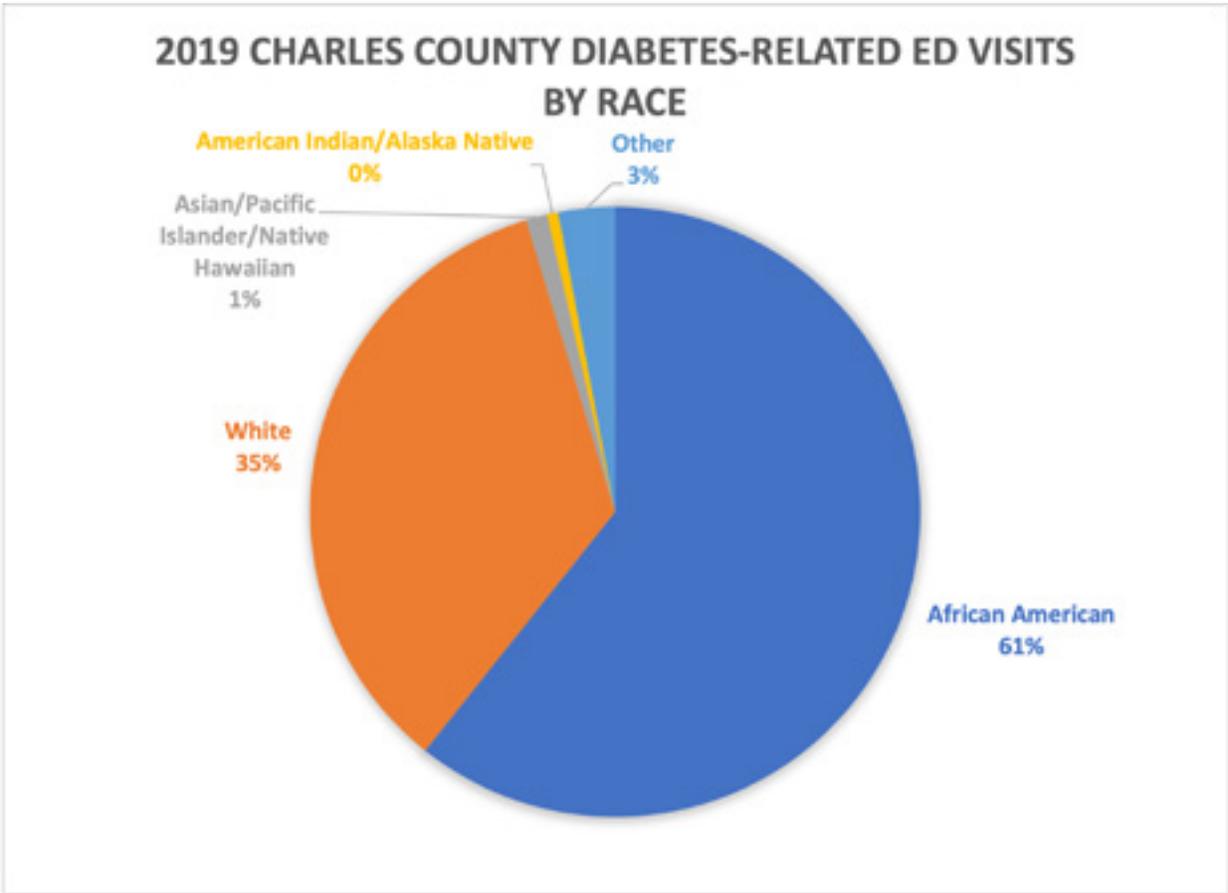
Looking at trends over the past seven years, the Charles County diabetes ED visit rate has increased from 139.4 in 2008 to 244.2 in 2014.



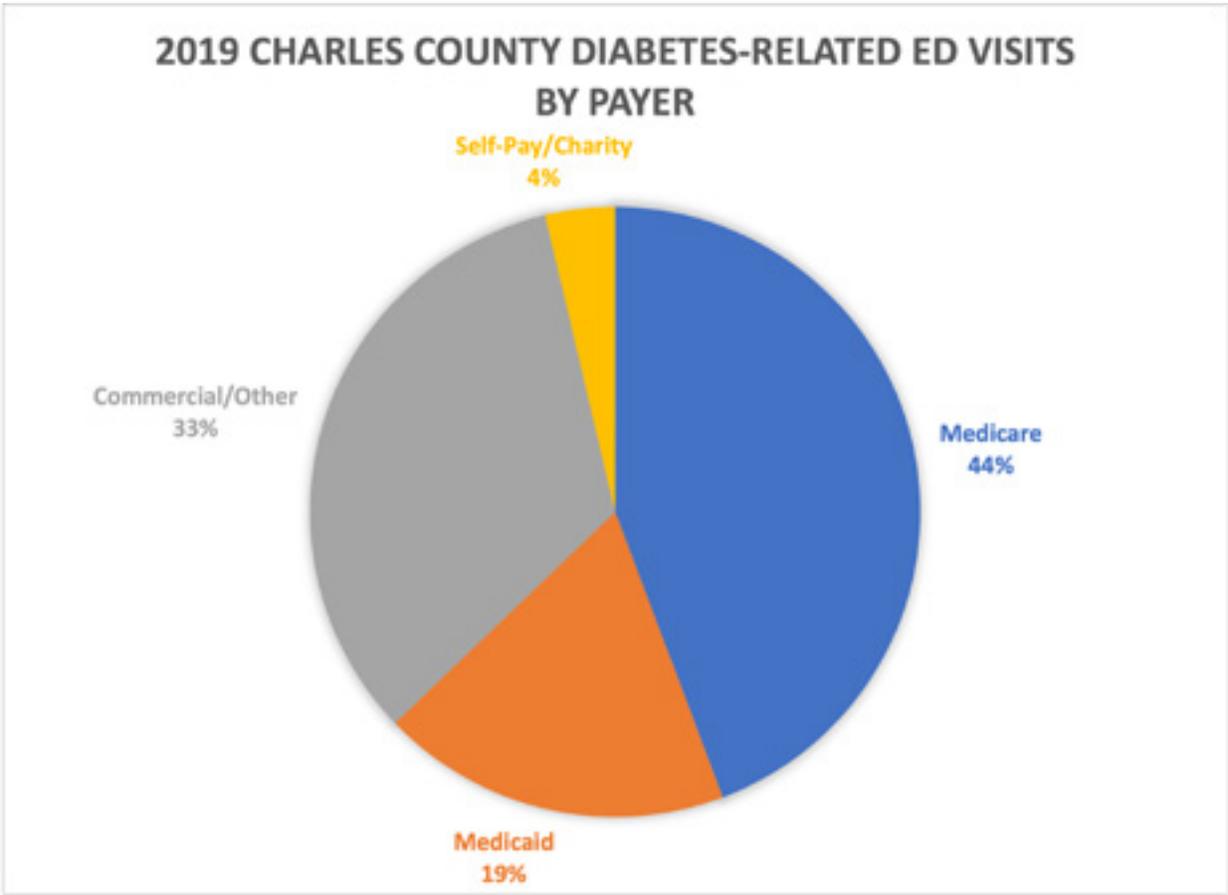
The Chesapeake Regional Information Sharing for our Patients (CRISP) is the health information exchange for the state of Maryland. CRISP Reporting Services provides public health dashboards with queries for emergency department and inpatient stays by demographics for many health conditions including diabetes.

In 2019, there were 4,148 emergency department (ED) visits for Charles County residents related to diabetes and 80.5% of those ED visits were at the University of Maryland Charles Regional Medical Center. The next highest facility was MedStar Southern Maryland Hospital with 6% of the ED visits. In Charles County, females have more diabetes-related ED visits than males (2,293 vs. 1,855).

Charles County African Americans are disproportionately affected by diabetes-related ED visits and make up 61% of the total diabetes-related ED visits for Charles County residents.



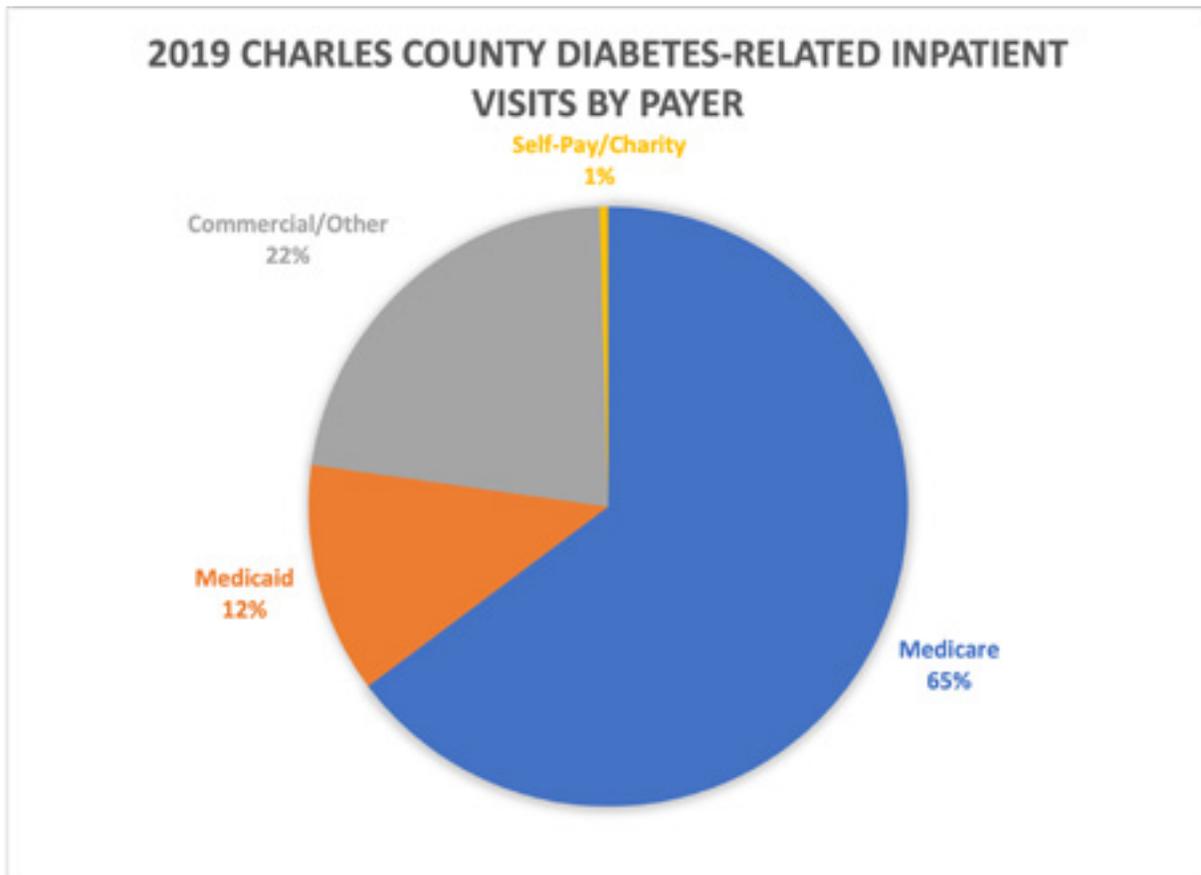
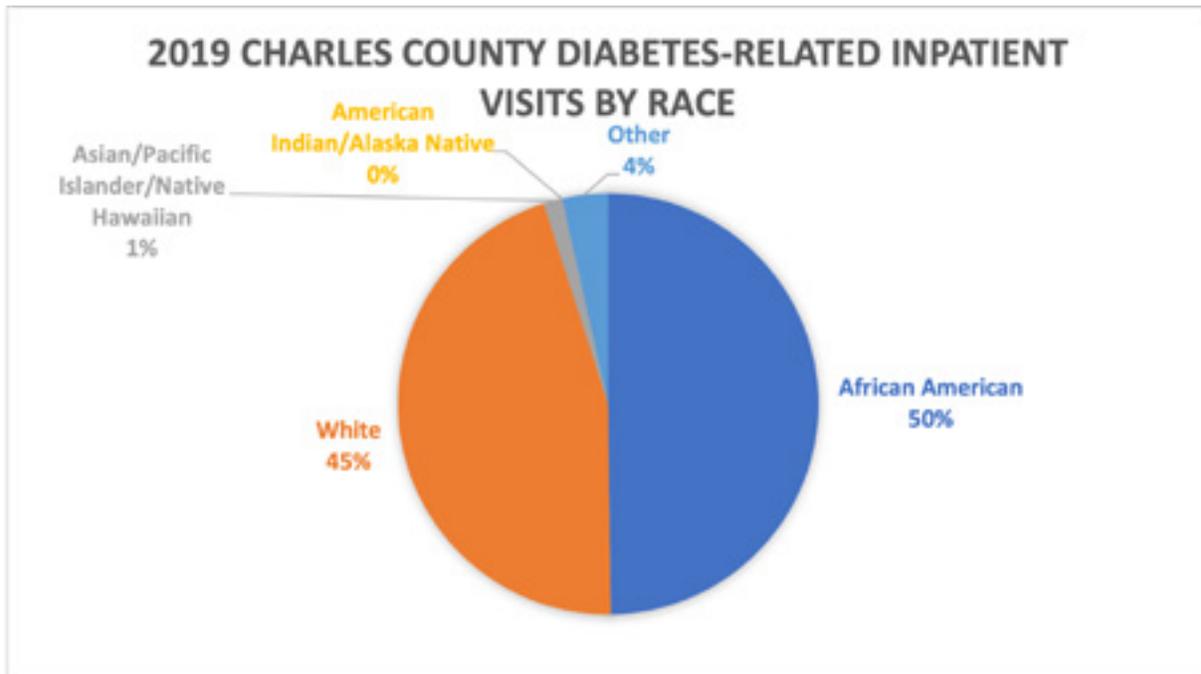
When examining my payer source, the largest payer is Medicare followed by Commercial/Other insurance.



The age group with the largest number of diabetes-related ED visits is the 60-64-year-old age group who had 562 visits in 2019. They are followed closely by those aged 55-59 years.

2019 Charles County Diabetes-Related ED Visits by Age Group	Count
0-4 years	<11
5-9 years	12
10-14 years	<11
15-17 years	13
18-24 years	57
25-29 years	89
30-34 years	76
35-39 years	189
40-44 years	220
45-49 years	369
50-54 years	478
55-59 years	538
60-64 years	562
65-69 years	440
70-74 years	405
75-79 years	330
80-84 years	171
85+ years	186

The same data source can be used to examine diabetes-related Inpatient visits for Charles County for 2019. Females have more diabetes-related inpatient visits than males (1,312 vs. 1,275). Charles County Whites and African Americans make up the majority of the diabetes-related inpatient visits (95%). Medicare is the largest payer source for diabetes-related patient stays (64%). The age group with the most inpatient visits are those aged 70-74 years.



2019 Charles County Diabetes-Related Inpatient Visits by Age Group	Count
0-17 years	<11
18-24 years	23
25-29 years	29
30-34 years	23
35-39 years	47
40-44 years	59
45-49 years	141
50-54 years	209
55-59 years	259
60-64 years	320
65-69 years	310
70-74 years	351
75-79 years	342
80-84 years	227
85+ years	246

Pre-Diabetes:

The 2018 Maryland Behavioral Risk Factor Surveillance System asked respondents if they have ever been diagnosed with pre-diabetes or borderline diabetes. 13% of Charles County adults and 12.5% of Maryland adults reported that they have been diagnosed with pre-diabetes.

Diabetes Care:

In 2017, the Maryland Behavioral Risk Factor Surveillance System asked respondents with diabetes a series of questions regarding diabetes care. The percentages of Charles County adults reporting that they engage in diabetes care activities were below the Maryland state average percentages.

- 30.3% of Charles County adults with diabetes and 47% of Maryland adults with diabetes ever took a class or course to manage diabetes themselves
- 30.4% of Charles County adults with diabetes and 51.8% of Maryland adults with diabetes reported frequent food checks
- 35.2% of Charles County adults with diabetes and 65.7% of Maryland adults with diabetes reported frequent blood glucose checks
- 15.3% of Charles County adults with diabetes and 39.0% of Maryland adults with diabetes use insulin

Diabetes References:

1. 2019 Charles County and Maryland Diabetes Prevalence Data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.
2. 2018 and 2016-2018 Charles County Diabetes mellitus mortality counts and rates. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.
3. 2008-2017 Charles County Diabetes Emergency Department Visit Rates. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.
4. 2019 Charles County Diabetes Emergency Department Visits and Inpatient Stays by Demographic. CRISP Reporting Services. Public Health Dashboards. Chesapeake Regional Information Sharing for our Patients (CRISP). Available at <https://reports.crisphealth.org>.
5. 2017 Charles County Diabetes Care data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.

Qualitative Data Relating to Diabetes:

Of the long survey participants, 54.5% felt that diabetes was a health problem in Charles County. Approximately one-quarter (24.5%) felt that diabetes is a “serious problem” in Charles County; 24.2% of long survey respondents reported that they have seen improvements in Charles County in terms of Diabetes.

Some health behaviors exhibited by Charles County survey respondents that might affect their chances of diabetes included: only 8.8% always eat five or more servings of fruits and vegetables each day, 7.7% always or most of time eat fast food at least once a week, 58.6% always take a vitamin, and 14.6% participate in physical activity each day.

Of the short survey participants, 47.7% felt that Diabetes is the greatest health problem in Charles County. This was the second highest ranking health condition. Additionally, 17.9%

of the respondents felt that there are “many” or “some” services available in Charles County to address diabetes.

Of the key informant interview participants, 7.8% felt that diabetes is the greatest health issue facing Charles County. This was the third highest ranking health condition.

Adult Diabetes:

Focus group and key informant interview participants expressed concern for diabetes and the need for more prevention education, especially among those with pre-diabetes. Key informant interviewees also felt that education campaigns and programs need to be in place for chronic conditions, including diabetes.

The county has focused on diabetes since the last needs assessment and has put more programs and services in place. The newly established Diabetes Education Center at the University of Maryland Charles Regional Medical Center was seen as a strength and asset to the community. Educational resources such as the Diabetes Prevention Program and diabetes support groups were also seen as strengths of the community.

Charles County Asthma Prevalence:

Adult Asthma Prevalence:

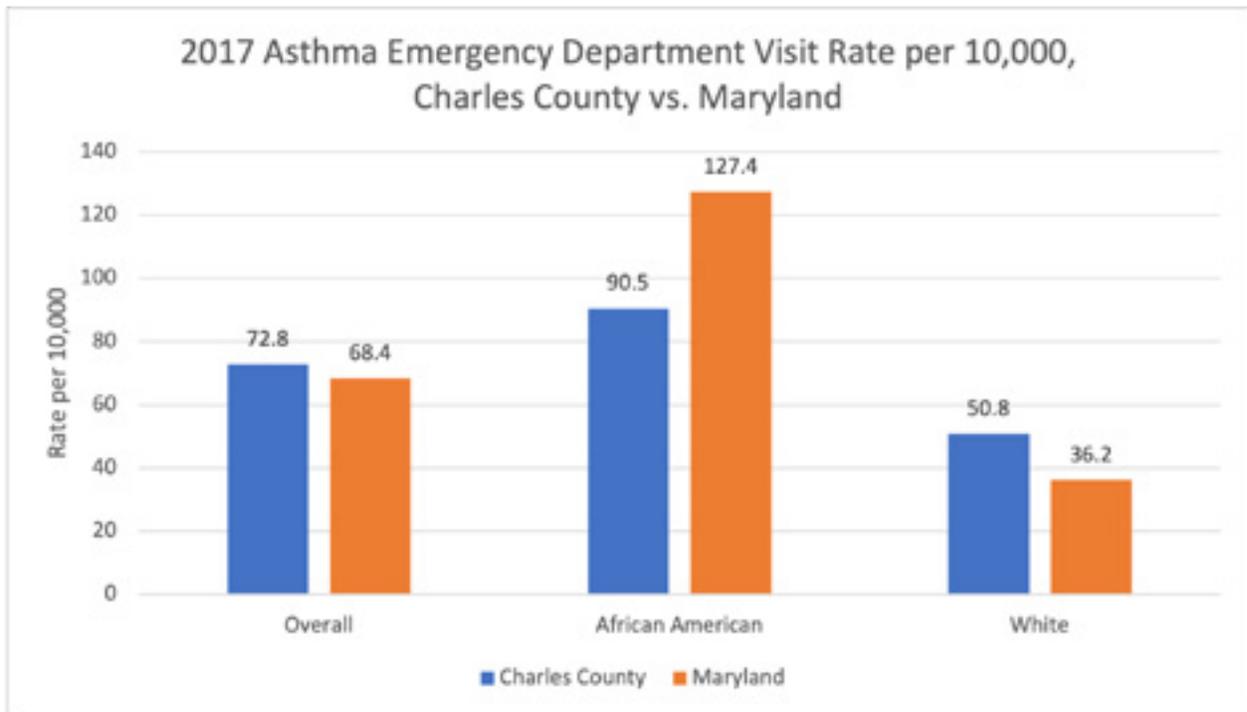
Asthma is an emerging health problem in the United States and in Maryland. The problems associated with asthma have been felt at the local level as well. In 2019, approximately 14.9% of adults in Maryland and 12.9% of adults in Charles County have ever been diagnosed with asthma (2019 Maryland BRFSS). An estimated 9.2% of Maryland adults and 7.1% of Charles County adults reported that they currently have asthma (2019 Maryland BRFSS).

Asthma Emergency Department and Hospitalization Rates:

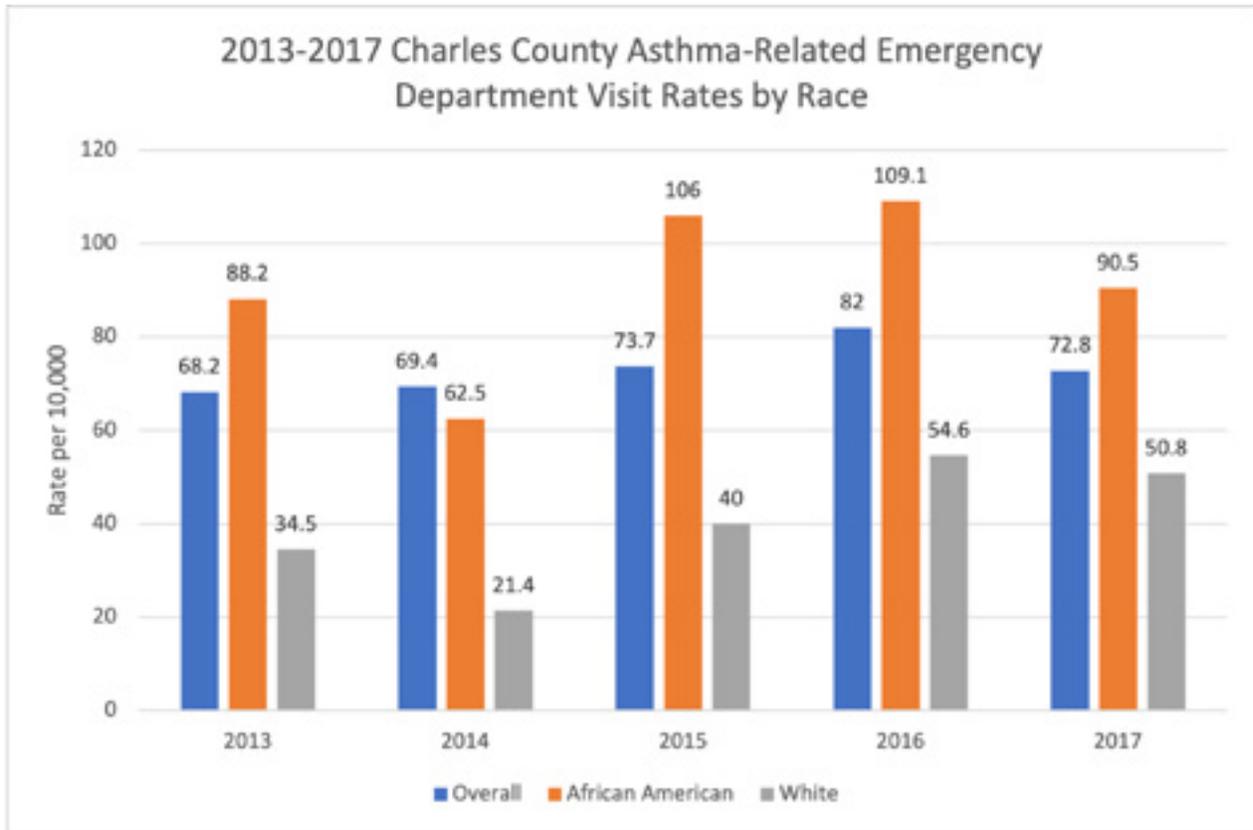
This indicator shows the rate of emergency department (ED) visits due to asthma per 10,000 population in 2017. Asthma is a chronic health condition which causes very serious breathing problems. When properly controlled through close outpatient medical supervision, individuals and families can manage their asthma without costly emergency intervention. In Maryland, there are nearly 50,000 emergency department visits related to asthma each year.

The 2017 Charles County asthma ED visit rate was 72.8 per 10,000 population. This rate is slightly above the Maryland state asthma ED visit rate of 68.4 per 10,000. Racial disparities are clearly seen on the state and county level. Charles County African Americans had a 2017 asthma ED visit rate of 90.5 per 10,000 population. This was significantly higher than the rate for Charles County Whites (50.8).

The 2017 Charles County asthma ED visit rate of 72.8 per 10,000 is a small decrease from the rate reported in the last needs assessment report of 69.4 per 10,000 for 2014. Additionally, the 2017 Charles County asthma ED visit rate is the 8th highest among the Maryland jurisdictions.



Charles County has seen a lot of fluctuation in the asthma-related ED visit rates from 2013-2017. The 2013 Charles County asthma ED visit rate was 68.2 versus 73.7 in 2017. The Charles County African American population have seen an increase from 88.2 in 2013 to 90.5 in 2017. Charles County Whites have seen an increase from 34.5 in 2013 to 50.8 in 2017.



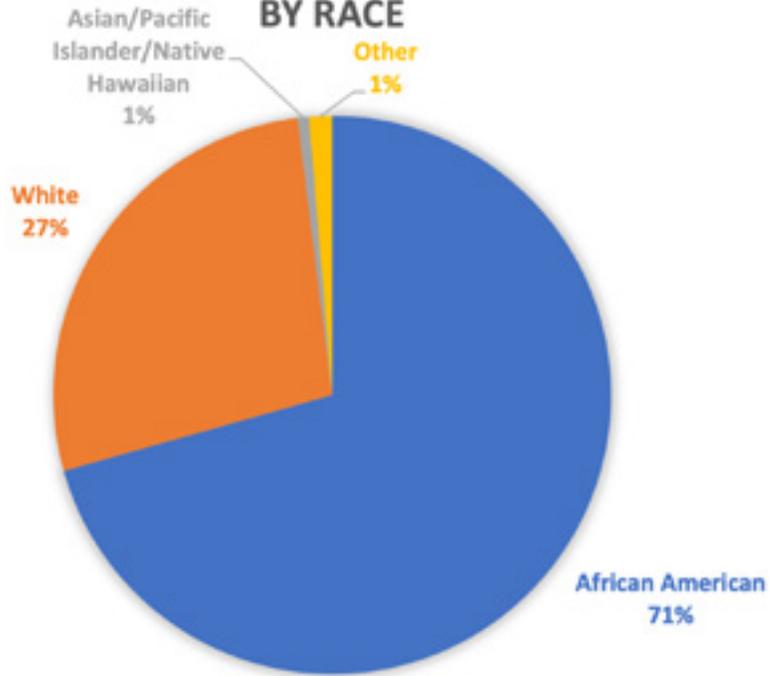
The Chesapeake Regional Information Sharing for our Patients (CRISP), is the health information exchange for the state of Maryland. CRISP Reporting Services provides public health dashboards with queries for emergency department and inpatient stays by demographics for many health conditions including asthma.

In 2019, there were 1,743 emergency department (ED) visits for Charles County residents related to asthma. 69.4% of those ED visits were at the University of Maryland Charles Regional Medical Center. In Charles County, females have more asthma-related ED visits than males (1115 vs. 628).

Charles County African Americans are disproportionately affected by asthma-related ED visits and make up 67% of the total asthma-related ED visits for Charles County residents.

2019 CHARLES COUNTY ASTHMA-RELATED ED VISITS

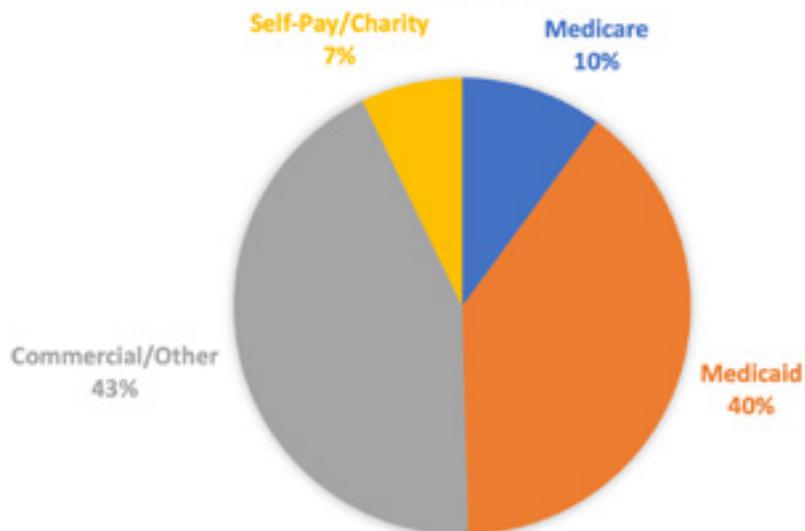
BY RACE



When examining my payer source, the largest payer is Commercial/Other insurance followed by Medicaid. When examining my payer source, the largest payer is Commercial/Other insurance followed by Medicaid.

2019 CHARLES COUNTY ASTHMA-RELATED ED VISITS

BY PAYER

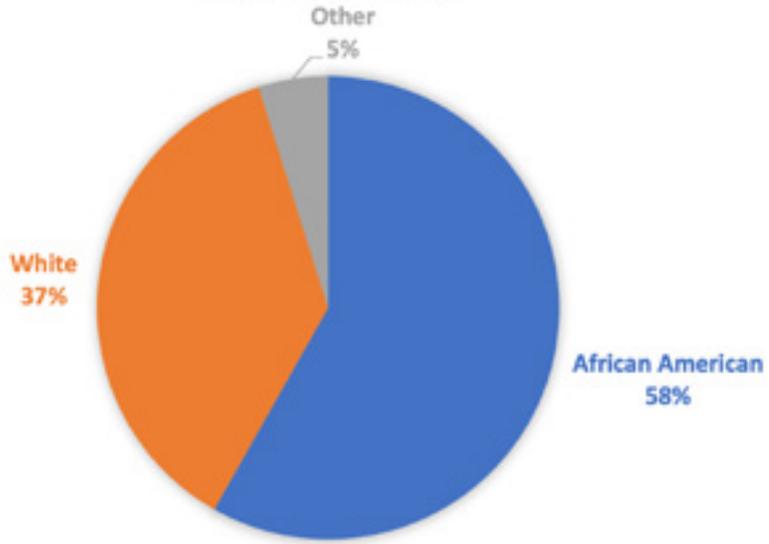


The age group with the largest number of asthma-related ED visits is the 18-24-year-old age group who had 216 visits in 2019. They are followed closely by those aged 30-34 years.

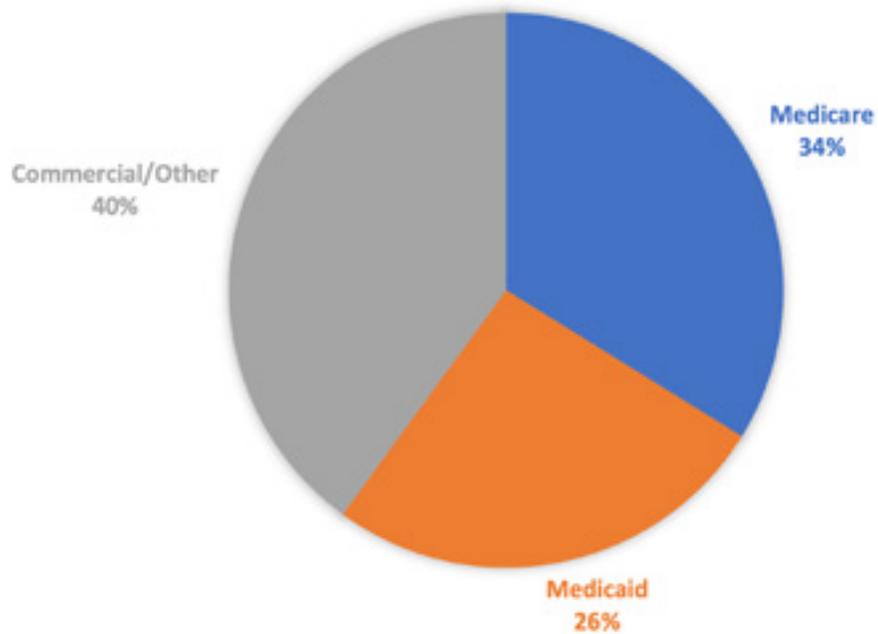
2019 Charles County Asthma-Related ED Visits by Age Group	Count
0-4 years	93
5-9 years	147
10-14 years	119
15-17 years	76
18-24 years	216
25-29 years	144
30-34 years	172
35-39 years	126
40-44 years	124
45-49 years	115
50-54 years	117
55-59 years	119
60-64 years	70
65-69 years	34
70-74 years	22
75-79 years	27
80-84 years	13
85+ years	<11

The same data source can be used to examine asthma-related Inpatient visits for Charles County for 2019. There were 677 asthma-related inpatient visits in 2019. Females have more asthma-related inpatient visits than males (486 vs. 191). Charles County Whites and African Americans make up the majority of the asthma-related inpatient visits (95%). Commercial or Other insurance is the largest payer source for asthma-related patient stays (39%). The age group with the most inpatient visits are those aged 60-64 years.

2019 CHARLES COUNTY ASTHMA-RELATED INPATIENT VISITS BY RACE



2019 CHARLES COUNTY ASTHMA-RELATED INPATIENT VISITS BY PAYER



2019 Charles County Asthma-Related Inpatient Visits by Age Group	Count
0-17 years	33
18-24 years	62
25-29 years	61
30-34 years	53
35-39 years	54
40-44 years	36
45-49 years	49
50-54 years	58
55-59 years	36
60-64 years	47
65-69 years	65
70-74 years	43
75-79 years	35
80-84 years	19
85+ years	26

Asthma Prevalence among Middle and High School Students:

In the 2018-2019 Maryland Youth Risk Behavior Survey for Middle and High School students, participants are asked if they have ever been told by a doctor or nurse that they have asthma. For the 2018-2019 school year, 21.5% of Charles County middle school students and 29.2% of Charles County high school students report that they have been told by a doctor or a nurse that they have asthma.

2018-2019 Middle and High School Asthma Prevalence	Middle School	High School
Charles County	21.5%	29.2%
Maryland	21.0%	25.9%

COPD Prevalence:

The 2019 Maryland Behavioral Risk Factor Surveillance System provides estimates on the prevalence of Chronic Obstructive Pulmonary Disease (COPD) in the community. The 2019 Charles County COPD prevalence was 5.1%. This is comparable to the 2019 Maryland state average COPD prevalence of 4.9%.

Asthma References:

1. 2019 Charles County and Maryland Adult Asthma Prevalence. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.
2. 2014 Charles County and Maryland Asthma Emergency Department Visit rates. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: <https://opendata.maryland.gov/Health-and-Human-Services/SHIP-Emergency-Department-Visit-Rate-Due-To-Asthma/b5i6-2qym>.
3. 2019 Charles County Asthma Emergency Department and Inpatient Visits by Demographics. CRISP Reporting Services. Public Health Dashboards. Chesapeake Regional Information Sharing for our Patients (CRISP). Available at <https://reports.crisphealth.org>.
4. 2018-2019 Middle and High School Asthma Prevalence for Charles County and Maryland. 2018-2019 Maryland Youth Risk Behavior Survey. Available at https://ibis.health.maryland.gov/query/builder/yrbs/MS_AsthmaYN/Crude.html.
5. 2019 Charles County and Maryland Adult COPD Prevalence. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.

Qualitative Data Pertaining to Asthma:

Long survey and key informant interview participants mentioned the need for increased specialists in Charles County including pulmonologists. They explained that many individuals have to wait up to a month to be seen.

Short survey participants did not feel that asthma is a significant problem in Charles County. Only 18.4% of short survey respondents felt that asthma was the biggest health problem in Charles County. This was the third lowest percentage among the listed health conditions. 16.8% of short survey respondents felt that the county has “many” or “some” services in regards to asthma.

On the long survey, 42.2% of respondents felt that asthma was a problem on some level in Charles County. 10.7% thought that asthma is a serious problem in Charles County. 9.3% reported that they have seen improvements in Charles County in regards to asthma.

Charles County Obesity and Overweight Data:

2019 Charles County adult obesity and overweight prevalence:

The 2019 Maryland BRFSS data estimates that over two-thirds of Charles County adults are either overweight or obese (71.9%). This percentage is a decrease from the 76.9% reported in the previous needs assessment report. Obesity prevalence was determined by weighting Charles County BRFSS BMI responses to reflect the county population. The 2019 results found that 43.5% of Charles County adults are obese; and 28.4% are overweight. The Charles County obesity prevalence is higher than the Maryland state average obesity prevalence (43.5% vs. 32.2%). The Charles County overweight prevalence is lower than the Maryland state average overweight prevalence (28.4% vs. 34.4%).

BMI Status: Charles County	Healthy Weight	Overweight or Obese	Overweight	Obese
2019	28.2%	71.9%	28.4%	43.5%
Previous CHNA	23.1%	76.9%	44.9%	32.0%

Childhood Obesity:

High School Students aged 15-18 years:

Childhood obesity statistics on a state and county level are limited. The 2018 Maryland Youth Risk Behavior Survey (YRBS) found that Charles County high school students have a 14.6% obesity prevalence and a 16.3% overweight prevalence. In Charles County, high school females were more likely to be overweight than high school males; however, high school males were more likely to be obese than high school females. The prevalence of overweight was highest in the 11th grade. The prevalence of obesity was highest in 10th and 12th grades. Hispanic high school students had a higher prevalence of overweight than any other racial or ethnic group. High school students of multiple races had a higher prevalence of obesity than any other racial or ethnic group.

Overweight Prevalence in CC High School Students: 2018 YRBS	Total High School Population (%)	Male (%)	Female (%)
Total	16.3%	13.7%	19.1%
Age			
15 and younger	15.6	14.3	17.0
16-17	17.6	13.9	21.6
18 and older	--	--	--
Grade			
9th	16.3	15.3	17.5
10th	15.0	13.5	16.7
11th	17.8	13.4	22.4
12th	16.0	12.6	19.7
Race/Ethnicity			
Black	17.4	14.7	20.2
Hispanic	18.8	17.7	20.3
White	14.0	11.6	17.1
All Other Races	10.4	--	--
Multiple Races	17.4	--	23.2

-- Percentages are not calculated due to less than 100 students in a subgroup.

Obesity Prevalence in CC High School Students: 2018 YRBS	Total High School Population (%)	Male (%)	Female (%)
Total	14.6	15.8	13.3
Age			
15 and younger	14.6	16.0	13.0
16-17	14.2	15.5	12.7
18 and older	--	--	--
Grade			
9th	14.2	16.3	11.8
10th	15.4	16.7	14.0
11th	12.5	14.1	10.8
12th	15.4	14.7	16.3
Race/Ethnicity			
Black	14.3	14.5	14.2
Hispanic	16.2	16.4	16.0
White	13.7	14.9	12.1
All Other Races	9.5	--	--
Multiple Races	18.2	--	7.6

In addition, Charles County high school students were asked a number of questions regarding their perceptions of their weight and questions regarding their diet and activities. All of these factors could impact obesity and overweight.

- 26.7% consider themselves slightly or very overweight
- 22.0% did not eat fruit in the past week
- 10.7% did not eat vegetables in the past week
- 12.0% drank soda one or more times a day
- 34.5% were physically active for at least 60 minutes five times a week
- 23.4% watched television for three or more hours per day
- 45.2% played video games or played on computer three or more hours per day

These same questions were also asked of Charles County middle school students on the 2018 YRBS.

