CHARLES COUNTY HEALTH NEEDS ASSESSMENT

UNIVERSITY of MARYLAND
CHARLES REGIONAL MEDICAL CENTER

MARCH 2015

Charles County Health Needs Assessment Executive Summary

From July 2014 to March 2015, 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 four-method plan was developed which included four different sources of data:

- A long online survey of Charles County residents' perceptions of health and health behaviors
- A short paper survey on health perceptions throughout the county
- 15 focus groups with community leaders, citizens, and stakeholders
- A quantitative data analysis of secondary published data. Data collection occurred between July 2014 and February 2015.

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 to feel invested in its outcome.

Focus Groups Results

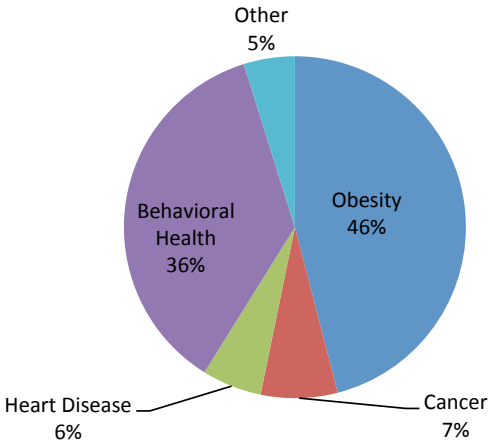
Fifteen focus groups were performed throughout the county between July 2014 and February 2015. Approximately 235 people participated in the county focus groups. The focus group topics included:

- Chronic disease-specific health
- Special populations
- County leadership
- Drug and alcohol council members
- Charles County substance abuse advisory coalition members
- Youth through the school nurses
- In-house health department nurses
- Fitness and nutrition
- Minority health and health disparities
- Prevention and safety
- Faith-based leaders
- Behavioral health
- Reproductive and infant health
- Cancer
- Access to care

The biggest issues to emerge from the focus groups included:

- Physician recruitment, retention, and reimbursement
- Mental health resources and services
- Substance use disorders
- Social determinants to health: transportation, access to care
- Chronic disease management (acute lifestyle change as well as palliative care)
- Obesity/overweight: childhood specifically

Focus Groups:
Greatest Health Problems in Charles County



Long Survey Results

806 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. 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.

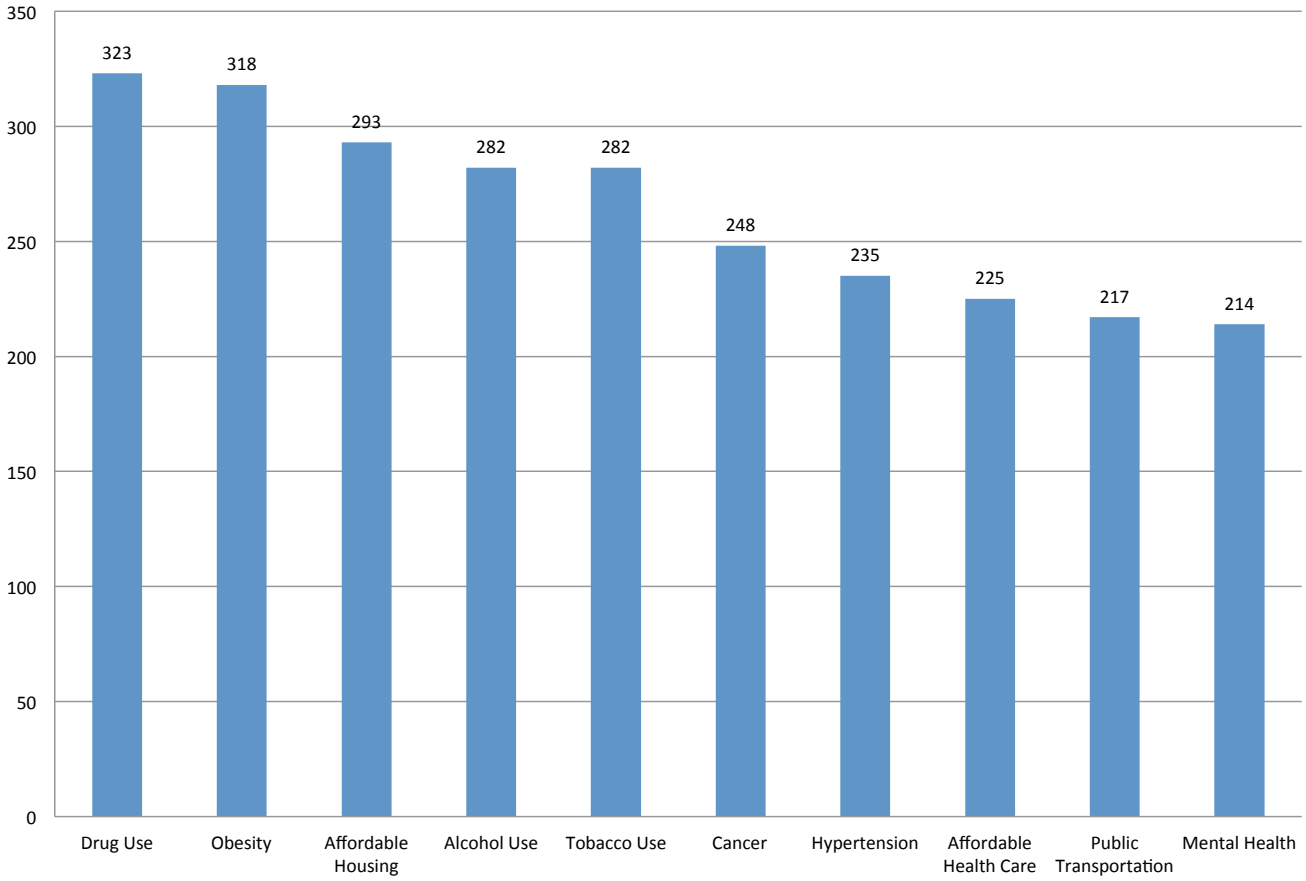
Most of the respondents are from Charles County (82.4%). The second largest percentage is from St Mary's County (7.22%). Only 4% reported living outside of Southern Maryland (Charles, Calvert, St Mary's, or PG). Approximately 69% of the respondents were between the ages of 35-64 years. The highest percentage was in the 45-54 year age group (30%). The overwhelming majority of the respondents were female (81%). Minorities were under-represented in the 2011 survey. Therefore, increased outreach was done with the help of community partners and agencies to bolster minority participation in the 2014 survey. These efforts were successful. Minorities made up 35% of the total 2014 survey population. African Americans comprised 30% of the respondents, followed by 4% Asian/Pacific Islander and 1% American Indian/Native American. Fourteen respondents self-reported as 2 or more races. Approximately 4% of the survey respondents self-identified as Hispanic. This is similar to the county's overall Hispanic population of 5%.

The survey participants were a highly educated group with 85.25% reporting having had any amount of college education. Just over half of the group had completed an undergraduate degree or higher (58%). Most of the participants were employed and working full-time. The most common response was a household income of $60,000-$120,000 per year (34%). In the 2011 survey, most of the respondents were affluent and reported a household income greater than $75,000. Efforts were made to encourage participation from county residents with low-income status, so the overall data would not be skewed by those with health insurance and greater access to care. Individuals with a household income less than $60,000 made up one-quarter of the 2014 survey.

Nearly all of the survey participants (96.4%) reported having health insurance. The majority of the participants also reported having dental insurance (84.2%) though this percentage is smaller than those reporting health insurance. Many of the respondents also had vision insurance (73%). Only 3% of the survey population reported having no type of insurance.

The biggest health problems that surfaced from the online survey included: obesity, drug use, tobacco use, affordable housing, and alcohol use.

Long Survey: Top 10 Most Serious Health Problems in Charles County



The protective health behaviors that Charles County residents were displaying included: always wearing a seat belt, washing hands after using the bathroom or making food, wearing a helmet on an ATV, scooter or motorcycle, practicing safe sex, getting a flu shot, and refraining from smoking and drinking alcoholic drinks.

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, not using sunscreen regularly, and not taking a vitamin daily.

The online survey participants were also asked about access to health care. 84% have had a routine doctor's visit in the past 12 months. 92% receive their routine health care in a physician's office. 76% 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 (13%) or that it was too expensive and they could not afford it (5.68%).

77% travel outside of Charles County for medical care at some point. Only 11% 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 (51%), primary care doctor appointments (24%), surgery (32.7%), and dental appointments (20%). The most common responses for traveling outside the county were that the services were not available in Charles County (19%) and the quality of care was better elsewhere (33%).

Short Survey Results

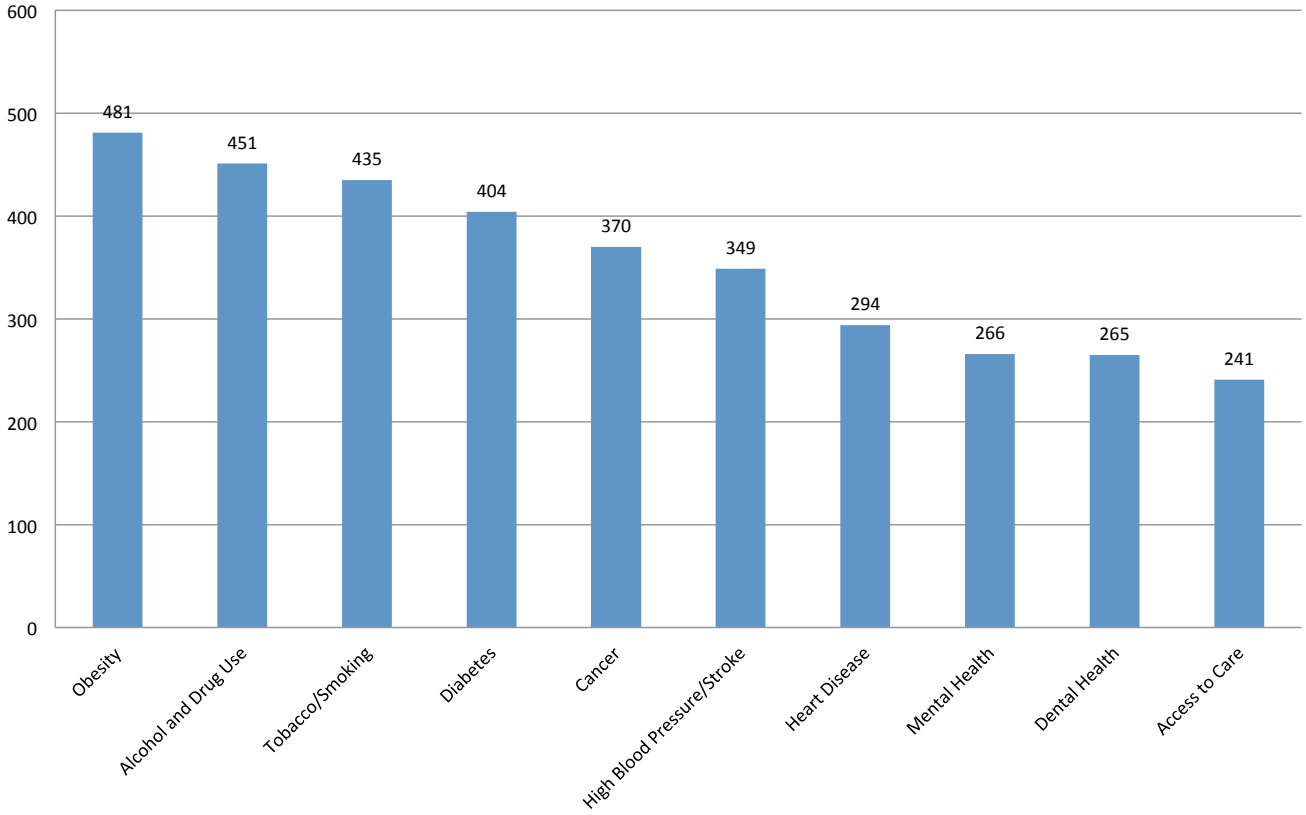
A short four-question survey was distributed throughout the county regarding perceptions of health within the county. A total of 1,002 short surveys were completed. Ongoing survey collection was conducted at the Charles County Department of Health's Nursing, Substance Abuse, and Mental Health clinics; the University of Maryland Charles Regional Medical Center's Waiting Rooms and Cardiac Rehabilitation Program; the Center for Children; Health Partners Inc; the Western County Family Medical Center; and Cambridge Pediatrics. The community was also surveyed at large events such as Mission of Mercy, Charles County Homeless Resource Day, the Charles County Fair, College of Southern Maryland Health and Wellness Fair, Lifestyles Food Distribution Days, Nanjemoy Back to School Fair, Nanjemoy National Night Out, and Nanjemoy Heritage Days.

The biggest health problems identified by the short community survey included: obesity, drug and alcohol use, smoking and tobacco use, diabetes, and cancer.

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 was lack of health insurance (50%) and care is too expensive/can't afford it (57%). Under "Other," several people explained that they do not have dental or vision insurance to cover those needed services, high deductibles/co-pays, services were not covered by their insurance, and language barriers.

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.

Short Survey: Top 10 Biggest Health Issues in Charles County



The greatest number of respondents believe that there are many services available in Charles County in regards to access to health care for children and adults. This was followed closely by services for high blood pressure. Respondents were given the option of “some services available” in Charles County to address this issue. Dental health received the greatest number of responses for some services available. The second most common answer was drug and alcohol use. Access to care in rural Charles County received the greatest number of responses in the “No services available” category. This topic also received the lowest number of responses in the “many services available” category. It can therefore be assumed that people do not perceive there to be adequate levels of medical care in the rural regions of the county.