- 23.3% describe themselves as slightly or very overweight
- 43.3% are trying to lose weight
- 9.6% did not eat breakfast each day
- 47.3% were physically active at least 60 minutes five times a week
- 17.5% did not participate in physical activity at least one day a week
- 29.9% watched television for three or more hours per day
- 52.1% played video games or played computer for three or more hours a day

The State of Childhood Obesity report by the Robert Wood Johnson Foundation provides data on low-income children 2-4 years of age in the WIC Program. The 2016 average obesity rate for Maryland children 2-4 years was 15.6%. This is the 9th highest obesity rate in the United States. However, the 2016 obesity rate of 15.6% is a drop from 16.5% reported in 2014.

The National Survey of Children's Health (NSCH) provides data on youth aged 10-17. The 2018-19 average obesity rate for Maryland children 10-17 years was 17.6%. This is the 10th highest obesity rate in the United States. This percentage is an increase from the 2017-18 report where the obesity rate for Maryland children aged 10-17 was 14.5%.

Determinants of Health:

Physical Activity:

Sedentary lifestyle increases risk of obesity, heart disease, hypertension, diabetes, and other chronic diseases and conditions. The Healthy People 2030 objective recommends engaging in

moderate physical activity for at least 150 minutes/week, or at least 75 minutes/week of vigorous intensity, for health benefits. Despite the benefits of physical activity, 2019 Maryland BRFSS data found that 77.4% of Charles County residents report leisure time physical activity. This is slightly higher than the Maryland state average percentage of 76.6%.

Leisure Time Physical Activity 2019 BRFSS	Yes, leisure time physical activity	No leisure time physical activity
Charles County	77.4%	22.6%
Maryland	76.6%	23.4%

Daily Fruit and Vegetable Consumption, 2019 BRFSS	Percent who consume at least 1 fruit per day	Percent who consume at least 1 vegetable per day
Charles County	58.1%	83.5%
Maryland	62.8%	78.7%

The 2020 Robert Wood Johnson Foundation’s County Health Rankings calculate a food environment index based on factors that contribute to a good food environment. They calculate a score for each county with zero being the worst and 10 being the best. For 2020, Charles County’s food environment index was 8.3. This is a fairly strong score based on the fact that 5% of Charles County residents have limited access to healthy foods and 11% food insecurity in Charles County. It is below the Maryland average score of 9.0.

Additionally, the Robert Wood Johnson Foundation calculates the percentage of Charles County residents with access to exercise opportunities. In 2020, 77% of county residents had adequate access to exercise opportunities. This is below the Maryland state percentage of 93%.

Community Support:

2017 BRFSS collected data on various community support indicators. These indicators may have an effect on health behaviors within a community. When asked if there are sidewalks in their neighborhood, 51.2% reported having sidewalks. Sidewalks in a community promote safe physical activity such as walking or running.

The 2017 BRFSS captured data on the safety and promotion of bicycling in Charles County. Residents were asked how many of the roads and streets in their neighborhood have shoulders or lanes that are marked for bicycling: 76.2% of Charles County residents reported no shoulders or lanes being marked for bicycling and 14.2% reported some being marked.

57.3% of Charles County residents described the lighting in their neighborhood as “poor” or “very poor” for walking at night, and 30.9% of those residents described the street lighting in their neighborhood as “very poor.”

Walking at night, 2017 BRFSS	Percent
Very Good	--
Good	32.9%
Poor	26.4%
Very Poor	30.9%

Walking for Leisure, 2017 BRFSS	Percent
1 day	--
2-7 days	38.0%
8-14 days	19.7%
15-29 days	12.7%
30 days or daily	22.7%

When asked how often Charles County residents felt safe in their neighborhood, 66.7% said they felt safe all the time; 29.7% reported feeling safe most of the time, and 3.4% felt safe some of the time.

Obesity and Overweight References:

1. 2019 Charles County and Maryland Overweight and Obesity Estimates. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at <https://ibis.health.maryland.gov/>.
2. 2018-2019 13-18 year old Charles County and Maryland overweight/obesity Estimates. 2018-2019 Maryland Youth Risk Behavior Survey. Maryland CRF Program. Maryland Department of Health. Available at: <https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS2018.aspx>.

3. 2016 2-4 year old and 2018-19 10-17 year old Maryland Obesity Estimates. The State of Obesity Report. The Robert Wood Johnson Foundation. Available at: <https://stateofchildhoodobesity.org/>.
4. 2019 Charles County Obesity Health Complication and Risk Factor Data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at <https://ibis.health.maryland.gov/>.
5. 2020 Charles County and Maryland Food Environment Indexes. Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/measure/factors/133/map>.
6. 2020 Charles County and Maryland Access to Exercise Opportunities Percentages. Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/measure/factors/132/map>.
7. Healthy People 2030. U.S. Department of Health and Human Services. Available at: health.gov/healthypeople.
8. 2017 Charles County Community Support Estimates. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at <https://ibis.health.maryland.gov/>.

Qualitative Data Relating to Obesity:

Overweight/obesity was seen as one of the biggest and most serious health issues in Charles County on the long survey. The majority of the long survey participants viewed overweight/obesity as a problem on some level (73.3%). It was also seen as a serious health problem by 36.9% of long survey participants (second most common response).

Of the long survey respondents, 8.7% felt that improvements have been made in the county towards combating obesity.

Risk factors reported by long survey participants increasing the rate of obesity include:

1. Only 8.8% always eat five or more servings of fruits and vegetables every day. 34.0% reported that they eat five or more servings of fruits and vegetables most of the time.
2. 1.9% always eat fast food at least once a week.
3. 6.3% eat fast food at least once a week most of the time.
4. Only 14.6% always participate in physical activity each day. 65.1% reported that they participate in daily physical activity sometimes or most of the time.

On the short survey, overweight and obesity were seen as the biggest health problems in Charles County. Nearly half of the respondents (50.3%) felt that overweight and obesity are big health issues in Charles County. When asked if services were available in Charles County to address obesity and overweight, 42.3% of participants who answered reported that many or some services were available in the county to address the issue.

When asked what they perceive to be the biggest health problem in Charles County,

12.5% of focus group participants chose obesity. Obesity increases the likelihood of developing other chronic health conditions such as diabetes, arthritis, heart disease, cancer, asthma, injury, hypertension, and stroke. Discussions on obesity focused on unhealthy eating habits amongst community members and the financial decision making that goes into choosing healthy food over fast food and other unhealthy food options.

Focus group participants noted barriers in accessing grocery stores in many communities within Charles County. Limited access to large grocery stores may force community members to choose unhealthy food options like non-perishable items or fast food. Transportation was seen as another barrier, which can lead to individuals choosing food options based on convenience. Community members who do not have transportation to larger grocery stores may be limited to dollar stores or other unhealthy food options.

Discussions on the connection between mental health and healthy decision making showed concern for unhealthy habits that could affect one's weight and nutritional status. Respondents noted that mental health and isolation has the ability to control one's actions, which can lead to carb loading and substance and alcohol use. This was noted to be a concern related to the current pandemic, which may cause individuals to feel isolated.

Childhood obesity and overweight were of the biggest issues to emerge from the focus group discussion.

Improvements in educational programs that address chronic conditions were mentioned in the discussion and seen as a strength in the community. It was mentioned that community members have access to chronic disease self-management classes and mobile integrated health care, which can help those individuals living with obesity or overweight.

Chronic disease prevention resources and programs have expanded in Charles County compared to past years. Activities and community programs including Living Well Southern Maryland and Walk Charles County promote chronic disease prevention and healthy lifestyles for adults and children.

The Senior Nutrition Program in Charles County is another program aimed at focusing on nutrition for community seniors. They provide nutritional services to Charles County residents over the age of 60. Their programs include congregate meals at senior centers, meals on wheels, nutrition education and counseling, and referrals for other programs including food pantries and private-pay programs.¹

Although chronic disease management programs have been added to the community, chronic disease management was one of the biggest health issues to emerge from the focus group discussion.

1. "Charles County, MD." Nutrition Programs, www.charlescountymd.gov/services/aging-and-senior-services/nutrition-services.

Health of the Aging Population:

Life Expectancy:

The 2016-2018 average life expectancy at birth for a Charles County resident was 78.5 years. The life expectancy is similar for Charles County Whites at 78.3 years and Charles County African Americans at 79.2 years.

Alzheimer's disease:

Mortality:

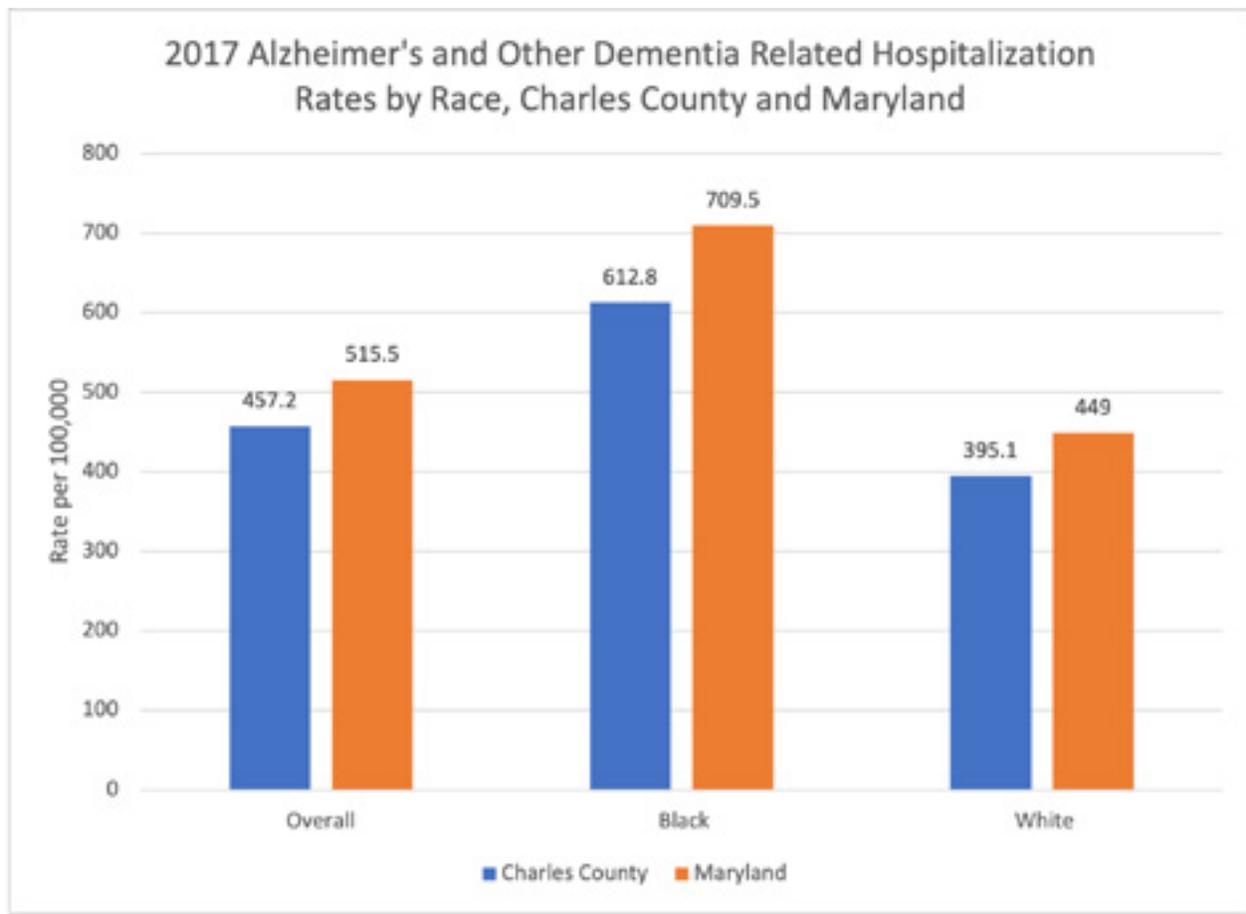
Alzheimer's is the sixth-leading cause of death nationally and the only cause of death among the top 10 in the United States that cannot be prevented cured or even slowed. In the United States, 1 in 3 seniors will die with Alzheimer's or another form of dementia. In 2018, there were 23 deaths in Charles County and 1,126 deaths in Maryland attributed to Alzheimer's disease.

The 2018 crude Alzheimer's disease mortality rate for Charles County was 14.2 per 100,000. This rate was slightly below the Maryland state average rate of 18.6 per 100,000.

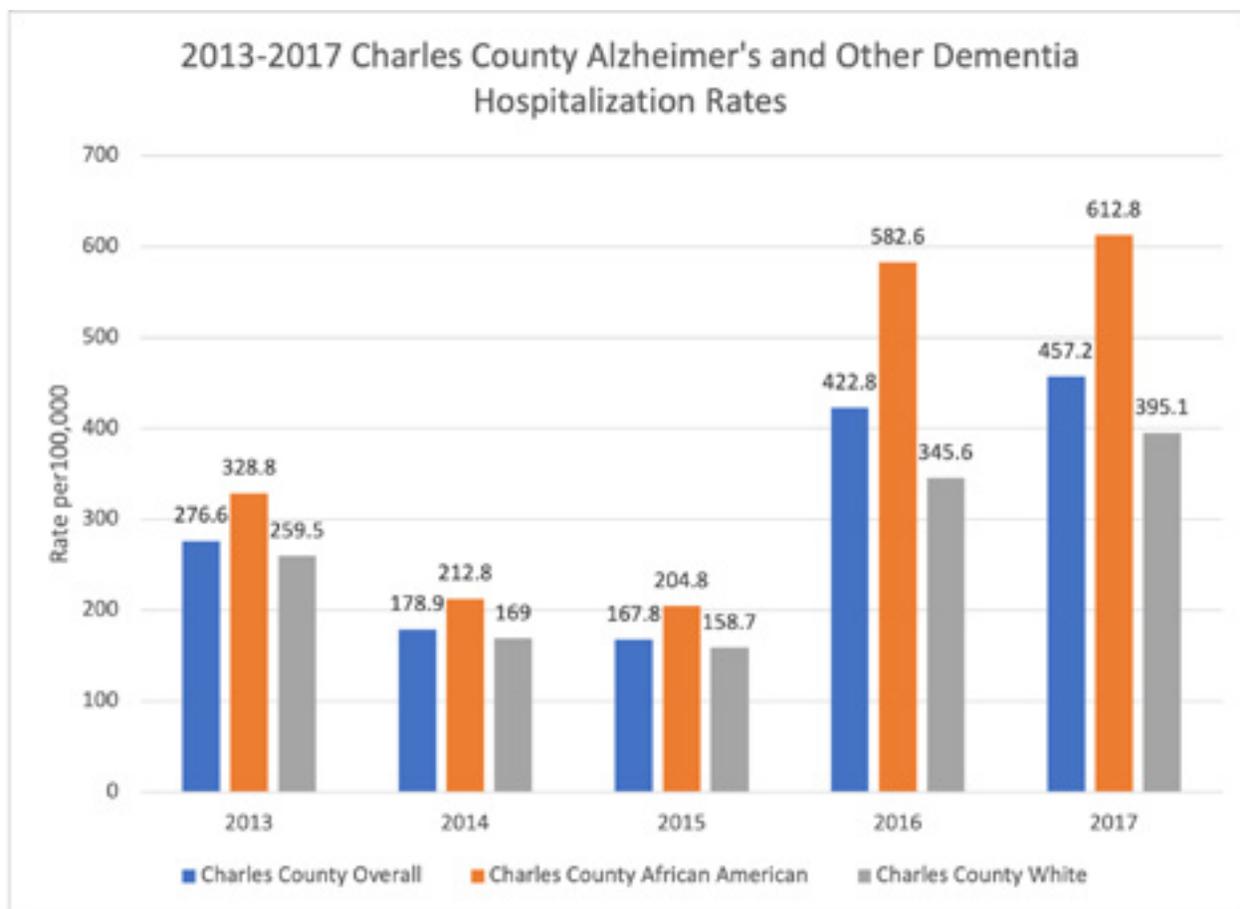
The 2016-2018 average age-adjusted Alzheimer's disease mortality rate for Southern Maryland was 18.7 per 100,000. This three-year average rate is more reliable than the 2018 only rate. The 2016-2018 Southern Maryland average rate was higher than the Maryland state average rate of 16.8 per 100,000. A county level rate could not be calculated due to small case counts.

Hospitalizations for Alzheimer's disease and Other Dementias:

In 2017, the Charles County hospitalization rate for Alzheimer's disease and other dementias was 457.2 per 100,000. This is slightly below the Maryland state average rate of 515.5 per 100,000. The Charles County rates are lower than the state overall, for African Americans, and for Whites. Racial disparities are seen on a county level where Charles County African Americans have a higher Alzheimer's disease hospitalization rate than Charles County Whites (612.8 vs. 395.1).



When looking at trends in the hospitalization rates from 2013 to 2017, increases can be seen in the last two years of data for Charles County Overall, for Charles County African Americans, and Charles County Whites. The disparity in rates between African Americans and Whites appears to be widening.



Arthritis:

It is estimated that 21.7% of Marylanders and 24.4% of Charles County residents are currently living with arthritis (2019 Maryland BRFSS). The 2019 BRFSS contained a module with additional questions surrounding arthritis. Of Charles County residents with arthritis, 23% reported that arthritis or joint symptoms have affected whether they can work, the type of work they do, or the amount of work they do; and 90.4% of Charles County residents with arthritis also reported that they have had joint pain in the past month. On a scale of 1-10 with 10 being the most severe pain, most respondents said their pain was between 1-3 out of 10.

Among Charles County residents who reported having arthritis, the majority are not hindered by their arthritis. Nearly 61.9% reported that they can do most things or everything and 38.1% reported having limited activities due to joint symptoms.

Disability and Health Impairment:

The 2019 Charles County BRFSS data estimates that approximately 22.4% of Charles County residents reported having poor physical or mental health that kept them from their usual activities at least one day in the last month.

The 2019 BRFSS included a module with seven questions regarding disabilities and health impairment. 25.6% of Charles County residents reported at least one disability, compared to 22.4% for Maryland. The Charles County and Maryland breakdown for vision, cognitive, mobility, self-care, independent living, and hearing are listed in the table below.

2019 BRFSS Disability and Health Impairment, Charles County and Maryland	Charles County	Maryland
Reported at least one disability	25.6%	22.4%
Vision Disability	**	3.8%
Cognitive Disability	12.3%	9.9%
Mobility Disability	10.0%	10.3%
Self-care Disability	2.2%	2.7%
Independent Living Disability	2.4%	5.8%
Hearing Disability	3.7%	4.1%

** Case count was too small for a percent to be calculated and presented.

Chronic Lower Respiratory Disease Mortality:

In 2018, there was a total of 53 deaths in Charles County and 2235 deaths in Maryland attributed to Chronic Lower Respiratory Disease. The 2016-2018 Charles County Chronic Lower Respiratory Disease (COPD) mortality rate was 32.4 per 100,000. This is higher than the Maryland state average rate of 30.5 and lower than the Southern Maryland regional rate of 35.5 per 100,000.

Aging Data References:

1. 2018 Charles County Life Expectancy and Alzheimer's disease mortality. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.
2. United States Alzheimer's Disease Facts And Figures. National Alzheimer's Association. Available at: www.alz.org.
3. 2013-2017 and 2017 Charles County Alzheimer's disease and other dementia hospitalization rates. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.
4. 2019 Arthritis Prevalence, Severity, and Management. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.
5. 2019 Disability and Health Impairment Statistics. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health. Available at: <https://ibis.health.maryland.gov/>.
6. 2018 Charles County Chronic Lower Respiratory Disease Mortality Rates. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.

Qualitative Data Pertaining to the Aging:

The focus group participants held a discussion about the challenges of telehealth for seniors and those in the aging population. Virtual telehealth appointments only work if individuals have access to reliable internet and the equipment to connect. There is a large portion of seniors who do not want to set up the virtual meetings for telehealth. Participants proposed a hybrid system where residents have access to health education classes in person or virtual. The group also acknowledged that technology has many positive aspects including the potential to show needed health services and screenings as well as benchmarks for health.

On the long survey, participants were asked to rank the seriousness of each health condition in Charles County. Of the respondents, 13.5% felt that disability services are a serious problem in Charles County, and 42.4% felt that disability services are a problem on any level: serious, moderate, or slight.

Injury-Related Morbidity and Mortality Data Analysis

Injury-related Mortality:

There are various deaths recorded in the Maryland Vital Statistics Report related to accidental and intentional injuries. Accidents were the third leading cause of death in Charles County and the number one cause of death in individuals under the age of 24 years. In 2018, there were 50 deaths in Charles County and 2,320 deaths in Maryland due to accidents. Nineteen of the Charles County accident deaths were due to motor vehicle accidents. There were also 31 deaths due to other accidents, 18 deaths due to intentional self-harm or suicide, and 15 homicides.

The 2018 Charles County crude accident death rate was 31.0 per 100,000. This is slightly below the Maryland state rate of 38.4 per 100,000.

The 2016-2018 age-adjusted Charles County accident death rate was 38.8 per 100,000 compared to 36.0 for the state of Maryland. There is no significant difference in the county and state rates.

Injury-related Morbidity:

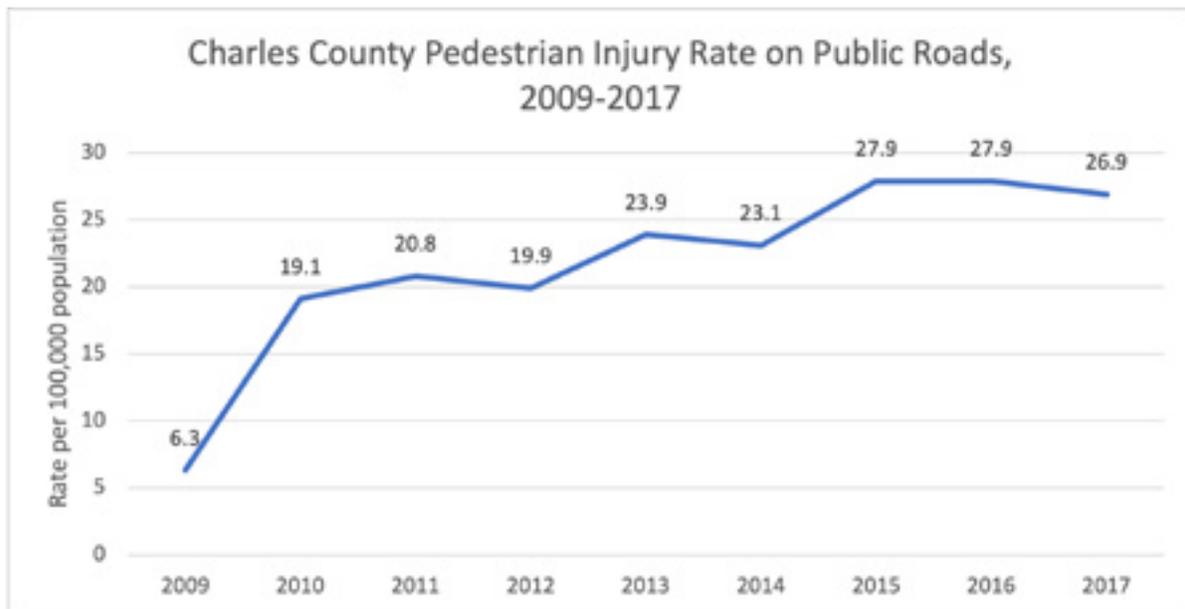
Child maltreatment:

The 2017 Charles County rate of children who were maltreated per 1,000 population under the age of 18 years was 5.7. This is below the Maryland state average rate of 7.1 per 1,000 population under the age of 18 years.

Pedestrian injury rate:

This indicator shows the rate of pedestrian injuries on public roads per 100,000 population. Maintaining pedestrian safety is a key element in preventing motor vehicle injuries and fatalities. Children are especially at risk for pedestrian injuries and fatalities.

The 2017 Charles County pedestrian injury rate on public roads was 26.9 per 100,000. This is significantly lower than the Maryland state average rate of 53.5 per 100,000.



Seat Belt Use:

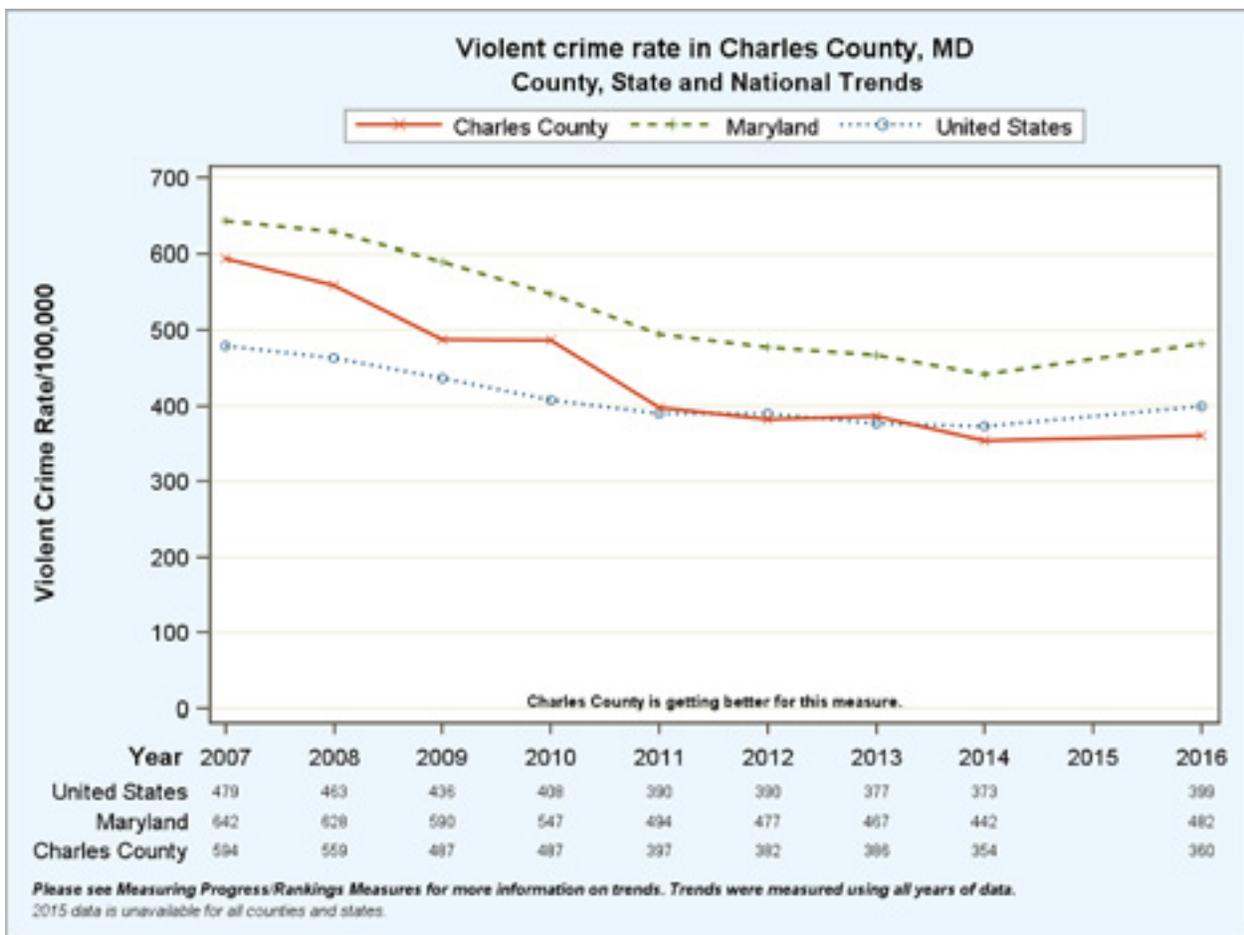
According to the 2018 Maryland Behavioral Risk Factor Surveillance System (BRFSS), approximately 93.8% of Charles County residents report that they are always compliant with seat belt use. This is slightly above the Maryland state percentage of 90.1%.

Fall prevalence:

According to the 2018 Maryland BRFSS, 20.2% of Charles County residents and 22.2% of Maryland residents over the age of 45 years have fallen sometime in the past year; 6.2% of Charles County residents reported that their fall resulted in an injury, compared to 8.7% for Maryland.

Violent Crime:

The 2014-2016 Charles County violent crime offenses per 100,000 was 357. The Charles County violent crime rate is below the Maryland average rate of 459 per 100,000.



Injury Death Rate:

The 2014-2018 rate of deaths due to injury per 100,000 in Charles County was 65 per 100,000. There was a total of 517 injury-related deaths in Charles County from 2014-2018. The Charles County injury death rate was lower than the Maryland state average rate of 76 per 100,000.

Number of Injury-related Deaths by Race/Ethnicity, 2014-2018:	Count
White	93
African American	47
Hispanic	40

Maryland Violence and Injury Prevention Data:

Maryland state level data was extracted from the 2016 Maryland Violence and Injury Prevention Resource Guide for all-terrain vehicle safety, child abuse and neglect, distracted driving, home fires, intimate partner violence, teen driver safety, motorcycle safety, and traumatic brain injury.

All-terrain Vehicle (ATV) Safety:

- From 1982-2011, ATV-related crashes accounted for 91 deaths in Maryland.
- From 2001-2006, more than 9,000 individuals were injured in off-road vehicle incidents and required treatment at Maryland emergency departments.
- Approximately two-thirds of trauma patients in ATV-related incidents were not wearing a helmet.

Child Abuse and Neglect:

- In 2014, there were an estimated 31,469 referrals screened for investigation for child abuse and neglect by Child Protective Services in Maryland.
- Of those screened reports, about 15,762 victims were indicated, at a rate of 11.7 per 1,000 children (1-17 years of age).
- In 2014, 11 children in Maryland died as the results of child abuse and neglect.

Distracted Driving:

- From 2009-2013, an average of 232 people were killed and 2,348 people were injured each year in crashes involving a distracted driver.
- Distracted driving in Maryland in 2013 led to 182 deaths and 26,995 injuries.

Home Fires:

The 2010-2014 Charles County fire-related death rate was 0.4 per 100,000. This is below the Maryland fire-related death rate of 1.1 per 100,000 for the same time period.

Intimate Partner Violence:

- In 2010, 4.23 million of women in Maryland reported being a victim of rape, physical violence, and/or stalking by an intimate partner in their lifetime.
- Maryland has the 6th highest lifetime rate of Intimate Partner Violence in the country
- In 2010, 2.97 million men in Maryland reported being a victim of rape, physical violence, and/or stalking by an intimate partner in their lifetime.
- In 2010, 18 women and three men in Maryland were murdered as a result of Intimate Partner Violence.

Teen Driver Safety:

- From 2008-2014, motor vehicle crashes were the leading cause of death for Maryland teenagers, with 279 deaths and a rate of 13 per 100,000.
- In 2014, 26 teen drivers were killed in Maryland due to a motor vehicle crash.

Motorcycle Safety:

- In 2014, there were 69 motorcycle rider deaths in Maryland with a rate of 55 deaths per 100,000 registered drivers.

Traumatic Brain Injury:

- In 2013, approximately 43,600 Marylanders suffered from a traumatic brain injury (TBI).
- Most common causes of TBI-related hospitalizations in Maryland were falls and motor vehicle crashes.
- In 2013, TBI-related Emergency Department visits were highest in people aged 15-24 years. Deaths due to TBI were highest among those 85 and older.

Injury References:

1. 2018 Charles County Injury/Motor Vehicle Accident Mortality Data. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf
2. 2017 Child maltreatment data. Maryland Department of Human Resources. Accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.
3. 2009-2017 Pedestrian Injury Rate on public roads. Maryland State Highway Administration. Accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.
6. 2018 Seat Belt Use Percentages for Charles County and Maryland. 2018 Maryland Behavioral Risk Factor Surveillance System. Available at: <https://ibis.health.maryland.gov/>.
7. 2018 Fall Prevalence and Severity Data for Charles County and Maryland. 2018 Maryland Behavioral Risk Factor Surveillance System. Available at: <https://ibis.health.maryland.gov/>.

8. 2014-2016 Violent Crime Offenses Rates. Uniform Crime Reporting Program. Accessed through the Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/rankings/charles/county/outcomes/overall/snapshot>.
9. 2014-2018 Injury related death rates per 100,000. Compressed Mortality File. Accessed through the Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/rankings/charles/county/outcomes/overall/snapshot>.
10. Injury-related data on all-terrain vehicles, child abuse and neglect, distracted driving, home fires, intimate partner violence, teen driver safety, motorcycle safety, traumatic brain injury. 2016 Maryland Violence and Injury Prevention Resource Guide. Maryland Department of Health Violence and Injury Prevention Program. Available at: <https://phpa.health.maryland.gov/ohpetup/Pages/EIPResourceGuide.aspx>.

Qualitative Data Relating to Traffic Safety and Injury:

On the long health survey, participants were asked the severity of several health issues in Charles County. The community perceives crime as the problem in Charles County. Crime had the highest percentage reporting it as a combined slight, moderate, and serious problem (68.4%). Crime also had the fourth highest number of people who felt that it is a serious problem in Charles County.

Traffic safety was also seen as a problem in Charles County. Traffic safety had the fourth highest number of people who reported it as a problem on any level.

Health Issue/Condition:	Percent Reporting no Problem in county	Percent Reporting this as a problem at any level	Percent Reporting this as a serious problem
<i>Injuries</i>	3.7	39.9	7.7
<i>Highway Safety/Traffic Accidents</i>	4.6	60.8	23.5
<i>Child Abuse and Neglect</i>	4.6	43.5	15.3
<i>Domestic Violence</i>	4.1	49.9	19.3
<i>Traumatic brain injury</i>	5.7	28.3	5.7
<i>Crime</i>	4.6	68.4	26.9

Survey participants reported improvements in traffic safety in Charles County (16.2%). This was the ninth highest percentage among the health conditions. Injuries reported the lowest percentage of people reporting any improvements (5.6%).

Health Issues where improvements have been seen	Response Percent
Traffic Accidents	16.2
Injuries	5.6

Long survey behavioral risk factor data related to Traffic Safety or Injury:

- 90.4% always wear a seat belt
- 58.6% always follow road safety rules
- 15.2% always wear a helmet when riding a bike
- 13.4% always wear a helmet when riding an ATV, scooter, or motorcycle
- 14.6% always participate in daily physical activity

Injuries and Traffic Safety scored low on the short survey when participants were asked to choose the biggest health problems in Charles County. 6% felt that injuries were the biggest health problem in Charles County. This was the lowest among the health conditions listed. 17.7% of the short survey participants chose Traffic Safety as the biggest health problem in Charles County. This was the second lowest percentage among the health conditions listed.

Charles County Communicable Disease and Environmental Health Data:

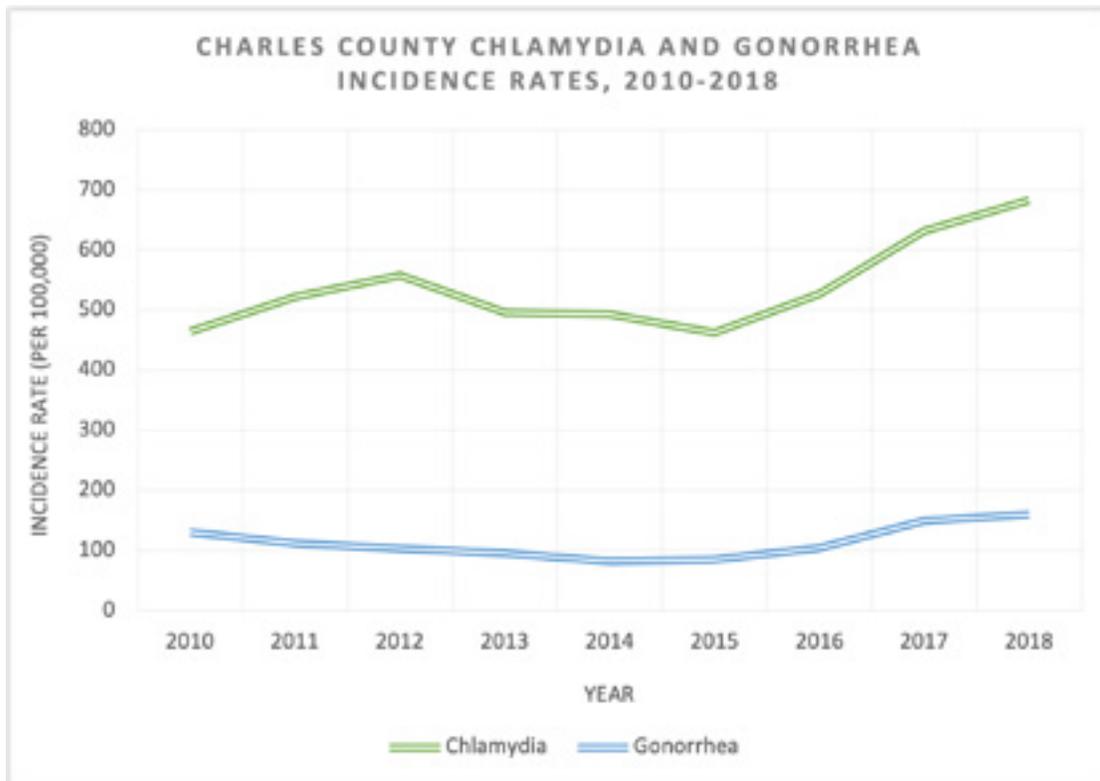
The table below shows the incidence for the 12 most commonly reported communicable diseases in Charles County in 2018. Chlamydia had the highest incidence rate in Charles County for 2018. The top two communicable diseases with the highest incident counts in 2018 in Charles County were both sexually transmitted diseases.

Selected Notifiable Conditions Reported in Charles County, 2018	Case Counts	Incidence Rates per 100,000 population
Chlamydia	1,103	683.0
Gonorrhea	258	159.7
Animal Bites	235	145.5
Invasive Strep Group B	20	12.4
Legionellosis	19	11.8
Mycobacteriosis, Other than TB & Leprosy	17	10.5
Salmonellosis- Other than Typhoid Fever	17	10.5
Syphilis- Primary and Secondary	14	8.7
Invasive Strep pneumoniae	11	6.8
Campylobacteriosis	10	6.2
Lyme Disease	8	5.0
Invasive H. influenzae	7	4.3

Chlamydia and Gonorrhea incidence rates have had steady increases over the past four years in Charles County. Chlamydia incidence rates are consistently higher than Gonorrhea incidence rates over the past nine years, however, both have seen increases in recent years. The 2018 incidence rate for Chlamydia in Charles County was 683.0 per 100,000, compared to the 2015 incident rate of 462.3 per 100,000. The 2018 Gonorrhea incident rate in Charles County was 159.7 per 100,000, compared to the 2015 rate of 84.5 per 100,000.

Primary and Secondary Syphilis had an increase in incidence rates in 2018 as well. The 2018 incidence rate was 8.7 per 100,000. This is compared to the 2015 incidence rate of 5.8 per 100,000.

Increases in sexually transmitted disease cases are not only affecting Charles County, but the entire United States. In 2018, there was a 19% increase in Chlamydia cases in the U.S. since 2014. In 2018, Gonorrhea had a 63% increase in cases since 2014, and Primary and Secondary Syphilis had a 71% increase in cases since 2014 (CDC).



Rabies:

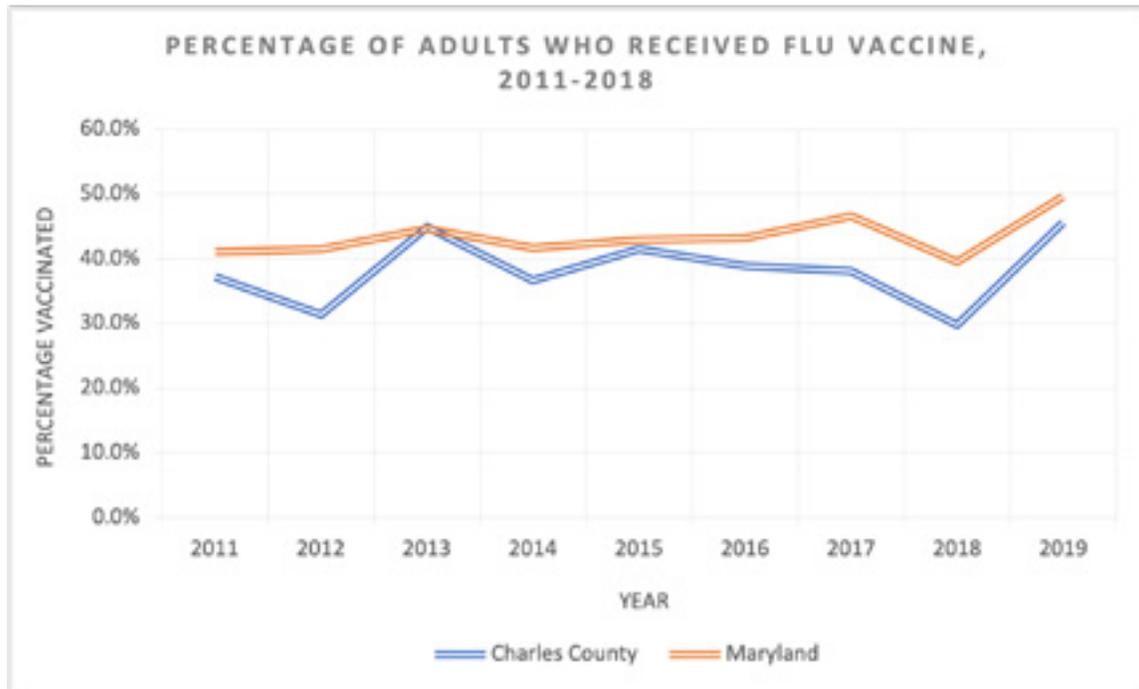
No human rabies cases were reported in Charles County from 2010-2020. Charles County has seen a decline in animal rabies cases from 12 in 2010 to 6 in 2020. With such small case counts, it is not uncommon to see fluctuation in counts from year to year. Raccoons and bats are commonly reported animal rabies cases. Case counts from 2010 to 2020 are presented below for overall animal rabies cases, bats, raccoons, and skunks.

2010-2020 Animal Rabies Case Counts for Charles County	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total Animal Rabies Cases	12	14	14	9	11	5	7	8	6	7	6
Bat Rabies Cases	1	0	7	1	1	0	1	3	0	1	1
Raccoon Rabies Cases	7	6	6	3	5	1	1	3	4	4	3
Skunk Rabies Cases	1	1	1	0	3	1	3	0	2	0	0

Vaccinations:

Influenza/Flu

In 2019, 45.6% of Charles County adults received the flu vaccine. This is an increase from the 2018 percentage of 29.8%; however, this percentage is still below the Maryland state average percentage of 49.6%. Charles County Whites had a higher rate of flu vaccination coverage than Charles County African Americans (50.6% vs. 27.9%).

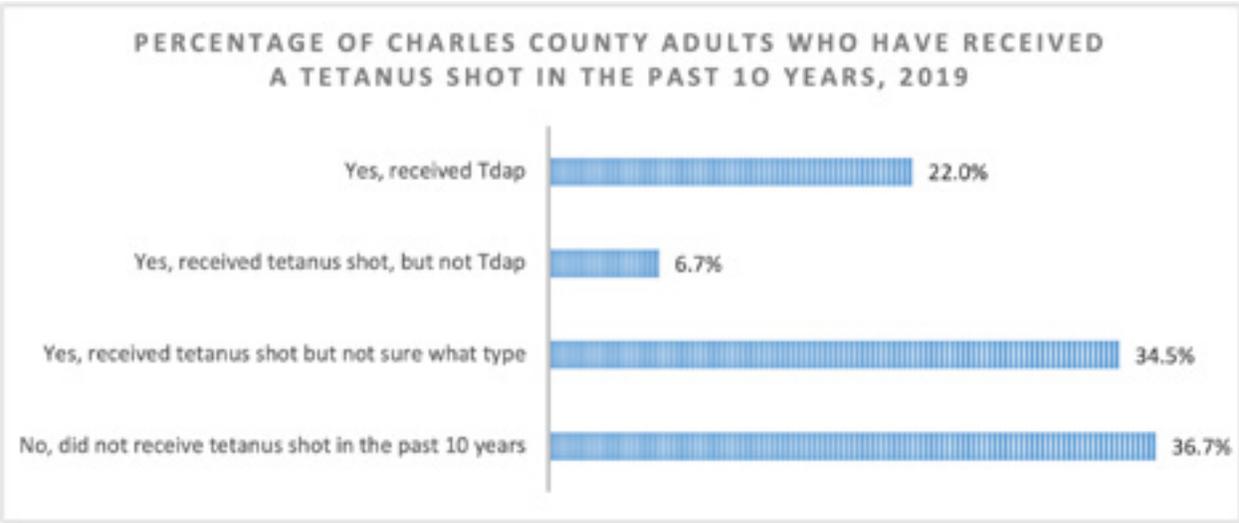


Pneumonia

In 2019, 37.0% of Charles County adults received the pneumonia shot at some point. This percentage is an increase from the 2018 percentage of 28.1%. The Maryland state average percentage in 2019 for adults who received the pneumonia shot was 36.9%.

Tetanus

The BRFSS captured data on the percentage of adults who received a tetanus shot in the past 10 years. In 2019, 63.2% of Charles County adults reported receiving a tetanus shot of some kind; 36.7% reported not receiving a tetanus shot in the past 10 years. This data is also broken down into whether individuals received Tdap specifically.



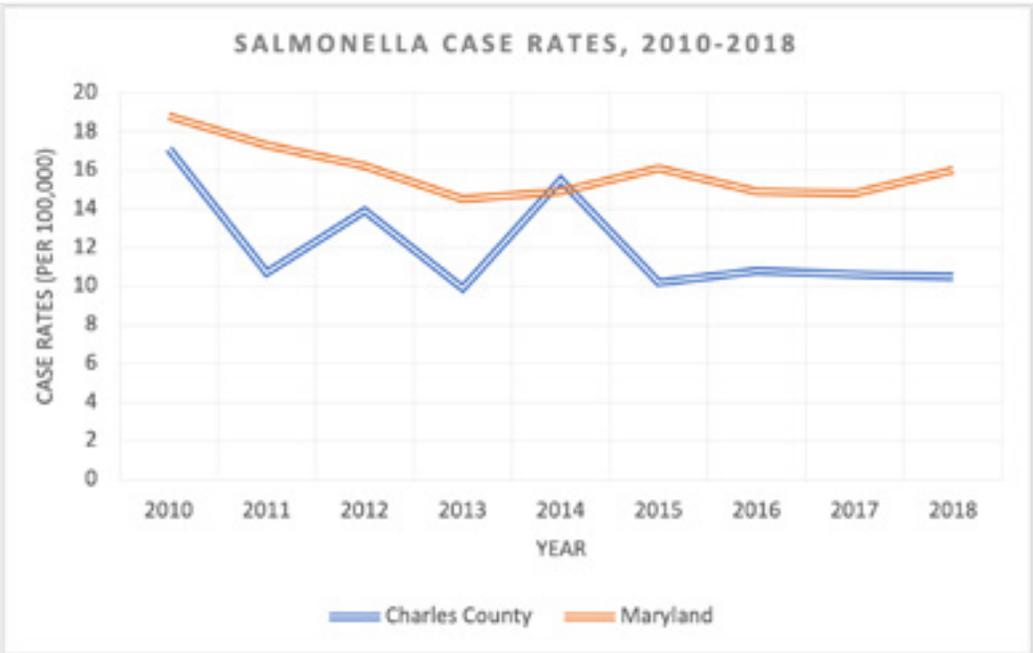
The Maryland state average percent of adults who received a tetanus shot in the past 10 years was 72.7% in 2019 while 27.2% of Maryland adults reported not receiving a tetanus shot in the past 10 years.

Childhood Recommended Vaccines

In 2017, the Maryland state average percent of children (19-35 months) who received recommended vaccines was 75.2%.

Salmonella:

The 2018 Charles County case rate for Salmonella was 10.5 per 100,000. This is slightly lower than the 2017 rate of 10.6 per 100,000. The Charles County case rate does fall below the Maryland state average case rate of 16.0 per 100,000 for 2018. The Charles County case rate for Salmonella has continued to show a downward trend since 2010 with spikes in 2012 and 2014. Case rates from 2015-2018 have been steady.



Coronavirus Disease 2019 (COVID-19):

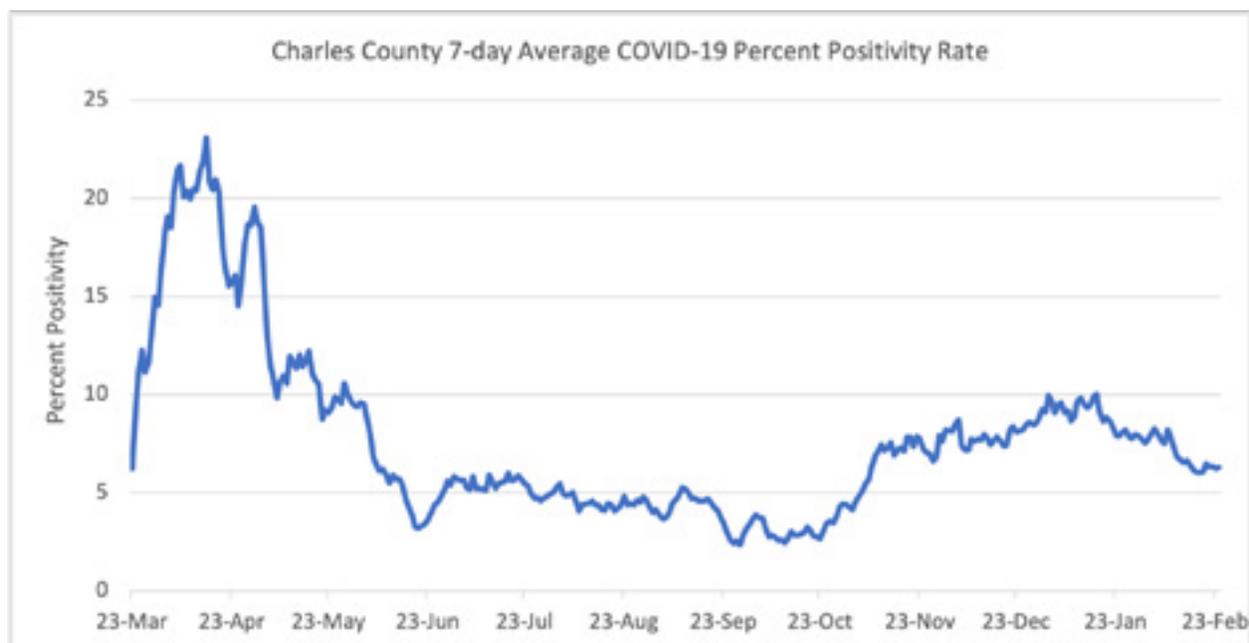
COVID-19 is the new coronavirus disease that has been the most prominent infectious disease in the United States and the world from late 2019 until the present. First identified in 2019, COVID-19 is transmitted person-to-person and can cause individuals infected to experience respiratory illness.

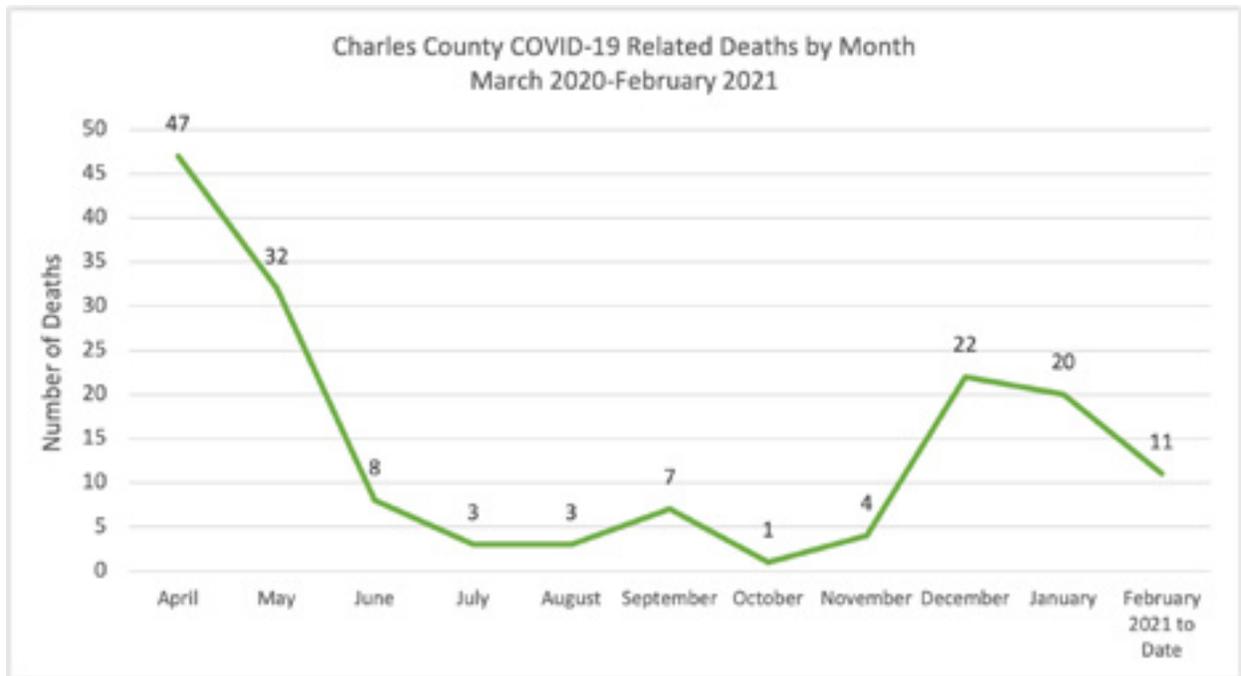
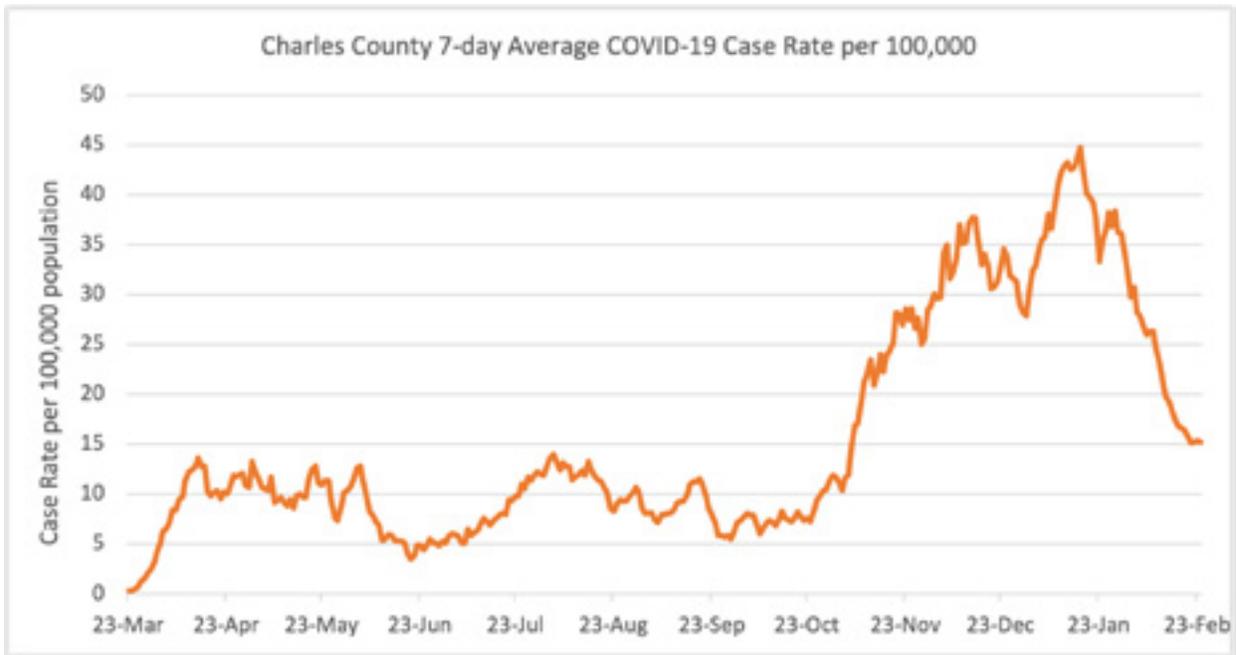
In Charles County, COVID-19 cases did not begin to emerge until mid-March 2020. Once the first cases were identified in the county, there were large spikes in both the percent positivity and case rates. The highest percent positivity recorded for Charles County was in the beginning of the event where it reached 23.08%. The increase in percent positivity and case rate during the beginning of the pandemic in Charles County can be accredited to the nursing home outbreaks the county experienced during that time.

COVID-19 deaths in Charles County were not recorded until April 2020, due to death count being a lagging statistic, however, April would record the largest number of deaths for Charles County for the entire event to date.

After the first initial outbreaks and rise in case rate and percent positivity, Charles County experienced a decline in both measures around late spring and early summer, although these declines did not last long. Cases began to rise again around July and August 2020. By October 2020, COVID-19 cases were on the rise again, and would eventually record the highest case rates for Charles County for the entire event. Throughout the end of 2020 and beginning of 2021, COVID-19 cases continued to rise, which lead to an increase in both case rate and percent positivity. The highest case rate for Charles County was recorded in January 2021 when it reached 44.71 per 100,000. The increase in COVID-19 cases during the winter months of 2020 and beginning of 2021 may be related to the holidays and travel during that time of year.

After the initial peak in deaths, Charles County experienced a drastic decline in COVID-19 deaths until September 2020 when the death count rose again, due to the increase in cases during July and August. December 2020 and January 2021 recorded another increase in deaths due to COVID-19.





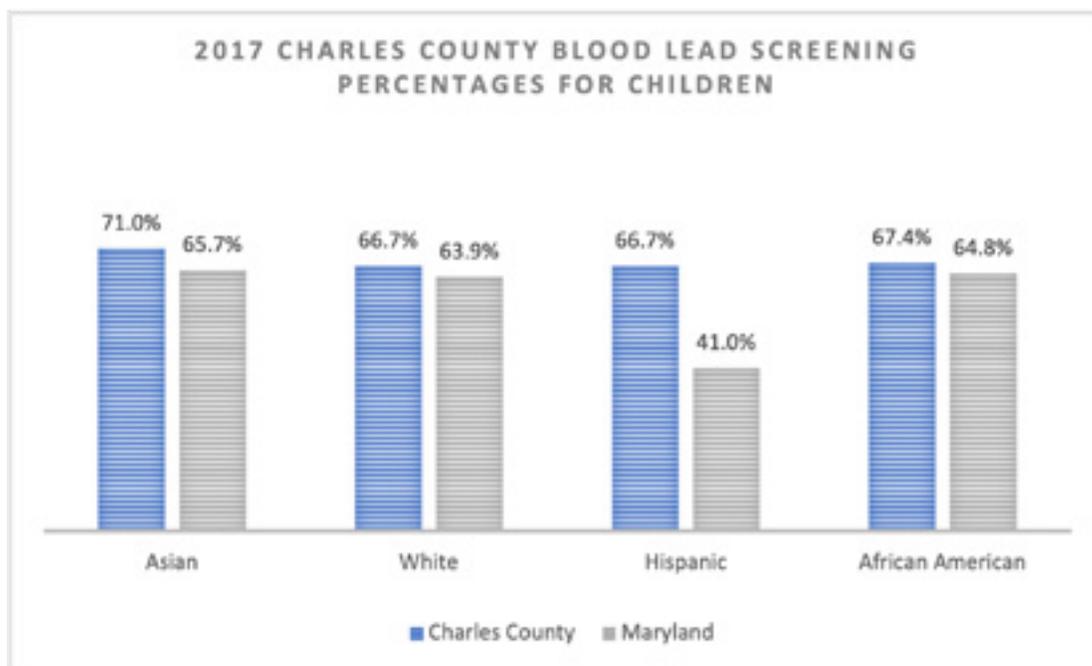
Environmental Health:

Blood Lead Levels:

This indicator reflects the percentage of children (aged 12-35 months) enrolled in Medicaid (90+ days) screened for lead in their blood. Each pediatric Medicaid enrollee should be screened for blood lead during their 12 and 24 month well-child visit. Common sources of pediatric lead exposure include dust and paint chips from chipping or peeling lead paint, as well as lead contaminated soil, toys, water, cosmetics, and folk medicines.

In 2017, 65.7% of Charles County children enrolled in Medicaid had a blood lead screening. This is equal to the state percentage of 65.7%. Blood lead screenings were highest in Charles County Asians (71.0%) and lowest in Charles County Hispanics and Charles County Whites (66.7%).

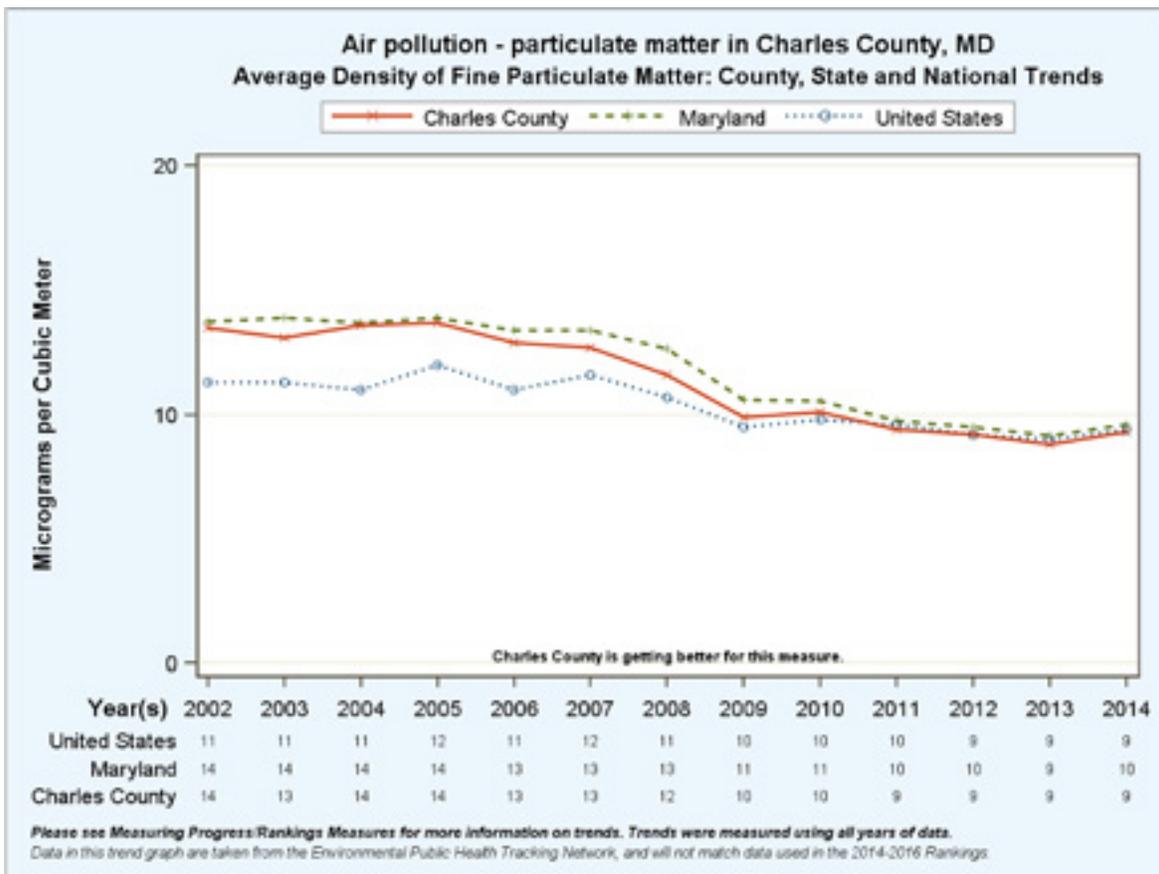
The Charles County blood lead screening percentage has increased from 61.6% of Medicaid children in 2016 to 65.7% in 2017.



In 2017, among those screened for blood lead, 0.1% of Charles County children had a blood lead levels greater than 10 mg/dL. This is lower than the Maryland state percentage of 0.3%.

Air pollution: Particulate matter

The 2014 average daily density of fine particulate matter in micrograms per cubic meter in Charles County was 9.3. The county measure has seen a very slight increase from 2012 where the average daily density was 9.2. Trends from 2010 show a decrease in particulate matter for both Charles County and the state of Maryland.



Qualitative Data Relating to Communicable Disease:

Of the long survey participants, 73.03% believed Infectious Disease (i.e. COVID-19) was a problem on some level in Charles County, and 30.43% of participants believed Infectious Disease was a serious problem in Charles County.

Protective factors that can reduce transmission of infectious diseases:

1. 85.90% of participants report always washing their hands after using the bathroom or before making food
2. 66.67% of participants report always receiving a flu shot every year

Risk factors that can increase transmission of infectious diseases:

1. 37.04% of participants report always practicing safe sex (ex. use a condom, get tested)

Few short survey participants reported COVID-19 and sexually transmitted diseases as some of the biggest health problems in Charles County. When asked if there are sufficient services and resources available in Charles County for infectious disease specifically, 141 participants reported some services are available and 65 reported no services are available.

5.88% of key informant survey participants believed infectious disease was the biggest health issue affecting Charles County.

COVID-19 concerns were a common theme on the key informant survey. Many participants were concerned about the impact of COVID-19 on other major health issues in the community. Concerns about the impact of COVID-19 on mental health, chronic disease, and access to care were all mentioned. COVID-19 was also seen as a health barrier in the Charles County by some participants.

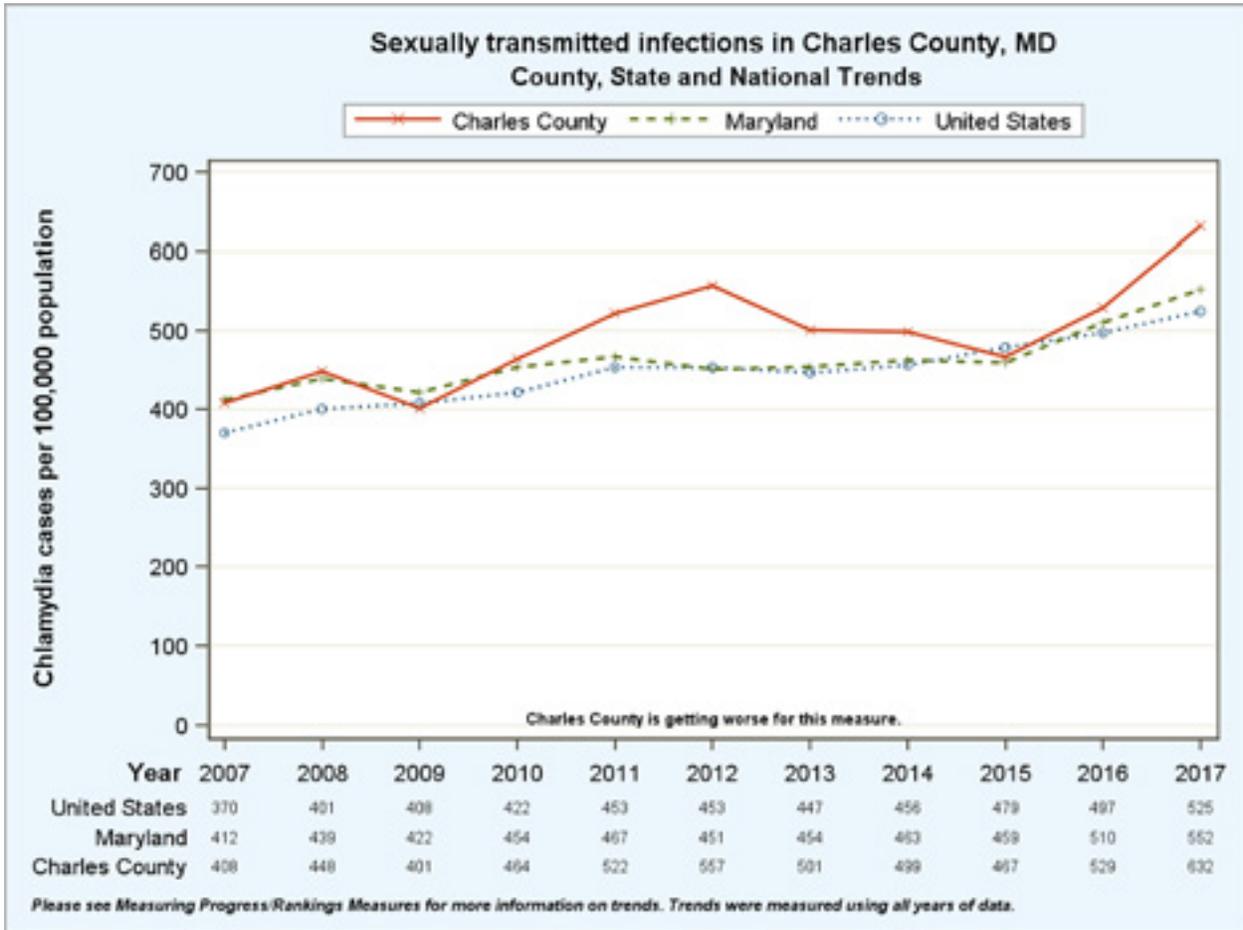
Communicable Disease and Environmental Health References:

1. 2010-2019 Charles County Reportable Communicable Disease Data. Infectious Disease Bureau. Maryland Department of Health. Available at: https://phpa.health.maryland.gov/Pages/infectious_disease.aspx.
2. 2010-2020 Charles County and Maryland Rabies Data. Infectious Disease Bureau. Maryland Department of Health. Available at: http://phpa.dhmf.maryland.gov/Pages/infectious_disease.aspx.
3. 2017 Charles County and Maryland Influenza Vaccination Rates. Maryland Behavioral Risk Factor Surveillance System and the National Immunization Survey Estimates. Accessed through the Maryland State Health Improvement Process website (Under Quality Preventative Care). Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>
4. SHIP Children (19-35 Months Old) Who Receive Recommended Vaccines 2008-2017. Maryland Behavioral Risk Factor Surveillance System and the National Immunization Survey Estimates. Accessed through the Maryland State Health Improvement Process website (Under Quality Preventative Care). Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>
5. 2011-2017 Charles County Blood Screening (Under Healthy Beginnings) and 2009-2017 elevated blood lead Percentages in Medicaid enrolled children (Under Healthy Communities). 2016 Maryland Medicaid Service Utilization data. Accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>
6. 2014 Air pollution data for Charles County and Maryland. Robert Wood Johnson Foundation's County Health Rankings. Available at: countyhealthrankings.org.
7. Sexually Transmitted Disease Surveillance 2018. Centers for Disease Control and Prevention. Available at: <https://www.cdc.gov/std/stats18/default.htm>

HIV/AIDS and STI's:

Sexually Transmitted Infections:

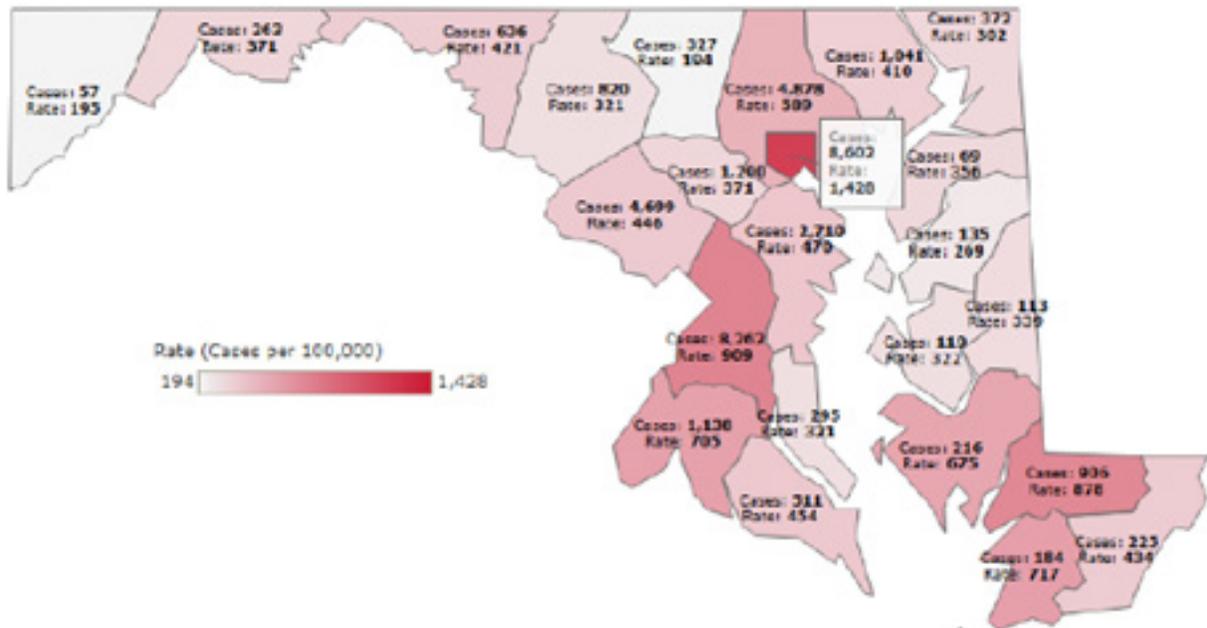
The incidence of sexually transmitted infections in Charles County continues to increase each year. According to the Robert Wood Johnson Foundation County Health Rankings, the 2017 Charles County chlamydia incidence rate per 100,000 was 631.8 per 100,000 compared to 552.1 for Maryland and 525 for the United States.



Chlamydia:

The STI incidence rates for chlamydia, gonorrhea, and syphilis have all seen increases on the national, state, and local level. The 2019 Charles County chlamydia incidence rate was 704.6, which is higher than the 2019 Maryland Chlamydia incidence rate of 625.2 per 100,000. The 2019 Charles County chlamydia incidence rate is an increase from the 2016 rate of 527.1 reported in the last needs assessment report.

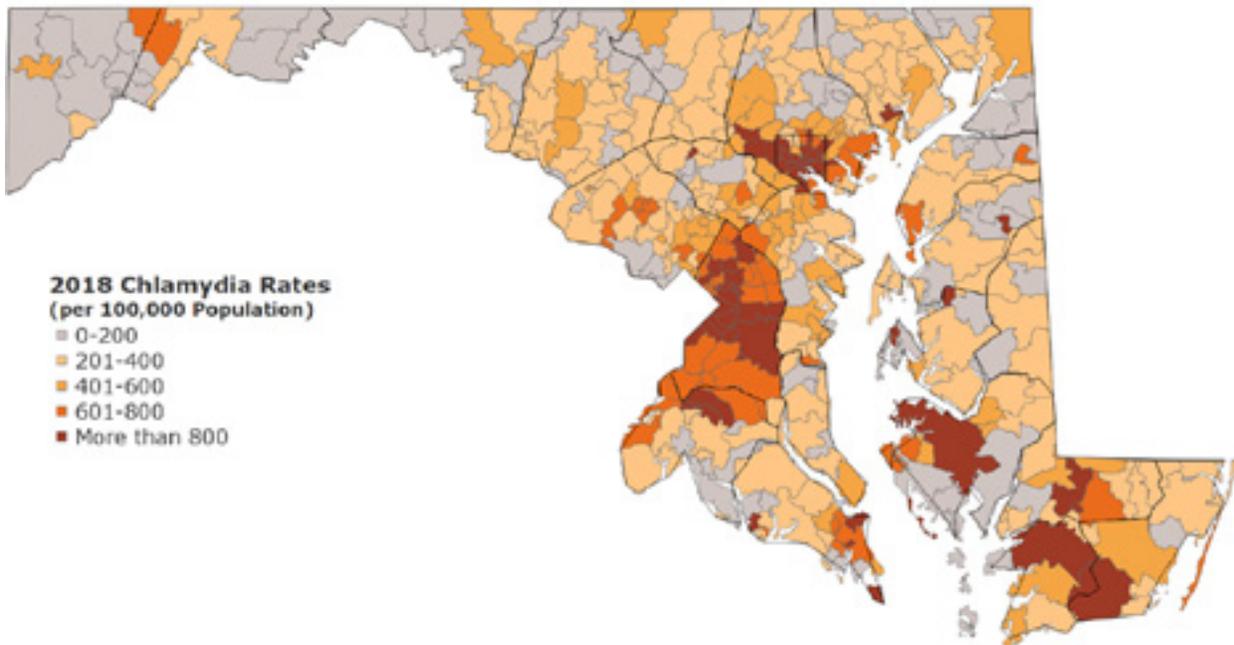
Chlamydia - Reported Cases and Rates by Jurisdiction, Maryland, 2019



Source: Maryland Department of Health. 2016 Epidemiology and Disease Control Programs.

Examining chlamydia rates by ZIP code, the highest rates are in the northern parts of county in the ZIP codes of Waldorf, Bryans Road, and Indian Head. This is the region where the majority of the county population resides.

Chlamydia in Maryland Incidence Rates by ZIP Code, 2018

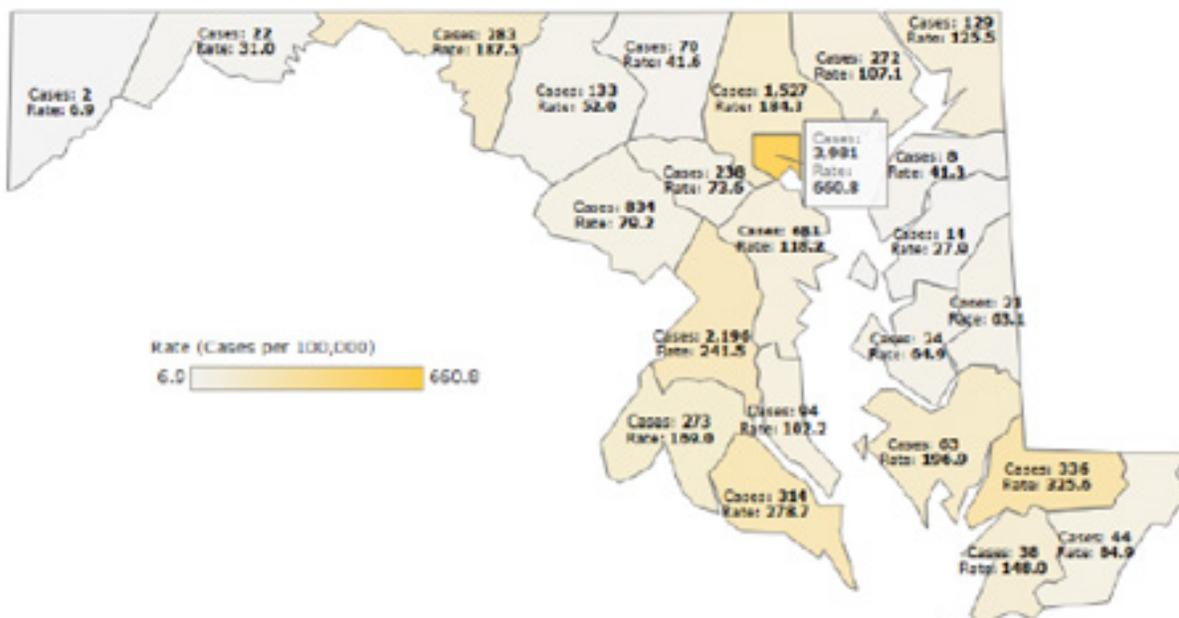


Source: Maryland Department of Health. 2018 Epidemiology and Disease Control Programs.