Results

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

Cumulative analysis of all quantitative and qualitative data was used to prioritize the top health needs of Charles County.

Health Priority Areas

1. Chronic Disease Prevention and Management
    - Major Cardiovascular Disease (Heart Disease, Hypertension, and Stroke)
    - Obesity and Overweight
    - Diabetes Prevalence
    - Cancer
2. Behavioral Health
    - Substance Use Disorders (Alcohol, Drug, and Tobacco Use)
    - Mental Health
3. Access to Care
    - Physician Recruitment and Retention
    - Social Determinants of Health (Transportation, Health Literacy)

Charles County Health Improvement Plan Long-Term Objectives FY 2016-2018

Priority One: Chronic Disease Prevention and Management

Obesity:

1. Increase the percentage of Charles County adults who are at a healthy weight from 27.9% to 28.5% by 2017. Source: 2013 Maryland BRFSS
2. Decrease the percentage of Charles County residents 13-18 years old who are obese from 12.3% to 11.3%. Source: 2013 Maryland YRBS

Diabetes:

1. Reduce the Charles County diabetes emergency department visit rate from 208.7 per 100,000 to the Maryland rate of 205.0 per 100,000. Source: 2013 Maryland HSCRC data from SHIP website

Major Cardiovascular Disease:

1. Reduce the Charles County hypertension emergency department visit rate from 308.1 per 100,000 to 305 per 100,000. Source: 2013 Maryland HSCRC data from SHIP website

Cancer:

1. Decrease the Charles County colon and rectal cancer mortality rate from 19.4 per 100,000 to 18.0 per 100,000. Source: 2014 Maryland CRF Cancer Reports

Priority Two: Access to Care

Physician Recruitment and Retention:

1. Increase the number of Charles County physicians by 7 providers.

Unnecessary Hospital Utilization:

1. Reduce the Charles County preventable hospital stay rate from 71 per 1,000 Medicare enrollees to 69 per 1,000 Medicare enrollees. Source: County Health Rankings

Priority Three: Behavioral Health

Mental Health:

1. Reduce the Charles County mental health emergency department visit rate from 3,045.8 per 100,000 to 3,015 per 100,000. Source: 2013 Maryland HSCRC data from SHIP website

Substance Use Disorders:

1. Reduce the Charles County addictions-related emergency department visit rate from 1,200.4 per 100,000 to 1,188 per 100,000. Source: 2013 Maryland HSCRC data from SHIP website

For questions or comments about the Health Needs Assessment,
please visit **CharlesRegional.org/Contact** or call **1.888.332.4847**

2015 Charles County Community Health Needs Assessment Report

Commissioned by the University of Maryland Charles Regional Medical Center

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

Fifteen focus groups were performed throughout the county between July 2014 and February 2015. The focus group topics included: chronic disease specific health, special populations, county leadership, drug and alcohol council members, Charles County substance abuse advisory coalition members, youth through the school nurses, in-house health department nurses, fitness and nutrition, minority health and health disparities, prevention and safety, faith-based leaders, behavioral health, reproductive and infant health, cancer, and access to care. Approximately 235 people participated in the county focus groups.

The biggest issues to emerge from the focus groups included:

- Physician recruitment, retention, and reimbursement
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- Substance Use Disorders
- Social Determinants of Health: Transportation, Access to Care
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Cumulative analysis of all quantitative and qualitative data was used to prioritize the top health needs of Charles County. The health priorities chosen include:

1. Chronic Disease Prevention and Management
    - Major Cardiovascular Disease (Heart Disease, Hypertension, and Stroke)
    - Obesity and Overweight
    - Diabetes Prevalence
    - Cancer
2. Behavioral Health
    - Substance Use Disorders (Alcohol, Drug, and Tobacco Use)
    - Mental Health
3. Access to Care
    - Physician Recruitment and Retention
    - Social Determinants of Health (Transportation, Health Literacy)

The current assessment findings are an update from the 2011 community health needs assessment report and health improvement plan. 40% 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, Charles County Health Improvement Plan objectives have been met for:

- Decrease in Heart Disease Mortality
- Decrease in Cancer Mortality
- Decrease in Cancer Incidence
- Decrease in Diabetes Mortality
- Decrease in Motor Vehicle Incidence Hospitalization Rates
- Increase in Primary Care and Specialty Physician Recruitment
- Increase in Co-Occurring Mental Health and Substance Use Disorder Treatment

- Decrease in youth lifetime and binge alcohol use

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

- Increase in Diabetes prevalence
- Decrease in percentage of Adults at a healthy weight
- Decrease in childhood obesity percentage does not meet goal set
- Decrease in county un-insured percentage does not meet goal set
- Decrease in Medicaid children and adolescents receiving dental health services in past year
- Decrease in public mental health system clients who are "very satisfied" with their treatment
- Decrease in suicide rate does not meet goal set
- Increase in opiate-related treatment admissions does not meet goal set
- Increase in African American Chlamydia infection rate
- Increase in county overall infant mortality rate
- Decrease in African American infant mortality rate does not meet goal set
- Decrease in fall-related hospitalization rate does not meet goal set

The data from this community health needs assessment is being used to develop the next Charles County health improvement plan and subsequent action plans. They provide the county with measurable outcomes and benchmarks for program implementation.

Focus Groups:

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

Fifteen focus groups were conducted throughout the county from July 2014 to February 2015. Each focus group was designed to target a specific population or health issue. The fifteen focus group topics included:

- Age-related: Individuals and agencies that support and provide services to the youth, elderly, and infants were encouraged to attend this meeting.

- Access to Care: Individuals and agencies that serve the medically underserved and the uninsured were invited to participate in this group. Case managers from the hospital and private practice were also invited to the session.

- Disease specific: There are many organizations and programs in Charles County that function to help prevent, treat, and support individuals with chronic disease. They represented the audience for the disease specific meeting.

- A special populations group was scheduled to give the community a chance to speak about the health of and the specific barriers and problems seen for minorities and medically underserved. Issues due to access to care were also discussed.

- The leadership focus group included many leaders from within all parts of the community. Civil servants as well as health leaders were in attendance to discuss their particular view points on the health of the county, its residents, and their employees.

- Substance Abuse: Members of the Charles County Substance Abuse Advisory Coalition were surveyed regarding their perceptions of health in Charles County.

- Fitness and Nutrition: Local gyms, dieticians, the schools physical education and food service, Parks and Recreation, Extension office, and other county experts congregated to discuss the determinants leading to high rates of obesity and overweight as well as programs and ideas for combating the epidemic.

- Prevention and Safety: Traffic safety, emergency medical services, law enforcement, senior centers, and other safety prevention specialists participated in this focus group.

- Reproductive and Infant Health: Agencies representing maternal and child health expressed their opinions and observations on issues of reproductive health and the health of an infant.

- Health Department In-House Nurses: Nurses at the Charles County Department of Health's Division of Nursing and Community Health were asked to speak regarding the medically underserved clients that they serve on a daily basis.

- Minority Health: Organizations representing minority organizations and county minority communities, including fraternities, the Black Leadership Council for Excellence, and the NAACP discussed issues and barriers to care for the county's minority populations.

- Faith-based: Faith-based leaders in the community are the trusted sources for information and advice in our county's communities. They have an intimate understanding of the issues their congregations are experiencing and how best to help address their health conditions.

- Cancer: Since Cancer is the leading cause of the death in Charles County, a special group was conducted among the Charles County Tobacco and Cancer Coalition.

- Access to Behavioral Health: A county forum was conducted in July 2014 to discuss the strengths and challenges to addressing behavioral health services in Charles County. Five breakout sessions were held on separate issues in mental health, substance abuse, and access to care.

- The Charles County school nurses provided a unique glimpse at the health issues of the school aged population. Many emerging health and social issues, such as mental health, were discussed at this meeting.

The fifteen focus groups were well attended with 235 attendees participating. Attendance for those meetings ranged from 5 to 100 people. Participants represented all service organizations within the community. They provide services to all facets of the community including women, infants, school aged children, those who are incarcerated, those with mental health problems, those with financial/housing/employment/health issues, the un- and underinsured, the hungry, those with chronic health conditions, the homeless, the elderly, college students, medically underserved, all faiths and religions, and minorities, just to name a few.

Focus groups followed the same pattern of health-related questioning. The questions included:

Question 1: Describe the Charles County population that you serve or represent.

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

Question 3: What are the strengths of the community?

Question 4: What are challenges and problems of the community?

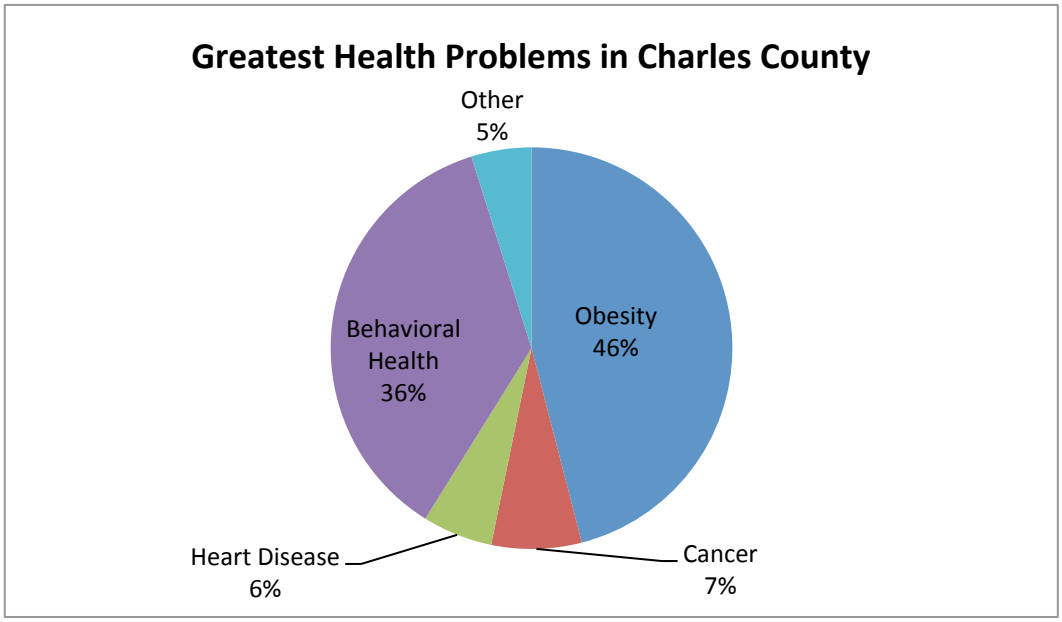
Question 5: What are your suggestions and recommendations to improve health locally?

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. Obesity was chosen as the number one health problem in Charles County by 46% of the

focus group participants. Behavioral Health was chosen by 36% of the focus group participants. The health condition listed under Other was Diabetes.



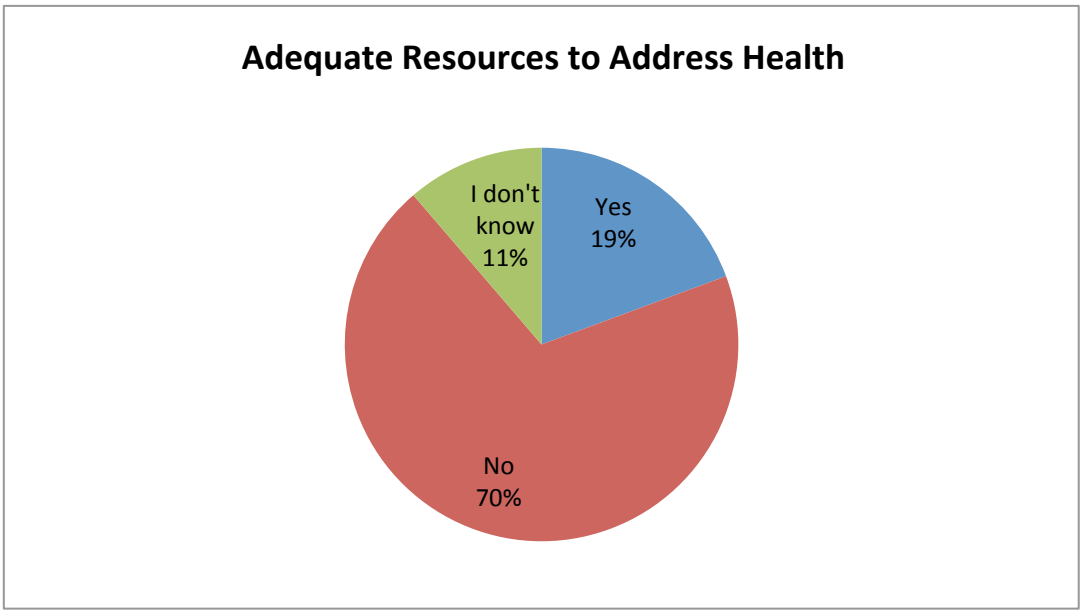
Interactive Question 2: Since the 2011 community health needs assessment, have you seen improvements in health in Charles County?

Responses were divided on this question. Almost half of the respondents (44%) felt that there have been improvements in the health of the county since the last needs assessment. This is very important since the local health improvement coalition has developed and implemented many activities to address the county's health priorities.

Since the 2011 needs assessment, has health improved in Charles County?	**Count (#)**	**Percent (%)**
Improved	54	44%
Stayed the same	36	29%
Worse	27	22%
I don't know	7	5%

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

Two-thirds of the focus group participants felt that there are not adequate resources to address the health problems in Charles County.



The biggest issues to emerge from the focus groups included:

- Physician recruitment, retention, and reimbursement
- Mental health resources and services
- Substance Use Disorders
- Transportation
- Chronic Disease Management (acute lifestyle change as well as palliative care)
- Obesity/Overweight: childhood specifically

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

Long Survey Results:

Introduction:

A 27 question online survey was developed in the summer of 2014. 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 question gathered demographic information from 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 were a total of 806 who participants 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.

The results of the survey analysis are presented below by category.

Demographic Information:

The majority of the survey participants were from Charles County (82.4%). The second largest population was from neighboring St Mary's County (7.22%). 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.

County of Residence:	Response Count	Response Percent
Charles County	651	82.4
St Mary's County	57	7.22
Calvert County	22	2.78
Prince George's County	44	5.57
Other Maryland County	16	2.3
Out of State (11 Virginia and 1 DC)	12	2

Responses varied across all age groups. Considerable effort was taken to ensure that all age groups were represented in the sample. The age group with the largest number of participants was 45-54 years.

Age Group	Response Count	Response Percent
18-24 years	39	4.88
25-34 years	143	17.88

35-44 years	162	20.25
45-54 years	238	29.75
55-64 years	153	19.13
65-74 years	54	6.75
75 years and older	11	1.38

The majority of the long survey participants were female (81%). We worked very hard to increase participation among Charles County males and managed to increase from 9% in the 2011 survey to 19% in the 2014 survey.

Gender	**Response Count**	**Response Percent**
Male	143	19
Female	650	81

Minorities were under-represented in the 2011 survey. Therefore, increased outreach was done with the help of community partners and agencies to bolster minority participation in the 2014 survey. These efforts were successful. Minorities made up 35% of the total 2014 survey population. African Americans comprised 30% of the respondents, followed by 4% Asian/Pacific Islander and 1% American Indian/Native American. Fourteen respondents self reported as 2 or more races.

Race/Ethnicity	**Response Count**	**Response Percent**
Asian or Pacific Islander	26	4
Black or African American	229	30
Native American	8	1
White or Caucasian	511	65

Respondents were asked to give their ethnicity. Approximately 4% of the survey respondents self identified as Hispanic. This is similar to the county overall Hispanic population of 5%.

The survey participants were a highly educated group with 85.25% reporting having had any amount of college education. Just over half of the group had completed an undergraduate degree or higher (58%).

Educational Attainment	**Response Count**	**Response Percent**
Some High School	8	1
High School Diploma	108	14
Some College	213	27
Undergraduate Degree	231	29
Postgraduate Degree	227	29

The majority of the participants completing the long survey were employed and working full time (79%). 12.3% were employed part time. 4.3% were students. 10.6% were either homemakers, retired, or disabled. Only 2.0% of the participants labeled themselves as other or unemployed. 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. 12.3% are employed part time.

Employment Status	Response Count	Response Percent
Employed Full time	618	78
Employed Part time	64	8
Not employed, looking for work	26	3
Not employed, not looking for work	9	1
Homemaker/Stay at home mom	7	.5
College Student	4	.5
Retired	62	8
Disabled	4	.5
Prefer not to answer	4	.5

Participants were asked to report their household income. The most common response was a household income of $60,000-$120,000 per year (34%). In the 2011 survey, most of the respondents were affluent and reported a household income greater than $75,000. Efforts were made to encourage participation from county residents with low income status, so the overall data would not skewed by those with health insurance and greater access to care. Individuals with a household income less than $60,000 made up one-quarter of the 2014 survey.

It is a weakness of this survey that the categories of income were too large and did not stratify income levels more closely. For example, there is a significant difference between a household with an income of $60,000/year and one that makes $119,999. They are in the category but would have differing abilities in accessing health care.

Household Income	Response Count	Response Percent
$0-$29,999	58	7
$30,000-$59,999	159	20
$60,000-119,999	271	34
Greater than $120,000	147	28
Prefer not to answer	78	10

The participants were asked to report all types of health insurance that they current have. Nearly all of the survey participants (96.4%) reported having health insurance. The majority of the participants also reported having dental insurance (84.2%) though this percentage is smaller than those reporting health insurance. Many of the respondents also had vision insurance (73%). Only 3% of the survey population reported having no type of insurance.

With the advent of the Affordable Care Act and the efforts of the Maryland Health Connection, it was hoped that many survey participants would have access to health insurance regardless of income status.

Forms of Insurance	Response Count	Response Percent
Health	768	96.4
Dental	671	84.2
Vision	582	73
Don't Know	4	.5
No insurance	23	3

Among those having health insurance, almost half have a form of managed care health insurance plans such as HMO or PPO (48%). Approximately one-third have traditional, private insurance (37%). Only 2% reported that they do not have any health insurance.

Current Type of Health Insurance	Response Count	Response Percent
Private-traditional	290	37
Management Care (HMO, PPO)	376	48
Medicare	55	7
Medicaid, MCO, medical assistance	41	5
Government (MCHIP)	11	1
Tricare	48	6
Health Savings Account	31	4
Other	27	3
Don't Know	14	2
Do not have health insurance	16	2

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" (31%) and "Very Good" (44%). Only a small percentage reported that they were in fair to poor health (8%).

Health Status	Response Count	Response Percent
Poor	5	1
Fair	54	7
Good	242	31
Very Good	342	44
Excellent	138	18

People were also 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 past month that prevented them from work or activities (70%). Among those reporting sick days, most reported having been prevented from work or activities 1-2 days in the past month (20%).

Days to sick to work/do activities	Response Count	Response Percent
0	547	70
1-2	156	20
3-5	40	5
6-10	16	2
10 or more	22	3

Access to Care:

Most of the survey participants reported having a routine doctor's visit in the last 12 months (84%). Only 1% reported that they have never had a routine doctor's visit.

Time since last doctor's visit	Response Count	Response Percent
Within the last 6 months	479	61
Within 6-12 months	177	23
Within 13-18 months	44	6
Within 19-24 months	26	3
Within 2-5 years	33	4
Greater than 5 years	15	2
Never had a routine doctor visit	10	1

Most of the survey participants received their routine health care in a physician's office (92%). In addition to routine medical care, 24% went to eye doctor, 29% went to the dentist, and 3.5% went to the chiropractor. Many of the respondents also reported that they are under the routine care of specialists such as oncologists, OBGYN's, and orthopedics.

There was also a large population who reported that they get their routine care at an urgent care center (12%). This may be due to a lack of primary care providers and the inability to get an appointment to see them in a timely manner.

It is believed that the routine care by the listed specialists (ex. Dentist and 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 physician's office even if they also routinely see the dentist.

Where they receive routine care	Response Count	Response Percent
Physician's Office	715	92
Hospital Emergency Department	24	3
Health Department Clinic	14	2
Urgent Care Center	95	12
Chiropractor	27	3
Medical/First Aid Center	6	1
Community Clinic	3	.4

Specialists (OBGYN, oncologist)	95	12
Eye Doctor	188	24
Dentist	224	28
Other	7	1

The majority of the survey participants were able to see the doctor when needed (76%). There were 18 people who 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 (13%) or that it was too expensive and they could not afford it (5.68%).

Able to see doctor when needed	**Response Count**	**Response Percent**
Always	596	76
Sometimes	170	22
Seldom	15	2
Never	3	0.3

Reasons for not seeing doctor	**Response Count**	**Response Percent**
No health insurance	23	4
Too expensive/Can't afford it	34	6
Have not met deductible for yr	19	3
Lack of transportation	6	1
Doctor is too far away	12	2
No available appointments	74	13
I was able to see a doctor when I needed one.	491	82

Only 23% reported that they never receive medical care outside of Charles County. Nearly half of the respondents (44%) claimed that they sometimes receive medical care outside of the county.

Receive medical care outside of Charles County	**Response Count**	**Response Percent**
Always	84	11
Sometimes	340	44
Seldom	119	15
Never	176	23
I live in another county and receive care there.	58	8

Participants were asked what medical services that they receive 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 (51%), primary care doctor appointments (24%), surgery (32.7%), and dental appointments (20%).

Services Received Outside of County	Response Count	Response Percent
Primary Care Doctor Appointments	178	24
Specialist Dr Appointments	380	51
Outpatient treatment	75	10
Hospitalizations	122	17
Dental Appointments	146	20
Mental Health or Substance Abuse Treatment	35	5
Laboratory or other tests	93	13
X-rays	78	11
Surgery	118	16
Emergency Care	72	10
Prenatal care	28	4
Do not travel outside Charles County	136	18
I live in another county and receive care there.	78	11

The participants were also asked why they chose to receive those medical services outside of Charles County. The most common responses were that the services were not available in Charles County (19%) and the quality of care was better elsewhere (33%).

Why do you travel outside of Charles County for care?	Response Count	Response Percent
Services not available within county	127	19
Quality is better elsewhere	220	33
Recently moved to Charles County	21	3
Local doctors not on my insurance plan	52	8
Closer to my place of work	32	5
Too hard to get appointment for local doctors	31	5
No physician available for the type of care I need	69	10
Not applicable	185	28
I live in another county and receive care there.	99	15

Doctors, employers, and the Internet are highly used means for obtaining needed health information. Nurses, pharmacists, and the health department were smaller yet significant sources of health information. 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.

Where do you get health information?	Response Count	Response Percent
Churches	27	4
Primary Care Doctor	618	81
Nurse	110	14
Pharmacist	123	16
Hospital	109	14
Health Department	120	16
Public Library	19	3
Community Clinic	13	2
Employer	174	23
Internet/Websites	380	50

Behavioral Risk Factors:

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

- Always wear seat belt (95%)
- Always wash hands after using bathroom or before making food (84%)
- Always follow road safety rules (50%)
- Always get a flu shot each year (55%)
- Never drink 3 or more alcoholic drinks each day (63%)
- Never use illegal drugs or misuse prescription drugs (84%)
- Never smoke (71%)
- Avoid exposure to second hand smoke at home or work (56%)

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 1 hour of physical activity each day (15%)
- Eat 5 servings of fruit and vegetables a day (12%)
- Perform self exams for cancer (12%)
- Get 7-9 hours of sleep each night (16%)

- Use sunscreen regularly (23%)
- Take a vitamin daily (37%)

Risk and Behavioral Factors:	Always	Most of the time	Sometimes	Rarely	Never	Not applicable
Use a seatbelt?	738	26	2	3	4	0
Wear a helmet while riding a bicycle?	191	44	35	51	109	340
Wear a helmet while riding a scooter, ATV, or motorcycle?	177	13	15	18	23	517
Eat 5 or more servings of fruits and vegetables each day?	90	261	297	99	27	1
Eat fast food more than once a week?	35	102	259	259	108	5
Drink more than 5 alcoholic beverages in one sitting?	3	6	52	169	459	78
Drink more than three alcoholic beverages per day?	3	10	35	153	485	83
Smoke cigarettes, cigars, pipes, or cigarillos?	42	22	25	31	552	101
Smoke e-cigarettes?	10	5	15	18	612	112
Use smokeless tobacco (chew, snuff, dip)?	1	3	2	8	635	119

Get exposed to second hand smoke at home or work?	27	27	83	118	434	84
Use marijuana?	5	4	11	14	628	111
Misuse prescription opioids or use heroin?	4	2	3	3	654	105
Use other illegal drugs?	5	4	9	2	645	101
Perform self-exams for cancer?	91	156	224	120	139	30
Wash hands after using the bathroom or before making food?	648	103	15	3	3	1
Use sunscreen regularly?	178	241	192	82	62	16
Get a flu shot every year?	425	96	51	39	150	12
Practice safe sex (ex. use a condom, get tested)?	352	60	25	18	63	243
Take a vitamin or supplement daily?	282	135	139	77	123	12
Get 7-9 hours of sleep each night?	127	275	202	127	40	0
Feel stressed out or overwhelmed?	62	164	370	131	35	5
Follow road safety rules?	386	317	46	9	6	3
Participate in 30	113	197	282	125	32	7

minutes of
physical activity
each day?

Health Issues:

Participants were given a list of 32 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.

23. 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	Response Count
Drug Use	323	182	29	69	140	743
Alcohol Use	282	205	39	75	143	744
Tobacco Use	282	214	47	62	136	741
Asthma and lung diseases	151	225	57	66	236	735
Cancer	248	165	35	75	217	740
Child Abuse and Neglect	123	230	96	78	207	734
Crime	205	261	96	71	100	733
Domestic Violence	150	219	95	74	200	738
Prenatal and Infant health	87	178	116	92	258	731
Diabetes/Sugar	212	187	60	68	208	735
Affordable health care	225	176	85	75	168	729
Health Insurance	199	177	92	75	187	730
Access to health care	176	199	93	111	154	733
Affordable housing	293	153	86	75	127	734
Dental health	208	177	85	81	182	733
Flu/Pneumonia	52	151	169	111	243	726
Mental health	214	198	65	74	176	727
Obesity/Overweight	318	204	44	51	117	734
Disability Services	135	175	102	97	218	727
After school programs for kids	127	175	122	117	192	733
Sexually transmitted diseases	132	156	88	78	280	734
HIV/AIDS	101	139	113	85	297	735
Suicide	97	143	141	80	272	733
Heart Disease	180	196	57	64	232	729
High Blood Pressure	235	180	55	51	213	734
Stroke	157	184	66	69	254	730
Injuries	91	176	131	65	257	720
Highway Safety/Traffic Accidents	148	219	130	75	153	725
Public Transportation	217	181	97	98	137	730
Homelessness	200	180	104	85	157	726
Environmental Health/Air Quality	87	161	156	110	211	725
Veteran Health	143	162	77	69	243	694
Other (please specify)						18

The top 5 health issues seen as a problem at any level were: overweight/obesity, crime, tobacco use, drug use, and affordable housing. It should be noted that two of the top five issues are social determinants of health.