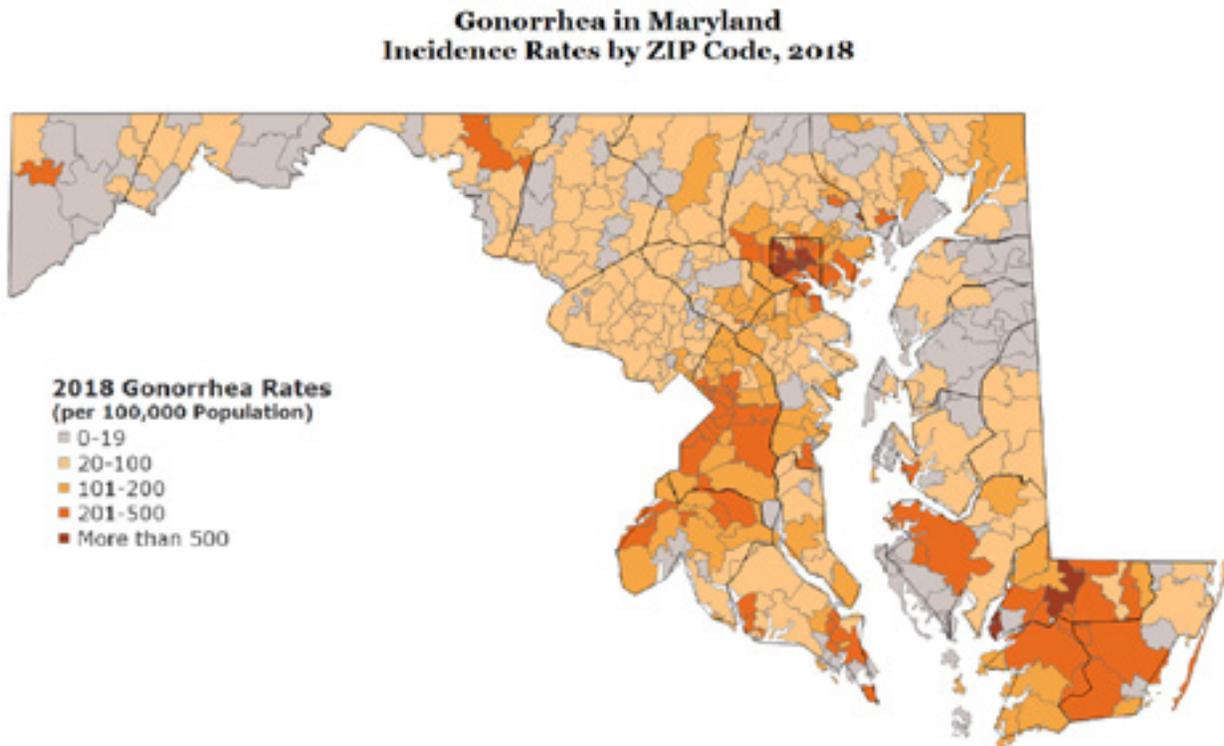
Gonorrhea:

The 2019 Charles County gonorrhea incidence rate was 169.0, which was slightly below the 2019 Maryland gonorrhea incidence rate of 191.9 per 100,000. The 2019 Charles County gonorrhea incidence rate is an increase from the 2016 county rate of 104.0 reported in the last needs assessment report.

Gonorrhea - Reported Cases and Rates by Jurisdiction, Maryland, 2019

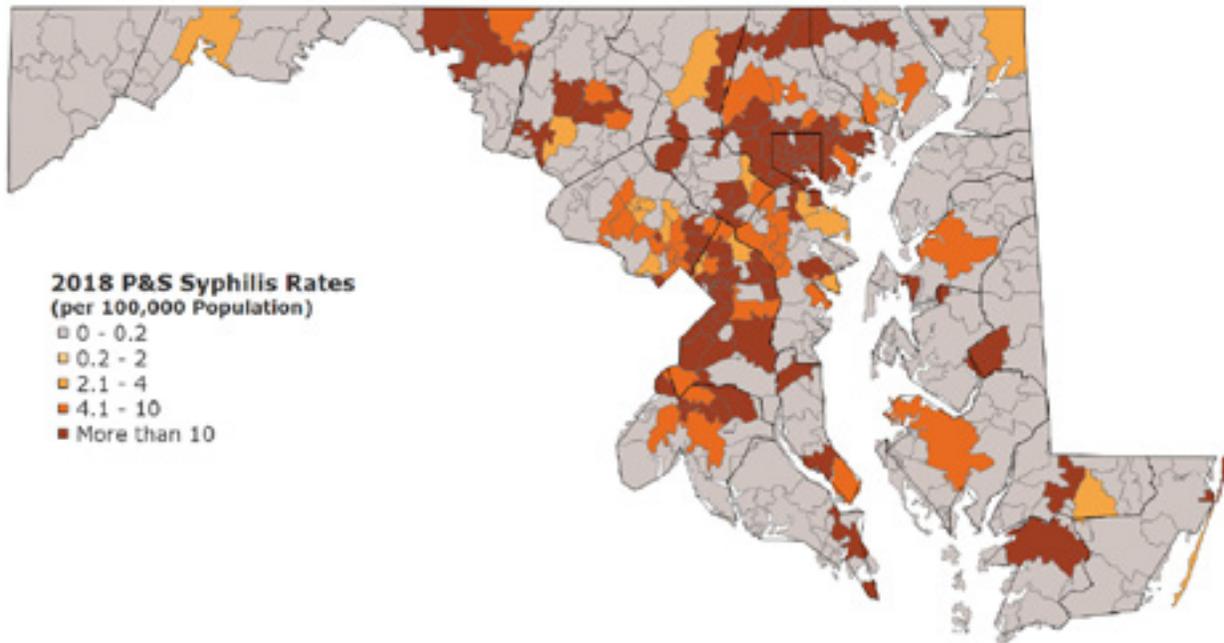


Like Chlamydia, the greatest rates of gonorrhea in Charles County are located in the northern part of the county. This is the region where the majority of the county population resides.



Source: Maryland Department of Health. 2018 Epidemiology and Disease Control Programs.

Primary and Secondary Syphilis in Maryland Incidence Rates by ZIP Code, 2018



Source: Maryland Department of Health. 2018 Epidemiology and Disease Control Programs.

HIV Incidence:

This indicator shows the rate of adult/adolescent cases (age 13+) diagnosed with HIV (per 100,000 population). HIV is a significant and preventable public health problem. An estimated 16% of people with HIV in Maryland are undiagnosed. We have the knowledge and tools needed to slow the spread of HIV infection and improve the health of people living with HIV.

The 2017 Charles County HIV Incidence rate was 18.1 per 100,000. This is below the Maryland state average rate of 20.4 per 100,000. The Charles County HIV Incidence rate is the sixth highest among the Maryland jurisdictions.

The Charles County HIV incidence rate has decreased each year from 31.7 in 2014 to 18.1 in 2017.

In 2019, there were 35 adult/adolescent (age 13+) HIV cases diagnosed in Charles County. Of the 616 living adult/adolescent cases in Charles County at the end of 2019, 67.2% were male, 29.4% were among adults aged 50-59 years old, and 21.3% were among adults aged 40-49 years old. Non-Hispanic (NH) Blacks made up the majority (78.1%) of living adult/adolescent cases. Among living adult/adolescent cases, the most common estimated or reported exposure category was men who have sex with men (MSM) (46.8%), followed by heterosexual exposure (HET) (41.5%), and injection drug use (IDU) (8.3%).

Age on December 31, 2019

13-19	4	0.6%
20-29	81	13.1%
30-39	138	22.4%
40-49	131	21.3%
50-59	181	29.4%
60+	81	13.1%

Sex at Birth

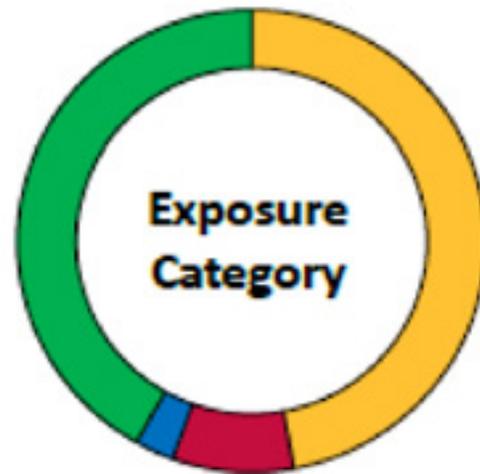
Male	414	67.2%
Female	202	32.8%

Race/Ethnicity

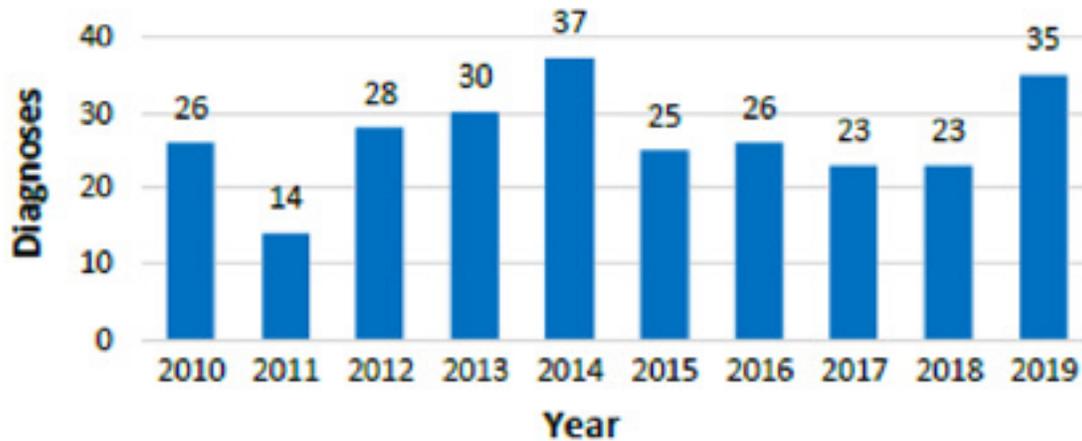
Hispanic	24	3.9%
NH-Black	481	78.1%
NH-White	82	13.3%
NH-Other	29	4.7%

Exposure Category

MSM	288	46.8%
IDU	51	8.3%
MSM/IDU	17	2.7%
HET	256	41.5%
Perinatal Transmission	2	0.3%



HIV Diagnoses by Year, 2010-2019



HIV/AIDS/STI References:

1. 2007-2017 Chlamydia Rates for Charles County, Maryland, and United States. Robert Wood Johnson Foundation County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/measure/factors/45/map>.
2. 2019 Charles County and Maryland Chlamydia, Gonorrhea, and Syphilis Rates. Sexually Transmitted Infections 2019 Annual Report. Maryland Department of Health. Infectious Disease Bureau. Available at: <https://phpa.health.maryland.gov/OIDPCS/CSTIP/CSTIPDocuments/Reports/STI%202019%20Annual%20Report%20Maryland.pdf>.
3. 2017 HIV Incidence Rates by Race for Charles County and Maryland. Maryland Department of Health. Accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.
4. 2019 Charles County and Maryland HIV/AIDS Diagnoses and Living Cases. Maryland Department of Health. Infectious Disease and Environmental Health Administration. Charles County HIV Fact Sheet 2019. Available at: <https://phpa.health.maryland.gov/OIDEOR/CHSE/Pages/statistics.aspx>.

Qualitative Data Relating to Sexually Transmitted Infections and HIV/AIDS:

One-quarter of the long survey participants reported that HIV/AIDS (24.6%) and sexually transmitted diseases (27.5%) are a problem in Charles County on some level. Only 4.3% felt that HIV/AIDS is a “serious problem, while 5.5% reported that sexually transmitted diseases are a “serious problem” in the county.

Health Issue/Condition:	Percent Reporting No Problem in county	% Reporting this as a problem at any level	Percent Reporting this as a serious problem
<i>HIV/AIDS</i>	6.2%	24.6%	4.3%
<i>Sexually transmitted diseases</i>	5.3%	27.5%	5.5%

Behavioral risk factor data relating to STI’s, HIV/AIDS included:

- 33.9% always practice safe sex;
- 73.8% never use illegal drugs.

Tobacco Statistics

Adult current tobacco use by product (any tobacco, cigarettes, cigars, smokeless, ESDs) 2012-2018

The Maryland Behavior Risk Factor Surveillance System is used to provide estimates for Maryland and Charles County on smoking status. In 2018, approximately 18.4% of Charles County residents reported use of any tobacco product. This is similar to the Maryland percentage of 18.2% of Maryland residents who use any tobacco product. Charles County has seen a decrease in tobacco product usage from 20.5% in 2012 to 18.4% in 2018. This same trend was seen on a state level.

Use of cigarettes in Charles County has decreased significantly from 19.3% in 2012 to 12.4% in 2018. The 2018 cigarette percentage for Charles County is similar to the Maryland percentage of 12.5%. 2018 data is not available on a county level for cigar and smokeless tobacco usage. However, use of both substances has remained stable over the last six years.

Lastly, the use of electronic smoking devices or ESD's was available for Charles County in 2016 only. 4.0% of Charles County residents reported use of an ESD. This is slightly higher than the percentage reported for Maryland overall (3.2%). 2018 data was not available on a county level due to an insufficient sample size.

Maryland

CURRENT USE OF TOBACCO/ELECTRONIC SMOKING DEVICES (ESDs)				
<i>Estimated Prevalence (%)</i>	2012*	2014	2016	2018
<i>Confidence Interval (CI)</i>	% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>				
Any Tobacco <i>(Any tobacco includes cigarettes, cigars, smokeless tobacco, and other tobacco products, and ESDs)</i>	19.4 (18.2-20.7) 856,080	19.5 (18.1-20.9) 907,879	17.9 (17.0-18.8) 842,991	18.2 (17.3-19.2) 865,325
Cigarettes	16.2 (15.0-17.4) 708,885	14.6 (13.4-15.9) 655,824	13.7 (12.9-14.5) 608,816	12.5 (11.7-13.4) 569,871
Cigars	4.4 (3.6-5.2) 169,763	4.5 (3.6-5.4) 192,448	3.7 (3.2-4.2) 154,865	4.6 (4.0-5.2) 199,575
Smokeless Tobacco	2.0 (1.5-2.4) 86,729	1.7 (1.3-2.2) 76,683	1.6 (1.3-1.9) 70,410	2.0 (1.7-2.4) 93,401
ESDs	No BRFSS Data Collected	3.2 (2.5-3.8) 135,090	3.2 (2.8-3.7) 141,529	4.3 (3.7-4.9) 185,728

Charles County

CURRENT USE OF TOBACCO/ELECTRONIC SMOKING DEVICES (ESDs)				
<i>Estimated Prevalence (%)</i>	<i>2012*</i>	<i>2014</i>	<i>2016</i>	<i>2018</i>
<i>Confidence Interval (CI)</i>	<i>% CI N</i>	<i>% CI N</i>	<i>% CI N</i>	<i>% CI N</i>
<i>Estimated Number (N)</i>				
Any Tobacco <i>(Any tobacco includes cigarettes, cigars, smokeless tobacco, and other tobacco products, and ESDs)</i>	20.5 (13.5-27.4) 27,840	19.4 (13.1-25.7) 22,966	18.2 (14.1-22.2) 21,877	18.4 (13.2-23.5) 22,841
Cigarettes	19.3 (12.3-26.3) 26,018	12.2 (7.2-17.1) 13,972	13.1 (9.8-16.5) 15,086	12.4 (8.6-16.2) 14,953
Cigars	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available
Smokeless Tobacco	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available
ESDs	No BRFSS Data Collected	BRFSS Data Not Available	4.0 (1.7-6.3) 4,485	BRFSS Data Not Available

3. Adult current tobacco use by gender and race/ethnicity (White, AA/Black, Asian, Hispanic/Latino, American Indian/Alaskan Native) 2012-2018

When examining current tobacco use by gender, males are more likely to report use than females. For Charles County, 21.2% of men and 15.8% of women reported current tobacco use in 2018. The percentage of Charles County men reporting current tobacco use decreased from 2012 to 2018 while the percentage of females reporting current tobacco use increased from 2012 to 2018. On a state level, current tobacco usage for both males and females decreased from 2012 to 2018.

When analyzing rates by race and ethnicity, current tobacco use percentages are only available for Whites, African Americans and all minority combined in Charles County. Due to small case counts, percentages cannot be calculated for Asian, Hispanic, and American Indian/Alaskan Native. Current tobacco use is higher for Charles County African Americans than Whites or All Minorities Combined (20.1% vs. 18.5% and 18.5%). The same was true on a state level. The rate of current tobacco use has fluctuated yearly for Whites, African Americans, and All Minorities Combined.

Maryland

CURRENT TOBACCO USE — Gender and Race/Ethnicity					
<i>Estimated Prevalence (%)</i>		2012*	2014	2016	2018
<i>Confidence Interval (CI)</i>		% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>					
<i>Female</i>		16.1 (14.6-17.7) 383,016	15.0 (13.4-16.6) 363,735	13.6 (12.5-14.6) 333,588	13.9 (12.8-15.0) 345,157
<i>Male</i>		23.5 (21.5-25.6) 507,209	24.5 (22.2-26.8) 544,144	22.6 (21.1-24.1) 509,403	22.9 (21.3-24.5) 519,099
<i>White</i>		21.1 (19.6-22.6) 529,761	20.5 (18.8-22.3) 513,724	19.6 (18.4-20.8) 484,462	18.9 (17.7-20.1) 467,068
<i>African American/Black</i>		20.2 (17.5-22.8) 260,115	22.4 (19.2-25.5) 291,496	18.0 (16.1-19.8) 238,933	20.2 (18.2-22.3) 275,274
<i>Asian</i>		BRFSS Data Not Available	BRFSS Data Not Available	5.8 (3.4-8.2) 17,381	10.3 (6.4-14.2) 31,327
<i>Hispanic/Latino</i>		15.8 (10.0-21.5) 58,461	12.9 (8.0-17.8) 49,841	13.6 (10.4-16.9) 57,237	12.7 (9.3-16.0) 55,505
<i>American Indian/Alaskan Native</i>		BRFSS Data Not Available	26.4 (11.9-41.0) 4,990	42.6 (30.6-54.5) 9,263	21.4 (12.1-30.6) 2,852
**Minority Combined (Race & Female)		17.8 (16.3-19.2) 590,081	17.7 (16.0-19.3) 600,629	15.6 (14.6-16.6) 541,501	16.9 (15.8-18.1) 595,771

Charles County

CURRENT TOBACCO USE — Gender and Race/Ethnicity					
<i>Estimated Prevalence (%)</i>		2012*	2014	2016	2018
<i>Confidence Interval (CI)</i>		% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>					
<i>Female</i>		9.6 (5.1-14.2) 6,687	13.3 (6.3-20.4) 8,336	12.7 (8.2-17.3) 8,071	15.8 (9.9-21.6) 10,359
<i>Male</i>		31.5 (19.5-43.5) 21,446	26.0 (15.6-36.5) 14,629	24.2 (17.2-31.1) 13,806	21.2 (12.6-29.8) 12,482
<i>White</i>		23.1 (14.1-32.0) 17,618	20.8 (14.2-27.4) 11,781	24.7 (18.5-30.9) 12,852	18.5 (11.0-26.0) 9,507
<i>African American/Black</i>		BRFSS Data Not Available	BRFSS Data Not Available	13.8 (7.8-19.9) 7,006	20.1 (11.4-28.8) 11,297
<i>Asian</i>		BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available
<i>Hispanic/Latino</i>		BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available
<i>American Indian/Alaskan Native</i>		BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available
**Minority Combined (Race & Female)		15.2 (7.9-22.5) 14,964	17.1 (9.6-24.6) 15,743	14.7 (10.4-18.9) 13,724	18.5 (12.7-24.3) 18,191

4. Adult current tobacco use by education level (No HS diploma, HS diploma/GED, Some College, 4-Yr. College Degree)

2012-2018

As the level of education increases, the rate of tobacco use decreases. Those without a high school diploma are more likely to report tobacco use than those with a high school diploma or some college. This is true for both Maryland and Charles County. The tobacco use rate among those with a high school diploma/GED is higher in Charles County than Maryland (28.4% vs. 23.1%). It was lower among those with college degree (CC 8.9% vs. MD 9.8%); however, Charles County has seen some decreases in the rate of tobacco use among people with no high school diploma. Charles County has seen fluctuation in the rate of tobacco use among individuals with a high school diploma/GED and some college.

Maryland

	2012	2014	2016	2018
Education				
<i>No High School</i>	31.7 (26.5-36.8) 174,072	33.4 (27.2-39.6) 183,917	28.3 (24.1-32.4) 149,219	28.4 (24.1-32.6) 143,879
<i>High School or GED</i>	25.1 (22.4-27.7) 300,996	25.5 (22.5-28.5) 313,681	23.9 (22.0-25.8) 294,537	24.6 (22.5-26.6) 301,876
<i>Some College</i>	21.9 (19.4-24.5) 277,274	19.6 (17.1-22.2) 256,374	19.2 (17.4-21.0) 254,639	20.3 (18.4-22.3) 269,755
<i>College Grad</i>	9.2 (7.9-10.4) 137,121	9.9 (8.4-11.3) 151,638	9.0 (8.0-9.9) 144,147	8.9 (7.9-9.9) 148,573

Charles County

	2012	2014	2016	2018
Education				
<i>No High School</i>	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available	BRFSS Data Not Available
<i>High School or GED</i>	23.6 (11.1-36.2) 11,935	21.1 (9.7-32.5) 8,917	29.8 (20.9-38.8) 10,921	23.1 (14.7-31.5) 10,394
<i>Some College</i>	BRFSS Data Not Available	15.4 (8.1-22.6) 5,712	13.6 (7.8-19.4) 6,168	13.6 (5.7-21.6) 5,560
<i>College Grad</i>	BRFSS Data Not Available	BRFSS Data Not Available	10.9 (5.9-16.0) 3,382	9.8 (4.8-14.8) 2,891

5. Adult current tobacco use by annual household income (<\$15K, up to \$25K, up to \$50K, up to \$75K, >\$75K) 2012-2018

The following tables demonstrate that the higher the income level, the lower the rate of tobacco use among adults. Those earning more than \$50,000 per year in Charles County are less likely to report tobacco use than those who make less than \$50,000 (14.4% vs. 32.6%). Charles County has seen decreases in tobacco use among those who earn more than \$50,000 a year. However, the percentage of people who currently use tobacco has increased among those making less than \$50,000 per year.

Maryland

CURRENT TOBACCO USE — Income and Education					
	<i>Estimated Prevalence (%)</i>	<i>2012*</i>	<i>2014</i>	<i>2016</i>	<i>2018</i>
	<i>Confidence Interval (CI)</i>	<i>% CI N</i>	<i>% CI N</i>	<i>% CI N</i>	<i>% CI N</i>
	<i>Estimated Number (N)</i>				
Income					
< \$15k	36.7 (30.2-43.3) 113,594	34.8 (27.2-42.4) 94,091	35.5 (30.5-40.5) 100,177	29.4 (24.4-34.4) 78,821	
\$15k- < \$25k	24.8 (20.7-29.0) 139,763	23.2 (18.8-27.5) 135,538	24.1 (20.9-27.4) 118,233	23.6 (20.4-26.9) 113,890	
\$25k- < \$50k	23.8 (20.6-27.0) 202,585	23.5 (19.8-27.3) 181,569	20.6 (18.2-23.0) 150,415	22.3 (19.5-25.1) 155,928	
\$50k- < \$75k	17.2 (14.1-20.2) 107,755	22.8 (18.4-27.2) 127,907	17.9 (15.3-20.5) 102,460	19.0 (16.3-21.8) 110,372	
\$75k +	14.1 (12.5-15.8) 223,886	14.0 (12.3-15.8) 236,187	13.6 (12.3-14.9) 236,119	14.2 (12.8-15.6) 257,634	

Charles County

CURRENT TOBACCO USE — Income and Education					
	<i>Estimated Prevalence (%)</i>	<i>2012*</i>	<i>2014</i>	<i>2016</i>	<i>2018</i>
	<i>Confidence Interval (CI)</i>	<i>% CI N</i>	<i>% CI N</i>	<i>% CI N</i>	<i>% CI N</i>
	<i>Estimated Number (N)</i>				
Income					
< \$50k	26.5 (14.8-38.3) 12,665	29.0 (12.5-45.6) 9,123	24.5 (14.5-34.5) 6,392	32.6 (18.7-46.6) 8,296	
> \$50k	19.1 (9.1-29.0) 14,418	17.6 (11.1-24.1) 12,665	16.4 (11.6-21.2) 11,902	14.4 (9.0-19.8) 11,910	

6. Middle School Tobacco Use by product (any tobacco, cigarettes, cigars, smokeless, ESDs) 2013-2018

Of Charles County middle school students, 10.8% reported use of any tobacco product in 2018. There has been a lot of fluctuation each year in the percentage reporting current use of a tobacco product; however, the 2018 percentage is an increase from the 2016 percentage (10.8% vs. 9.1%). The 2018 Charles County middle school tobacco use percentage is above the Maryland state average percentage (10.8% vs. 9.0%). Cigarette usage (3.1% to 1.7%) and cigar usage (3.0% to 2.5%) have decreased among Charles County middle school students. The percentage of Charles County middle school students reporting smokeless tobacco use has increased from 1.5% to 3.3% and is now greater than the Maryland percentage of 2.2%. Charles County saw a decline in middle school students reporting use of electronic smoking devices (ESD's) from 9.3% in 2014 to 6.3% in 2018. The 2018 Charles County ESD percentage of 6.3% is still greater than the Maryland percentage of 5.9%.

Maryland

CURRENT TOBACCO USE				
<i>Estimated Prevalence (%)</i>	2013*	2014	2016	2018
<i>Confidence Interval (CI)</i>	% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>				
Middle School Students				
Any Tobacco <i>(Any tobacco includes cigarettes, cigars, smokeless tobacco, and ESDs)</i>	5.6 (5.2-6.1) 9,431	11.1 (10.1-12.0) 18,883	7.6 (6.9-8.2) 13,145	9.0 (8.3-9.6) 15,926
Cigarettes	3.9 (3.5-4.3) 6,717	2.5 (2.2-2.9) 4,431	1.3 (1.1-1.6) 2,513	1.1 (0.9-1.3) 2,158
Cigars	4.2 (3.8-4.6) 7,245	3.6 (3.2-4.1) 6,416	2.5 (2.2-2.9) 4,743	1.8 (1.6-2.1) 3,482
Smokeless Tobacco	3.0 (2.6-3.5) 5,323	1.9 (1.6-2.2) 3,349	1.9 (1.6-2.2) 3,545	2.2 (1.9-2.5) 4,068
ESDs	No ESD Data Collected	7.6 (6.9-8.3) 13,318	4.7 (4.3-5.2) 8,396	5.9 (5.5-6.4) 10,799

Charles County

CURRENT TOBACCO USE				
<i>Estimated Prevalence (%)</i>	2013^f	2014	2016	2018
<i>Confidence Interval (CI)</i>	% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>				
Middle School Students				
Any Tobacco <i>(Any tobacco includes cigarettes, cigars, smokeless tobacco, and ESDs)</i>	4.2 (2.9-5.6) 227	12.7 (9.7-15.6) 680	9.1 (6.7-11.5) 471	10.8 (7.8-13.7) 583
Cigarettes	3.1 (2.1-4.6) 171	2.8 (1.8-4.2) 154	1.6 (0.7-2.5) 92	1.7 (0.7-2.7) 103
Cigars	3.0 (2.1-4.4) 167	3.2 (2.2-4.7) 181	2.7 (1.6-3.7) 153	2.5 (1.5-3.5) 146
Smokeless Tobacco	1.5 (0.9-2.4) 83	2.4 (1.1-5.1) 137	2.6 (1.4-3.8) 151	3.3 (2.0-4.6) 187
ESDs	No ESD Data Collected	9.3 (7.3-11.3) 508	5.7 (3.9-7.5) 303	6.3 (4.3-8.2) 350

7. Middle school current tobacco use by gender and race/ethnicity (White, AA/Black, Asian, Hispanic/Latino, American Indian/Alaskan Native) 2013-2018

Charles County male middle school students were more likely to report tobacco use than Charles County female middle school students (11.9% vs. 9.1%). The percentages of middle school males and females using tobacco in Charles County have increased since 2013. The percentages for both females and males in Charles County are higher than those reported for Maryland overall (Males 11.9% vs. 9.2% and Females 9.1% vs. 8.4%).

On a county level, data is only available for White, African American, and Hispanic middle school students in Charles County. The highest rate of current tobacco use is in the Hispanic/Latino population at 15.8%. Currently, the Charles County African American middle school student tobacco use percentage is higher than the Charles County White middle school student tobacco use percentage (11.0% vs. 7.8%). The Charles County African American percentage and the Charles County Hispanic percentage are above the state percentages for those populations. The Charles County White percentage is below the state percentage (7.8% vs. 8.2%).

Maryland

CURRENT TOBACCO USE — Gender and Race/Ethnicity				
<i>Estimated Prevalence (%)</i>	2013*	2014	2016	2018
<i>Confidence Interval (CI)</i>	% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>				
Middle School Students				
<i>Middle School Female</i>	4.7 (4.2-5.3) 3,869	9.5 (8.5-10.5) 8,001	7.0 (6.3-7.7) 6,013	8.4 (7.7-9.2) 7,361
<i>Middle School Male</i>	6.5 (5.9-7.1) 5,424	12.2 (11.1-13.4) 10,526	7.8 (7.0-8.5) 6,772	9.2 (8.4-10.0) 8,179
<i>White</i>	4.2 (3.6-4.8) 2,941	8.5 (7.4-9.6) 5,737	5.3 (4.5-6.2) 3,589	8.2 (7.3-9.1) 5,334
<i>African American/Black</i>	6.6 (5.8-7.4) 3,537	14.1 (12.6-15.6) 7,396	8.0 (7.1-8.8) 4,321	8.9 (7.7-10.0) 4,827
<i>Asian</i>	2.8 (1.2-4.5) 262	4.3 (2.6-6.1) 405	3.2 (1.8-4.6) 295	4.4 (3.0-5.8) 485
<i>Hispanic/Latino</i>	8.5 (7.0-10.1) 1,529	13.8 (12.0-15.6) 2,908	12.3 (10.4-14.2) 2,858	11.1 (10.1-12.2) 2,958
<i>American Indian/Alaskan Native</i>	10.7 (7.4-14.0) 203	16.6 (12.7-20.6) 371	13.4 (9.0-17.8) 260	12.9 (9.1-16.6) 254

Charles County

CURRENT TOBACCO USE — Gender and Race/Ethnicity				
<i>Estimated Prevalence (%)</i>	2013*	2014	2016	2018
<i>Confidence Interval (CI)</i>	% CI N	% CI N	% CI N	% CI N
<i>Estimated Number (N)</i>				
Middle School Students				
<i>Middle School Female</i>	3.8 (2.3-6.1) 99	10.8 (7.7-13.9) 278	8.5 (5.2-11.7) 209	9.1 (6.0-12.2) 246
<i>Middle School Male</i>	4.5 (3.2-6.4) 123	13.9 (10.5-17.3) 384	9.8 (6.8-12.8) 263	11.9 (8.1-15.7) 317
<i>White</i>	2.0 (0.5-3.5) 31	11.5 (8.4-14.6) 173	7.8 (3.6-11.9) 101	7.8 (3.9-11.7) 102
<i>African American/Black</i>	4.6 (2.8-6.3) 128	11.8 (8.5-15.2) 322	8.8 (5.9-11.6) 231	11.0 (6.9-15.0) 315
<i>Asian</i>	YRBS Data Not Available	YRBS Data Not Available	YRBS Data Not Available	YRBS Data Not Available
<i>Hispanic/Latino</i>	YRBS Data Not Available	15.0 (8.3-21.8) 44	YRBS Data Not Available	15.8 (8.3-23.3) 57
<i>American Indian/Alaskan Native</i>	YRBS Data Not Available	YRBS Data Not Available	YRBS Data Not Available	YRBS Data Not Available

8. High school tobacco use by product (any tobacco, cigarettes, cigars, smokeless, ESDs) 2013-2018

23.3% of Charles County high school students reported using any type of tobacco product in 2018. This is an increase from the percentages reported in both 2013 and 2014 (17.6% and 31.8%). Charles County high school students have reported less use of cigarettes and cigars from 2013 to 2018. This same trend can be seen on a state level. The percentage of Charles County high school students reporting use of smokeless tobacco has fluctuated and is currently lower than the percentage reported in 2016 (5.4% vs. 7.4%). The Charles County tobacco use percentage of 23.3% in 2018 is lower than the state percentage of 27.4%.

The reported use of ESD’s among Charles County high school students decreased from 23.1% in 2014 to 17.7% in 2018. This may be due to extensive efforts of the local CRF tobacco program to educate students on the dangers associated with use of ESD’s. The Charles County high school ESD percentage is below the Maryland ESD percentage of 23.0%.

Maryland				
	2013	2014	2016	2018
<i>High School Students</i>				
<i>Any Tobacco</i> <i>(Any tobacco includes cigarettes, cigars, smokeless tobacco, and ESDs)</i>	16.9 (16.3-17.5) 38,966	27.6 (26.9-28.4) 64,516	21.6 (20.7-22.4) 50,001	27.4 (26.2-28.6) 65,038
<i>Cigarettes</i>	11.9 (11.4-12.4) 27,877	8.7 (8.2-9.1) 20,677	8.2 (7.8-8.6) 20,653	5.0 (4.5-5.4) 12,557
<i>Cigars</i>	12.5 (11.9-13.0) 30,820	10.3 (9.9-10.8) 25,460	9.0 (8.5-9.5) 22,136	6.0 (5.5-6.5) 15,135
<i>Smokeless Tobacco</i>	7.4 (7.0-7.8) 18,438	5.8 (5.4-6.1) 13,769	6.2 (5.8-6.6) 15,225	4.6 (4.1-5.1) 11,524
<i>ESDs</i>	No ESD Data Collected	20.0 (19.4-20.5) 47,542	13.3 (12.7-13.9) 30,026	23.0 (21.9-24.1) 53,920

Charles County

	2013	2014	2016	2018
<i>High School Students</i>				
Any Tobacco <i>(Any tobacco includes cigarettes, cigars, smokeless tobacco, and ESDs)</i>	17.6 (15.9-19.5) 1,439	31.8 (29.5-34.2) 2,540	23.6 (21.4-25.9) 1,809	23.3 (21.1-25.5) 1,791
Cigarettes	12.7 (11.1-14.4) 1,056	9.2 (8.0-10.7) 744	8.6 (7.3-9.9) 720	5.0 (4.0-6.0) 412
Cigars	13.6 (12.1-15.2) 1,190	10.5 (9.2-12.0) 886	9.2 (7.8-10.6) 748	6.0 (4.9-7.1) 494
Smokeless Tobacco	6.9 (5.8-8.3) 613	6.7 (5.5-8.1) 543	7.4 (6.2-8.7) 606	5.4 (4.3-6.6) 449
ESDs	No ESD Data Collected	23.1 (21.3-24.8) 1,883	15.2 (13.4-17.0) 1,115	17.7 (15.8-19.6) 1,329

9. High school current tobacco use by gender and race/ethnicity (White, AA/Black, Asian, Hispanic/Latino, American Indian/Alaskan Native) 2013-2018

Charles County high school males are more likely to report use of tobacco products than females (25.8% vs. 18.9%). Tobacco use percentage for Charles County high school males and females remain slightly lower than the Maryland state average percentages (Males 25.8% vs. 27.9% and Females 18.9% vs. 26.0%). The percentages for Charles County males and females have been decreasing since 2014.

When examining by race, Charles County Whites and Hispanic/Latinos have similar percentages (34.1% and 31.3%) that are well above the percentage for Charles County African Americans (14.9%) and Charles County Asians (13.3%). Charles County tobacco use percentage for Whites has seen decreases from 2013 to 2018. Charles County African Americans and Hispanic/Latinos have seen decreases in tobacco use from 2013 to 2016.

Maryland

	2013	2014	2016	2018
High School Students				
<i>High School Female</i>	13.6 (12.9-14.3) 15,651	25.0 (24.1-25.9) 28,707	18.5 (17.6-19.4) 20,793	26.0 (24.6-27.3) 29,886
<i>High School Male</i>	19.7 (18.9-20.5) 22,471	29.6 (28.7-30.5) 34,558	23.5 (22.6-24.5) 27,486	27.9 (26.5-29.3) 33,309
<i>White</i>	19.0 (18.2-19.8) 19,256	29.0 (28.1-29.9) 28,344	22.8 (21.8-23.9) 21,350	35.3 (33.6-36.9) 32,281
<i>African American/Black</i>	14.1 (13.2-14.9) 10,742	24.5 (23.2-25.8) 18,478	18.2 (16.9-19.4) 13,798	19.2 (17.4-21.1) 14,239
<i>Asian</i>	6.8 (5.1-8.5) 869	12.2 (10.2-14.1) 1,597	8.8 (7.0-10.5) 1,115	14.3 (11.4-17.3) 2,127
<i>Hispanic/Latino</i>	18.9 (17.5-20.2) 4,328	31.4 (29.8-33.0) 8,898	23.9 (22.3-25.6) 7,038	25.7 (23.2-28.2) 9,292
<i>American Indian/Alaskan Native</i>	27.5 (23.0-31.9) 353	43.1 (38.4-47.8) 689	36.3 (31.4-41.3) 496	28.2 (21.6-34.8) 374

Charles County

	2013	2014	2016	2018
High School Students				
<i>High School Female</i>	14.0 (11.9-16.3) 553	29.4 (27.0-31.8) 1,149	20.6 (17.8-23.3) 745	18.9 (16.0-21.7) 685
<i>High School Male</i>	20.8 (18.4-23.3) 865	33.2 (29.7-36.8) 1,324	25.8 (22.8-28.7) 1,018	25.8 (22.5-29.1) 1,017
<i>White</i>	22.2 (18.8-25.6) 607	35.8 (32.1-39.5) 884	28.5 (24.6-32.4) 631	34.1 (29.3-38.8) 675
<i>African American/Black</i>	12.8 (10.7-15.0) 538	27.9 (24.9-30.9) 1,158	19.3 (16.7-21.9) 787	14.9 (12.6-17.2) 614
<i>Asian</i>	YRBS Data Not Available	YRBS Data Available	YRBS Data Available	13.3 (6.4-20.2) 27
<i>Hispanic/Latino</i>	30.1 (23.6-36.7) 108	35.2 (28.4-42.0) 135	29.5 (23.4-35.7) 121	31.3 (25.3-37.3) 161
<i>American Indian/Alaskan Native</i>	YRBS Data Not Available	YRBS Data Available	YRBS Data Available	YRBS Data Available

10. Adults receiving treatment for mental health conditions in state programs who smoke cigarettes as of April 2019

Approximately one-third of Charles County adults receiving treatment for mental health conditions in state programs report that they smoke cigarettes (29.9%). The percentage in Charles County is slightly below the state percentage of 35.0%.

Over two-thirds of Charles County adults receiving treatment for a substance use disorder in a state program report that they smoke cigarettes (68.9%). This is similar to the Maryland state average percentage of 69.8% for this population.

CIGARETTE SMOKING AMONG THOSE RECEIVING MENTAL HEALTH AND/OR SUBSTANCE USE DISORDER SERVICES (CURRENT AS OF 4/2019)					
Maryland Outcomes Measurement System Datamart (OMS)					
<i>Prevalence (%)</i>	2014	2015	2016	2017	2018
<i>Number (N)</i>	% N	% N	% N	% N	% N
<i>Mental Health Services</i>	36.6 (450)	38.1 (542)	39.8 (584)	37.6 (608)	29.9 (450)
<i>Substance Use Disorder Services</i>	Not Available	69.1 (366)	67.1 (410)	71.1 (588)	68.9 (498)
<i>Both</i>	Not Available	65.0 (104)	69.2 (119)	68.8 (150)	62.5 (95)

11. Youth (14-17) receiving treatment for mental health conditions in state programs who smoke cigarettes as of April 2019

In 2019, 3.2% of Charles County youth 14-17 years receiving treatment for mental health conditions in state programs reported that they smoke cigarettes. This is below the state percentage of 4.3%. The Charles County percentage decreased since 2015.

As of April 2019, 20.8% of Charles County aged 14-17 years who are receiving treatment for substance use disorders reported that they smoke cigarettes. Cigarette smoking among this group has been decreasing from 2015-2019. The county percentage is lower than the Maryland state average percentage of 25.6%.