The top 5 most seriously viewed health issues were: drug use, overweight/obesity, affordable housing, alcohol use, and tobacco use. It should be noted that three out of the five top 5 most serious health issues are substance use disorders.

The top 5 health issues seen as a moderate problem were: crime, child abuse and neglect, domestic violence, highway safety/traffic accidents, and tobacco use.

The top 5 health issues seen as a slight problem were: Influenza/Pneumonia, Environmental Health, suicide, injuries, and highway safety/traffic accidents.

The top 5 health issues not seen as a problem in Charles County were: after school programs for kids, access to health care, Influenza/Pneumonia, Environmental Health, and public transportation.

Health Improvements in Charles County:

Almost half (43%) of the survey participants reported that they have seen improvements in the health of Charles County residents.

Health Improvements being made in County?	Response Count	Response Percent
Yes	314	43
No	131	18
Don't Know	289	39

The top five health issues where participants have seen improvements include: access to health care, tobacco use, mental health, and traffic safety. Over half of the respondents to this question (58%) have seen improvements to increase access to health care within the county.

Health Issues where improvements have been seen	Response Count	Response Percent
Heart Disease	45	14
Cancer	55	17
Diabetes	42	13
Asthma/Lung Diseases	32	10
Tobacco Use	89	27
Substance Use	53	16
Mental Health	66	20
High Blood Pressure	41	12
Stroke	32	10
Traffic Accidents	65	20
Injuries	9	3
Overweight/Obesity	38	11
Access to health care	192	58
Access to needed medications	71	21

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 100 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, young adults aged 18-34 years, individuals with a low education level (high school diploma or less), and individuals with a high education level (some college or greater).

The top 5 most serious health issues varies among the populations analyzed. Drug Use was the most serious health issue for individuals with a low education level, a household with an income of less than $60,000, women, and young adults. The social determinant of health, Affordable Housing, was the most serious health issue among minority participants. Tobacco use was the most serious health issue among men. Obesity was the most serious health issue among individuals with a high education level.

Top 5 Most Serious Health Issues by Population:	**#1**	**#2**	**#3**	**#4**	**#5**
Men	Tobacco Use	Drug Use	Obesity	Alcohol Use	High Blood Pressure
Women	Drug Use	Obesity	Affordable Housing	Alcohol Use	Tobacco Use
Minorities	Affordable Housing	Public transportation	Obesity	Tobacco Use	Alcohol Use
Young Adults (18-34 years)	Drug Use	Obesity	Tobacco Use	Alcohol Use	Affordable Housing
Low Income (household income less than $60,000/year)	Drug Use	Alcohol Use	Affordable Housing	Tobacco Use	Obesity
Individuals with low education level (High school diploma/GED or less)	Drug Use	Affordable Housing	Tobacco Use	Affordable Housing	Obesity

Individuals with higher education level (Some college, undergraduate degree, postgraduate /professional degree)	Obesity	Drug Use	Affordable Housing	Alcohol Use	Tobacco Use

Short Survey Results:

Introduction:

A short 5 question survey was developed to distribute throughout the county for additional qualitative data. Data collection occurred from July 1, 2014 through February 1, 2015. A total of 1,002 surveys were completed throughout the community. Particular emphasis was given to the collection of data among the county's vulnerable populations including the medically underserved, the homeless, the geographically isolated, and the elderly and young adults. Ongoing survey collection was conducted at the Charles County Department of Health's Nursing, Substance Abuse, and Mental Health clinics; the University of Maryland Charles Regional Medical Center's Waiting Rooms and Cardiac Rehabilitation Program; the Center for Children; Health Partners Inc; the Western County Family Medical Center; and Cambridge Pediatrics. The community was also surveyed at large events such as Mission of Mercy, Charles County Homeless Resource Day, the Charles County Fair, College of Southern Maryland Health and Wellness Fair, Lifestyles Food Distribution Days, Nanjemoy Back to School Fair, Nanjemoy National Night Out, and Nanjemoy Heritage Days.

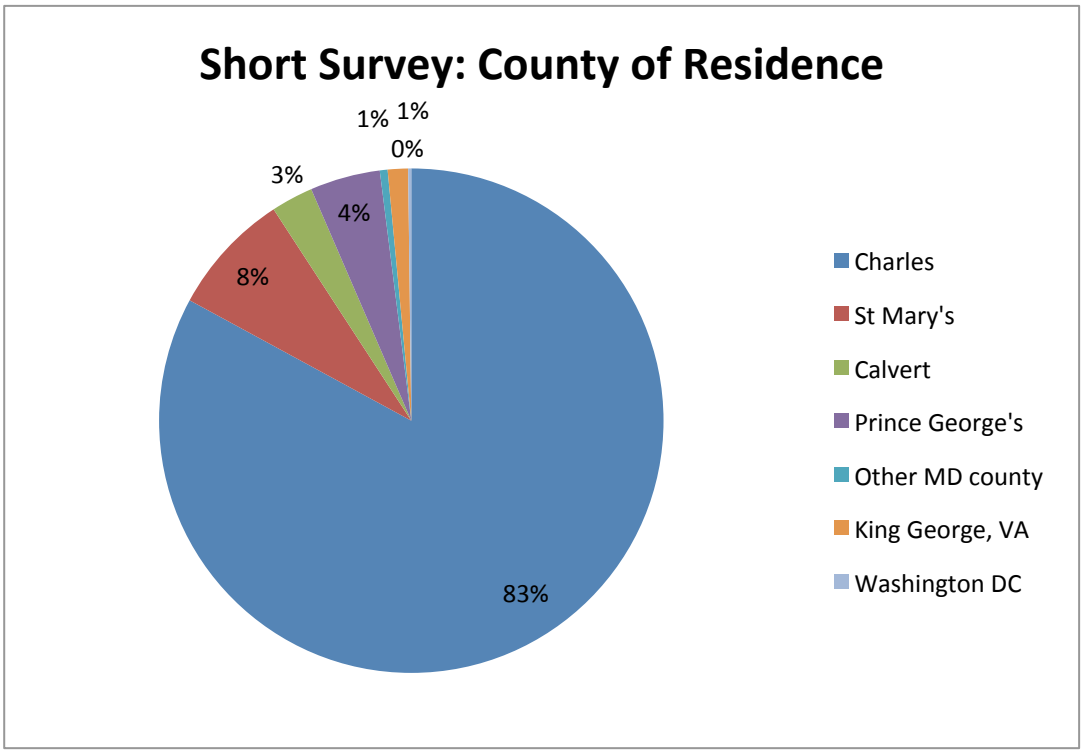
The results of all the surveys combined are presented below.

All accumulated surveys:

Question 1: County of residence

The majority of the short survey respondents were residents of Charles County (83%). There were individuals from Calvert, St Mary's, and Prince George's Counties and individuals from King George, Virginia and Washington DC. Their answers were included since individuals may work, spend time, or access medical care in Charles County.

County of residence	Count
Charles County	83
St Mary's County	79
Calvert County	27
Prince George's County	45
Other Maryland County	5
King George County, Virginia	13
District of Columbia	2



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

Almost half of the respondents (48%) felt that overweight and obesity are a big 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 Alcohol and Drug Use (45%).

Other health conditions that ranked high as major health problems include: smoking/tobacco use (43%), diabetes (40%), and cancer (37%).

Issues that participants rarely reported as significant health problems included injuries (6%), asthma (14%), and traffic accidents and highway safety (15%).

Biggest Health Problems:	**Response Count**	**Response Percent**
Access to care/no health insurance	241	24%
Alcohol and Drug Use	451	45%
Asthma/ Lung Diseases	145	14%
Cancer	370	37%
Dental Health	265	26%
Diabetes	404	40%
High Blood Pressure/Stroke	349	35%
Heart Disease	294	29%
Injuries	56	6%
Mental Health	266	27%
Other	32	

Overweight/Obesity	481	48%
Tobacco/Smoking	435	43%
Traffic Accidents/Highway Safety	154	15%

Many of the other write-ins focused on sexually transmitted infections, HIV/AIDS, and sexual health. Other health issues included: maternal and child health; the health needs of the homeless population; and aging conditions such as dementia.

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 (50%) and care is too expensive/can't afford it (57%). Under "Other", several people explained that they do not have dental or vision insurance to cover those needed services, high deductibles/co-pays, services were not covered by their insurance, and language barriers.

Barriers to getting health care:	**Response Count**	**Response Percent**
Couldn't get an appointment with my doctor	113	11%
Doctor is too far away from my home	97	9%
Local doctors are not on insurance plan	254	25%
No health insurance	498	49%
No transportation	235	23%
Service is not available in my own county	102	10%
Too expensive/Can't afford it	573	57%
Other	54	5%

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 experienced doctors: faster access, recruitment to the county, particularly specialists
- Health insurance: availability and acceptance by local physicians
- Lower cost of health services
- Eating healthier
- Exercising more
- More free or low cost health education programs on managing and preventing chronic disease
- More advertisement of programs within county
- Transportation to medical services (gas vouchers, VanGo passes)

- More public awareness and prevention education
- Free or low cost medical and dental clinics like Mission of Mercy
- More urgent care centers
- More mental health resources and providers
- Decrease youth access to drugs and alcohol
- Mobile services for dental and medical in schools and in low income communities

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

Responses varied for every health conditions 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.

The greatest number of respondents believes that there are many services available in Charles County in regards to access to health care for children and adults. This was followed closely by services for high blood pressure.

Respondents were given the option of "some services available" in Charles County to address this issue. Dental health received the greatest number of responses for some services available. The second most common answer was drug and alcohol use.

Access to care in rural Charles County received the greatest number of responses in the "No services available" category. This topic also received the lowest number of responses in the "many services available" category. It can therefore be assumed that people do not perceive there to be adequate levels of medical care in the rural regions of the county.

Resource Availability:	**Many services available**	**Some services available**	**No services available**	**I don't know**	**Blank**
Heart Disease	151	229	23	356	214
Cancer	147	253	27	329	217
Diabetes	194	257	23	280	219
Asthma	171	230	25	305	242
Smoking/Tobacco Use	197	266	29	282	230
Drugs and Alcohol Use	198	301	28	221	222
Stroke	142	206	27	356	246
High Blood Pressure	227	229	24	270	223
Traffic/Highway Safety	159	177	51	326	260

Overweight/Obesity	155	223	55	300	240
Access to care for children and adults	236	281	17	202	237
Mental Health	138	281	54	268	232
Dental Health	209	313	56	179	216
Access to care in rural Charles County	100	265	62	309	237
Access to needed prescriptions	187	275	42	232	237

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 young adult population was surveyed at the Charles County Fair and the College of Southern Maryland Health and Wellness Fair. The medically underserved population was surveyed at the Charles County Department of Health clinics, Health Partners Inc (free health clinic), Mission of Mercy (free dental health event), Homeless Resource Day, Lifestyles, and Center for Children (children's mental health). The elderly were surveyed at the morning session of the College of Southern Maryland's Health and Wellness Fair and the University of Maryland Charles Regional Medical Center Cardiac Rehabilitation Program. The western and rural region of the county was surveyed at the Western County Family Medical Center, Nanjemoy Back to School Fair, National Night Out, and Nanjemoy Heritage Days. Families were surveyed at the hospital, health department, Center for Children, the Charles County Fair, Cambridge Pediatrics, and the University of Maryland Charles Regional Medical Center. Surveys were also available in Spanish and made available at the health department, Mission of Mercy, and Health Partners. Ten surveys were completed in Spanish.

Location of Data Collection:	**Count**
Mission of Mercy	210
Charles County Department of Health Substance Abuse and Mental Health Clinics	16
Western County Family Medical Center	48
Charles County Department of Health Nursing, Dental, and WIC Clinics	213
University of Maryland Charles Regional Medical Center Waiting Rooms and Cardiac Rehabilitation Program	52
Health Partners Inc.	97
College of Southern Maryland Health and	114

Wellness Fair	
Lifestyles of Maryland	16
Charles County Fair	92
Cambridge Pediatrics	19
Nanjemoy Community Events	95
Center for Children	30

Conclusions of Short Survey Analysis:

Overweight and Obesity, as well as Drug and Alcohol Use, are perceived as the most significant health issues facing Charles County.

The most commonly cited barriers to needed health care was lack of health insurance (50%) and care is too expensive/can't afford it (57%).

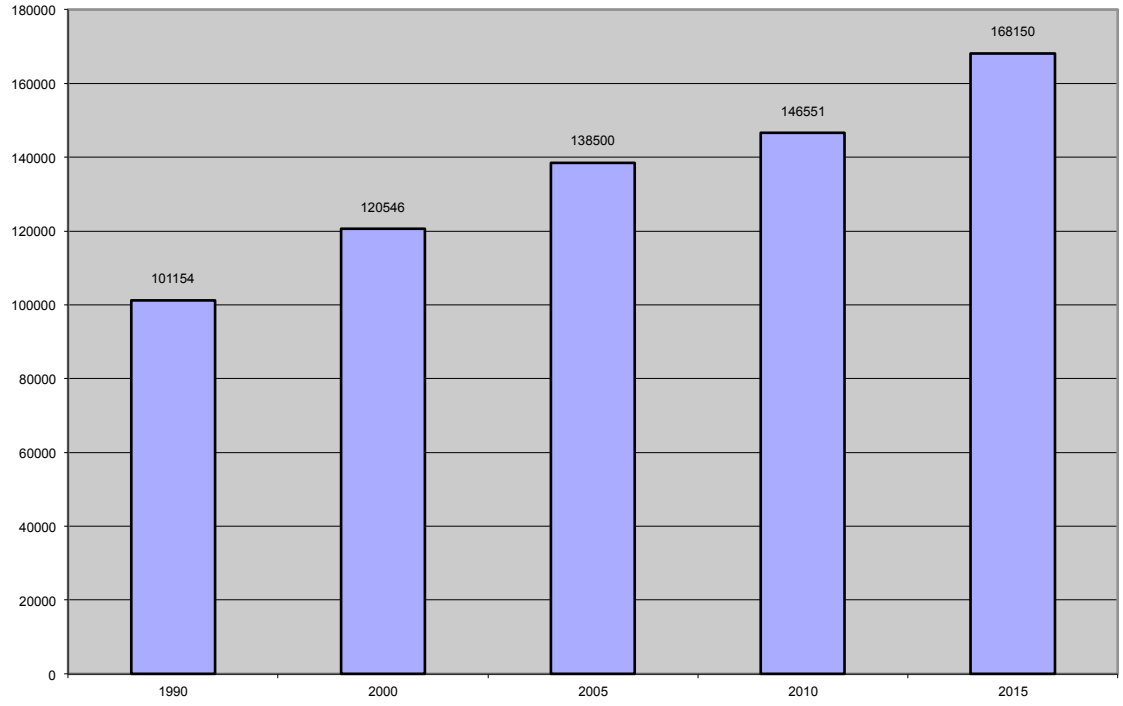
Charles County residents perceive access to care in the rural regions of the county as a barrier to care. Many respondents felt that there were no services available in these regions.

Many of the suggestions and ideas presented by survey respondents focused around the availability of low-cost or free health and dental services, 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, which are part of the Washington, DC-MD-VA metropolitan area. At 458 square miles, Charles County is the eighth largest of Maryland's twenty-four counties and accounts for about 5 percent 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 percent of 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.

Charles County Census and Population Estimates 1990-2015



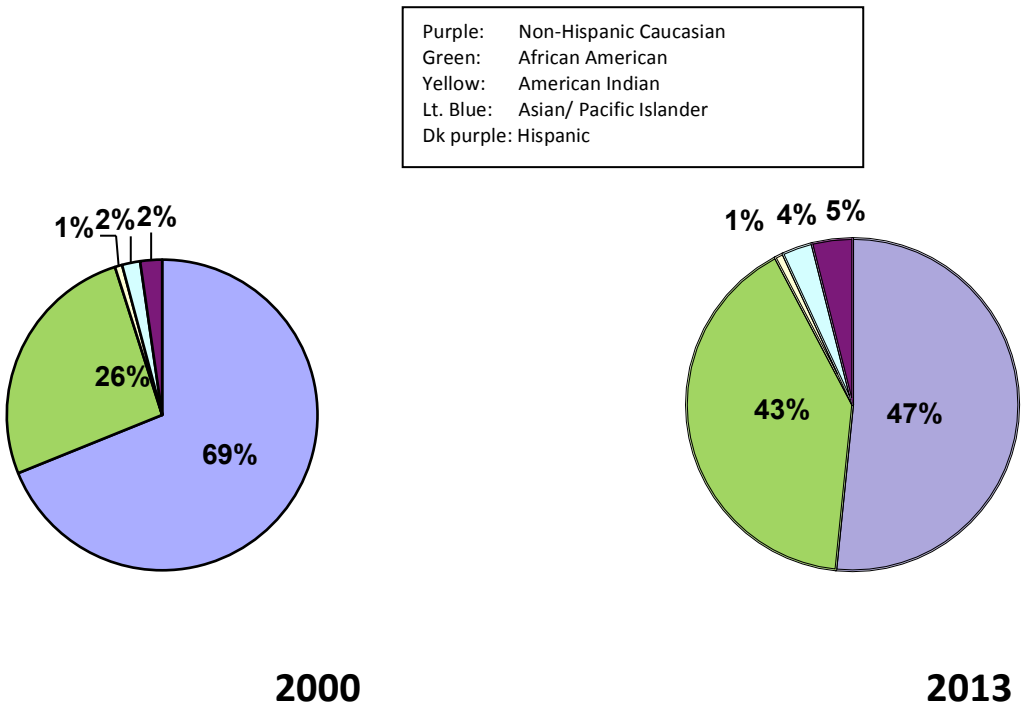
Source: US Census Bureau. Maryland and Charles County Fact Sheets.

The 2013 Charles County population estimate was 152,864. 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. Charles County has continued to see population growth since the 2010 census, an increase of 22.5%. The percent change in

the population growth for Charles County from 2010 to 2013 was greater than the change seen in the Maryland state population growth (4.3% vs. 2.7%).

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 2013, they comprise 43.1% of the total county population. As of 2013, minorities make up roughly 54.3% of the Charles County population. The Hispanic community has also seen increases over the past few years. They now comprise 5.0% of the total county population. This is the 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 0.7% of the total county population.

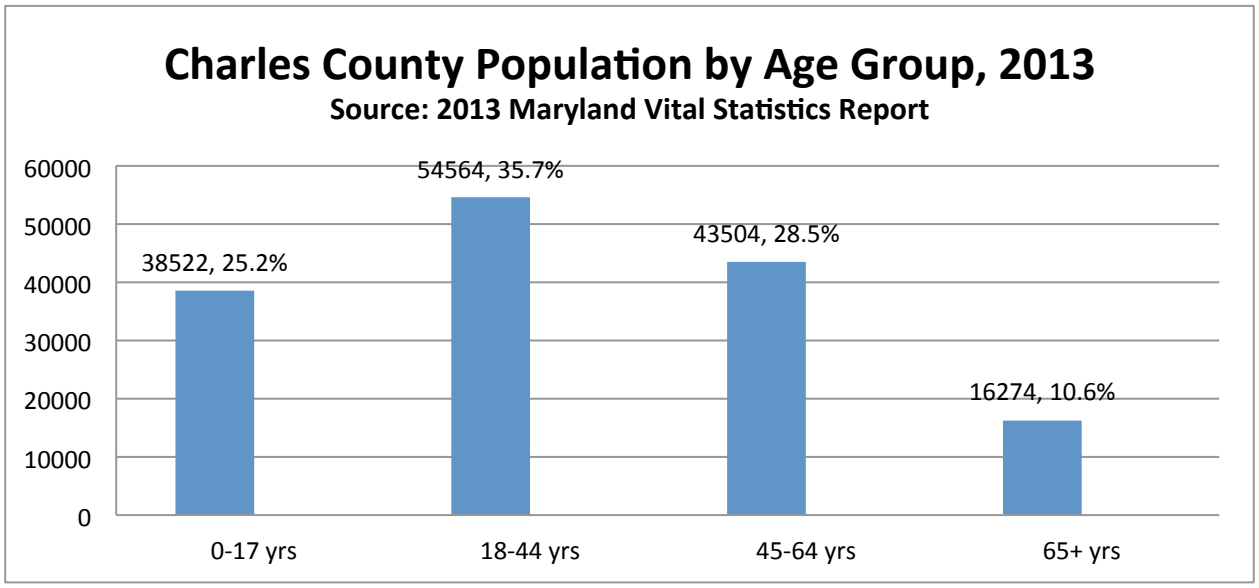
Race of Charles County Population, 2000 versus 2013



Source: US Census Bureau; Charles County Quick Facts; 2013

The 2013 Charles County gender breakdown is approximately 50/50. Males make up 48.3% of the population, and females make up 51.7% of the county population.

The age breakdown of the Charles County population shows a young population between the ages of 18-44 years (35.7%). The juvenile population (under 17 years) makes up 25.2% of the Charles County population. The 65+ age group has increased from 9% in 2010 to 10.6% in 2013.



Source: Maryland Department of Health and Mental Hygiene. 2013 MD Vital Statistics Report.

Employment and economic indicators for the county are fairly strong. The 2009-2013 US Census American Community Survey estimates found that 71.2% of the Charles County population is currently in the labor work force. The 2009-2013 5-year estimate for Charles County found that approximately 7.0% of Charles County individuals are living below the poverty level; however, this is lower than the Maryland rate of 9.8%. The Charles County median household income was $93,160, an increase of $4,335 over the 2010 estimates and still well above the Maryland median household income of $73,538. The diversity of the county is also represented in the business community with 29.3% of all Charles County businesses being Black-owned firms. This is higher than the State of Maryland at 19.3%.

Education

Charles County has a larger percentage of high school graduates than Maryland (91.2% vs. 88.7%); however, Charles County has a smaller percentage than Maryland of individuals with a bachelor's degree or higher (26.7% vs. 36.8%).

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 42.8 minutes which is higher than the Maryland average of 32.0 minutes. Public transportation consists of commuter bus for out-of- county travel and the county-run Van Go bus service for in-county transportation.

Housing

There is a high level of home ownership in Charles County (79.4%), however, this is slightly down from the 2010 level of 81.8%. The median value of a housing unit in Charles County is higher than the Maryland average ($297,900 vs. $292,700). Home values across Maryland have decreased and Charles County showed a similar downward trend as the state average. The average household size in Charles County is 2.88 persons.

Source: 2009-2013 US Census Bureau's American Community Survey 5 year estimates

Social, Economic, and Housing Factors:	**Charles County**	**Maryland**
Living in same house 1 year ago, pct 1 yr old & over, 2009-2013	90.2%	86.7%
Foreign born persons, percent, 2009-2013	5.6%	14.0%
Language other than English spoken at home, pct age 5+, 2009-2013	7.2%	16.7%
High school graduates, percent of persons age 25+, 2009-2013	91.2%	88.7%
Bachelor's degree or higher, pct of persons age 25+, 2009-2013	26.7%	36.8%
Veterans, 2009-2013	15,764	427,068
Currently in labor force, 16+ years, 2009-2013	71.2%	69.2%
Mean travel time to work (minutes), workers age 16+, 2009-2013	42.8	32.0
Housing units, 2013	56,769	2,404,012
Homeownership rate, 2009-2013	79.4%	67.6%
Housing units in multi-unit structures, percent, 2009-2013	9.2%	25.5%
Median value of owner-occupied housing units, 2009-2013	$297,900	$292,700
Households, 2009-2013	51,247	2,146,240
Persons per household, 2009-2013	2.88	2.65
Per capita money income in past 12 months (2009 dollars) 2009-2013	$37,277	$36,354
Median household income, 2013	$96,160	$73,538
Persons below poverty level, percent, 2013	7.0%	9.8%

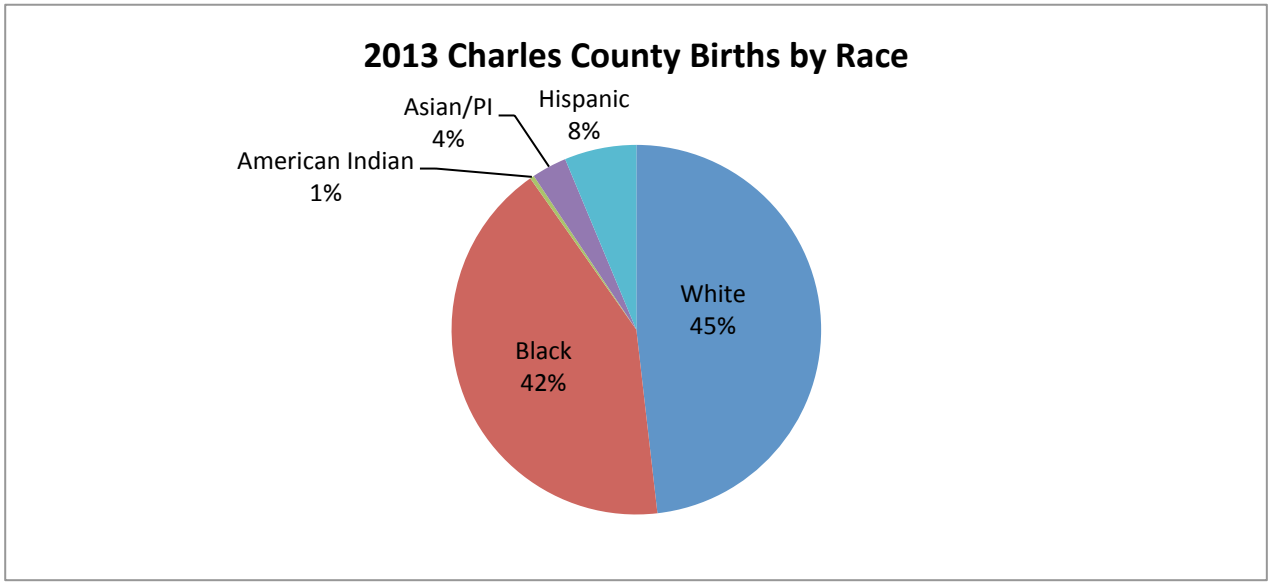
Source: 2009-2013 US Census Bureau, American Community Survey 5 year estimates, Charles County and Maryland

The life expectancy from birth for a Charles County resident as calculated for 2013 was 78.7 years. This is slightly lower than the state average life expectancy of 79.6 years. The 2013 life expectancy for Charles County Whites was 78.7 years. The 2013 life expectancy for Charles County African Americans was 78.2 years.