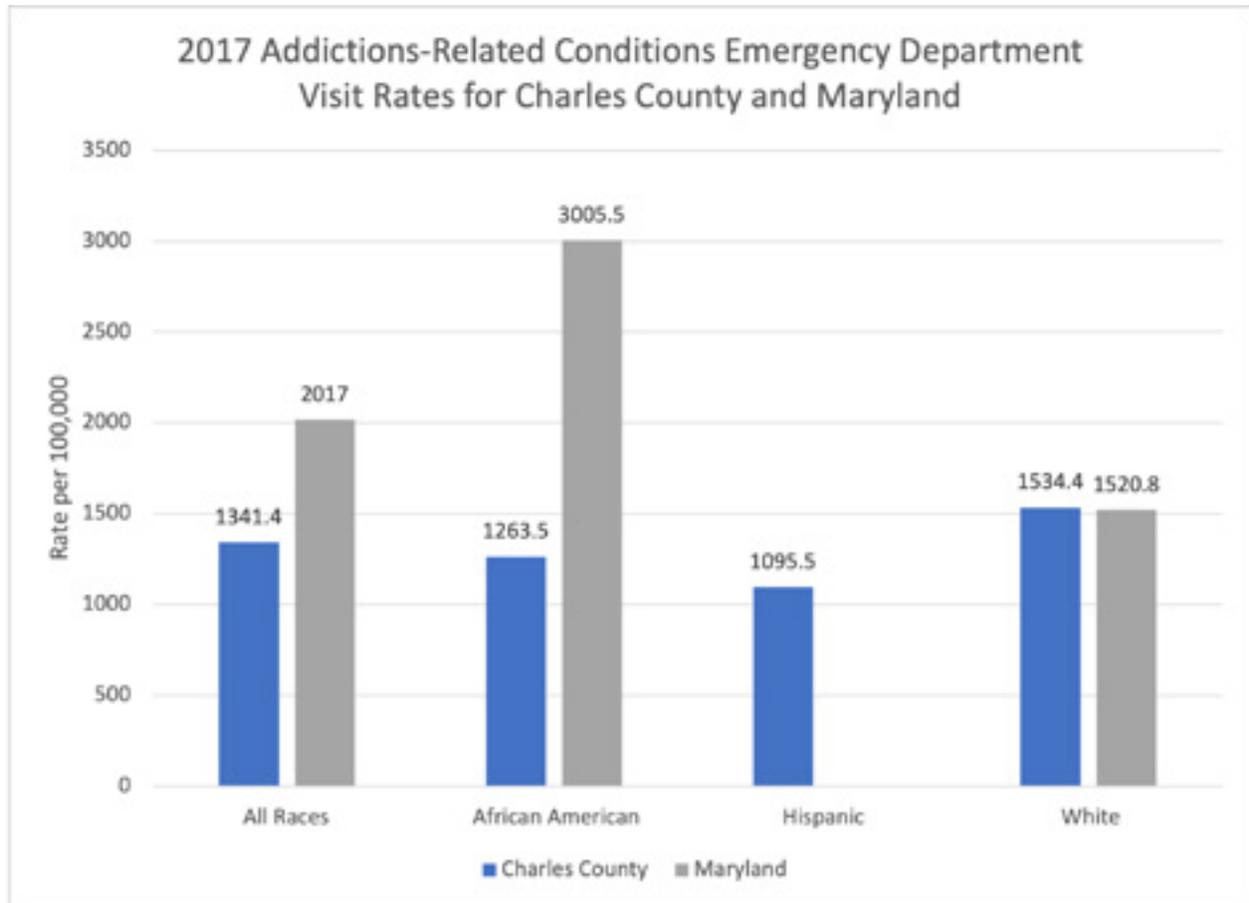
CIGARETTE SMOKING AMONG YOUTH (14-17) RECEIVING MENTAL HEALTH AND/OR SUBSTANCE USE DISORDER SERVICES (CURRENT AS OF 4/2019)				
Maryland Outcomes Measurement System Datamart (OMS)				
<i>Prevalence (%)</i>	2015	2016	2017	2018
<i>Number (N)</i>	% N	% N	% N	% N
<i>Mental Health Services</i>	5.6 (15)	5.9 (16)	5.2 (14)	3.2 (9)
<i>Substance Use Disorder Services</i>	26.7 (8)	21.9 (7)	25.0 (6)	20.8 (5)
<i>Both</i>	41.7 (5)	33.3 (4)	33.3 (3)	33.3 (3)

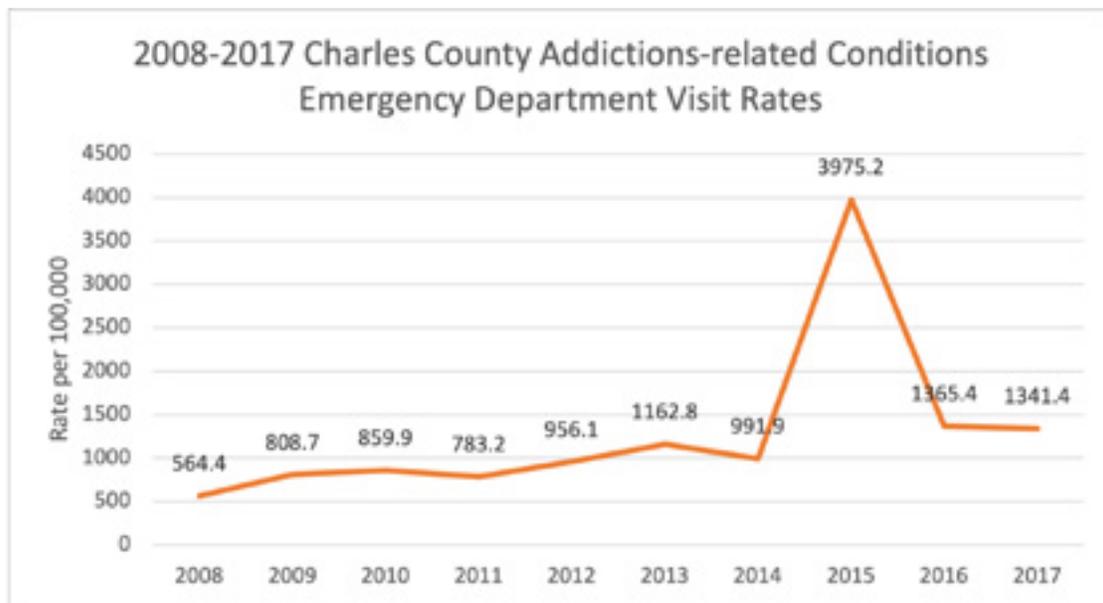
Charles County Substance Use Disorder Data:

Substance Use Disorder Hospitalization and Emergency Department Visit Rates:

This indicator shows the rate of emergency department visits related to substance abuse disorders* (per 100,000 population). Substance abuse problems can place a heavy burden on the healthcare system, particularly when people in crisis utilize emergency departments instead of other sources of care when available. Diagnoses include alcohol-related disorders and drug-related disorders. The 2017 Charles County emergency department visit rate for addiction-related conditions was 1,341.4 per 100,000. This rate is below the state average rate of 2,017 per 100,000. The county rate is highest among Non-Hispanic Whites with an ED visit rate of 1,534.4 compared to 1263.5 for Charles County Blacks and 1,095.5 for Charles County Hispanics. The 2017 addictions-related ED visit rate for Maryland Hispanics was not calculated or presented.

The Charles County addictions-related ED visit rate has continued to climb each year from 564.4 in 2008 to 1,341.4 in 2017. There has been a great deal of fluctuation in this yearly rate with a large spike in the rate for 2015. The 2016 and 2017 rates have remained fairly consistent.





Maryland State Epidemiological Outcomes Workgroup Data on Alcohol and Drug-related Hospitalizations:

The Maryland Statewide Epidemiological Outcomes Workgroup (SEOW) analyzed the 2016, 2017, and 2018 Maryland Health Services and Cost Review Commission (HSCRC) data for residents of Maryland. Among Charles County residents:

- On average, 54% of all alcohol- and drug-related hospitalizations involved a drug other than alcohol only.
- On average, 26% of all alcohol- and drug-related hospitalizations involved opioids.
- Alcohol and opioids were the most common substances involved in alcohol-and drug-related hospitalizations.
- 831 drug-related poisonings involved hospitalizations.

Between 2016 and 2018, the total number of inpatient and outpatient events decreased in the state of Maryland by 270,685 (4.7%). The number of events in Charles County also decreased by 5,889 (6.0%). (Figure 1)

The number of alcohol- and/or drug-related events increased in the state of Maryland during the same time by 6,197 (2.3%). Charles County saw a decrease in alcohol- and/or drug-related events by 532 (15%). By the year 2018, alcohol- and/or drug-related events accounted for 4.9% of all inpatient and outpatient events across the state of Maryland and 3.3% in Charles County. (Figures 2 and 3)

All Inpatient and Outpatient Events

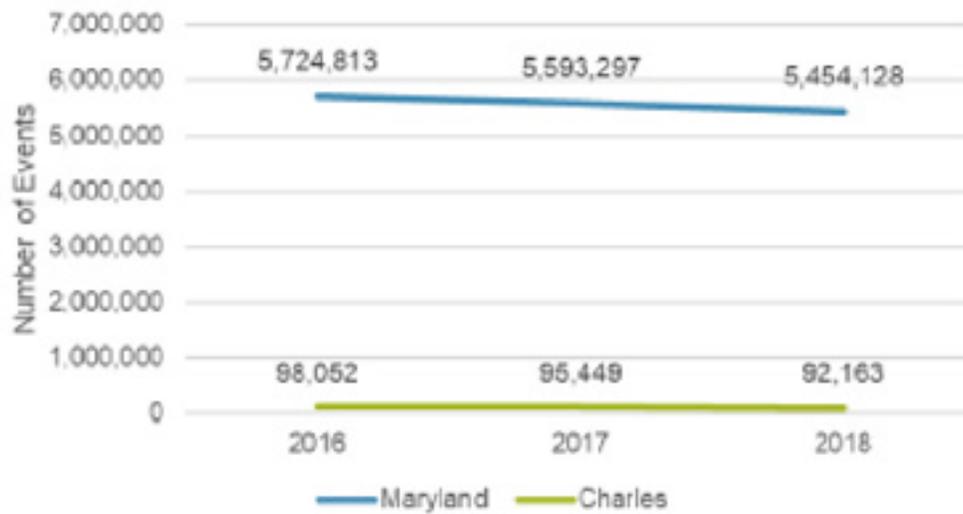


Figure 1.

Alcohol- and/or Drug- Related Events

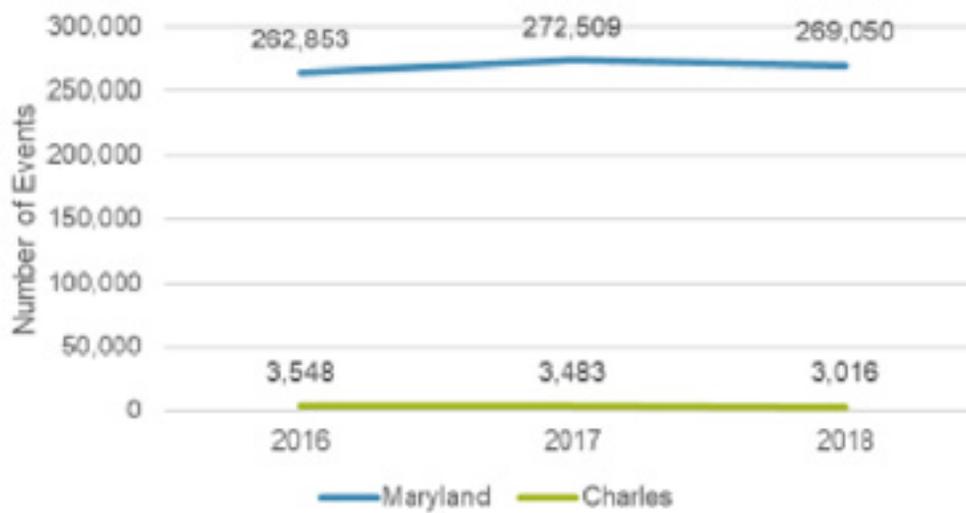
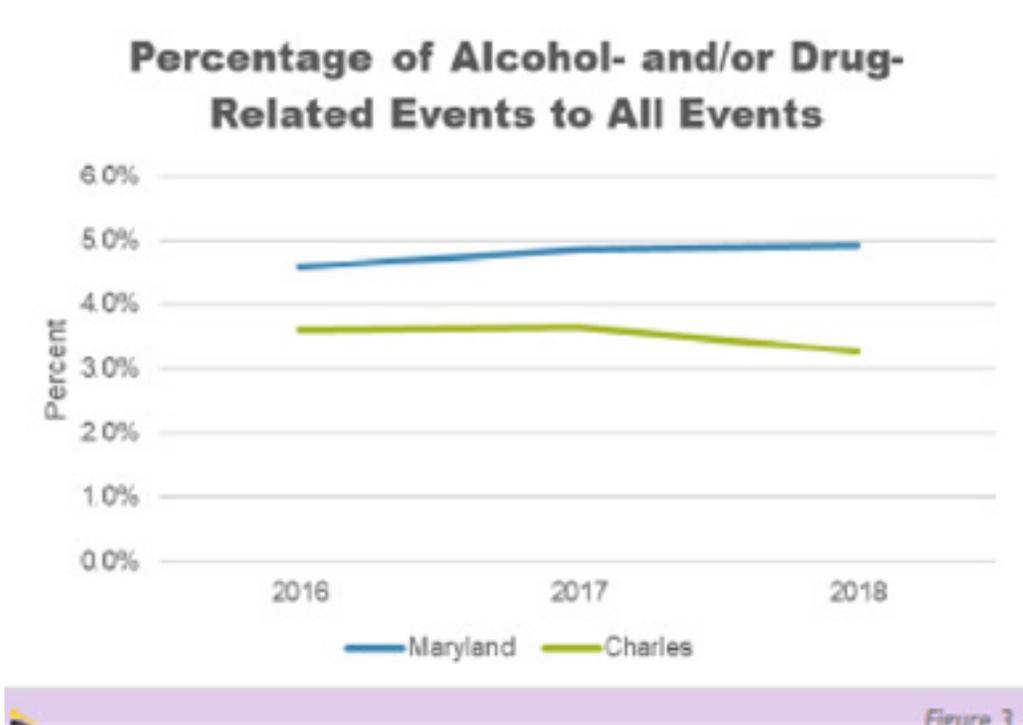
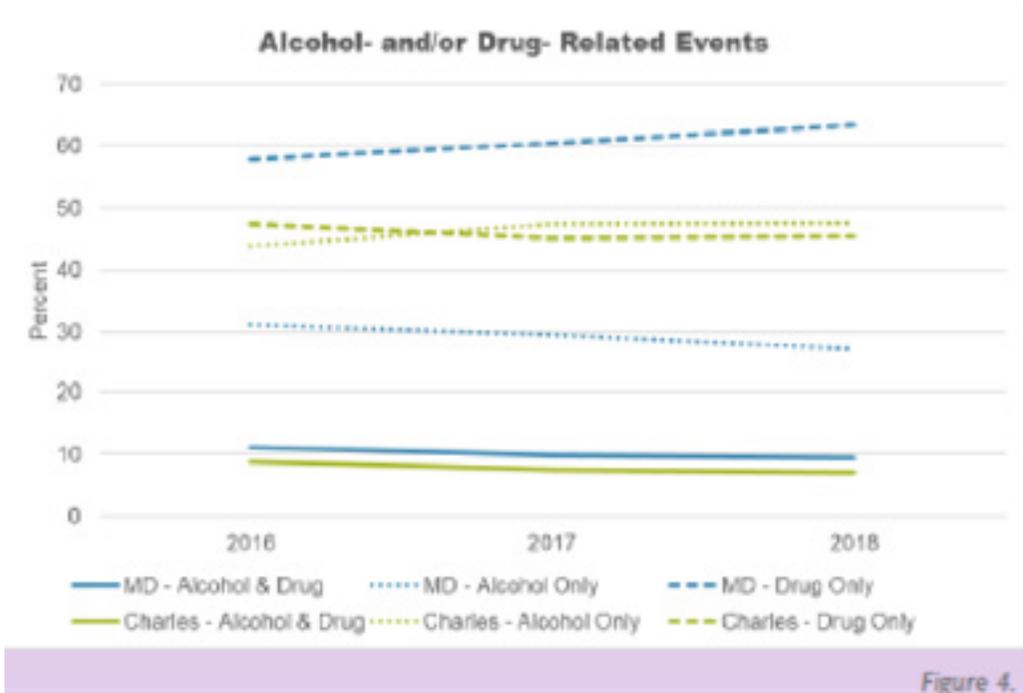


Figure 2.



Approximately 1.2% of the total events involved Charles County residents, where 46% of events involved only drugs, 46% involved only alcohol, and 8% involved both drugs and alcohol. (Figure 4)



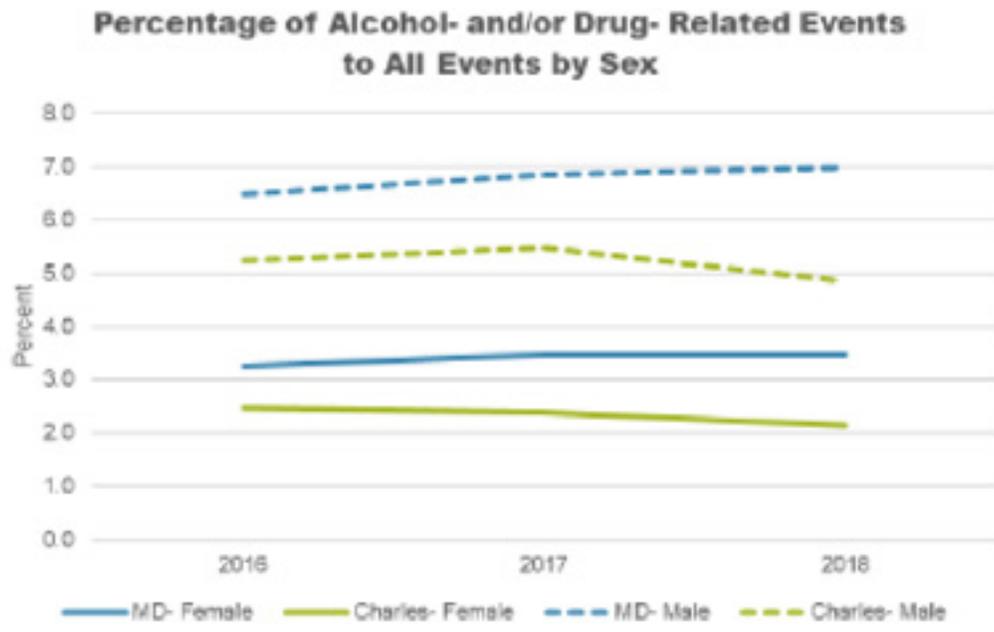


Figure 5.

Between 2016 and 2018, Charles County residents differed in their patterns of alcohol- and/or drug-related events based on age. Events involving alcohol were more common among older residents. For example, among residents aged 45 to 64 years, 63% of alcohol and/or drug events involved alcohol only. Events involving only drugs were more common among residents aged 25 to 44 years; 56% of alcohol and/or drug events among this age group involved only drugs (Figure 6).

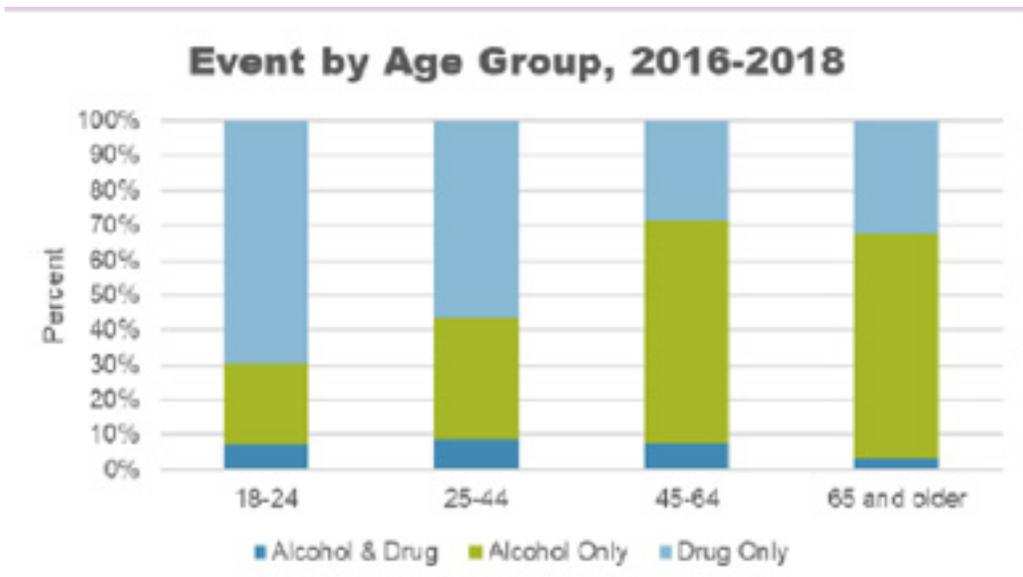
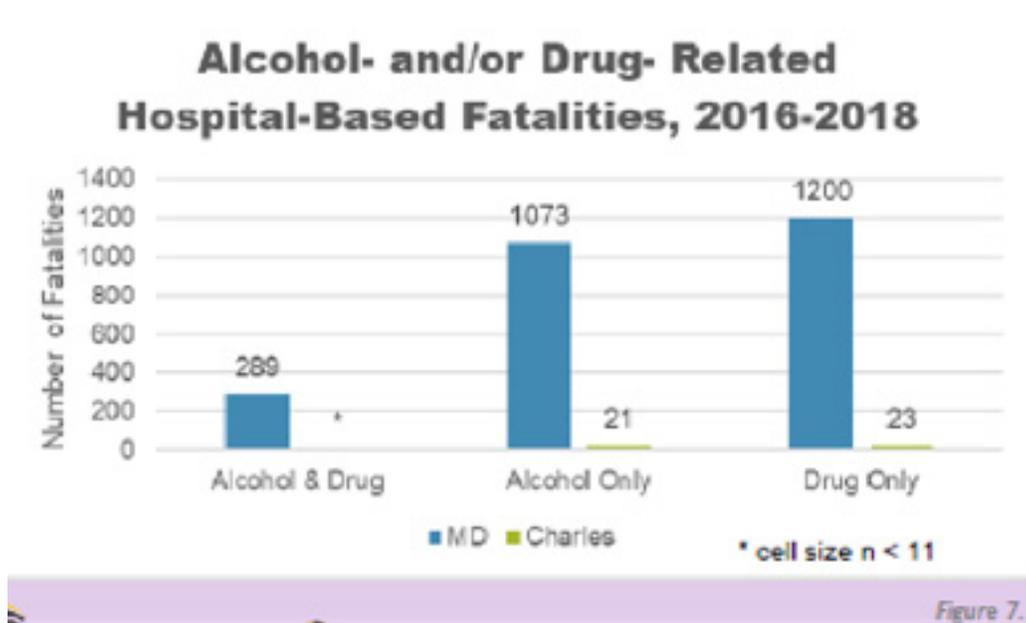


Figure 6.

Between 2016 and 2018, more than 40 Charles County residents lost their lives during hospitalizations involving alcohol and/or drugs, accounting for approximately 1.8% of these fatalities statewide (Figure 7).

Among Charles County residents, events involving only drugs accounted for a larger proportion of alcohol- and/or drug-related fatalities compared to statewide (50% vs 46.8%, respectively). Additionally, Charles County residents experienced more alcohol-only related fatalities than the state as a whole (45.7% vs. 41.9%, respectively).



Between 2016 and 2018, the number of alcohol- and/or drug-related events that involved depressive mood disorders, as defined by ICD-10-CM diagnostic codes, were consistently greater than anxiety, adjustment, and other mood disorders. Diagnoses of comorbid depressive disorders were observed in 18.1% of alcohol- and/or drug- related events statewide and in 12.7% of such events in Charles County. In Charles County, anxiety diagnoses were observed in 11% of alcohol- and/or drug-related events, less than the statewide

percentage for anxiety diagnoses among alcohol- and/or drug-related events during the same interval (Figure 10).

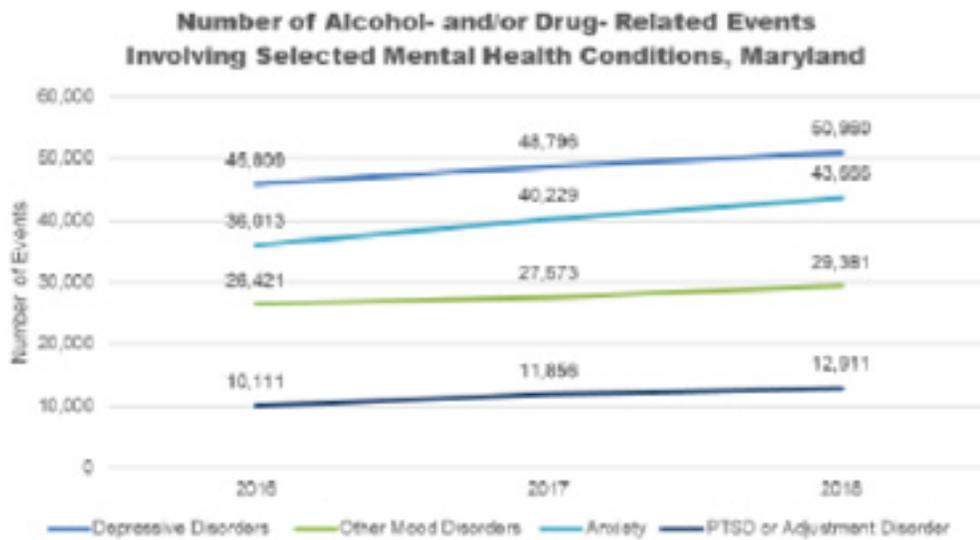


Figure 8.

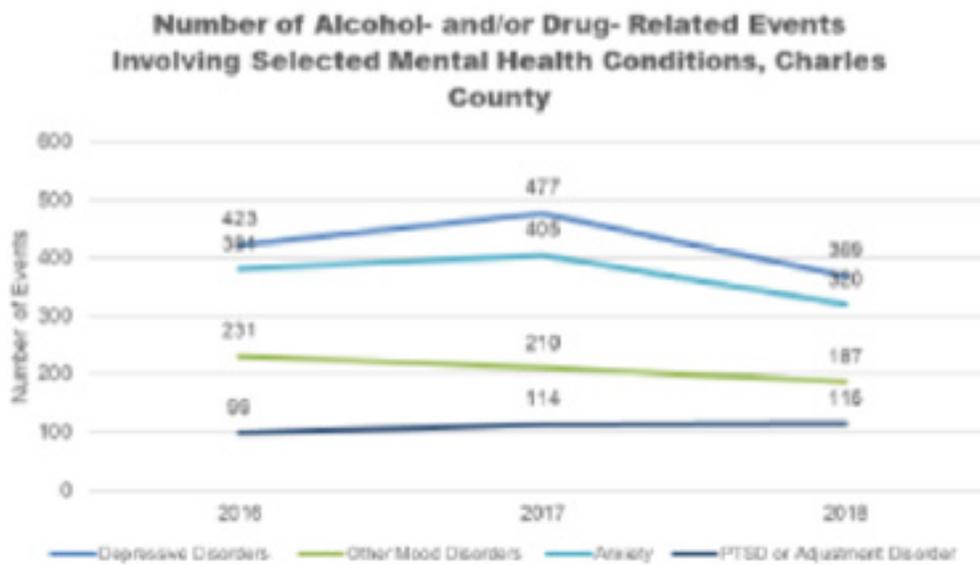
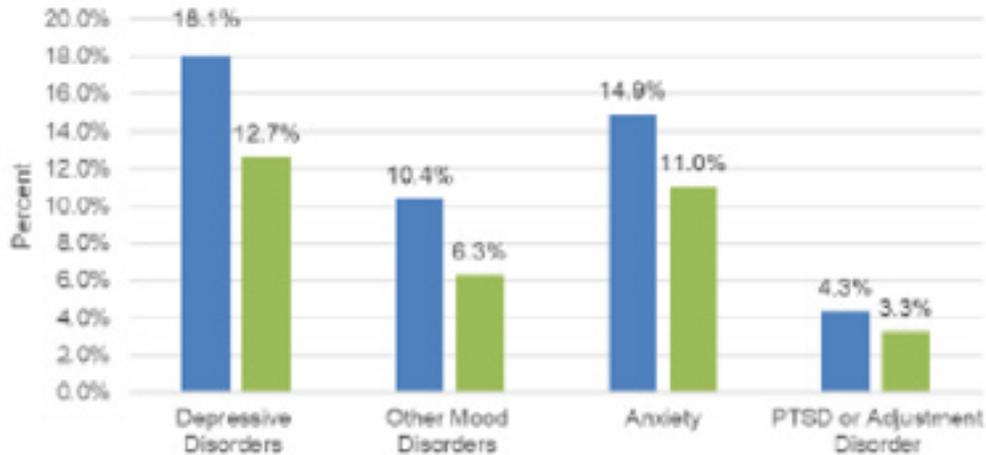


Figure 9.

Percentage of Alcohol- and/or Drug- Related Events Involving Selected Mental Health Conditions, 2016-2018



Charles County Drug-Induced Death Data:

From 2010-2019, Charles County saw 229 deaths due to alcohol or drug intoxication. Of those deaths, 188 were opiate-related. That represents 82% of the drug intoxication deaths for the county.

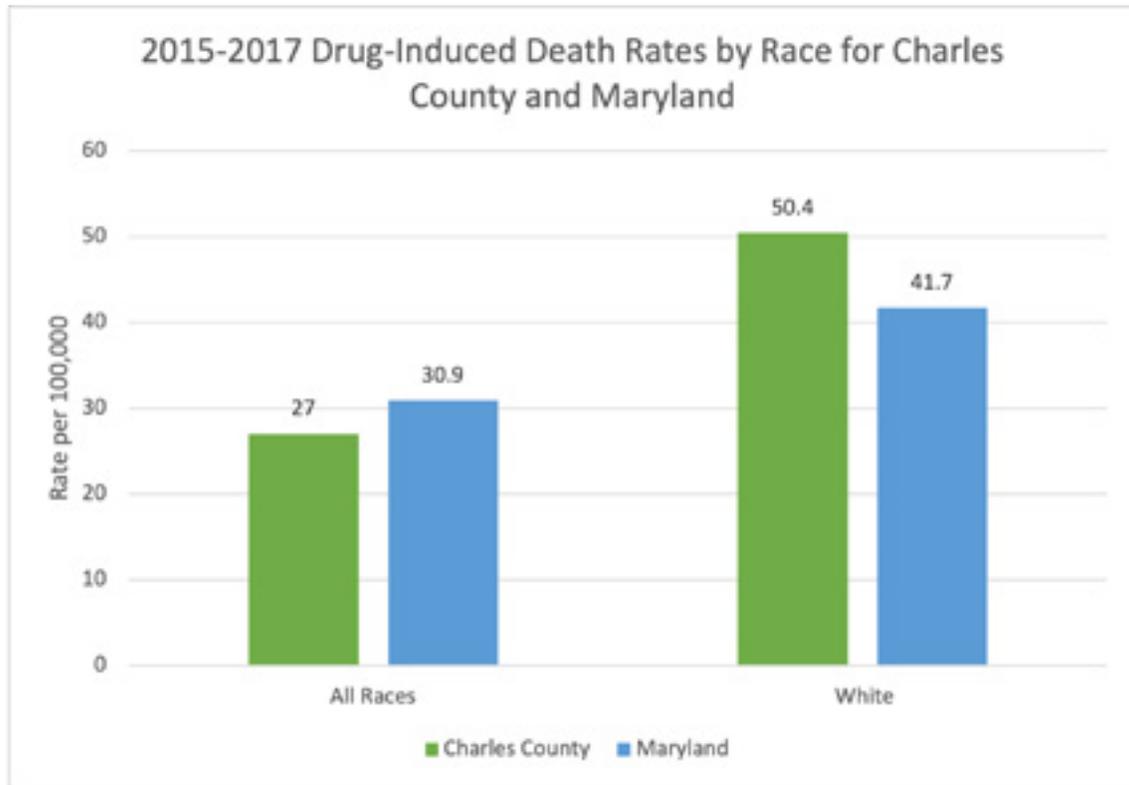
There was a large jump in intoxication deaths from 22 in 2015 to 45 in 2016. The number of drug- and alcohol-related intoxication deaths has declined since 2016 and was 31 in 2019. A large number of those deaths were due to heroin and fentanyl. Heroin deaths went from eight in 2015 to 22 in 2016. Heroin deaths have since declined to 12 in 2019. Fentanyl went from four deaths in 2015 to 24 deaths in 2019.

Charles County Drug Intoxication Deaths 2007-2016	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Drug and Alcohol Related Deaths	13	11	13	9	21	22	45	37	27	31
Heroin-Related Deaths	6	6	5	5	10	8	22	16	11	12
Prescription Opiate Related Deaths	4	5	7	5	9	8	10	11	8	7
Cocaine-Related Deaths	2	1	1	0	0	2	4	10	13	12
Alcohol-Related Deaths	4	3	2	4	5	4	12	9	3	10
Fentanyl-Related Deaths	0	1	1	3	1	4	17	26	14	24

The 2015-2017 average Charles County age-adjusted drug-induced death rate was 27.0 per 100,000 population. This rate is less than the Maryland state average rate of 30.9 per 100,000 population. The 2015-2017 Charles County White drug-induced death rate was 50.4 per 100,000 and was higher than the Maryland state average rate of 41.7 per 100,000. Rates for other races were not calculated on a county level due to small case counts.

The Charles County drug-induced death has increased greatly since the previous needs assessment. The 2014-2016 Charles County drug-induced death rate was 21.4 per 100,000

and has now risen to 27 for 2015-2017. The Charles County White drug-induced death rate also rose from 39.0 in 2014-2016 to 50.4 in 2015-2017.



Maryland Youth Risk Behavior Survey:

Charles County middle and high schools students participated in the 2018-2019 Maryland Youth Risk Behavior Survey (YTRBS) to determine any changes in the percentage of children engaging in high risk behaviors that can lead to chronic and infectious disease conditions. All responses have been weighted to reflect the county’s school aged population.

Charles County middle and high school students were asked if they have ever tried substances one or more times in their life. The most commonly used substances for both middle and high school students were alcohol (21.4% middle and 56.4% high school) and marijuana (8.4% middle and 31.6% high school).

Alcohol was the most commonly reported substance for high school students (56.4%).

Marijuana is the second most commonly reported substance for high school students (31.6%). The lifetime usage percent increased for students in the 12th grade (43.0%) and those who are of multiple races (38.8%).

Substance Lifetime Usage Rates, 2018-2019 Charles County YRBS	High School Percent Reporting	Middle School Percent Reporting
Alcohol	56.4	21.4
Marijuana	31.6	8.4
Synthetic marijuana	7.3	NA
Cocaine	6.6	3.7
Heroin	6.4	NA
Methamphetamine	5.8	NA
Ecstasy	7.2	NA
Prescription drugs without a prescription	16.5	9.2
Injectable illegal drugs	5.2	NA

NA: Not applicable. The question was not asked on the middle school survey.

In addition, Charles County high school students were asked if they have been sold or given illegal drugs on school property in the last year: 22.2% reported that they have been sold or given illegal drugs on school property in the last year. This percentage was highest among Hispanics (32.2%) and 11th graders (24.7%).

One out of four Charles County high school students report using alcohol in the past 30 days (24.1%). Charles County high school students were also asked a question regarding binge drinking. They were asked if they have had five or more drinks of alcohol in a row within a couple of hours on one or more of the past 30 days. 11.8% reported binge drinking in the past 30 days. Finally, 19% of high school students reported using marijuana in the past 30 days.

2018-2019 Charles County High School YRBS 30-day usage rates	Percentage Reporting
Alcohol	20.7
Marijuana	18.0
Binge Drinking	9.8

Maryland Behavioral Risk Factor Surveillance System Data:

Alcohol Use Data:

55.7% of Charles County adults reported that they have consumed alcohol in the past 30 days. This is slightly above the Maryland state percentage of 53.6%.

For 2019, 14.1% of Charles County adults reported binge drinking in the last month. Binge drinking was defined as males having more than five drinks and females having more than four drinks on one occasion. Charles County binge drinking rates were similar to the Maryland rates for this time period.

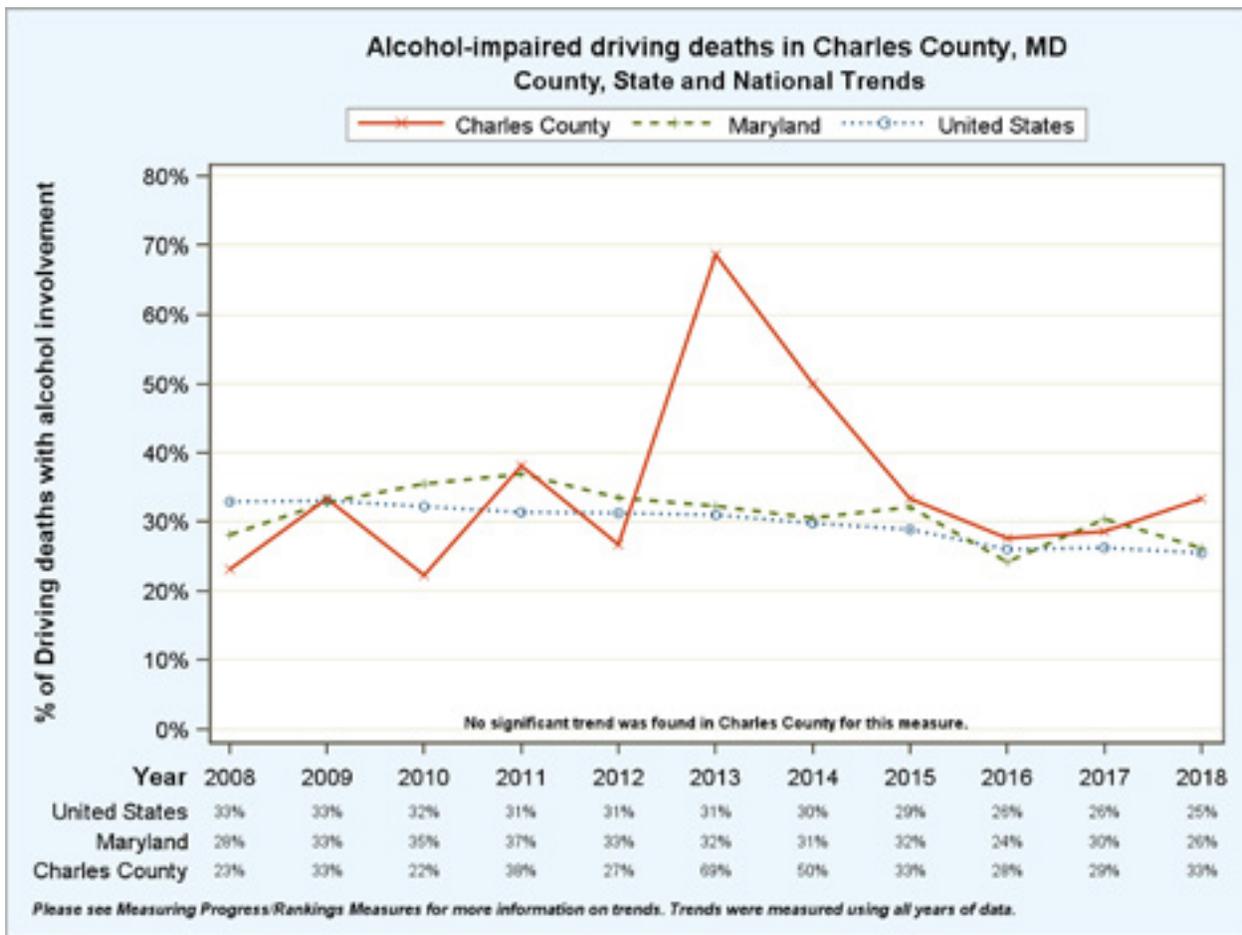
2019 Binge Drinking (Males having more than five drinks and females having more than four drinks in one occasion in the last month), Charles County and Maryland

<i>Binge Drinking 2019</i>	Yes	No
Charles County	14.1%	85.9%
Maryland	14.8%	85.2%

5.4% of Maryland BRFSS respondents reported that they are chronic drinkers. Chronic drinking was defined as males having two or more drinks and females having one or more drinks every day. A Charles County percentage could not be calculated due to the small sample size.

Driving deaths that were alcohol involved:

According to the County Health Rankings, 33% of driving deaths in Charles County from 2014-2018 were alcohol involved. This is greater than the Maryland average percentage of 29% for the same time period.



Substance Use Disorder References:

1. 2008-2017 Charles County and Maryland Addictions-Related Emergency Department Visit Rates and Drug-Induced Deaths Rates. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: <https://opendata.maryland.gov/Health-and-Human-Services/SHIP-Emergency-Department-Visits-For-Addictions-Re/n4s3-z5pf/data>.
2. 2016-2018 Charles County and Maryland Alcohol and Drug Related Hospitalizations. 2019 Maryland Epidemiological Profiles on Alcohol and Drug Related Hospitalizations: Jurisdiction Profiles. Maryland Health Services Cost Review Commission. Accessed through the Maryland Statewide Epidemiologic Outcomes Workgroup. Available at: https://www.pharmacy.umaryland.edu/media/SOP/wwwpharmacyumarylandedu/programs/seow/PDF2019/maryland-hsrc-jurisdiction-profiles_2019.pdf.
3. 2010-2019 Charles County and Maryland Drug Intoxication Deaths by Related Substance. Drug and Alcohol Intoxication Deaths in Maryland 2019 Report. Maryland Vital Statistics Administration. Available at: https://health.maryland.gov/vsa/Documents/Overdose/REV_Annual_2019_Drug_Intox_Report.pdf.
4. 2018-2019 Charles County Middle and High School Substance Use Lifetime and 30-Day Usage Estimates. 2018-2019 Maryland Youth Risk Behavior Survey. Available at: <https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS2018.aspx#Charles>.

5. 2019 Charles County and Maryland Adult Binge and Chronic Drinking Estimates and Past 30-day consumption. Maryland Behavioral Risk Factor Surveillance System. Available at: <https://ibis.health.maryland.gov/query/selection/brfss/BRFSSSelection.html>.
6. Alcohol driving death percentages for Charles County and Maryland. Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/measure/factors/134/map>.

Qualitative Data Relating to Substance Use and Tobacco:

On the long survey, drug use was seen as the most serious health problem in Charles County. 35% of respondents felt that Drug Use was a serious problem in Charles County, and 58.3% of long survey respondents felt that drug use is a problem on some level in the county.

Of the long survey respondents, 25.3% felt that alcohol use is a serious problem in Charles County. This was the tenth most serious health problem reported on the long survey. Additionally, 55.6% of the long survey respondents felt that alcohol use is a problem on some level. Alcohol use was the second most commonly cited health issue seen as a moderate problem.

Tobacco use was cited as a serious health problem by 24.6% of the long survey respondents. 54.2% of long survey respondents felt that tobacco use is a problem on some level in Charles County.

When asked if they have seen improvements among many health issues, tobacco use was the fifth most common answer, with 23% reporting they have seen improvements. 17.4% respondents reported seeing improvements in terms of substance use disorders in Charles County.

When looking at behavioral risk factors applicable to substance use disorders and tobacco use:

- No respondents reported that they always or most of the time drink three or more alcoholic beverages per day and 0.2% reported that they sometimes drink three or more alcoholic beverages per day.
- 2.5% reported that they drink five or more drinks in one sitting always or most of the time. 15.7% reported that sometimes or rarely they drink five or more drinks in one sitting.
- 9.6% reported that they currently smoke cigarettes to some degree. This is a decrease from the 12% reported in the last needs assessment. 3.4% reported that they always smoke cigarettes.
- 0.4% of the respondents reported using smokeless tobacco.
- 2.5% have used e-cigarettes.
- 18.4% reported that they are exposed to secondhand smoke at home or work to some degree.
- 0.2% misuse prescription drugs on some level whether it is always, most of the time, sometimes, or rarely.
- 0.2% reported that they have used illegal drugs.
- 5.9% reported use of marijuana

On the short survey, 46.4% of total short survey respondents felt that drug and alcohol use was the biggest health problem in Charles County. This was the third most commonly reported health

issue on the short surveys. 30.6% of the short survey respondents felt that smoking and tobacco use was the biggest health problem in Charles County. This was the eighth most commonly cited health problem on the short surveys.

Behavioral health and substance use disorders were discussed heavily at the focus group. It can be hard on families when someone is in need of intensive inpatient treatment for a substance use disorder and must leave the county for care. They are separated from their families and their support system. It can be difficult for the families to see them due to lack of transportation. Participants also talked about the waiting lists to get into substance use treatment services in the county. People can change their mindset in the weeks it takes to get into treatment.

One of the biggest themes to emerge out of discussions surrounding substance use disorders is the impact on the entire family. It is not an illness that affects just the person. The effects from drug use spread to the entire family. It is a crisis for all family members not just the one addicted. They can be separated while they are in inpatient treatment. They can be affected financially due to the inability to hold down a job or because the person addicted must steal from family to pay for their drugs.

Focus group participants did feel that some improvements have been made in the county to address substance use disorders. The emergency department now has a peer recovery specialist. The health department has also increased the number of peer recovery specialists in the community. Peer recovery specialists have been found to be very effective in assisting and supporting individuals with a substance use disorder in finding and staying in treatment.

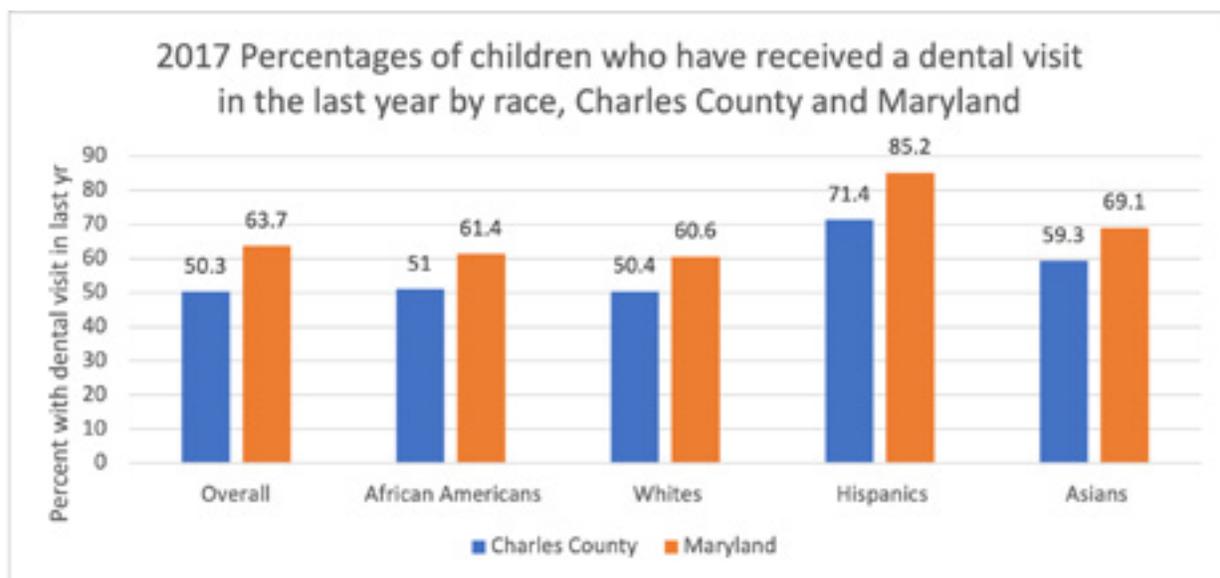
Approximately 45.1% of the key informant interview participants felt that behavioral health (mental health and substance use) was the health condition most affecting Charles County.

When asked what they perceive to be the greatest health issue facing Charles County, behavioral health was the third most popular response among participants. Participants whose responses fell into this health issue category included concerns about poor lifestyle habits and risky behaviors among community members. Particular examples of poor lifestyle choices that participants provided included, smoking, unhealthy eating habits, unsafe driving, and substance use.

Charles County Oral Health Statistics:

Routine Dental Health for Children:

In 2017, only 50.3% of Charles County children aged 0-20 years enrolled in Medicaid had a dental visit in the past year. This is the lowest reported percentage in the state of Maryland. It is much lower than the Maryland state average percentage of 63.7%. Rates were highest among Charles County Hispanics at 71.4% and lowest among Charles County Whites at 50.4%.



Source: 2017 Maryland State Health Improvement Process

Routine Dental Care for Adults:

The 2018 Maryland Behavioral Risk Factor Surveillance System asked two questions regarding oral health. The Charles County BRFSS data for 2018 has been evaluated below.

How long since you last visited a dentist for any reason?

The majority of the Charles County participants reported that they had seen a dentist in the last year (66.6%). This is similar to the state average percentage of 66.3%.

Number of Permanent Teeth Removed:

Over half of the Charles County BRFSS participants have not had any of their permanent teeth removed (57.4%).

Oral Cancer Statistics:

Oral Cancer Incidence:

The Charles County oral cancer incidence rate for 2012-2016 was 12.0. This rate is greater than the Maryland state average rate of 10.8. The Charles County oral cancer incidence rate is between 10% below and 10% above the United States rate of 11.3 per 100,000.

Charles County Whites had a higher oral cancer incidence rate than Charles County Blacks (14.4 vs. 7.0).

Males are disproportionately affected by oral cancer compared to women. The 2012-2016 Charles County oral cancer incidence rate for males was 19.2, which is significantly higher than the oral cancer incidence rate for women (5.7).

2012-2016 Oral Cancer Incidence Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	10.8	16.4	6.0	12.1	8.1	6.7
<i>Charles County</i>	12.0	19.2	5.7	14.4	7.0	**
<i>Calvert County</i>	13.9	21.1	7.1	13.5	**	0
<i>St. Mary's County</i>	15.6	21.9	9.5	15.8	**	**

** Rates are not calculated for case counts less than 15.

Oral Cancer Mortality:

For 2012-2016, the Charles County oral cancer mortality rate was 3.0 per 100,000. This is higher than the Maryland state average rate of 2.4 per 100,000. The Charles County oral cancer mortality for 2012-2016 was 10-25% above the U.S. average rate of 2.5 per 100,000.

Even for a combined time period of 2012-2016, deaths due to oral cancer are few, and rate calculations by race and gender were not possible.

2012-2016 Oral Cancer Mortality Rates

	Total	Male	Female	White	Black	Other
<i>Maryland</i>	2.4	3.7	1.4	2.4	2.8	1.3
<i>Charles County</i>	3.0	**	**	**	**	**
<i>Calvert County</i>	**	**	**	**	**	**
<i>St. Mary's County</i>	**	**	**	**	**	**

** Rates are not calculated for case counts less than 15.

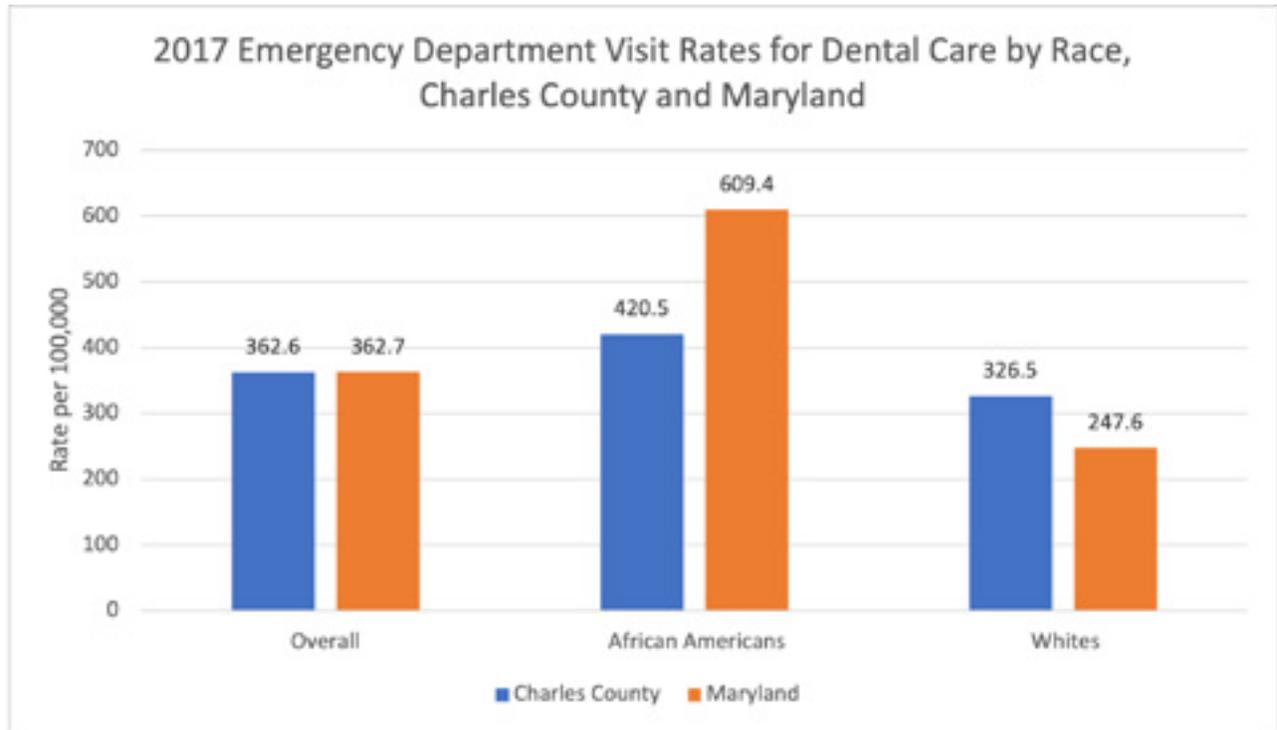
Source: Maryland Department of Health: 2019 CRF Program's Cancer Report

2019 Maryland Oral Health Legislative Report:

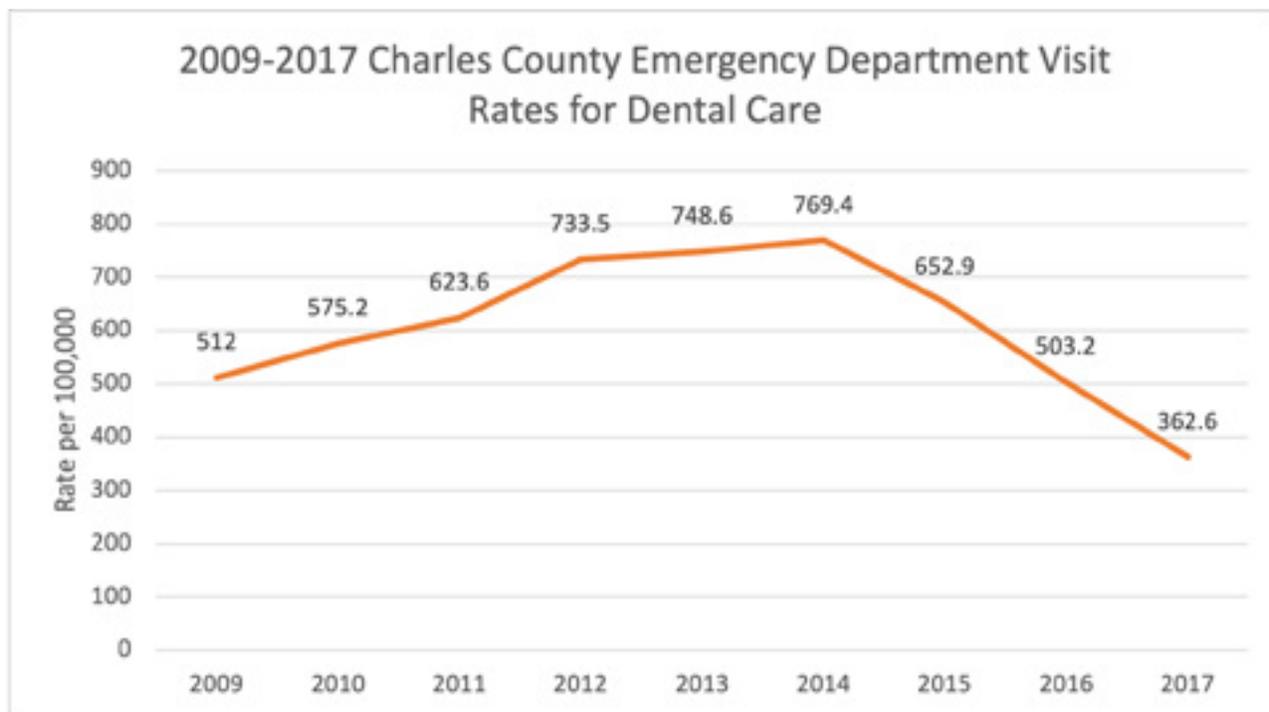
The number of dentists in Southern Maryland participating in medical assistance has increased over the last five years. Southern Maryland increased from 29 dentists in 2009 to 96 dentists in 2018 who are enrolled in the Maryland Healthy Smiles Dental Program (medical assistance and MD Healthy Smiles Program). Of those dentists, 66 billed one or more services in calendar year 2018; 51 of the billing dentists billed more than \$10,000 in 2018.

2017 Emergency Department Visit Rates for Dental Care:

The 2017 Charles County ED visit rate for dental care was 362.6 per 100,000. This is similar to the Maryland state average rate of 362.7 per 100,000. For Charles County, the ED dental visit rate was higher for Blacks than Whites (420.5 vs. 326.5). The dental ED visit rate for Charles County African Americans is far below the rate for Maryland African Americans (420.5 vs. 609.4). The dental ED visit rate for Charles County Whites is above the rate for Maryland Whites (326.5 vs. 247.6).

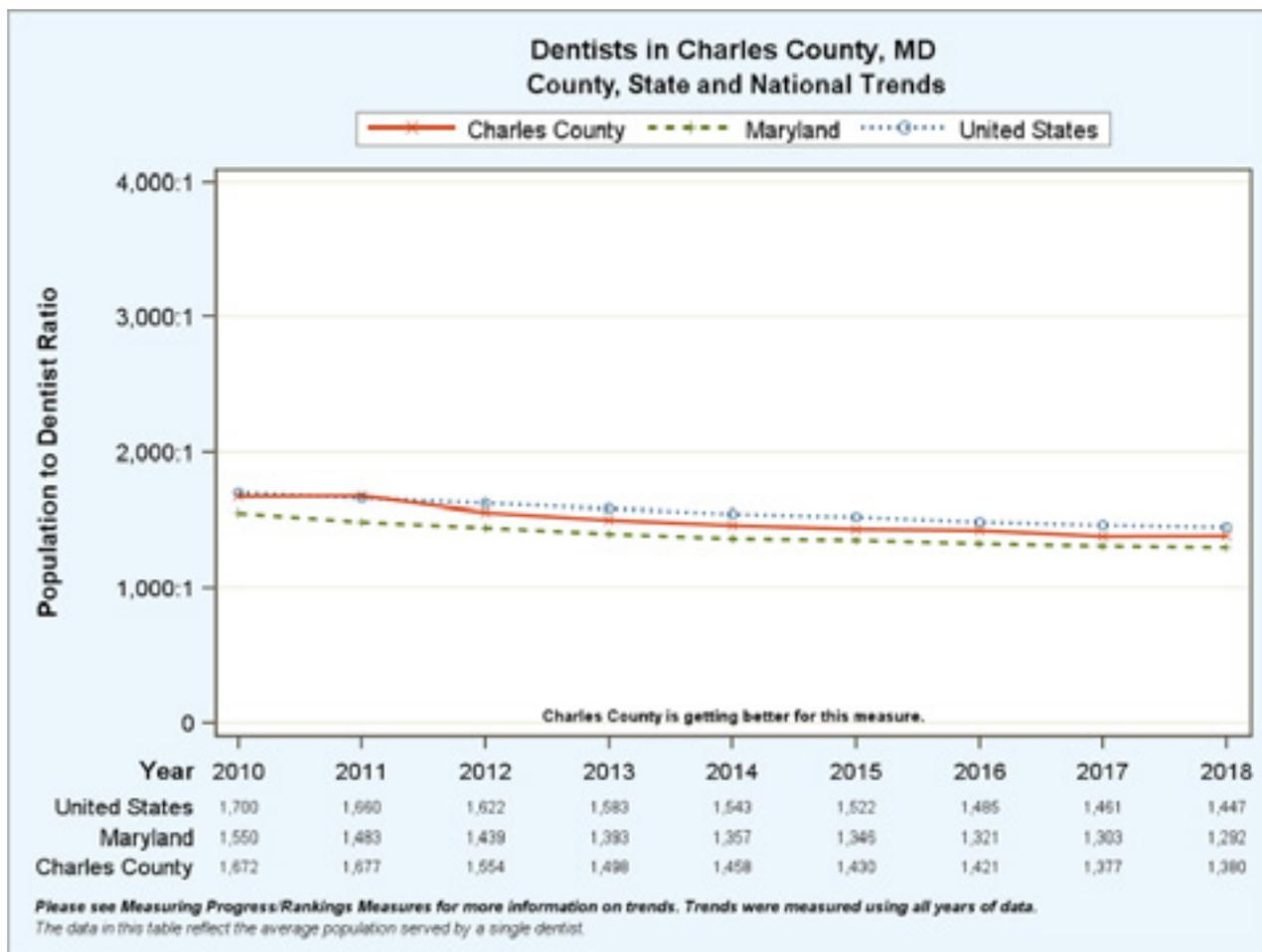


The Charles County ED visit rate for dental care increased every year from 512 per 100,000 in 2009 to 769.4 in 2014. Since then, Charles County has seen a decline in ED visit rates for dental care.



Rate of population to dentist:

The 2018 dentist ratio in Charles County was 1,380:1. This is greater than the Maryland population to dentist ratio of 1,292:1 but less than the national ratio of 1,447:1. The Charles County dentist ratio has been decreasing each year. This is a good indicator that there are more dentists who can share the burden of patients in the county.



Dental Health References:

1. 2017 Charles County Percentages of Children with Dental Visit in past year. Medicaid data 2017 for Maryland. Accessed through the Maryland State Health Improvement Process website. Available at: <https://opendata.maryland.gov/Health-and-Human-Services/SHIP-Children-Receiving-Dental-Care-In-The-Last-Ye/g72j-3f3c>.
2. 2018 Charles County Dental health data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at: <https://ibis.health.maryland.gov>.
3. 2012-2016 Charles County Oral Cancer Incidence and Mortality Rates. 2019 Maryland Cigarette Restitution Fund Program's Cancer Reports. Maryland Department of Health. Available at: https://phpa.health.maryland.gov/cancer/SiteAssets/Pages/surv_data-reports/2019%20CRF%20Cancer%20Report.pdf.
4. Charles County Medicaid dental provider data. 2019 Maryland Annual Oral Health Legislative Report. Available at: https://www.mdac.us/file_download/inline/1c5ce2c3-1794-4960-8360-9e205142e0ac.

5. 2017 Charles County and Maryland Emergency Department Visit Rates for Dental Care. Maryland Health Services Cost Review Commission Outpatient Discharge File. Accessed through the Maryland State Health Improvement Process website. Available at: <https://opendata.maryland.gov/Health-and-Human-Services/SHIP-Emergency-Department-Visit-Rate-For-Dental-Ca/uwst-7igm/data>.
6. 2010-2018 Charles County dentist to population ratio. Area Health Resource File. Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/measure/factors/88/map>.

Qualitative Data Related to Dental Health:

Of the long survey participants, 78.6% reported that they have dental insurance, 37.4% receive routine care from their dentist, and 22.2% reported that they travel outside of Charles County for their dental appointments.

Of the long survey participants, 49.7% reported that dental health is a problem on some level in Charles County, and 17.3% felt that it was a "serious problem" in the county.

19.3% of the short survey participants felt that dental health is one of the biggest health problems in Charles County. When asked if services are available to address the issue, 20.7% felt that many or some services are available in the county for dental health.

Focus group participants mentioned the fact that it is hard to find dentists who accept medical assistance since it is not mandated that they accept that form of insurance. Therefore, people must travel outside of the county to find providers who will accept medical assistance, particularly for specialty procedures.

Charles County Mental Health Statistics:

Maryland Behavioral Risk Factor Surveillance System:

The Maryland Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing telephone surveillance program designed to collect data on the behaviors and conditions that place Marylanders at risk for chronic diseases, injuries, and preventable infectious diseases.

The data collected are used to characterize health behaviors, ascertain the prevalence of risk factors, and target demographic groups with increased needs. Knowing the type and frequency of health issues and risky behaviors enables the public health professionals to devise and implement programs geared toward the prevention of chronic diseases, injury, and disability.

Charles County data has been extracted for questions pertaining to mental health, quality of life, emotional and social support, and depression. Charles County BRFSS data is available for 2018 and 2019. When 2019 BRFSS was not available, the 2018 BRFSS database was queried for Charles County level data. For example, in the 2018 BRFSS, a module was added that asked a series of questions regarding adverse childhood experiences.

Has a doctor ever told you that you had a depressive disorder (including depression, major depression, dysthymia, or minor depression)?

For 2018, approximately 14.9% of Charles County BRFSS respondents reported that they have been diagnosed with depression.

<i>Depressive disorders 2019</i>	Yes	No
Charles County	14.9%	85.1%
Maryland	16.3%	83.7%

Number of mental health days not good

The 2019 Charles County BRFSS results found that approximately one-third of county residents (36.7%) had experienced days in the past month where their mental health status was not good.

<i>Mental health days not good 2015</i>	1-2 days	3-7 days	8-29 days	30 days	None
Charles County	8.2%	11.3%	12.4%	4.9%	69.5%
Maryland	9.7%	13.1%	11.5%	5.1%	60.5%

How many days did poor physical or mental health problems keep you from your activities?

The 2019 Charles County BRFSS results found that approximately 22.4% had at least one day in the past month where physical or mental health problems kept them from their activities.

Question 5: Mental/physical health keep you from usual activities 2015	1-2 days	3-7 days	8-29 days	30 days	None
Charles County	4.6%	10.0%	5.1%	2.7%	77.6%
Maryland	6.9%	8.2%	6.3%	3.3%	75.3%

Adverse Childhood Experiences:

Adverse childhood experiences, or ACEs, are potentially traumatic events that occur in childhood (0-17 years). For example:

- experiencing violence, abuse, or neglect
- witnessing violence in the home or community
- having a family member attempt or die by suicide

Also included are aspects of the child’s environment that can undermine their sense of safety, stability, and bonding such as growing up in a household with:

- substance misuse
- mental health problems
- instability due to parental separation or household members being in jail or prison

ACEs are common and are also preventable. ACEs are linked to chronic health problems, mental illness, and substance misuse in adulthood. ACEs can also negatively impact education and job opportunities.

An ACE score is a tally of different types of abuse, neglect, and other hallmarks of a rough childhood. First developed in the 1990s, the 10 questions of the **Adverse Childhood Experiences** test are designed to measure the occurrence of common traumatic experiences in early life. Since higher numbers of ACEs often correlate to challenges later in life, including higher risk of certain health problems, the quiz is intended as an indicator of how likely a person might be to face these challenges.

According to the 2018 BRFSS, approximately 65.5% of Charles County report having at least one ACE. This is higher than the Maryland state average percentage of 63.1%. Charles County also had a higher percentage than Maryland of people who reported an ACE score of four or more (16.6% vs. 14.5%).

2018 BRFSS: ACE Score	Charles County	Maryland
Zero	34.5%	36.9%
One	18.8%	24.5%
Two	21.1%	14.5%
Three	9.0%	9.6%
Four or more	16.6%	14.5%

The 2018 BRFSS looked at the prevalence of each ACE. The table below displays this data for Charles County and Maryland. The most commonly reported ACEs in Charles County included Parental Separation or Divorce (35.6%), Household Substance Abuse (26.0%), and Emotional Abuse (42.9%).

2018 BRFSS ACE Prevalence	Charles County	Maryland
Household Substance Abuse	26.0%	25.4%
Sexual Abuse	14.5%	12.2%
Household Mental Illness	11.2%	16.3%
Incarcerated Household Member	15.5%	8.6%
Parental Separation or Divorce	35.6%	30.6%
Intimate Partner Violence	18.6%	15.5%
Emotional Abuse	42.9%	35.0%
Physical Abuse	9.4%	14.9%

Suicide:

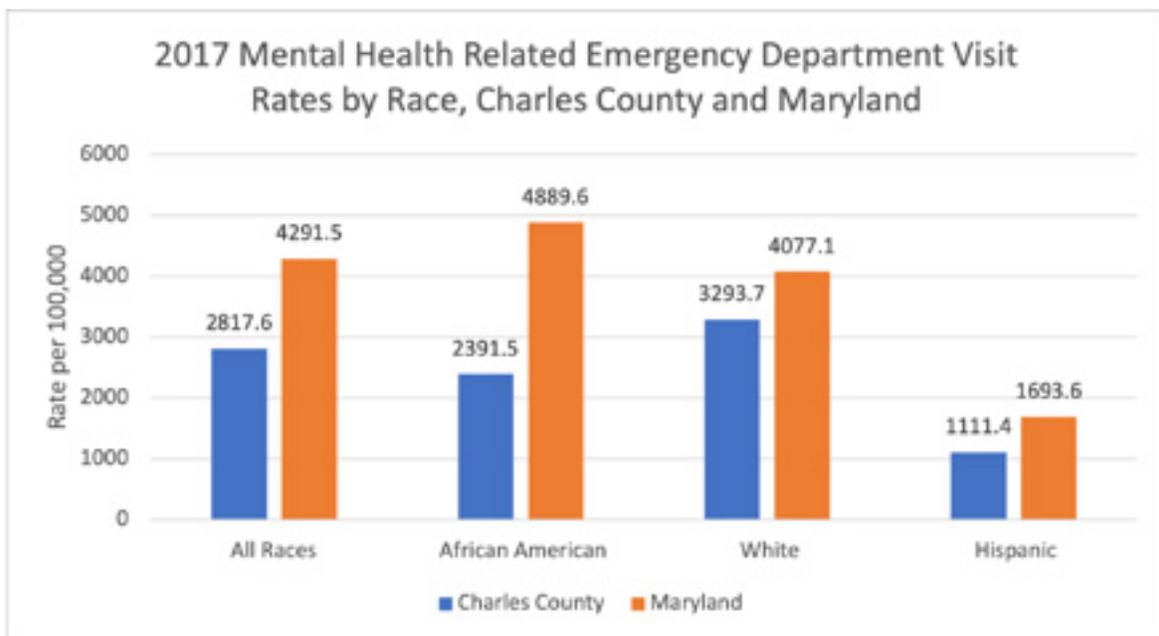
In 2016, there were a total of 18 suicides in Charles County and 652 suicides in the state of Maryland. The 2016-2018 average Maryland Suicide rate was 9.8 per 100,000. The 2016-2018 Southern Maryland suicide rate was 10.9 per 100,000. A Charles County level suicide rate could not be calculated due to small case counts. Rates less than 25 are unreliable.

Emergency Department Visit Rates for Mental Health Conditions:

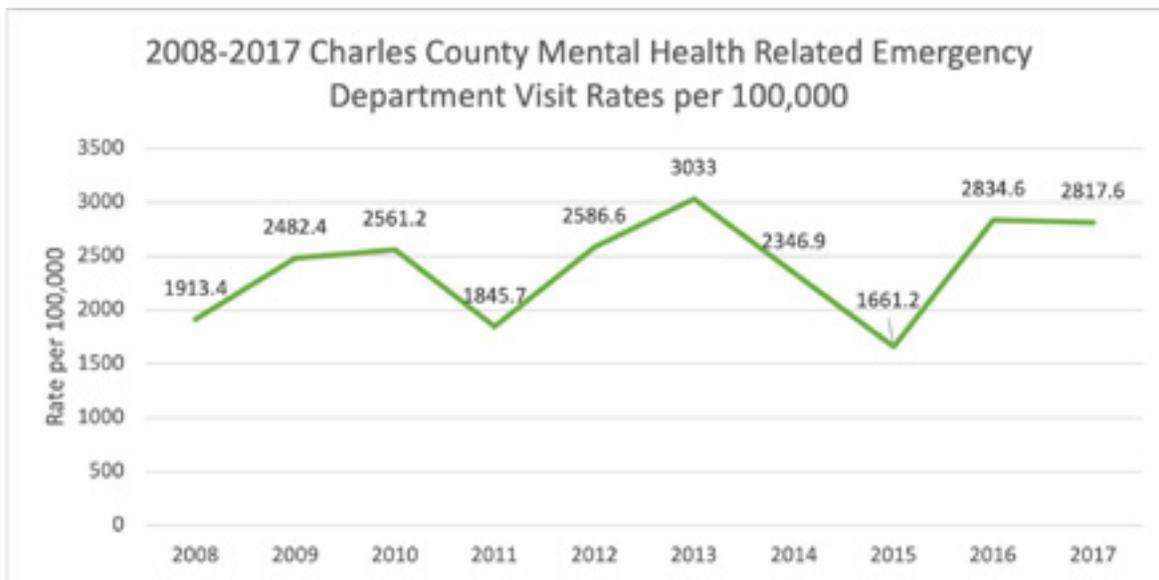
This indicator shows the 2017 rate of emergency department visits related to mental health disorders (per 100,000 population). Mental health problems can place a heavy burden on the

healthcare system, particularly when persons in crisis utilize emergency departments instead of other sources of care when available. Mental health disorder diagnoses include adjustment disorders, anxiety disorders, attention deficit disorders, disruptive behavior disorders, mood disorders, personality disorders, schizophrenia and other psychotic disorders, suicide and intentional self-inflicted injury and miscellaneous mental disorders.

The 2017 Charles County Mental Health ED Visit Rate was 2,817.6 per 100,000. This is below the Maryland state average mental health ED visit rate of 4,291.5 per 100,000. The Charles County mental health ED visit rate is the fourth lowest rate in the state of Maryland. When examining rates by race, Charles County Whites had a higher ED visit rate for mental health than Charles County African Americans or Hispanics (3,293.7 vs. 2,391.5 and 1,111.4). All Charles County rates are well below the state average rates.



The ED visit rate for mental health conditions in Charles County has fluctuated yearly since 2008. The 2016 and 2017 rates have remained fairly stable.



Health Professional Shortage Areas (HPSA) for Mental Health Services in Charles County, Maryland

As of October 28, 2017, Charles County is a federally designated health professional shortage area (HPSA) for mental health services. The whole county is designated as a HPSA geographic area, not just one population or facility within the county.

Geographic Areas must:

- Be a rational area for the delivery of mental health services
- Meet one of the following conditions:
 - A population-to-core-mental-health-professional ratio greater than or equal to 6,000:1 and a population-to-psychiatrist ratio greater than or equal to 20,000:1 or
 - A population-to-core professional ratio greater than or equal to 9,000:1 or
 - A population-to-psychiatrist ratio greater than or equal to 30,000:1
- Have unusually high needs for mental health services, and
 - A population-to-core-mental-health-professional ratio greater than or equal to 4,500:1 and a population-to-psychiatrist ratio greater than or equal to 15,000:1, or
 - A population-to-core-professional ratio greater than or equal to 6,000:1, or
 - A population-to-psychiatrist ratio greater than or equal to 20,000:1
- Mental health professionals in contiguous areas are over-utilized, excessively distant or inaccessible to residents of the area under consideration.

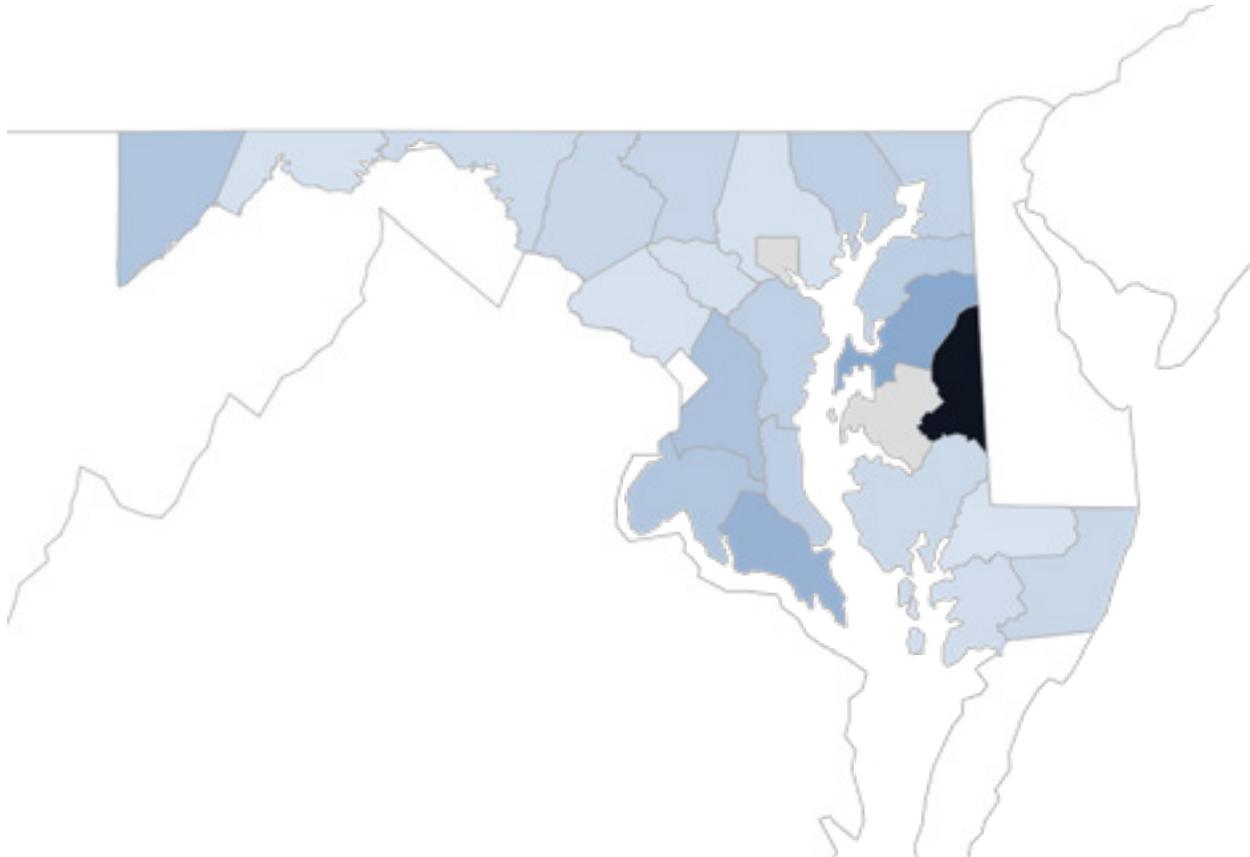
The Charles County HPSA score for mental health is nine. There is a shortage of 4.01 FTE mental health providers. The National Health Services Corps uses a scaling system from 1-26 to determine

priorities for assignment of mental health clinicians. The higher the score is the greater the priority.

Information on HPSA designations can be found on the U.S. Health Resources and Services Administration's HPSA website at: <https://data.hrsa.gov/tools/shortage-area/hpsa-find>.

Availability of Mental Health Providers:

The population to mental health provider ratio in Charles County is 640:1. This is well above the Maryland state average ratio of 390:1. The Charles County ratio is the sixth worst ratio in the state of Maryland.



Source: 2019 National Provider Identification Registry data from the 2020 Robert Wood Johnson Foundation's County Health Rankings

2018-2019 Maryland Youth Risk Behavior Survey:

The 2018-2019 Maryland Youth Tobacco and Risk Behavior Survey (YRBS) asked Charles County middle school students and high school students questions regarding risk behaviors and perceptions of harm. Questions regarding suicide and mental health were included in the survey. Charles County results are presented below.

Suicide:

20.5% of Charles County high school students and 23.6% of Charles County middle school students have considered attempting suicide, compared to 18.0% for Maryland high school students and 22.9% for Maryland middle school students. For both middle and high school students, females were more likely to report that they have considered suicide than males

(high school: 23.8% vs. 16.8%).

Beyond considering suicide, 18.8% of Charles County high school students and 14.6% of Charles County middle school students reported that during the past 12 months they have made a plan about how they would attempt suicide.

9.9% of Charles County middle school students and 8.8% of Maryland middle school students reported that they had attempted suicide ever.

Bullying:

On bullying, 17.7% of Charles County high school students and 35.7% of Charles County middle school students reported that they have been bullied at school in the past 12 months.

For high school students, females are more likely to report being bullied than males (18.7% vs. 16.1%). Younger students under 15 years of age (20.1%), Hispanics (28.4%), and 9th grade students (22.6%) had higher rates of bullying than older students in the other grades in high school.