Births:

There were 1,803 births in Charles County in 2013. Charles County represents 44% of the births in Southern Maryland and 2.5% of the total births in Maryland for 2013.

Minorities made up over half of the babies born in Charles County in 2013 (55%).



Source: 2013 Maryland Vital Statistics Report

In Charles County, birth rates were highest among the Hispanic population at 19.9 per 1000 county population, compared to 12.3 for Blacks and 10.4 for Whites.

For all Charles County births and for Charles County White and Hispanic births, the most common age group for the mother was between 25-29 years. For Charles County Blacks, the most common age of the mother was 20-24 years. In 2013, there were 2 mothers less than 15 years and none greater than 49 years.

The birth rate for Charles County mothers aged 25-29 was 112.9. This is higher than the general fertility rate of 56.4 total births per 1000 Charles County women aged 15-44 years. It is also higher than any other age group in Charles County.

2013 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	1803	2	29	81	435	524	453	213	61	5	0	0
White	745	1	2	21	170	240	204	84	22	1	0	0
Black	821	1	25	54	218	208	184	102	26	3	0	0
Hispanic	152	0	2	5	37	48	40	12	7	1	0	0

Almost half of the babies born in Charles County in 2013 were the first birth order (42.7%). Only a small percentage was the fifth or greater (5.0%).

Birth Order	1st	2nd	3rd	4th	5 or more	Not stated	Total
Charles County	769 (42.7%)	551 (30.6%)	280 (15.5%)	112 (6.2%)	91 (5.0%)	0	1803

Births to unmarried mothers were highest among the Black population in Charles County, with 60% of the total births for that population to unwed mothers. The percentage of unmarried mothers was lowest among Asian or Pacific Islanders in Charles County (16.9%). The percentage was also high among the Charles County Hispanic population (45.5%).

Unmarried Mothers	All races	White	Black	Asian/PI	Hispanic
Charles County	815 (45.2%)	229 (30.7%)	493 (60%)	19 (25.3%)	70 (46%)

The percentage of women in Charles County receiving first trimester prenatal care was 64.9%, which is slightly higher than the Maryland state average percentage of 61.9%.

In Charles County, the Hispanic mothers received the least amount of first trimester prenatal care (55.9%). The African American population also reported that only 59.2% received first trimester prenatal care. The highest percentage of women receiving first trimester prenatal care was seen in the White population (73.3%).

Receiving 1st Trimester Prenatal Care 2013	All races	White	Black	Asian/PI	Hispanic
Charles County	1170 (64.9%)	745 (73.3%)	486 (59.2%)	50 (66.7%)	85 (55.9%)

In Charles County, Blacks reported the largest percentage of late or no prenatal care (15.6%). This was followed closely by the Hispanic mothers with 15.1% having late or no prenatal care.

Receiving late or no Prenatal Care 2013	All races	White	Black	Asian/PI	Hispanic
Charles County	226 (12.5%)	64 (8.6%)	128 (15.6%)	9 (12%)	23 (15.1%)

Low birth weight means that a baby is born weighing less than 2,400 grams. Low birth weights were most commonly seen among the Asian/Pacific Islander population in Charles County (12.0%). There is also a large disparity between the percentage of low birth weights among Charles County Asians and Maryland Asians (12.0% vs. 8.1%). Low birth weights were also seen among the African American population in Charles County (10.4%).

Low Birth Weight	All races	White	Black	Asian/PI	Hispanic
Charles County	145 (8.0%)	45 (6.0%)	85 (10.4%)	9 (12.0%)	6 (3.9%)
Maryland	6080 (8.5%)	2129 (6.6%)	2795 (12.0%)	424 (8.1%)	707 (6.7%)

Very low birth weight is defined as a baby weighing less than 1,499 grams at birth. For Charles County, the largest percentage of very low birth weight babies is among the Black population (2.1%). This is also true for Maryland Blacks; however, the percentage for Charles County is slightly less than Maryland (2.1% vs. 2.8%).

Very Low Birth Weight	All races	White	Black	Asian/PI	Hispanic
Charles County	26 (1.4%)	7 (0.9%)	17 (2.1%)	0	2
Maryland	1181 (1.6%)	331 (1.0%)	661 (2.8%)	65 (1.2%)	117 (1.1%)

The percentage of births leading in cesarean section in Charles County in 2013 was 36.9%. The largest percentage was seen among Charles County Blacks with 41.8% of babies delivered by c-section. All Charles County percentages, overall and by race, are similar to state percentages.

Cesarean Section Delivery	All races	White	Black	Hispanic
Charles County	666 (36.9%)	272 (31.3%)	349 (41.8%)	49 (32.2%)
Maryland	25126 (35%)	13670 (32.4%)	9308 (39%)	3264 (31.1%)

In 2013, 1,601 out of 1,803 Charles County babies were born in the state of Maryland (88.8%). However, only 622 of those babies were born in Charles County (39%). This is much lower than the percentage for other surrounding jurisdictions.

Over half of Charles County babies (934 or 52%) were born in another Maryland county.

Place of Birth	All Births	State Total	MD Co. same as	MD Co other than	Baltimore City	DC	Other State

			residence	residence			
Charles County	1803	1601	622	934	45	109	93

Geographic and Demographic Profile References:

1. 2013 Charles County Current Population Survey Data. United States Census Bureau. Available at: www.census.gov.

2. 2010 and 2013 Maryland Vital Statistics Report. Charles County Demographic and Population Data. Maryland Department of Health and Mental Hygiene. Available at www.vsa.maryland.gov.

3. 2009-2013 US Census Bureau, American Community Survey 5 year estimates, Charles County and Maryland. Available at www.census.gov.

Qualitative Data Specific to the Geographic and Demographic Profile:

Charles County's changing racial composition was discussed at the focus groups. It was stressed that services must be tailored for specific minorities and ethnicities. For example, providers must be culturally competent on how to deliver health information to an increasing Hispanic population. Information must be provided in their language and at their literacy level. Issues of health literacy were raised at many of the focus groups including the minority focused and the medically underserved.

The school nurses also expressed their concern over the growing Hispanic population in the schools. The parents do not speak English, and communication is difficult.

Many focus group participants spoke out about the many programs within the county that are aimed at providing services and supporting minorities within the county, including the Black Leadership Council for Excellence, the Bel Alton Community Development Center, the Charles County Chapter of the National Association for the Advancement of Colored Persons (NAACP), the Western County Family Medical Center, and the Charles County Minority Infant Mortality Reduction Program.

Most focus groups discussed the commuter population in Charles County. Due to its proximity to Washington, DC and Baltimore, many individuals who live in the county have long daily commutes for work. Many of the focus group 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.

Homelessness was an important issue discussed at the focus groups. The schools are seeing many more homeless families. They must help those children get to school and received the necessary health services that they need. Most do not have dental care or immunizations. They also have challenges with their transportation and communication.

Individuals over the age of 65 years make up 10.6% of the total Charles County population, and this percentage will continue to grow over the next decade as baby boomers aged 45-64 years (currently 28% of the county population) move into the older age category. Many focus group participants talked about the need for education regarding emerging health topics of the aging including dementia, Alzheimer's disease, arthritis, Diabetes, cancer, and diseases of the heart. An issue raised in many of the focus groups on chronic disease and aging was the need for a palliative care program in Charles County. There is a subset of the population who are suffering from terminal illness. However, they have not yet reached the point where they are in need of hospice services. They are still able to function to a certain degree and are in need of care to help them manage their chronic conditions and pain.

Charles County Vital Statistics Profile:

Marriage and Divorce:

A total of 938 marriage ceremonies were conducted in Charles County in 2013. Most of those marriages were to be Maryland residents (747). Most of the marriages were civil ceremonies (53.8%).

	Total Marriages	**Maryland Residents***	**Non-MD Residents**	**% to non-MD residents**	**Religious Ceremony**	**Civil Ceremony**	**% Civil Ceremonies**
Charles County	938	747	191	20.4%	173	765	81.6%

*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 2013, there were 62 divorces or annulments in Charles County. No additional data is available on a county level.

Mortality:

Death Rates:

There were a total of 933 deaths in Charles County in 2013.

The 2011-2013 Charles County all-cause mortality rate was 751.6 per 100,000 population. This rate is higher than the Maryland state all-cause mortality rate of 708.3 per 100,000 population.

The number one cause of death for the time period 2013 was cancer and for the time period 2011-2013 was heart disease. Charles County had higher 2011-2013 mortality rates than Maryland for heart disease, cancer, chronic lower respiratory disease, accidents, Alzheimer's disease, suicide, and diabetes mellitus.

2011-2013 Ten Leading Causes of Death by Count and Rate, Charles County and Maryland

Cause of Death	Charles County Number, 2013	Charles County Rate 2011-2013*	Maryland Number, 2013	Maryland Rate 2011-2013*
All Causes	933	751.6	45444	708.3
Cancer	234	184.2	10545	163.8
Diseases of the Heart	221	184.7	11176	171.7
Accidents	45	34.4	1679	26.5

Chronic Lower Respiratory Diseases	40	33.6	2044	32.9
Cerebrovascular Diseases	34	34.1	2290	36.5
Diabetes mellitus	34	22.8	1242	19.6
Alzheimer's Disease	21	18.4	911	14.6
Influenza and Pneumonia	19	13.9	1093	16.6
Intentional Self Harm (Suicide)	18	11.2	561	9.0
Septicemia	16	13.7	955	14.1

*Per 100,000 population

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

All Cause Deaths by Race:

Two-thirds of the deaths in Charles County in 2013 were among the White population. They make up approximately half of the total county population.

2013 Charles County Deaths by Race:	**All Races**	**White**	**Black**	**Asian/PI**	**Hispanic**
Charles County	933	608	297	23	8

All Cause Deaths by Age:

The number of reported deaths increased with age. The greatest numbers of deaths were seen in the 85 years and older age group. This age group accounted for one-quarter of the total county deaths for 2013.

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+**
Charles County	933	14	3	3	15	23	31	80	136	198	194	236

In 2013, there were 23 deaths in Charles County for children and adolescents ages 1-19 years. Fourteen of those deaths were under the age of 1 year.

Child Deaths	**1-19 yrs**	**1-4 yrs**	**5-9 yrs**	**10-14 yrs**	**15-17 yrs**	**18-19 yrs**
Charles County	14	3	3	0	2	1

Adolescent Violent Deaths:

There were 2 violent deaths to adolescents in Charles County in 2013. Both were determined to be accidents.

Deaths from Selected Causes:

The number of deaths in Charles County for selected causes is presented below.

All Causes of Death	933
Tuberculosis	0
Septicemia	16
HIV Disease	1
Total Malignant Neoplasms	234
Malignant Neoplasms of Stomach	6
Malignant Neoplasms of Rectum, Colon, and Anus	22
Malignant Neoplasms of Pancreas	19
Malignant Neoplasms of Trachea, Bronchus, and Lung	52
Malignant Neoplasms of Breast	14
Malignant Neoplasms of Cervix, Uteri, Corpus Uteri, and Ovary	19
Malignant Neoplasms of Prostate	11
Malignant Neoplasms of Urinary Tract	18
Non-Hodgkin's Lymphoma	5
Leukemia	8
Other Malignant Neoplasms	60
Diabetes Mellitus	34
Alzheimer's Disease	21
Total Major Cardiovascular Diseases	282
Total Diseases of the Heart	221
Hypertensive Heart Disease	21
Ischemic Heart Disease	145
Other Diseases of the Heart	55
Essential Hypertension and Hypertensive Renal Disease	9
Cerebrovascular Diseases	34
Atherosclerosis	13
Other Diseases of the Circulatory System	5

Influenza and Pneumonia	19
Chronic Lower Respiratory Diseases	40
Peptic Ulcer	1
Chronic Liver Disease and Cirrhosis	6
Nephritis, Nephrotic Syndrome and Nephrosis	10
Pregnancy, Childbirth, and the Puerperium	0
Certain Conditions Originating in the Perinatal Period	9
Congenital Abnormalities	8
Sudden Infant Death Syndrome	1
Symptoms, Signs, and Abnormal Clinical and lab findings	6
All other Disease (residual)	165
Total Accidents	45
Motor Vehicle Accidents	21
All Other Accidents	24
Intentional Self Harm (Suicide)	18
Assault (Homicide)	8
All Other External Causes	9

Place of Death:

Over half of the deaths in Charles County occurred in a hospital or nursing home, regardless of race.

Deaths in Institutions	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 Nursing Homes: All Races	Number of Deaths Occurring in Nursing Homes: White	Number of Deaths Occurring in Nursing Homes: Black
Charles County	401	236	151	142	97	43

Deaths in Institutions	Percent of All Deaths Occurring in Hospitals and Nursing Homes: All Races	Percent of All Deaths Occurring in Hospitals and Nursing Homes: White	Percent of All Deaths Occurring in Hospitals and Nursing Homes: Black
Charles County	58.2%	54.8%	65.3%

Out of the 933 deaths to Charles County residents in 2013, 817 of those deaths occurred in Maryland (87.6%). In addition, 601 (64%) of the Charles County deaths occurred within Charles County.

Place of Death	All Deaths	Deaths within	Deaths within	Deaths within	Deaths within	Deaths with DC	Deaths in other

		Maryland	Charles County	another Maryland county	Baltimore City		states or countries
Charles County	933	817	601	165	51	90	26

Infant Mortality:

In 2013, there were 14 infant deaths in Charles County. The 2013 Charles County infant mortality rate was 7.8 per 1000 live births. This rate was slightly higher than the Maryland state average rate of 6.6 per 1000 live births.
Infant mortality rates for Charles County Whites and African Americans were similar. The Charles County White infant mortality rate was higher than the rate for Maryland Whites (8.1 vs. 4.6). The Charles County African American infant mortality rate was lower than the rate for Maryland African Americans (7.3 vs. 10.6).

2013 Data	Charles County Number	Charles County Rate	Maryland Number	Maryland Rate
Infant Mortality Rate (per 1000 live births)	14	7.8	474	6.6
Neonatal Mortality Rates (per 1,000 births)	10	5.5	325	4.5
Postneonatal Mortality Rates (per 1,000 births)	4	**	149	2.1
Fetal death rates (per 1,000 total deliveries: live births and fetal deaths)	14	7.7	582	8.0
Perinatal Mortality Rates (per 1,000 fetal deaths)	17	9.4	488	6.8

**Rates based on less than 5 events are not presented since such rates are not stable.

2013 Charles County Infant and Fetal Death Rates and Counts	Total Count(rate per 1000 live births)	White	Black	Hispanic
Infant Mortality	14 (7.8)	7 (8.1)	6 (7.3)	1

Neonatal Mortality	10 (5.5)	5 (5.7)	5 (6.0)	0
Postneonatal Mortality	4	2	1	1
Fetal Mortality	14 (7.7)	4	9	0
Perinatal Mortality	17 (9.4)	5 (5.7)	11 (13)	0

Mortality Rates per 1000 live births are presented in parentheses when available. Rates could not be calculated for cells with fewer than 5 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.
Postneonatal 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. 2013 Charles County Marriage, Divorce, Mortality and Infant Mortality Statistics. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at www.vsa.maryland.gov.

Qualitative Data Relating to Vital Statistics:

Infant Mortality was listed as a major health concern at all focus groups within the county. Many improvements have been made to decrease the county's infant mortality rates through collaborative county programs. The Charles County Minority Infant Mortality Reduction Program was cited as strength in Charles County. The efforts of this group in conjunction with the Charles County Fetal and Infant Mortality Review Board have made significant progress in reducing the burden of infant mortality in the minority population.

Discussions at the minority health focus group were targeted on cancer mortality, particularly among the under and uninsured populations. This is of concern since cancer is now the leading cause of death in Charles County. The Partnerships for a Healthier Charles County's Cancer Team is devoted to developing new and innovative programs to educate on the need for cancer screening and evaluation, particularly for lung, prostate, breast, and colorectal cancer mortality.

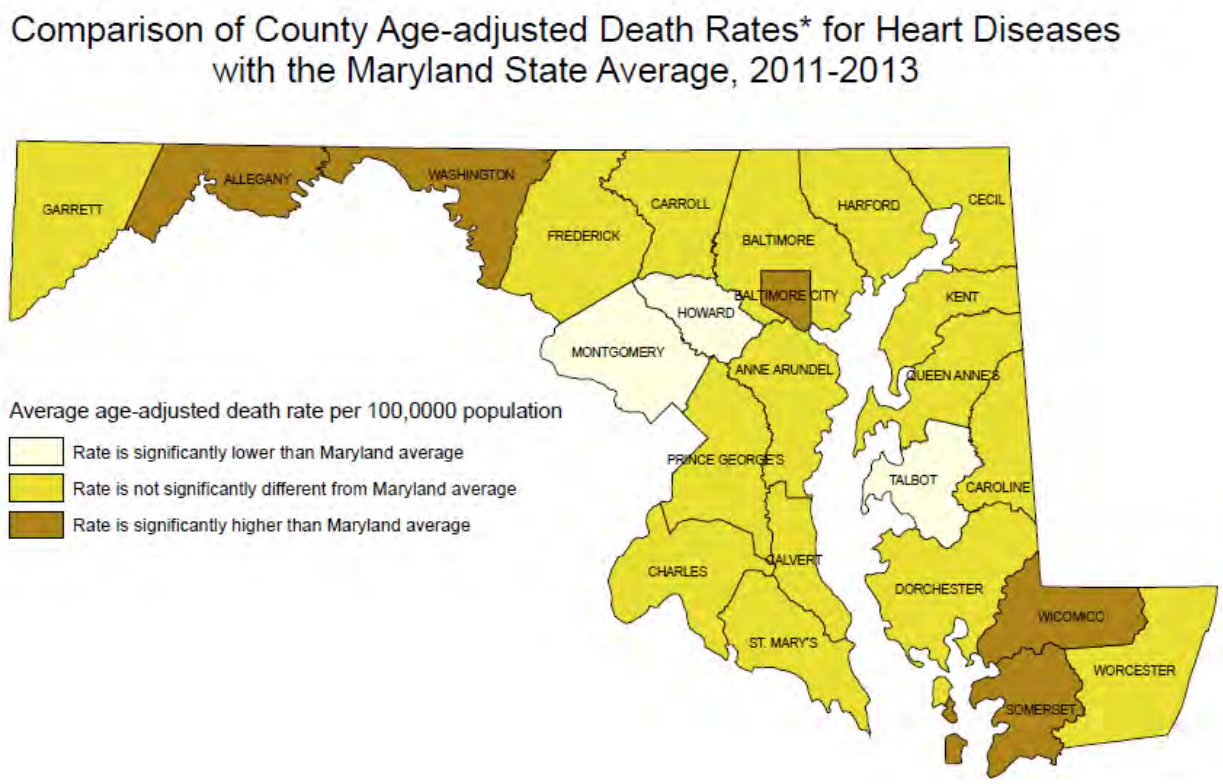
The Burden of Heart Disease, Stroke, and Their Risk Factors:

Heart Disease:

Mortality:

Heart disease is the second leading cause of death in Charles County. In 2013, a total of 282 Charles County residents died from major cardiovascular diseases and 221 of those deaths were from heart disease (78%). This constitutes a 2013 Charles County crude heart disease death rate of 144.6 per 100,000. Deaths due to heart disease made up 23.7% of the total Charles County deaths in 2013.

The 2011-2013 (3 year average) Charles County age-adjusted heart disease death rate was 184.7 per 100,000. This was the highest rate for any cause of death in Charles County. The Charles County heart disease death rate is also higher than the Maryland state average rate of 171.7 per 100,000. However, this difference is not statistically significant. The 2011-2013 Charles County heart disease mortality rate is a steady decrease from the 2007-2009 Charles County heart disease mortality rate of 228.5.



2013 deaths due to heart disease are divided evenly among males and females. The even gender breakdown is true for overall heart disease deaths, as well as for Caucasians, African Americans, and Asian/Pacific Islanders.

Heart Disease Deaths by Gender: 2013	*Males*	*Females*
Charles County	113	108

Caucasians make up 64% of Charles County heart disease deaths (2013). African Americans make up approximately one-third of the heart disease deaths (33%). Race and gender-specific death rates are not calculated on a county level yearly; numbers are not large enough to produce stable rates.

Charles County Heart Disease Deaths by Race and Gender: 2013	*Number of Heart Disease Deaths in Charles County*
White	142
Black	72
Asian/PI	5
White Male	72
White Female	70
Black Male	36
Black Female	36
Asian/PI Male	3
Asian/PI Female	2

Racial disparities are evident on a county level. The 2010-2012 Charles County African American heart disease mortality rate was 195.1 vs. 184.0 for Charles County Caucasians.

2006-2010 Heart Disease Mortality Rate by zip code:

2006-2010 combined data on heart disease mortality from the Maryland Vital Statistics Report was used for this comparison. Heart disease mortality rates for both 20640 Indian Head and 20616 Bryans Road were in the second highest category with a range of 211.9-244.4 and were above the Maryland state average rate.

Zip Code	Total 2006-2010 Heart Disease Mortality Rate per 100,000	Category among other Maryland zip codes	Above the Maryland state average rate
Indian Head 20640	232.3	2nd highest	Above the MD State average rate
Bryans Road 20616	243.4	2nd highest	Above the MD State average rate

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. 2013 BRFSS data is available with weighted responses for the Charles County population.

Heart Attack Prevalence:

2013 Charles County BRFSS participants were asked if they have ever had a heart attack. Once weighted, it is estimated that 3.7% of Charles County residents have ever suffered a heart attack. This is similar to the 3.8% reported for Maryland.

Ever had a heart attack:	*# (weighted percentage)*
Charles County	26 (3.7%)
Maryland	709 (3.8%)

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, 3.6% of Charles County residents reported having angina or coronary heart disease. This is again slightly higher than the 3.3% reported for Maryland.

Ever have angina or coronary heart disease:	*# (weighted percentage)*
Charles County	23 (3.6%)
Maryland	672 (3.3%)

Congestive Heart Failure Hospitalizations and Emergency Department Rates:

2009-2011 average hospitalization and emergency department visit rates for congestive heart failure (CHF)were calculated by zip code. All rates were calculated per 1000 residents. Only zip codes with populations greater than 5000 can be included in the analysis. The data was collected from the Maryland Health Services Cost Review Commission and analyzed by the Maryland Virtual Data Unit. The 2009-2011 Charles County CHF inpatient hospitalization rate was 8.1 per 1000 residents. The 2009-2011 Charles County CHF outpatient hospitalization rate was 1.3 per 1000 residents.

The zip code with the highest congestive heart failure hospitalization rate was 20646 or La Plata. The zip code with the highest congestive heart failure emergency department visit rate was 20640 or Indian Head.

The greatest number of congestive heart failure in-patient hospitalizations and outpatient ED visits occur among residents from Waldorf (20601, 20602, or 20603). Residents of La Plata are a close second in the number of CHF hospitalizations and ED visits for 2009-2011.

2009-2011 Charles County CHF Hospitalization	CHF Hospitalization (inpatient) Count	CHF Hospitalization (Inpatient) Rate	CHF ED (outpatient) Count	CHF ED (Outpatient) Rate per 1000 residents

and ED Visit Rates		per 1000 residents		
20601	126	7.1	20	1.1
20602	195	11.0	25	1.4
20603	87	4.3	15	**
20616	42	9.9	16	**
20617	17	**	*	**
20637	32	7.7	*	**
20640	82	10.7	20	2.6
20646	185	12.7	28	1.9
20695	51	10.1	*	**
Total	817	8.1	135	1.3

* Cell sizes equal to or less than 6 must be suppressed due to confidentiality.

** Rates for less than 20 are not calculated due to instability.

Stroke:

Mortality:

Stroke, or Cerebrovascular disease, is the 5th leading cause of death in Charles County. In 2013, a total of 34 Charles County residents died from a stroke. This constitutes a 2013 Charles County crude stroke death rate of 22.2 per 100,000. Deaths due to stroke made up 4% of the total Charles County deaths in 2009.

The 2011-2013 (3 year average) Charles County age-adjusted stroke death rate was 34.1 per 100,000. This was the 4th highest rate among causes of death in Charles County. The Charles County stroke death rate is comparable to the Maryland state average rate of 36.5 per 100,000.

2013 deaths due to stroke are divided evenly among males and females. The even gender breakdown is true for overall heart disease deaths, as well as African Americans. Stroke deaths occurred more often in White males than White females.

Stroke Deaths by Gender: 2013	*Males*	*Females*
Charles County	19	15

Caucasians make up 53% of Charles County stroke deaths (2013). African Americans make up the remaining half of the stroke deaths (44%). Race and gender-specific death rates are not calculated on a county level; numbers are not large enough to produce stable rates.

Stroke Deaths by Race and Gender: 2013	*Number of Stroke Deaths*
White	18
Black	15
Asian/PI	1
White Male	12
White Female	6
Black Male	7
Black Female	8

Prevalence:

Estimates on the prevalence of stroke in Charles County can be calculated using the Maryland Behavioral Risk Factor Surveillance System or BRFSS. 2013 BRFSS weighted estimates were used for this analysis.

2013 Charles County BRFSS participants were asked if they have ever had a stroke. It is estimated that 5.1% of Charles County residents have ever suffered a stroke. This is higher than the 3.0% reported for Maryland for the same time period.

Ever had a stroke:	*# (weighted percentage)*
Charles County	29 (5.1%)
Maryland	547 (3.0%)

Hypertension or High Blood Pressure:

Mortality:

Hypertension, or high blood pressure, is the 12th leading cause of death in Charles County. In 2013, a total of 9 Charles County residents died from essential hypertension or hypertensive renal disease. Hypertension deaths make up 1.0% of the total deaths in Charles County (2009).

Five out of the 9 hypertension deaths in Charles County were male (56%), and seven out of the 12 hypertension deaths were African American (56%).

Prevalence:

Maryland 2013 BRFSS data was used to determine Charles County's hypertension prevalence estimates. All percentage estimates are weighted to reflect the county population.

The 2013 BRFSS asked participants if they have ever been told by a health professional that they have high blood pressure. 38.6% 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 33.6%.

Among those who have been diagnosed with high blood pressure, the majority are taking medications to control it. In Charles County, 86.7% reported taking medication for high blood pressure. This is slightly below the 80.4% of Marylanders who reported taking medication for their hypertension.

Emergency Department Visit Rates for Hypertension:

The 2013 Charles County Emergency Department (ED) Visit Rate for Hypertension was 308.1 per 100,000 population. This rate was higher than the Maryland ED hypertension visit rate of 264.8. The Charles County rate was the 7th highest hypertension ED visit rate among the Maryland jurisdictions. It was also a significant increase from the 2010 Charles County Hypertension ED visit rate of 242.9 per 100,000 population.