An additional question asked students if they have been electronically bullied in the past 12 months. 14.0% of Charles County high school students and 16.8% of Charles County middle school students reported that they have been electronically bullied in the past 12 months. For high school students, females were more likely to report being electronically bullied than males (14.1% vs. 13.5%). Younger students under 15 years of age (15.5%), Hispanics (22.3%), and 9th grade students (16.6%) had higher rates of electronic bullying than older students in the other grades in high school.

Feeling of Hopelessness:

Emotionally, 36.3% of Charles County middle school students and 32.0% of Charles County high school students felt so sad and hopeless almost every day for two weeks or more in a row that they stopped doing some usual activities during the past 12 months. More females reported feeling sad and hopeless than males (39.4% vs. 24.8%).

Talking:

- 75.5% felt comfortable seeking help from one or more adults besides their parents if they had a question affecting their life.

Mental Health References:

1. 2019 Charles County and Maryland Depression Prevalence Estimates and 2018 Charles County and Maryland Adverse Childhood Experiences Prevalence, Mental Health data. 2018 and 2019 Maryland Behavioral Risk Factor Surveillance System. Available at: <https://ibis.health.maryland.gov/query/selection/brfss/BRFSSSelection.html>.
2. 2016-2018 Charles County and Maryland Suicide Counts and Rates. 2018 Maryland Vital Statistics Report. Maryland Department of Health. Available at: https://health.maryland.gov/vsa/Documents/Reports%20and%20Data/Annual%20Reports/REV_2018annual.pdf.
3. 2008-2017 Charles County and Maryland Emergency Department Visit Rates for Mental Health Conditions. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.

4. Charles County Health Professional Shortage Area Designation for Mental Health. US Department of Health and Human Services: Health Resources and Services Administration. October 28, 2017. Health Professional Shortage Area Update. Available at: <https://data.hrsa.gov/tools/shortage-area/hpsa-find>.
5. 2019 Charles County Population to mental health provider ratio. Robert Wood Johnson Foundation's County Health Rankings. Available at: <https://www.countyhealthrankings.org/app/maryland/2020/measure/factors/62/map>.
6. 2018-2019 Charles County and Maryland Youth Data on suicide, bullying, and mental health status. 2018-2019 Maryland Youth Risk Behavior Survey. Maryland Department of Health. Available at: <https://phpa.health.maryland.gov/ccdpc/Reports/Pages/YRBS2018.aspx#Charles>.

Qualitative Data Relating to Mental Health:

Long Survey Results related to Mental Health:

Of the long survey respondents, 2.9% reported that they travel outside of Charles County to receive behavioral health services.

Respondents were also asked a series of risk and protective factor questions. One question asked respondents if they feel stressed or overwhelmed: 6.2% reported that they always feel stressed out or overwhelmed, and 82.5% reported that they are stressed always, most of the time, sometimes, or rarely. The greatest group of respondents (41.7%) reported that they feel stressed out or overwhelmed sometimes.

Of the long survey respondents, 26.4% felt that mental health is a serious health issue in Charles County, and 54.5% felt that mental health is a health problem on some level (serious, moderate, and slight). This is a decrease from the 75% reported in the last needs assessment.

16.2% of the long survey respondents felt that improvements have been made in Charles County to address mental health services and access.

Short Survey Results related to Mental Health:

44% of the short survey respondents reported Mental Health as one of the biggest health problems in Charles County. This is an increase from the 34% reported in the last needs assessment report.

24.2% of the short survey participants felt that many or some services are available in the county to address mental health. 7% reported that there were no services available in Charles County for mental health. The most common answer was that "some" services are available.

Focus Groups:

Mental health and access to behavioral health services were major discussion topics at the focus group. Focus group participants saw mental health as a serious health issue in Charles County. The difficulty in finding mental health services for individuals, particularly children, with private or military insurance was highlighted. The increase in mental health conditions and the exacerbation of symptoms during the COVID-19 pandemic was a major topic of discussion. Isolation, fear, and uncertainty has led to depression and anxiety in all age groups and demographics.

Key Informant Interviews:

Approximately 45.1% of the key informant interview participants felt that behavioral health (mental health and substance use) was the health condition most affecting Charles County.

When asked what they perceive to be the greatest health conditions affecting Charles County, mental health was the second most common response among participants. Responses from participants related to mental health included stress, anxiety, substance use, lack of mental health resources, and access to mental health services. Access to mental health services for children was seen as a current health issue in Charles County, and the impact COVID-19 may have on the mental health of children and adults in the community.

Barriers or gaps in services related to mental health were other popular responses among participants. Many participants reported that the county lacks mental health providers. Child mental health services was also a concern among participants, reporting there is a shortage of child psychiatrists. The cost of mental health services was perceived as a barrier in the county as well.

Access to Care:

Access to Routine Exams:

From 2019, 78.7% of Charles County Behavioral Risk Factor Surveillance System (BRFSS) respondents reported that they had been to a doctor for a routine checkup in the last year.

Time since last routine checkup	<1 year	1-2 years	2+ years
Charles County	78.7%	12.9%	8.4%

2019 Charles County BRFSS respondents were also asked if there was a time in the past 12 months when they were unable to see a doctor when needed due to cost: 8.6% of Charles County residents reported that there was time in the past 12 months when they were unable to see a doctor due to cost. This is below the Maryland state average percentage of 11.4%.

Charles County BRFSS respondents were asked if they have one or more people that they think of as their personal doctor or health care provider. The majority of those surveyed (77.3%) reported that they do have a personal doctor or health care provider. This was below the Maryland percentage of 83.3%.

Health Status:

2019 Charles County BRFSS data indicates that the health status of most county residents is positive. Most county residents report themselves in good, very good to excellent health (88.6%). A small portion considers their health to be fair to poor (11.4%).

There was an increase from the last needs assessment in the percentage reporting that they are in fair or poor Health (9.4% to 11.4%).

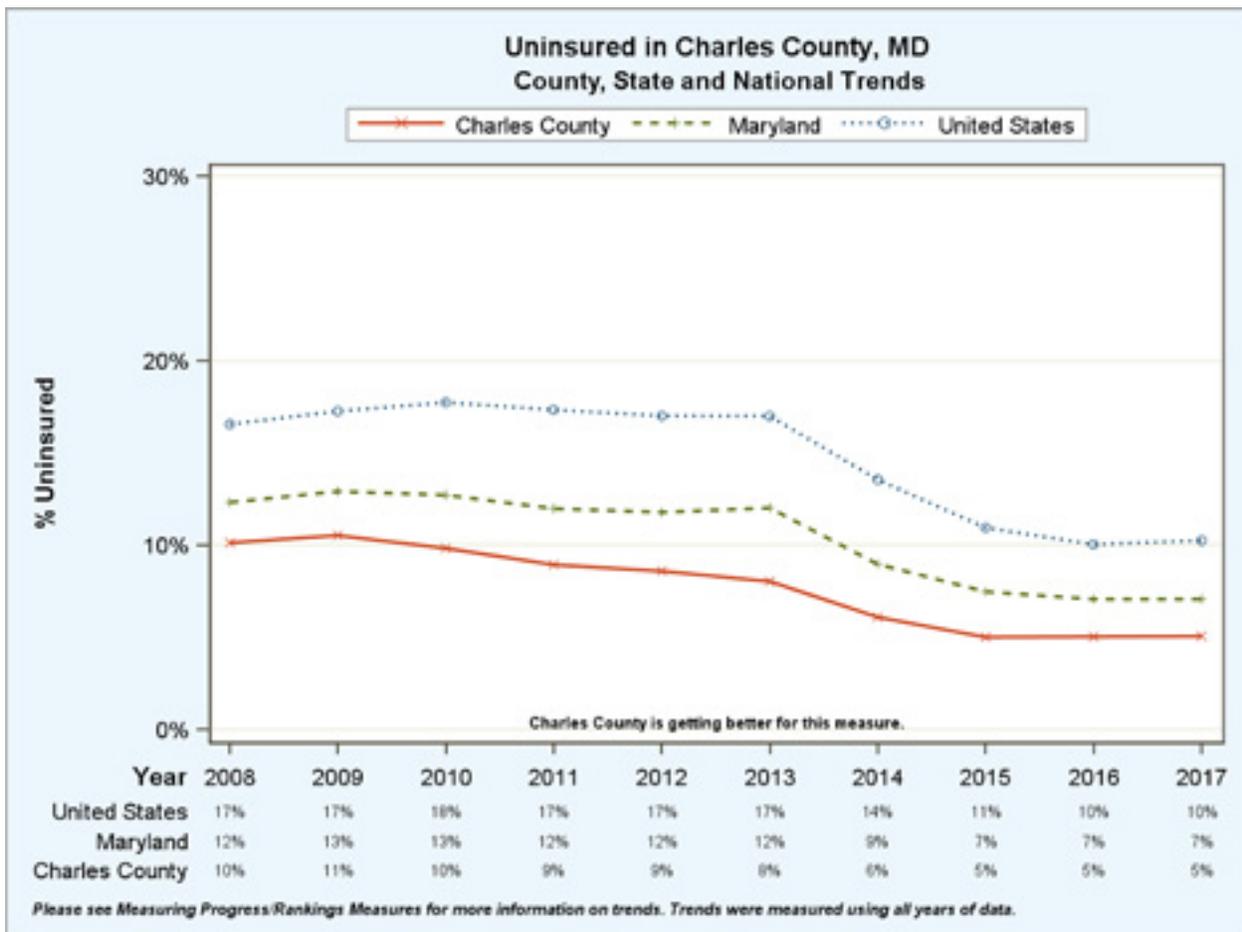
Health Status:	Good, Very Good, or Excellent	Fair or Poor
Charles County	88.6%	11.4%
Maryland	84.5%	15.5%

Health Insurance:

The 2019 Charles County BRFSS estimates that 7.2% of county residents do not have health insurance coverage of any kind. This is lower than the 10.4% estimated for the state of Maryland.

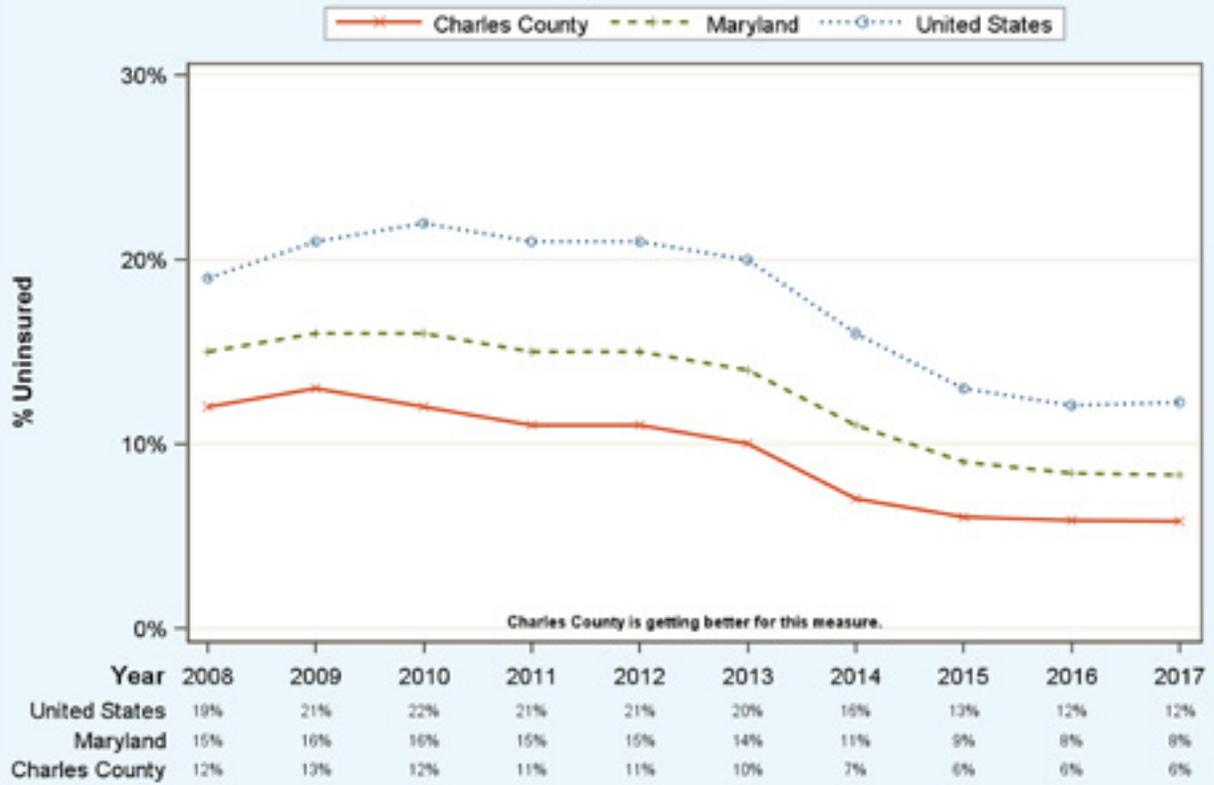
Health Insurance Coverage:	No	Yes
Charles County	7.2%	92.8%
Maryland	10.4%	89.6%

The 2017 Charles County health uninsured estimate as determined by the US Census Bureau's Current Population Survey is 5%. The data were accessed through the Robert Wood Johnson Foundation's County Health Rankings. This is identical to the 2015 Charles County health uninsured rate of 5% that was reported in the previous needs assessment report. The 2015 Charles County estimate is below the Maryland state health uninsured estimate of 7% for 2017. The Charles County estimate has remained consistent for the last 3 years.

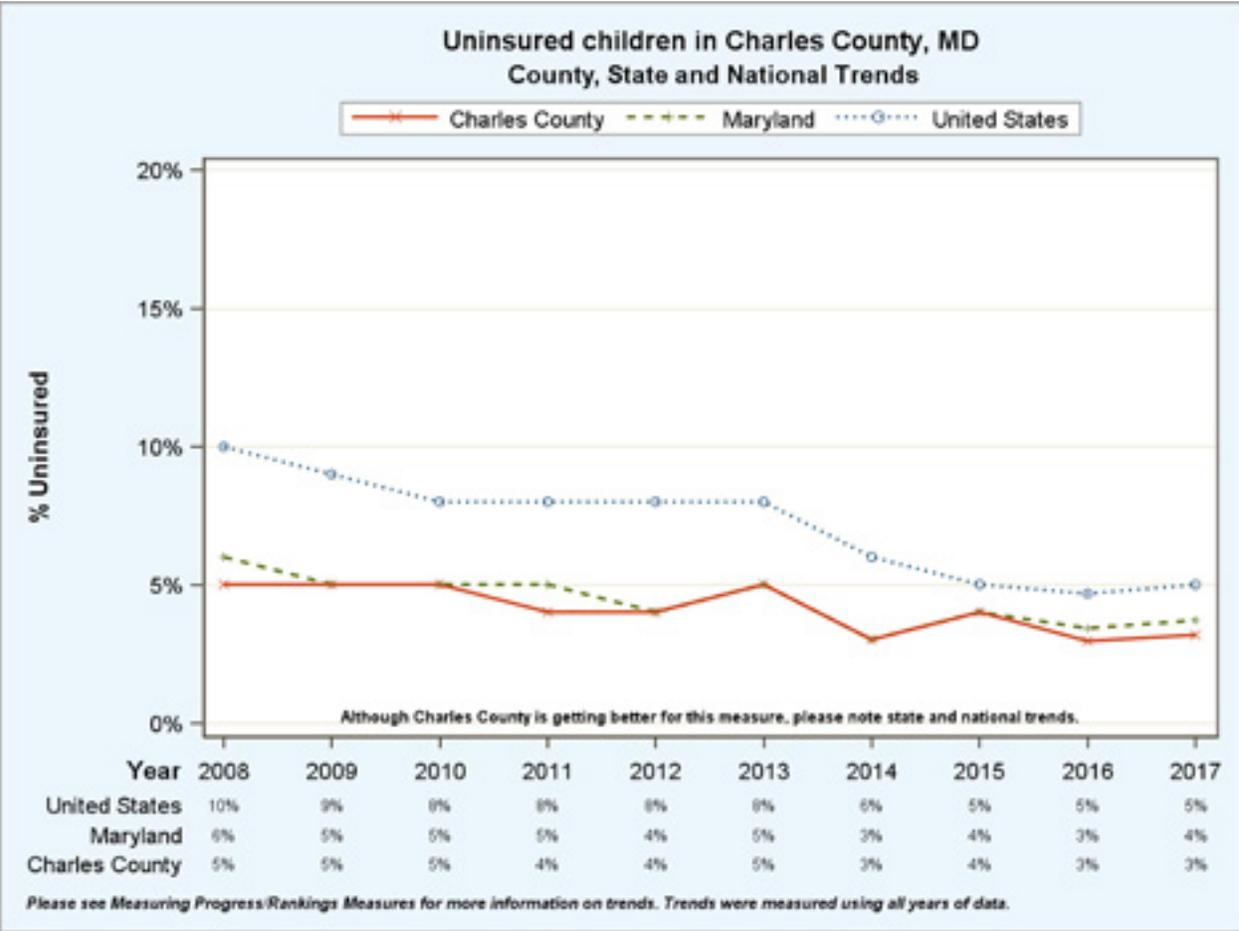


The percent of the population who are uninsured is also broken down by adults and children: 6% of Charles County adults are uninsured, compared to 8% for Maryland, and 3% of Charles County children are uninsured, compared to 4% for Maryland.

Uninsured adults in Charles County, MD County, State and National Trends

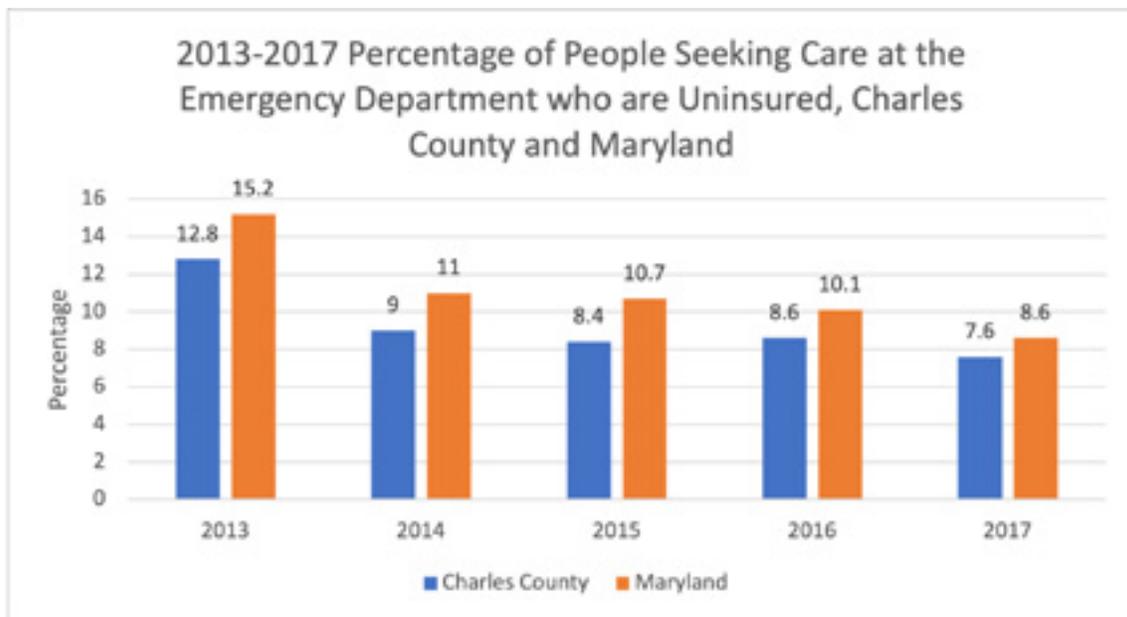


Please see *Measuring Progress/Rankings Measures* for more information on trends. Trends were measured using all years of data.



Uninsured Emergency Department (ED) visits:

The Maryland State Health Improvement Process measure for the percent of persons without health insurance is based on outpatient claims data provided by the Maryland Health Services Cost Review Commission. The percent of emergency department visits that were uninsured in Charles County was 7.6% for 2017. This is below the Maryland state average percentage of 8.6%. From 2013-2017, Charles County saw decreases in the percentage of people seeking care in ED who were uninsured.



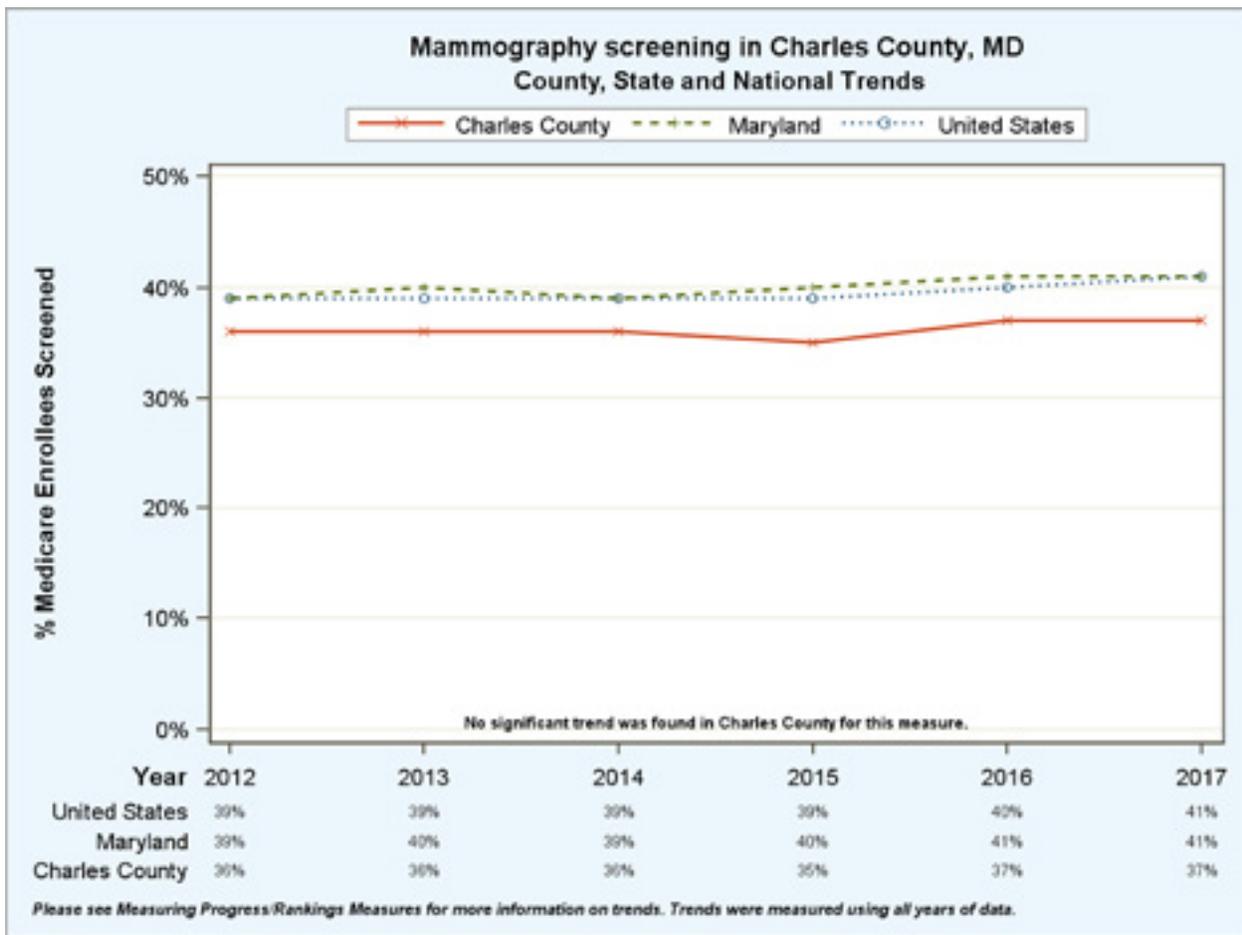
Medicaid Enrollment Rates:

For the past decade, Charles County has seen an increase in the number of persons both eligible for and enrolled in Medicaid. The biggest increases are seen from 2013 to 2014 when Medicaid was expanded in the state of Maryland.

Charles County Medicaid Enrollment and Eligibility	Medicaid Enrollment	Medicaid Eligible
June 2020	29903	34292
June 2019	27964	32686
June 2018	27046	32224
June 2017	26826	31572
June 2016	24542	29724
June 2015	22536	28780
June 2014	23844	28962
June 2013	17083	23108
June 2012	15655	21354
June 2011	14874	19679

Screening Practices:

The Robert Wood Johnson Foundation’s County Health Rankings provide roadmaps for each state and its jurisdictions for data measures relating to health outcomes and social determinants of health. One of the health outcomes is access to mammogram health screenings for women aged 65-74 currently enrolled in Medicare. 37% of Charles County women aged 65-74 years enrolled in Medicare received a mammography screening in 2017. The county percentage is lower than the Maryland state percentage of 41%. The Charles County rate of mammography screening has remained fairly consistent from 2012-2017.



Health Professional Shortage Areas/ Medically Underserved Populations and Areas:

Health Professional Shortage Areas (HPSA):

There is one federally designated health professional shortage area in Charles County for dental health. The dental health HPSA is for Greater Baden Medical Services in Brandywine and La Plata. This HPSA was updated on September 3, 2019. The HPSA score is 26, the highest score you can get for dental health. Scores range from 1 to 26 for dental. The higher the score, the greater the priority.

There is a federally designated mental health professional shortage area for the entire county. This was last updated on October 28, 2017. Charles County received a score of 9 out of 25. HPSA Scores are developed for use by the National Health Service Corps in determining priorities for assignment of clinicians. Scores range from 1 to 25 for primary care and mental health, 1 to 26 for dental. The higher the score is, the greater the priority. An additional HPSA was identified for Greater Baden Medical Services located in Brandywine and La Plata. The Greater Baden HPSA score is 23 for mental health.

There is a federally designated primary care professional shortage area for Southern Charles County. This was last updated on October 28, 2017. They report that there is one full-time equivalent primary care professional providing ambulatory patient care in the designated area. The Southern Charles County census tracts of 8511, 8512, 8513.01, and 8513.02 are included in the designated HPSA area. Charles County received a score of 13 out of 25. HPSA Scores are

developed for use by the National Health Service Corps in determining priorities for assignment of clinicians. Scores range from 1 to 25 for primary care and mental health, 1 to 26 for dental. The higher the score, the greater the priority.

Medically Underserved Populations and Areas:

Medically Underserved Areas/Populations (MUA/MUP) are areas or populations designated by HRSA as having: too few primary care providers, high infant mortality, high poverty and/or high elderly population.

There are six population/areas in Charles County with MUA/MUP designation.

There is one medically underserved population (MUP) in Charles County. An MUP is a group of people who face economic, cultural, or linguistic barriers to health care. In Charles County, the MUP is located in the Brandywine Service Area. This population is a government MUP, which means it was designated at the request of a state governor based on documented unusual local conditions and barriers to accessing personal health services.

The Index of Medical Underservice (IMU) score. The lowest score (highest need) is 0; and the highest score (lowest need) is 100. The Brandywine MUP received a 0 IMU score. That means the need for medical services in this region is of the highest priority.

In addition to the MUP, there are five medically underserved areas (MUA) in Charles County. Medically Underserved Areas may be a whole county or a group of contiguous counties, groups of county or civil divisions or a group of urban census tracts in which residents have a shortage of personal health services. Those areas include:

- Medically Underserved Area (MUA): Score 51.97
- District 4, Allens Fresh
- District 5, Thompkinsville
- District 9, Hughesville
- Medically Underserved Area: Score 61.25
- District 10, Marbury
- District 3, Nanjemoy

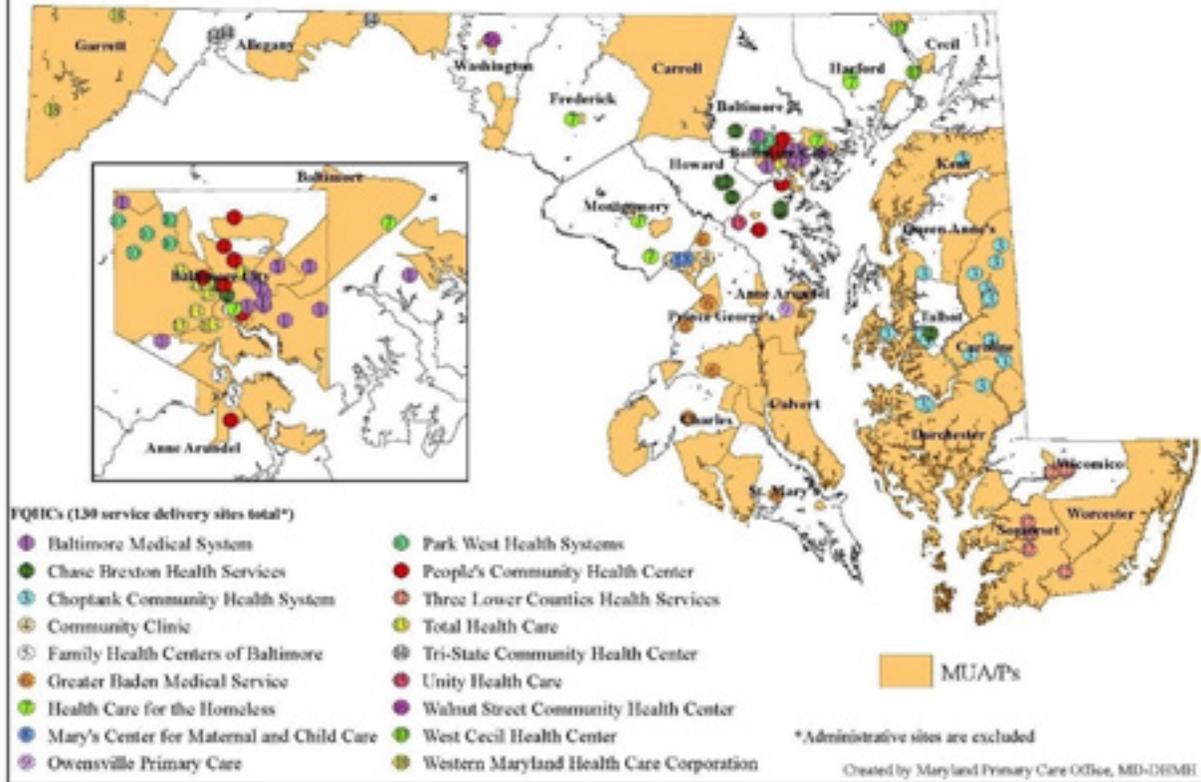
The IMU scale for Medically Underserved Areas is from 0 to 100, where 0 represents completely underserved and 100 represents best served or least underserved. Under the established criteria, each service area found to have an IMU of 62.0 or less qualifies for designation as an MUA.

The IMU involves four variables: ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population age 65 or over. The value of each of these variables for the service area is converted to a weighted value, according to established criteria. The four values are summed to obtain the area's IMU score.

The Allens Fresh/Thompkinsville/Hughesville areas received an IMU score of 51.97.

The Marbury/Nanjemoy areas received an IMU score of 61.25, which is close to the 62 cut off for MUA designation.

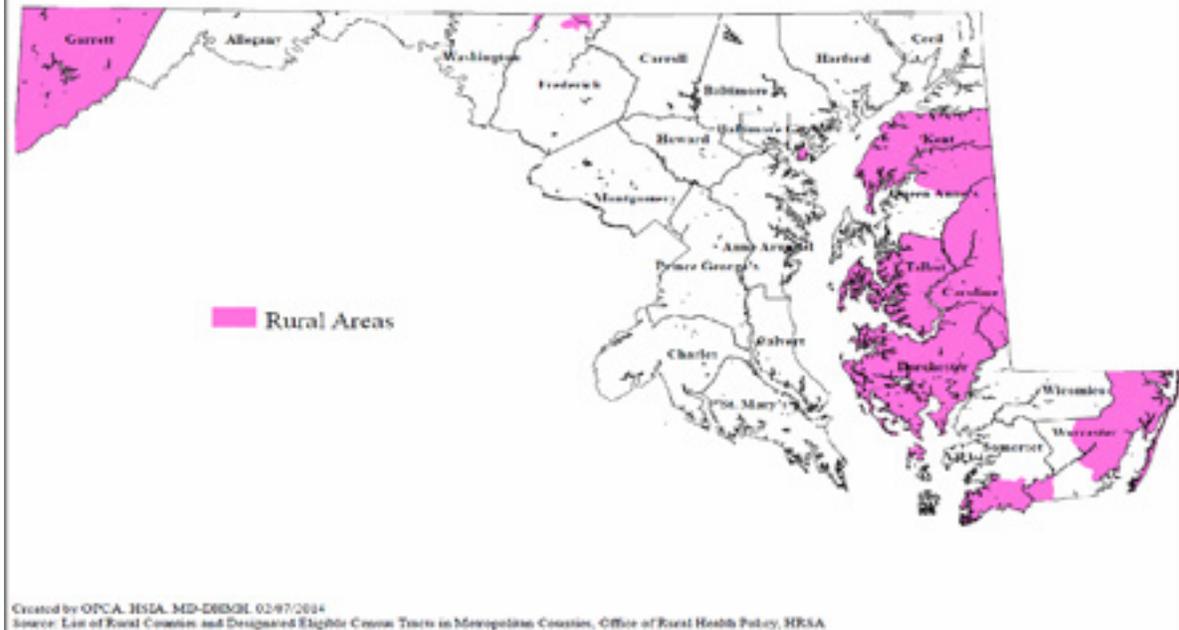
Maryland Medically Underserved Area/Population Designation (MUA/Ps) and Federally Qualified Health Centers (FQHCs) as of 12/31/2015



Rural Health Designation:

Charles County no longer holds a federal designation as a rural area. All Southern Maryland counties have lost their rural designation.

Federally Designated Rural Areas in Maryland



Availability of Health Services:

Maryland Primary Care Needs Assessment 2016:

The 2016 Maryland Primary Care Office Needs Assessment was based on the integration of two health data tracking methods: Prevention Quality Indicators (PQIs) and the State Health Improvement Process (SHIP) measures. These data identified the following:

- Causes of preventable PQIs;
- Key barriers to access to health care;
- Areas that lack access to preventive and primary care services and demonstrates the highest need for intervention due to social determinants; and
- Areas that experience a shortage of primary care, mental health, and dental providers.

A quartile ranking was used to order the PQI and SHIP indicator results by Maryland jurisdiction. The information in this matrix was compiled from data from the Maryland Vital Statistics Administration, the State Health Improvement Process. The matrix focused on 54 indicators and ranked those indicators at the jurisdictional level. The jurisdictions were ranked for each indicator using an ordinal/quartile based ranking system. Based on these summations, the jurisdictions were given an overall ordinal ranking. Charles County was ranked 16th out of 24 jurisdictions and was placed in the third quartile.

Jurisdictions	Indicator Score	
Montgomery	293	Top Quartile (Best)
Howard	339	
Queen Anne's	366	
Carroll	403	
Frederick	405	
Harford	469	
Calvert	527	Second Quartile
Garrett	532	
Anne Arundel	554	
Worcester	596	
Talbot	598	
Cecil	633	
Prince George's	640	Third Quartile
Saint Mary's	647	
Caroline	651	
Charles	689	
Somerset	690	
Baltimore County	699	
Kent	716	Bottom Quartile (Worst)
Washington	724	
Allegany	767	
Wicomico	811	
Dorchester	864	
Baltimore City	1,011	

Maryland Health Workforce Study Phase 2 Report, January 2014:

In January 2014, the Maryland Health Care Commission (MHCC) released a second report detailing Phase 2 of the Maryland Health Workforce Study. This study assessed health workforce distribution and the adequacy of supply. Using funding from the Robert Wood Johnson Foundation, the MHCC was able to study the Maryland health care workforce on the state and jurisdictional level. Phase 2 presents estimates of current supply and demand for health professions designated by MHCC has high priority in supporting Maryland's transition to health reform, and for which data were readily available for estimating supply and demand. These professions included primary care specialties and psychiatrists. Current supply estimates were also presented for psychologists, social workers, counselors, physician assistants, pharmacists, registered nurses, and dentists.

Demand modeling: Estimates of the current demand for health care providers were developed using the IHS Healthcare Demand Micro-simulation Model. The major components of this model include: 1. A population database that contains characteristics and health risk factors for a representative sample of the population in each Maryland count; 2. Equations that relate a person's characteristics to his or her demand for health care services by care delivery setting; and 3. Staffing patterns that convert demand for health care services to demand for full time equivalent (FTE) providers.

This report has not been updated since 2014.

In Charles County, the primary care FTE demand is greater than the primary care FTE supply (7.4 vs. 6.1). There is an 18% shortfall in the demand for primary care services. Charles County falls in the up to 20% shortage area for primary care physician supply.

Map 1: Maryland County-Level Adequacy of FTE Primary Care Physician Supply

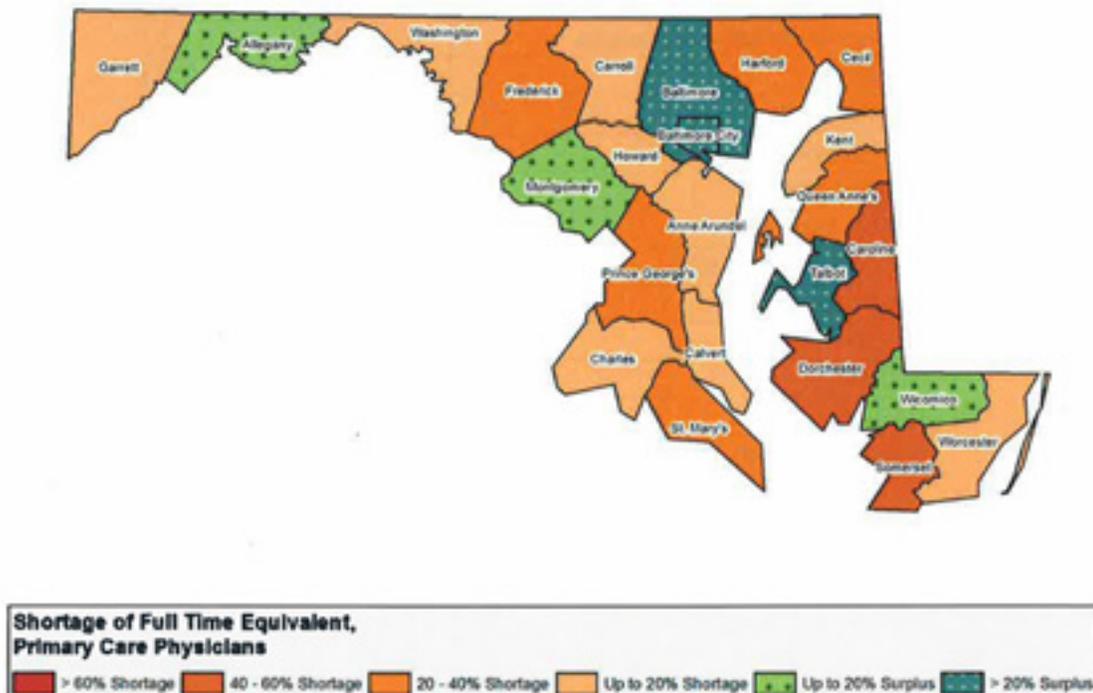


Exhibit 3: Adequacy of Supply for Primary Care Physicians by County, 2012

County	Total FTEs			FTEs/10,000 Population	
	FTE Demand	FTE Supply	Supply - Demand	FTE Demand	FTE Supply
Allegany	57	63	6	7.6	8.5
Anne Arundel	407	379	(28)	7.4	6.9
Baltimore City	464	817	353	7.5	13.1
Baltimore County	621	788	167	7.6	9.6
Calvert	66	56	(10)	7.5	6.2
Caroline	25	14	(11)	7.5	4.2
Carroll	125	103	(22)	7.5	6.2
Cecil	75	60	(15)	7.5	5.9
Charles	111	91	(20)	7.4	6.1
Dorchester	25	14	(11)	7.9	4.1
Frederick	176	140	(36)	7.4	5.8
Garrett	23	20	(3)	7.7	6.6
Harford	186	142	(44)	7.5	5.7
Howard	218	197	(21)	7.3	6.6
Kent	16	16	0	8.0	7.9
Montgomery	729	833	104	7.2	8.3
Prince George's	637	471	(166)	7.2	5.3
Queen Anne's	37	25	(12)	7.6	5.1
St. Mary's	80	53	(27)	7.3	4.9
Somerset	19	8	(11)	7.3	2.9
Talbot	31	42	11	8.1	11.0
Washington	112	111	(1)	7.5	7.4
Wicomico	75	81	6	7.5	8.0
Worcester	42	41	(1)	8.0	7.9
Total	4,357	4,565	208	7.4	7.8

Note: Primary care specialties include general and family practice, general internal medicine, geriatrics, and general pediatrics.

The supply versus demand for pediatric services in Charles County is similar.

Exhibit 4: Adequacy of Supply for Pediatricians by County, 2012

County	Total FTEs			FTEs/10,000 Children	
	FTE Demand	FTE Supply	Supply - Demand	FTE Demand	FTE Supply
Allegany	10	11	1	7.0	7.9
Anne Arundel	87	85	(2)	7.1	6.9
Baltimore County	125	185	60	7.1	10.4
Baltimore City	99	168	69	7.3	12.3
Calvert	15	13	(2)	7.0	6.1
Caroline	6	1	(5)	7.0	0.9
Carroll	26	21	(5)	6.9	5.4
Cecil	16	9	(7)	7.0	3.9
Charles	26	26	0	7.1	7.0
Dorchester	5	1	(4)	7.1	1.9
Frederick	40	34	(6)	7.0	5.9
Garrett	4	-	(4)	6.9	-
Harford	40	40	0	7.0	7.0
Howard	51	52	1	7.1	7.2
Kent	2	1	(1)	7.0	2.6
Montgomery	163	234	71	7.1	10.1
Prince George's	148	104	(44)	7.2	5.1
Queen Anne's	7	6	(1)	6.9	5.7
St. Mary's	19	12	(7)	7.0	4.3
Somerset	3	2	(1)	7.1	3.6
Talbot	5	9	4	7.0	13.4
Washington	23	21	(2)	7.0	6.5
Wicomico	16	26	10	7.1	11.1
Worcester	7	-	(7)	7.0	-
Total	943	1,061	118	7.1	8.0

The FTE per 10,000 supply rates for professional counselors, social workers, and psychologists in Charles County is much lower than the rates for Maryland. The Charles County FTE rate for physician assistants is the only rate that came close to the Maryland state supply rate.

Exhibit 6: Supply of Selected Health Professions by County, 2012

County	Professional Counselors		Social Workers		Psychologists		Physician Assistants	
	FTEs	FTE/10,000	FTEs	FTE/10,000	FTEs	FTE/10,000	FTEs	FTE/10,000
Allegany	267	36.1	222	29.9	27	3.6	27	3.6
Anne Arundel	684	12.4	833	15.1	144	2.6	162	2.9
Baltimore City	2,132	34.3	4,030	64.9	405	6.5	570	9.2
Baltimore County	1,294	15.8	2,124	26.0	357	4.4	330	4.0
Calvert	118	13.2	128	14.2	8	0.8	20	2.2
Caroline	17	5.2	61	18.6	-	-	1	0.3
Carroll	277	16.5	315	18.8	48	2.9	52	3.1
Cecil	97	9.5	175	17.2	25	2.4	23	2.3
Charles	193	12.8	126	8.4	14	0.9	49	3.2
Dorchester	79	24.3	150	45.9	5	1.4	3	0.8
Frederick	320	13.3	530	22.1	56	2.3	62	2.6
Garrett	53	17.6	73	24.3	1	0.2	5	1.5
Harford	351	14.1	355	14.3	46	1.9	63	2.5
Howard	407	13.6	667	22.3	181	6.0	40	1.3
Kent	41	20.1	52	25.5	8	3.7	3	1.5
Montgomery	1,200	11.9	2,927	29.1	754	7.5	300	3.0
Prince George's	833	9.4	913	10.4	129	1.5	154	1.7
Queen Anne's	29	5.9	70	14.4	9	1.7	3	0.5
St. Mary's	105	40.0	115	43.8	18	1.6	22	8.4
Somerset	45	4.1	79	7.2	-	-	4	0.3
Talbot	62	16.3	167	43.8	7	1.8	11	2.8
Washington	273	18.3	435	29.1	18	1.2	65	4.4
Wicomico	193	19.1	334	33.2	20	1.9	72	7.1
Worcester	67	12.9	106	20.6	5	0.9	11	2.1
Total	9,131	15.5	14,982	25.5	2,278	3.9	2,045	3.5

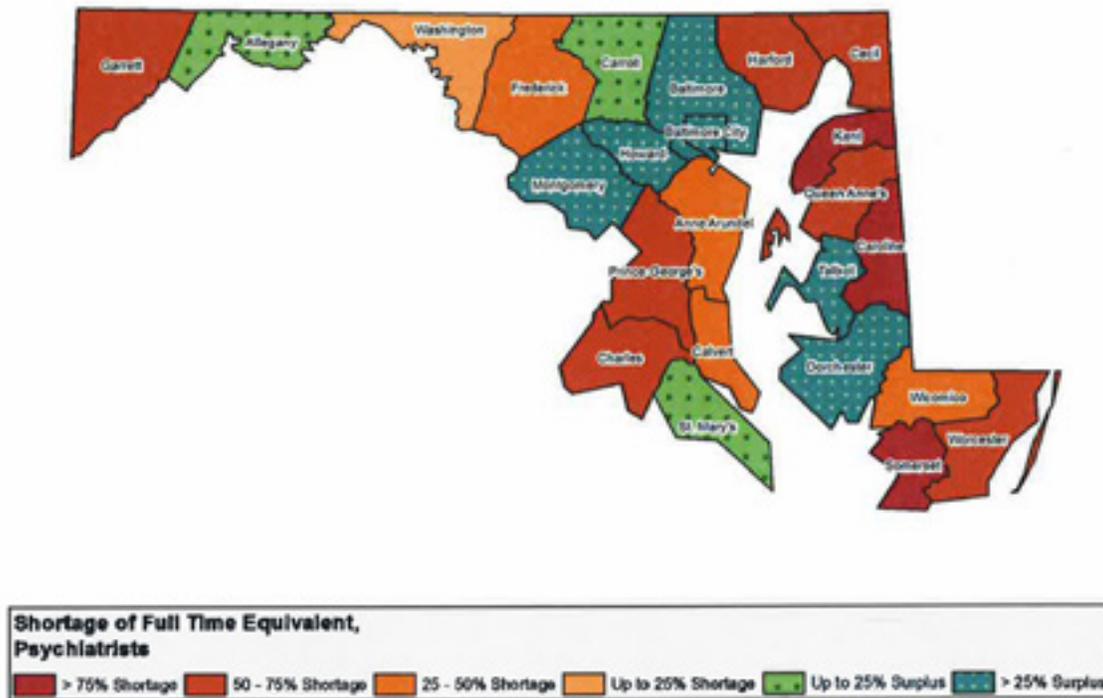
Note: These are professions for which only FTE supply analysis was possible at this time.

The demand for psychiatrists in Charles County is much higher than the county supply for psychiatry. Charles County has a shortage between 50-75% of full-time equivalent psychiatrists.

Exhibit 5: Adequacy of Supply for Psychiatrists by County, 2012

County	Total FTEs			FTEs/10,000 Population	
	FTE Demand	FTE Supply	Supply - Demand	FTE Demand	FTE Supply
Allegany	10	10	0	1.3	1.4
Anne Arundel	74	41	(33)	1.3	0.7
Baltimore City	94	233	139	1.5	3.7
Baltimore County	113	242	129	1.4	3.0
Calvert	12	6	(6)	1.3	0.7
Caroline	4	-	(4)	1.3	-
Carroll	22	26	4	1.3	1.6
Cecil	13	6	(7)	1.3	0.6
Charles	22	6	(16)	1.5	0.4
Dorchester	5	8	3	1.4	2.5
Frederick	32	18	(14)	1.3	0.8
Garrett	4	2	(2)	1.3	0.5
Harford	33	15	(18)	1.3	0.6
Howard	40	64	24	1.3	2.1
Kent	3	-	(3)	1.4	-
Montgomery	134	214	80	1.3	2.1
Prince George's	135	47	(88)	1.5	0.5
Queen Anne's	6	3	(3)	1.3	0.6
St. Mary's	14	5	(9)	1.3	0.4
Somerset	4	1	(3)	1.5	0.3
Talbot	5	8	3	1.3	2.2
Washington	20	18	(2)	1.3	1.2
Wicomico	14	8	(6)	1.4	0.8
Worcester	7	2	(5)	1.3	0.5
Total	820	983	163	1.4	1.7

Map 2: Maryland county-Level Adequacy of FTE Psychiatrist Supply



2018 Maryland Physician Workforce Profile:

The current state of the physician workforce in Maryland is present below in the following three charts. The data is based on the American Medical Association’s Masterfile and is compiled each year into the State Physician Workforce Data Report. The results for Maryland from the 2018 State Physician Workforce Data Report state that there are 23,323 active physicians and 7,022 primary care physicians practicing in Maryland.

Maryland Physician Workforce Profile

2	State Population:	6,042,718	Total Female Physicians:	9,560
0	Population ≤ age 21	1,643,404	Total MD or DO Students:	1,967
1	Total Active Physicians:	23,323	Total Residents:	2,919
8	Primary Care Physicians:	7,022		

For additional data, including maps and tables, please see the 2019 State Physician Workforce Data Report online at www.dsmc.org/workforce

		MD	MD Rank	State Median
Physician Supply	Active Physicians per 100,000 Population, 2018	385.0	2	257.6
	Total Active Patient Care Physicians per 100,000 Population, 2018	305.1	4	227.2
	Active Primary Care Physicians per 100,000 Population, 2018	116.2	6	90.8
	Active Patient Care Primary Care Physicians per 100,000 Population, 2018	97.6	9	82.5
	Active General Surgeons per 100,000 Population, 2018	9.6	11	7.7
	Active Patient Care General Surgeons per 100,000 Population, 2018	7.5	15	6.9
	Percentage of Active Physicians Who Are Female, 2018	41.0%	4	33.8%
	Percentage of Active Physicians Who Are International Medical Graduates (IMGs), 2018	26.8%	9	19.1%
Undergraduate Medical Education (UME)	Percentage of Active Physicians Who Are Age 60 or Older, 2018	34.1%	11	30.3%
	MD and DO Student Enrollment per 100,000 Population, AY 2018-2019	32.6	26	32.7
	Student Enrollment at Public MD and DO Schools per 100,000 Population, AY 2018-2019	22.8	17	21.2
	Percentage Change in Student Enrollment at MD and DO Schools, 2008-2018	2.9%	43	24.6%
Graduate Medical Education (GME)	Percentage of MD Students Matriculating In-State, AY 2018-2019	27.1%	42	65.6%
	Total Residents/Fellows in ACGME Programs per 100,000 Population as of December 31, 2018	48.3	12	28.1
	Total Residents/Fellows in Primary Care ACGME Programs per 100,000 Population as of Dec. 31, 2018	14.9	15	10.6
	Percentage of Residents in ACGME Programs Who Are IMGs as of December 31, 2018	23.2%	17	20.5%
	Ratio of Residents and Fellows (GME) to Medical Students (UME), AY 2017-2018	1.5	10	1.0
Retention	Percent Change in Residents and Fellows in ACGME-Accredited Programs, 2008-2018	2.6%	50	17.6%
	Percentage of Physicians Retained in State from Undergraduate Medical Education (UME), 2018	21.9%	39	38.5%
	Percentage of Physicians Retained in State from Public UME, 2018	24.4%	40	44.1%
	Percentage of Physicians Retained in State from Graduate Medical Education (GME), 2018	37.4%	43	44.9%
	Percentage of Physicians Retained in State from UME and GME Combined, 2018	52.7%	42	69.0%

State Rank: How the state ranks compared to the other 49. Rank of 1 goes to the state with the highest value for the category.

State Median: The value in the middle of the 50 states, with 25 states above the median and 25 states below (excludes the District of Columbia and Puerto Rico).

Source: 2019 State Physician Workforce Data Report

The specialties with the highest people to physician ratios were interventional cardiology and sports medicine. Females make up 41.0% of all specialists. Additionally, 34.1% of specialists in Maryland are 60 years of age and older.

Maryland Physician Workforce Profile

Specialty	Total Active		Female		Age 80 or Older	
	Physicians	People Per Physician	Number	Percent	Number	Percent
All Specialties	23,323	269	9,560	41.0	7,992	34.1
Allergy & Immunology	207	29,192	89	43.0	100	48.3
Anatomic/Clinical Pathology	379	15,944	154	40.6	201	53.0
Anesthesiology	1,009	5,989	348	34.3	342	33.9
Cardiovascular Disease	555	10,888	98	17.3	258	51.4
Child & Adolescent Psychiatry*	328	5,941	282	82.2	102	31.3
Critical Care Medicine	388	18,420	112	30.5	80	13.8
Dermatology	308	19,619	162	52.6	101	32.8
Emergency Medicine	915	6,804	322	35.2	108	21.7
Endocrinology, Diabetes & Metabolism	285	21,203	184	64.5	92	32.3
Family Medicine/General Practice	1,814	3,744	863	53.5	530	33.1
Gastroenterology	376	18,871	82	24.5	155	41.3
General Surgery	578	10,455	138	23.5	209	36.2
Geriatric Medicine**	189	*	87	51.5	46	27.2
Hematology & Oncology	821	11,808	189	38.3	181	34.7
Infectious Disease	481	12,563	193	40.1	152	31.6
Internal Medicine	3,583	1,710	1,408	39.9	1,288	35.9
Internal Medicine/Pediatrics	114	53,005	78	68.4	*	*
Interventional Cardiology	56	107,808	*	*	*	*
Neonatal-Perinatal Medicine	134	48,005	84	70.1	47	35.1
Nephrology	275	21,874	101	36.7	83	30.2
Neurological Surgery	126	47,958	13	10.3	42	33.3
Neurology	448	13,549	139	31.2	200	44.8
Neuroradiology	92	66,882	25	27.2	*	*
Obstetrics & Gynecology	1,872	5,837	705	65.8	338	31.5
Ophthalmology	589	10,820	191	33.5	209	36.7
Orthopedic Surgery	418	14,826	30	7.2	173	41.8
Otolaryngology	241	28,874	88	34.1	71	28.9
Pain Medicine & Pain Management	138	43,788	31	22.5	13	9.4
Pediatrics**	1,588	1,047	1,028	65.8	573	36.8
Physical Medicine & Rehabilitation	248	24,365	93	37.8	69	27.8
Plastic Surgery	181	33,385	35	19.3	68	37.6
Preventive Medicine	400	14,774	175	42.8	213	53.1
Psychiatry	1,128	5,357	489	43.4	577	51.2
Pulmonary Disease	123	49,128	18	13.0	87	78.9
Radiation Oncology	129	48,843	49	38.0	31	24.0
Radiology & Diagnostic Radiology	823	9,899	222	26.7	296	42.7
Rheumatology	221	27,343	100	49.3	73	33.0
Sports Medicine	50	120,854	14	28.0	*	*
Thoracic Surgery	97	82,298	*	*	41	42.3
Urology	239	25,283	27	11.3	81	33.9
Vascular & Interventional Radiology	71	85,109	13	18.3	*	*
Vascular Surgery	109	55,438	20	18.3	26	25.7

Sources: AMA Physician Masterfile (December 31, 2018); Population estimates as of July 1, 2018 are from the U.S. Census Bureau (Release date: December 2018)

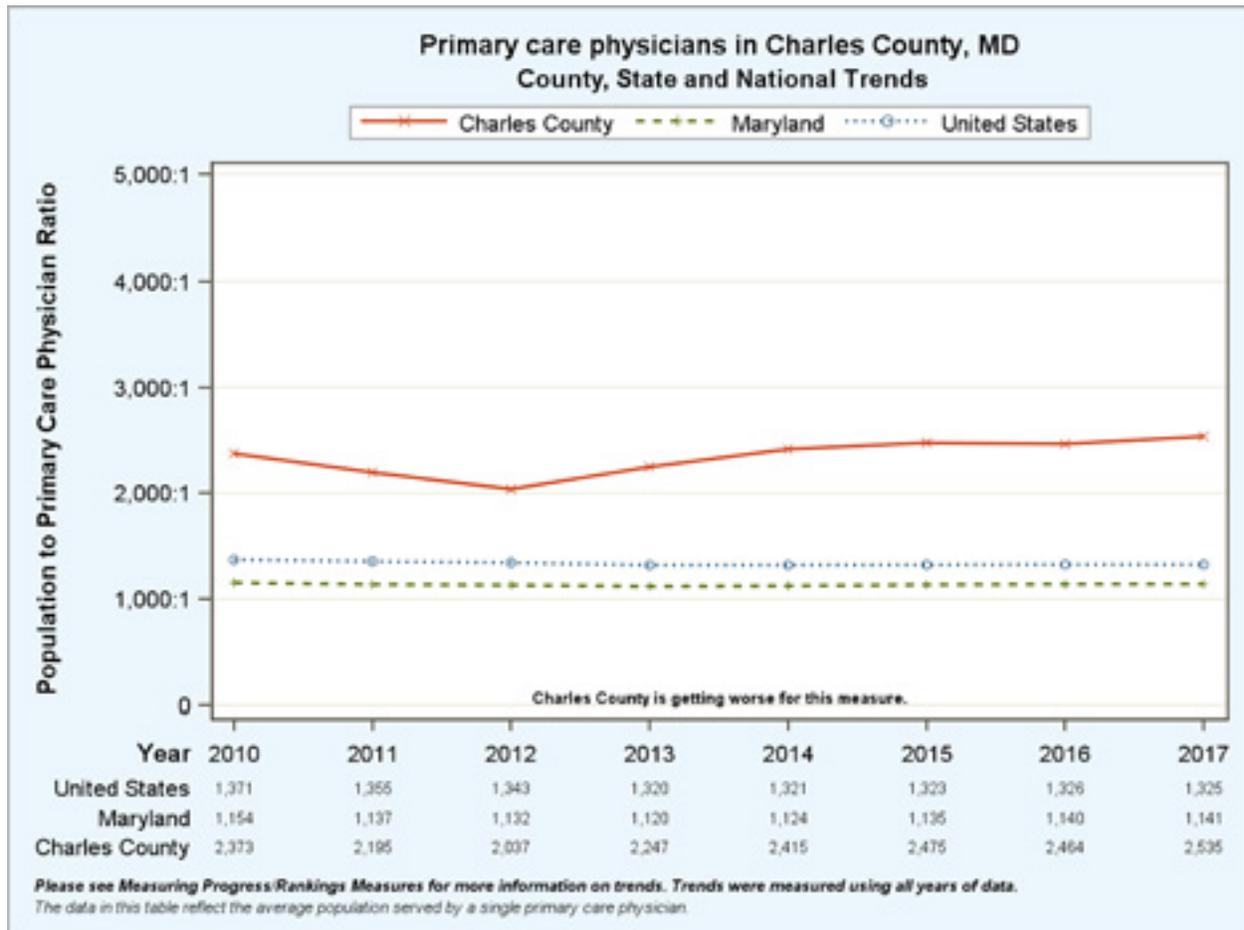
* Counts for specialties with fewer than 10 physicians are not shown

** Only those 21 years or younger are included in People Per Physician

Primary Care Physicians and Mental Health Provider Ratios:

Access to care requires not only financial coverage, but also, access to providers. While high rates of specialist physicians have been shown to be associated with higher, and perhaps unnecessary utilization, sufficient availability of primary care physicians is essential for preventive and primary care, and when needed, referrals to appropriate specialty care. Using data from the Area Health Resource File and the American Medical Association, the County Health Rankings were able to provide 2017 primary care physician ratios for all United States counties. For 2017, the Charles County primary care physician ratio was 2,535:1. Primary Care Physicians (PCP) is the ratio of the population to total primary care physicians. Primary care physicians include non-federal, practicing physicians (M.D.'s and D.O.'s) under age 75 specializing in general practice medicine, family medicine, internal medicine, and pediatrics. The 2017 Charles County PCP ratio is more

than twice as high as the Maryland state ratio of 1,141:1. The Charles County PCP ratio has gotten worse since the last needs assessment report when the ratio was 2,475:1.

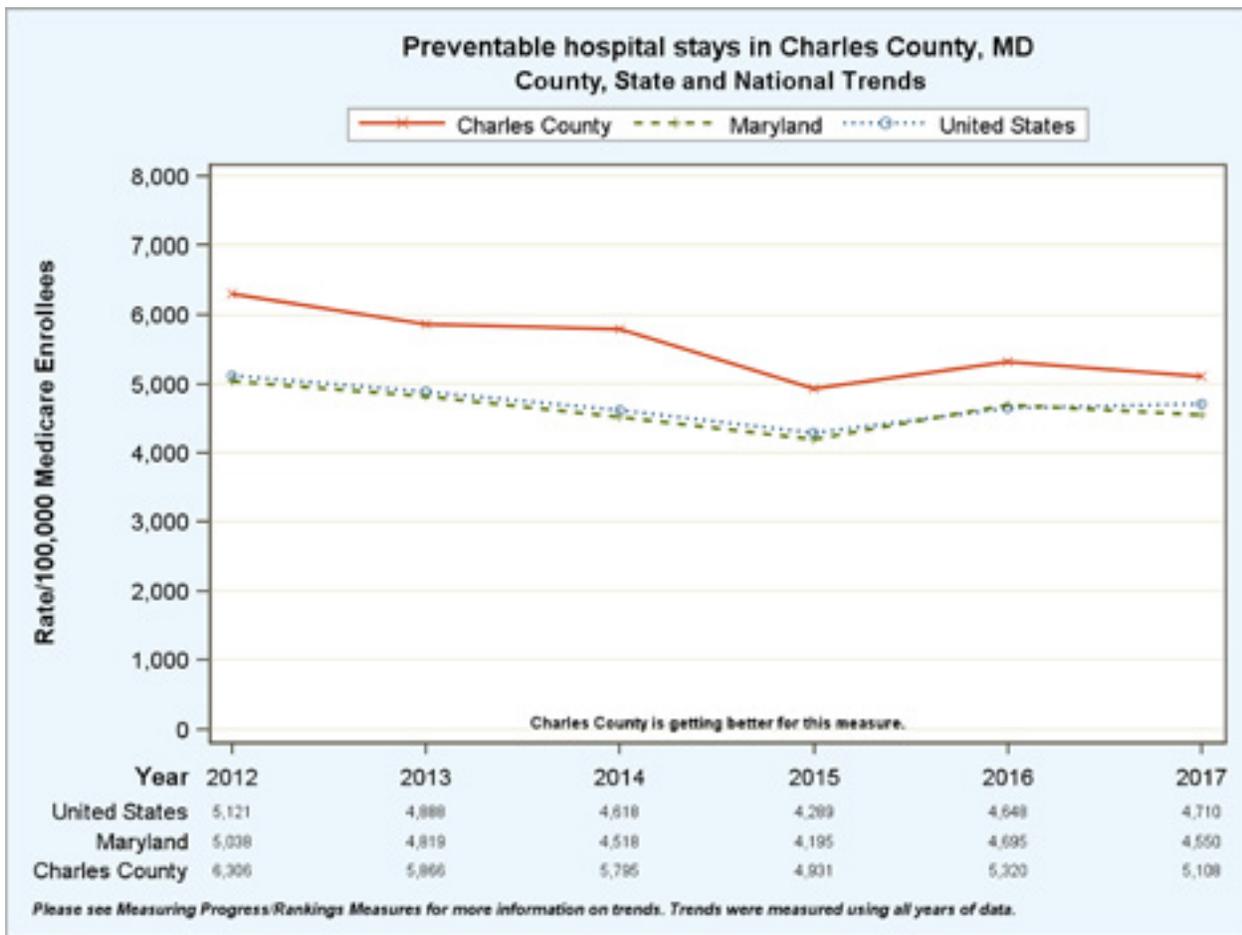


The 2017 ratio of population to primary care providers other than physicians for Charles County was 1,335:1. This was higher than the Maryland other primary care provider ratio of 937:1.

The 2017 ratio of population to mental health providers for Charles County was 640:1. This was higher than the Maryland mental health provider ratio of 390:1.

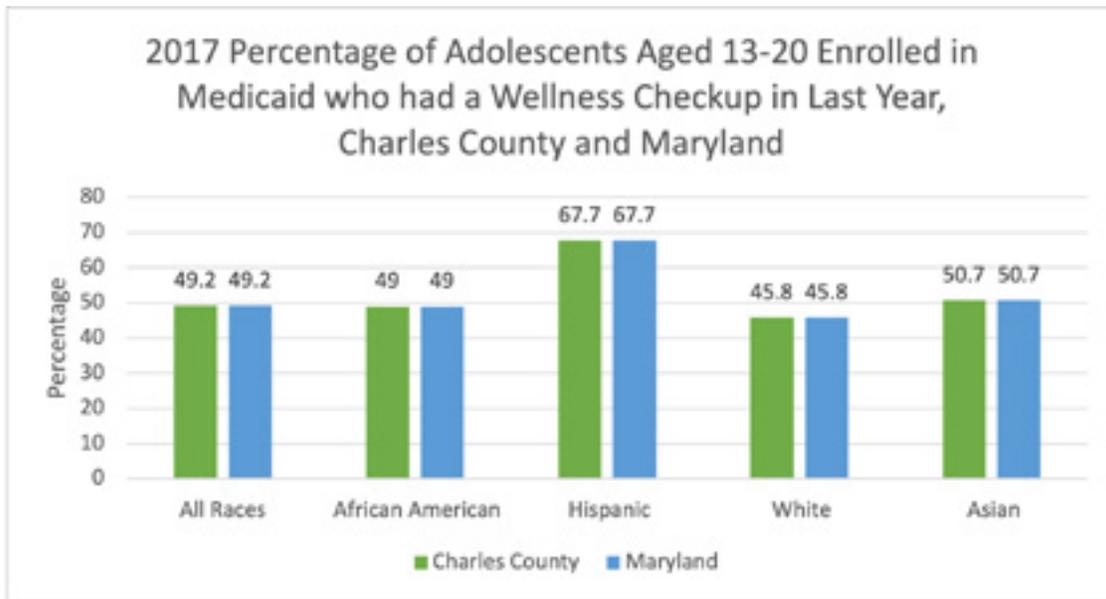
Preventive Hospital Stays:

The Robert Wood Johnson Foundation's County Health Rankings examine the number of hospital stays for ambulatory care sensitive conditions among county Medicare enrollees. The 2017 Charles County preventive hospital stay rate was 5,108 per 100,000 Medicare enrollees and is higher than the Maryland state average rate of 4,550 per 100,000 Medicare enrollees. Some decreases have been seen for Charles County since 2008; however, the Charles County rate has consistently been above the state and national rates. The 2017 Charles County preventable hospital stay rate is an increase from the 2015 rate of 4,931 per 100,000 Medicare enrollees reported in the last needs assessment.

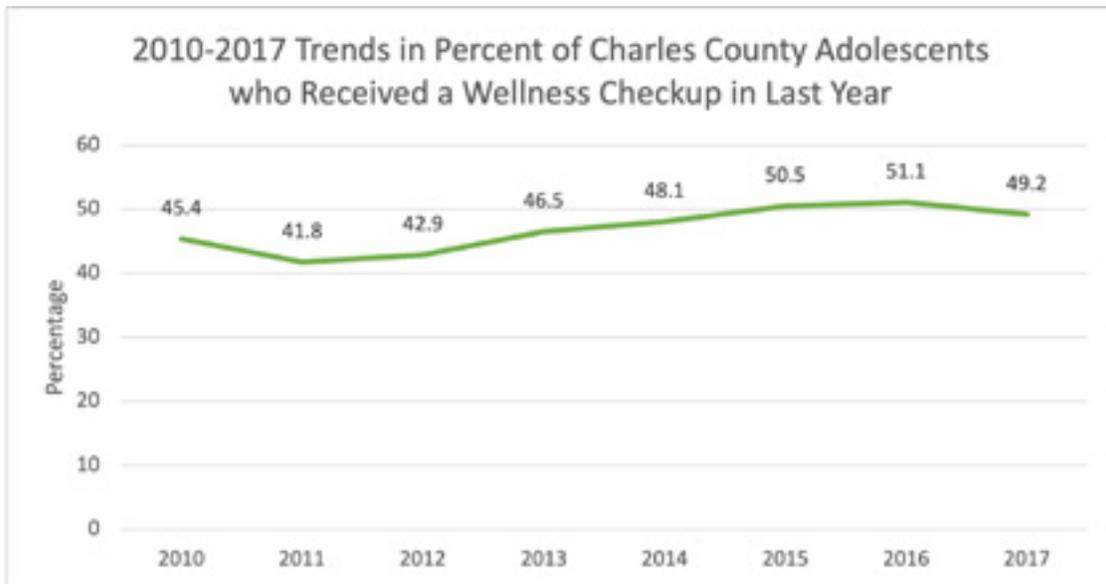


Adolescent Wellness Checkups:

In 2017, 49.2% of Charles County adolescents aged 13-20 years enrolled in Medicaid had a wellness checkup. This is below the Maryland state average percentage of 54.6% of adolescents with a wellness checkup. The percentage of wellness checkups is highest for Charles County Hispanics (67.7%) and lowest among Charles County Whites (45.8%). The same racial disparities are seen on a state level.



The percentage of Charles County adolescents receiving a wellness checkup has remained fairly steady with some increases over the past decade.



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13. 2017 Charles County and Maryland estimates of adolescents enrolled in Medicaid with a wellness checkup. Maryland Medicaid data accessed through the Maryland State Health Improvement Process website. Available at: <https://pophealth.health.maryland.gov/Pages/SHIP-Lite-Home.aspx>.

Qualitative Data Relating to Access to Care:

Long Survey Responses:

38.7% of long survey participants reported that access to health care is a health problem in Charles County on some level; 12.1% felt that access to health care is a “serious problem” in the county.

40.5% of the long survey participants reported that affordable health care is a health problem in Charles County on some level; 18.9% felt that access to affordable health care is a “serious problem” in Charles County.

39.1% of the long survey participants reported that health insurance is a health problem in Charles County on some level; 16.3% felt that health insurance is a “serious problem” in Charles County.

Long survey participants were also asked if they have seen improvements in Charles County in terms of health. Almost half of the respondents to this question (44.7%) have seen improvements to increase access to health care within the county, while 15.5% reported improvements in access to needed medications.

Most of the long survey participants reported having a routine doctor’s visit in the last 12 months (88.2%). This percentage is up from the 2018 survey where 84.8% of participants reported having a routine doctor’s visit in the last 12 months. Only 0.2% reported that they have never had a routine doctor’s visit.

Most of the survey participants received their routine health care by a primary care physician or in a provider office (96.2%). In addition to routine medical care, 37.4% went to a dentist, 35.1% went to an eye doctor, and 21.4% went to an OB/GYN.

There was also a large population who reported that they get their routine care at an urgent care center (13.0%). However, this percentage is down from the 2018 survey where 15.6% of survey participants reported receiving their routine care at an urgent care center.

4.2% of survey participants reported they received their routine care at a hospital emergency department. This percentage is up from the 2018 survey where 2.4% of survey participants reported receiving their routine care at a hospital emergency department.

It is believed that the routine care by the listed specialists (dentist, eye doctor) was underreported. Participants were asked to check all locations that applied; however, it is theorized that they did not read all the responses and checked only primary care physician/provider office even if they also routinely see the dentist.

The majority of the survey participants were able to see the doctor when needed (75.3%). Just under 2% of survey participants reported that they were seldom or never able to see a doctor when needed. If they were unable to see the doctor when needed, the most common reasons were that there were no available appointments (29.3%) or that it was too expensive and they could not afford it (3.5%). These reasons for not seeing a doctor are similar to the 2018 survey responses.

When asked if they receive medical care outside of Charles County, 22.0% of participants responded that they never received care outside the county. This is an increase from the 2018 survey where 15.9% of participants responded that they never receive care outside Charles County. Over half of the participants (52.3%) claimed that they sometimes receive medical care outside Charles County. This percentage is up over 2% from the 2018 survey.

Participants were asked what medical services they received outside of Charles County. They were asked to check all services that were applicable. The most common medical services that people receive outside of Charles County are specialist doctor appointments (61.4%), dental appointments (22.2%), primary care doctor appointments (19.0%), and surgeries (19.0%).

The percentage of participants who receive medical services from a specialist provider increased from 58.6% to 61.4% from 2018 to 2020. Dental appointments received outside of Charles County also increased from 2018 to 2020, from 18.5% to 22.2%. The percentage of participants who receive primary care doctor care outside the county decreased from 24.4% in 2018 to 19.0% in 2020.

Participants were also asked why they chose to receive those medical services outside of Charles County. The most common responses among participants were that the quality is better elsewhere (37.1%) and services are not available in Charles County (23.6%). 27.6% of participants indicated that this question was not applicable to them.

Primary Care doctors/providers and the internet are highly used methods for receiving health information among survey participants. This particular question stresses the importance of educating local health care providers and emphasizes the need for accurate medical information on the internet and for employee wellness programming.

Short Survey Responses:

25% of the short survey participants reported that access to healthcare and no health insurance is a big health problem in Charles County. This condition scored somewhere in the middle of the health conditions listed on the survey (ninth highest).

The most commonly cited barriers to needed health care was lack of health insurance (35.4%) and care is too expensive/can't afford it (47.4%). Under "Other," several people explained that there is a shortage of county providers accepting Medicaid, current providers are not accepting new patients, quality of providers is better elsewhere, fear of COVID-19 keeps people from seeking care, lack of dental health coverage, lack of awareness of available services, no Veterans Affairs clinic nearby, long wait times to see providers, people cannot take the time off work for health care services, stigma surrounding mental health treatment, fear from past, negative experiences, provider stereotyping and stigmatizing patients with certain health conditions, lack of providers in the western region of the county, and alternative treatments like acupuncture and massage are not covered by insurance providers.

Barriers to getting health care:	Response Count	Response Percent
<i>Couldn't get an appointment with my doctor</i>	145	19.2%
<i>Doctor is too far away from my home</i>	108	14.3%
<i>Local doctors are not on insurance plan</i>	169	22.4%
<i>No health insurance</i>	268	35.4%
<i>No transportation</i>	150	19.9%
<i>Service is not available in my own county</i>	113	15.0%
<i>Too expensive/Can't afford it</i>	358	47.4%
<i>Other</i>	122	16.2%

24.2% of short survey respondents felt that there are many or some resources available for access to care for children adults, 19.4% felt that there are many or some resources available for access to care in rural Charles County, and 17.9% felt that there are many or some resources available to address access to needed prescriptions.

Focus Groups:

Many of the topics discussed at each and every focus group boiled down to issues of access to care. The most discussed topic at the community focus groups was the lack of health care providers within the county. There is a lack of primary care providers and specialists. Those in the county are overwhelmed, are not accepting patients, are not accepting medical assistance patients, are not spending time educating their patients on their health conditions, and are not dealing with all of their problems. Mental health providers were specifically cited as a concern for Charles County.

The focus group mentioned the overuse of the hospital emergency department (ED). The participants talked about the culture surrounding using the emergency department for routine care. It is the place they are comfortable. They know that they do not have to wait, and they will not be turned away. There is a need to teach these individuals about using the appropriate form of health care at the appropriate time.

People also do not know where to find the health services that they need. Many health organizations within the county do not know about all of the other services available within the county. The focus group participants suggested a one-time stop shop for all health programs in the county, like 211.

Health literacy was a topic of discussion at the county focus group. Individuals may be given a health diagnosis by their primary care providers, but they do not receive sufficient education on the health condition and how they need to self-monitor and manage their disease. People diagnosed with pre-diabetes may not know how to cook for themselves. Additionally, individuals are signing up for health insurance through the health benefits exchange. Some are auto-assigned to specific plans such as MedStar or Kaiser that require you to use one of their facilities for care. They have a card, but they do not know how to use it. They do not understand their benefits and what providers are within their network. Case coordination, community health workers, and patient navigators within the primary care setting and in the community are critical to assist county residents on what services are available and how to access needed health services. They are also critical in health education and outreach.

Key informant interviews:

Almost half of focus group participants felt that there are not adequate resources to address access to health care in Charles County.

Of participants who chose “Other” few felt indifferent and believe resources improved, but gaps still exist.

Access to care was a health issue that participants perceived as affecting the local community. Issues related to access to care that were reported include lack of specialty services and local providers, limited resources, limited access due to COVID-19, access to preventative care, and access to care for low-income individuals.

Barriers or gaps in services related to access to care in the county were the most popular responses among participants. Barriers and gaps reported by participants included access to providers, specifically specialists, access to mental health care, lack of transportation, long wait times, access for children, and the lack of health resources in the community. Many participants also reported barriers for low-income individuals and minorities in the county. Reported barriers for these population groups include transportation, health care costs, geographic location of services, and lack of knowledge about health care resources in the community.

Access to care was a key change that many focus group participants reported they would like to see in the community to improve health. This includes access to care for low-income individuals, access to mental health services, an increase in specialty providers in the county, access to health services in rural areas, pediatric health care, and an overall increase in health care providers in Charles County.

Conclusions:

Data from the Fiscal Year 2021 Charles County Community Health Needs Assessment Report was examined against the baseline Fiscal Year 2018 needs assessment data. The previous needs assessment data was used to develop the eight 2019-2021 Charles County Health Improvement Plan objectives. An update on the status of the Charles County health priority objectives is discussed below.

Health topics where the Charles County Health Improvement Plan Goals were met: There were three objectives within the Charles County Health Improvement Plan that reached the anticipated goals. This means that 38% of the health improvement plan objectives (3/8) reached the goals in the three-year time period.

Physician Recruitment and Retention:

Increase the number of Charles County physicians by five providers.

Update: The University of Maryland Charles Regional Medical Center has recruited and retained new physicians each year with two providers in FY19, one provider in FY20, and three providers in FY21. This exceeded the goal of 5 providers set after the 2018 community health needs assessment.

Unnecessary Hospital Utilization:

Reduce the Charles County preventable hospital stay rate from 55 per 1,000 Medicare enrollees to 52.3 per 1,000 Medicare enrollees. Source: County Health Rankings

Update: In the 2019 County Health Rankings Report, the Charles County preventable hospital stay rate was 51 per 1,000 Medicare enrollees. This was below the goal of 52.3 per 1,000 Medicare enrollees. (2019 Dartmouth Atlas of Health Care from the 2019 RWJ County Health Rankings)

Mental Health:

Reduce the Charles County mental health emergency department visit rate from 2,346.9 per 100,000 to 2,323.4 per 100,000. Source: 2014 Maryland HSCRC data from SHIP website

Update: The 2017 Charles County mental health emergency department visit rate was 2,817.6 per 100,000 population. This rate is above the goal of 2,323.4 per 100,000 population. (2017 HSCRC data from the SHIP website)

Substance Use Disorders:

Reduce the Charles County addictions-related emergency department visit rate from 991.9 per 100,000 to 982 per 100,000. Source: 2014 Maryland HSCRC data from SHIP website

Update: The 2017 Charles County addictions-related emergency department visit rate was 1,341.4 per 100,000 (2017 HSCRC data from the SHIP website). This is above the goal of 982 per 100,000.

Obesity:

Maintain the percentage of Charles County adults who are at a healthy weight at 23.1%.

Source: 2015 Maryland BRFSS

Update: The percentage of Charles County adults who are at a healthy weight increased from 23.1% in 2015 to 28.2% in 2019 (2019 BRFSS).

Decrease the percentage of Charles County 15-18 year older who are obese from 13.6% to 12.6%.

Source: 2016 Maryland YRBS

Update: There was a small increase in the percentage of Charles County high school students who were obese. The percentage went from 13.6% in 2016 to 14.6% in 2018-2019 (2018-2019 YRBS).

Diabetes:

Reduce the Charles County diabetes emergency department visit rate from 244.2 per 100,000 to 241.8 per 100,000. Source: 2014 Maryland HSCRC data from SHIP website

Update: The 2017 Charles County diabetes emergency department visit rate was 245.0 per 100,000 (2017 HSCRC). This is similar to the rate of 244.2 per 100,000 that was previously reported.

Major Cardiovascular Disease:

Reduce the Charles County hypertension emergency department visit rate from 347.7 per 100,000 to 344.3 per 100,000. Source: 2014 Maryland HSCRC data from SHIP website

Update: The 2017 Charles County hypertension emergency department visit rate was 469.9 per 100,000 (2017 HSCRC). This was an increase from the previously reported rate of 347.7 per 100,000.