Disparities can be seen in the hypertension ED visit rate between Charles County Whites and Blacks. Non-Hispanic African Americans in Charles County had a 2013 hypertension ED visit rate of 458.1 per 100,000 population. This was more than double the rate seen among Charles County Non-Hispanic Whites (221.9).

Heart Disease/Stroke/Hypertension References:

1. 2013 Charles County Heart Disease, Stroke, and Hypertension Mortality Rates, Overall and by gender and race. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at: http://vsa.maryland.gov.

2. 2013 Charles County Heart Disease, Heart Attack, and Stroke Prevalence. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at www.marylandbrfss.org.

3. 2009-2011 Charles County Congestive Heart Failure Hospitalizations and Emergency Department Visit Rates per 1000 residents and counts. Maryland Health Services Cost Review Commission. Accessed by request through the Maryland Virtual Data Unit.

4. 2007-2009 Charles County Hypertension Prevalence and Management. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at www.marylandbrfss.org.

2010 and 2013 Charles County and Maryland Hypertension Emergency Department Visit Rates by race. Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

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. The majority of the participants (64%) viewed high blood pressure as a health problem in the county. Approximately one-third of the participants (32%) listed high blood pressure as a "serious problem." On the same listing, heart disease was listed as a health problem by 59.4% of the survey participants. One quarter of the participants (25%) felt that heart disease was a serious problem in the county. Stroke was listed as a health problem by 56% of the respondents. 21% 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. 13.6% reported that they have seen improvements in the county regarding heart disease, 12.4% reported that they have seen improvements in the county regarding high blood pressure, and 9.7% 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 11.6% reported that they always eat 5 or more servings of fruits and vegetables each day; 15% always get an hour of physical activity each day; 37% take a vitamin each day, and 4.6% never feel stressed out.

Short survey participants were asked what the biggest health problems are in Charles County. High blood pressure/stroke was the sixth most commonly answered health topics on the short survey with 349 listed it as the biggest health problem. 294 people felt that heart disease was the biggest health problem in Charles County (seventh overall).

Short survey respondents recognized community resources to address heart disease, stroke, and high blood pressure. 39% reported that the county had some or many resources for heart disease. 35% reported that the county had some or many resources to address stroke. 47% felt that the county had some or many resources for high blood pressure.

Heart disease, stroke, and high blood pressure were mentioned as perceived health problems within the county. Many of the county focus groups discussed the overarching goal of chronic disease self management. The Partnerships for a Healthier Charles County's Chronic Disease Prevention Team has developed and executed many programs within the county to educate residents on the identification and self monitoring of chronic conditions. The county has also worked diligently to execute the Maryland Million Hearts Initiatives which include managing blood pressure.

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

Introduction:

2013 Maryland Vital Statistics Report:

Cancer is the leading cause of death in Charles County. In 2013, a total of 234 deaths occurred in Charles County from cancer. Males and females were equally affected by cancer, regardless of gender. A larger number of Caucasians died of cancer in 2011 than African Americans.

All Charles County cancer deaths	All race: males	All race: females	White: all	White: males	White: females	Black: all	Black: males	Black: females	Asian/Pacific Islander: all	Asian/PI: males	Asian/PI: Females
234	115	119	156	79	77	70	33	37	8	3	5

The 2013 Charles County all-cancer site crude death rate was 153.1 per 100,000 population. This rate is lower than the Maryland state average cancer death rate of 177.9 per 100,000. This rate is also a decrease from the 2011 Charles County all-cancer site crude death rate of 168.3 per 100,000.

The age-adjusted 2011-2013 Charles County all-cancer mortality rate was 184.2 per 100,000. This was slightly above the Maryland state average rate of 163.8 per 100,000. The Charles County 2011-2013 rate is above the state rate; however, it is a decrease from the 2009-2011 average rate of 191.7 per 100,000. Three year periods are often combined to increase sample size and therefore increase the validity of the mortality rates.

The greatest numbers of cancer deaths were from cancer of the lung, trachea, or bronchus (51) and other sites (69). Lung, trachea, and bronchus cancer accounted for one-fifth of all 2011 cancer deaths. This cancer site was followed by other cancer sites and colon/rectum/anus.

Charles County Deaths by Cancer Site:	Number of Deaths
Stomach	6
Colon/Rectum/Anus	22
Pancreas	19
Trachea, Lung, Bronchus	52
Breast	14
Cervix, Uteri, Ovary	19
Prostate	11
Urinary Tract	18
Non-Hodgkin's Lymphoma	5
Leukemia	8
Other	60

2014 Maryland DHMH Cigarette Restitution Fund Program's Cancer Reports:

Cancer incidence and mortality data for the time period 2007-2011 and for 2011 only are presented below. Data was extracted from the Cigarette Restitution Fund Program's 2014 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:

2011 Results:

For the year 2011, Charles County had a total of 628 new cases of cancer overall; this corresponds to a 2011 all site incidence rate of 436.3 per 100,000 population. Charles County had the 11th lowest all cancer site incidence rate among the 24 Maryland jurisdictions. This rate is lower than the US and Maryland average rates and the Calvert County rate; however, it is higher than the rate for St Mary's County.

When stratified by gender, the Charles County males have generally higher cancer incidence rates than Charles County females. The 2013 all cancer site incidence rate for Charles County males was 518.5 versus 379.5 for Charles County females.

When stratified by race, rates are similar for the White and African American populations in Charles County. The white all site incidence rate was 435.2, and the black all site incidence rate of 437.2. A reversed disparity can be seen in other Southern Maryland counties and Maryland where Caucasians experienced higher all cancer incidence rates.

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 similar incidence rate to the rate for Maryland males. Charles County Whites have a lower rate than Maryland Whites.

Number of New Cancer Cases for 2011: All Cancer Sites Combined

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	27,916	13857	14047	19381	7137	826
Charles County	628	329	298	400	201	12
Calvert County	442	219	222	373	59	S
St Mary's County	427	213	213	360	58	6

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

2011 All Cancer Site Incidence Rates (per 100,000 population)

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	440.7	489.9	407.3	444.1	437.7	260.6
Charles County	436.3	518.5	379.5	435.2	437.2	**
Calvert County	464.0	505.3	436.2	465.5	444.5	**
St Mary's County	408.3	424.3	395.0	411.9	402.0	**

** 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 690 Hispanic Marylanders were diagnosed with cancer in 2011; this corresponds to an all site incidence rate of 284.3 per 100,000 population. For the Southern Maryland region, there were 15 new cancer cases in the Hispanic population. Eleven cases were from Charles County.

2007-2011 Combined Results:

The 07-11 Charles County all site incidence rate was 427.3 per 100,000. This rate is less than the Maryland state average rate of 451.8 and the US average rate of 460.4. The Charles County rate is lower than the other Southern Maryland counties, with a Calvert County rate of 457.9 and a St Mary's County rate of 438.2. For this time period, Charles County has the 5th lowest all cancer site incidence rate among the 24 Maryland jurisdictions for this time period.

Disparities between the White and Black populations in Charles County are seen for the time period 2007-2011. The all site incidence rate for the white population was 413.4 which was lower than the black all site incidence rate of 447.1. The Asian/Pacific Islander all site incidence rate was much lower at 249.7 per 100,000.

Cancer still continues to disproportionately affect the male population. From 2007-2011, the Charles County all site incidence rate for males was 514.4 compared to 361.5 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 2nd lowest for that category among the 24 Maryland jurisdictions; the Charles County male all cause incidence rate is the 10th lowest in the state.

2007-2011 All Cancer Site Incidence Rates (per 100,000 population)

	Total	Male	Female	White	Black	Asian/PI
Maryland	451.8	513.2	409.1	454.2	446.1	256.2
Charles County	427.3	514.4	361.5	413.4	447.1	249.7
Calvert County	457.9	502.8	426.9	464.0	421.8	**
St Mary's	438.2	475.0	407.9	450.0	386.8	209.2

County						

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

All Cancer Sites Mortality:

2011 Results:

In 2011, there were 251 deaths in Charles County attributed to cancer. This constitutes a mortality rate of 191.8 per 100,000. Charles County had the 5th highest all sites mortality rate among the Maryland jurisdictions for 2011. This rate is higher than the Maryland state average rate of 165.7 and Calvert County rate but lower than the St Mary's county rate.

On a county level, Charles County African American experienced much higher all site mortality rates than Charles County Whites (168.8 for Whites and 257.0 for African Americans). A disparity is seen on a state level where African Americans have a higher all-site mortality rate than Whites and 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 2011 all site mortality rate for males was 213.5 compared to 175.6 for females in the county.

Number of Deaths in 2011: All Cancer Site Combined

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	10223	5214	5009	7112	2843	233
Charles County	251	122	129	148	99	<5
Calvert County	151	83	68	133	15	<5
St Mary's County	186	104	82	169	15	<5

<5= Case counts were suppressed to prevent disclosure of data in other cells.

2011 All Cancer Site Mortality Rates (per 100,000 population)

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	165.7	199.4	143.3	161.3	190.0	82.7
Charles County	191.8	213.5	175.6	168.8	257.0	**
Calvert County	169.4	234.3	132.4	175.6	**	**
St Mary's County	195.3	233.0	162.4	211.8	**	**

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

2007-2011 Results:

For the time period 2007-2011, the Charles County all cancer site mortality rate was 193.2 per 100,000. Charles County had the highest rate among the 3 Southern Maryland jurisdictions. The Charles County rate is greater than the Maryland state average rate (175.8 per 100,000). Charles County's rate is the eighth highest all site mortality rate among the Maryland jurisdictions. The Charles County rate falls between 10-25% above the United States national rate (168.7 per 100,000).

The 2007-2011 White all cancer sites mortality rate is lower than the Charles Black rate (186.1 vs. 224.2). The Charles County White all site mortality rate was higher than the Maryland White state average rate (186.1 vs. 172.0). The Charles County African American all site mortality rate was also higher than the state average rate for African Americans (224.2 vs. 201.0).

From 2007-2011, males were more likely to die from cancer than females. Charles County males had an all site mortality rate of 237.8 versus 163.9 for Charles County females. The Charles County rates for males and females were slightly higher than Maryland state average rates.

2007-2011 All Cancer Site Mortality Rates (per 100,000 population)

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	175.8	215.5	150.4	172.0	201.0	88.8
Charles County	193.2	237.8	163.9	186.1	224.2	**
Calvert County	181.0	224.2	154.7	183.0	180.3	**
St Mary's County	183.2	226.4	151.7	193.1	153.0	**

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

Lung/Bronchus Cancer Incidence:

2011 Results:

The 2011 Charles County lung cancer incidence rate was 56.9 per 100,000 population. This is the 15th lowest lung cancer incidence rate in the state of Maryland. The Charles County rate is similar to the Maryland state average rate of 56.8 per 100,000.

A comparison of county rates by race found that rates for Whites exceeded the rates of African Americans (63.7 vs. 50.2). If you compare White lung cancer incidence rates, Charles County has a higher rate than the Maryland state average rate (63.7 vs. 59.7). Charles County African Americans had a lower rate than the Maryland state average rate (50.2 vs. 53.4).

The incidence of lung cancer was also higher among men than women (62.0 vs. 53.4 in Charles County). Charles County men have a lower rate (62.0) than the Maryland state average rate of 64.1 for men.

Number of New Cases 2011: Lung Cancer

	Total	Male	Female	White	Black	Asian/PI
Maryland	3519	1742	1777	2610	821	73
Charles County	80	39	41	60	19	0
Calvert County	49	22	27	41	6	<6
St Mary's County	73	43	30	58	13	<6

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

2011 Lung Cancer Incidence Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	56.8	64.1	51.5	59.7	53.4	26.9
Charles County	56.9	62.0	53.4	63.7	50.2	**
Calvert County	53.2	54.2	50.9	54.2	**	**
St Mary's County	76.9	101.6	57.9	73.9	**	**

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

2007-2011 Results:

Between 2007-2011, the Charles County lung cancer incidence rate was 54.5 per 100,000 population. This rate is slightly lower than the Maryland state average rate (59.9), though the difference is not statistically significant. This rate is lower than the rates for the other Southern Maryland jurisdictions. It is also comparable to the United State average rate of 60.1 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 (49.8 vs. 56.6). The African American lung cancer incidence rate is lower than the Maryland state average rate (58.2). It is similar to the Calvert County rate and lower than the St Mary's County rate. The Charles County white lung cancer incidence rate is slightly lower than the Maryland state average rate (56.6 vs. 61.8) 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 (66.7 vs. 44.7). This difference is highly significant ($p<.05$). The rate among Charles County females was lower than the state; the rate among males was slightly lower than the state. The highest male lung cancer incidence rate in the Southern Maryland region was St Mary's County; the highest female lung cancer incidence rate in the Southern Maryland region was also St Mary's County.

2007-2011 Lung Cancer Incidence Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	59.9	69.9	52.8	61.8	58.2	28.9

Charles County	54.5	66.7	44.7	56.6	49.8	**
Calvert County	58.9	62.3	56.1	60.7	48.9	**
St Mary's County	69.7	85.1	57.1	71.0	65.5	**

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

Lung/Bronchus Cancer Mortality:

2011 Results:

In 2011, the lung cancer mortality rate in Charles County was 38.5 per 100,000, which is lower than the Maryland state average rate of 43.7 per 100,000. The Charles County 2011 lung cancer mortality rate was lower than the other 2 Southern Maryland counties' rates (50.2 for Calvert and 58.7 for St Mary's).

For all jurisdictions analyzed, the lung cancer mortality rate for men was greater than the rate for women. In Charles County, men were 1.5 times more likely to die from lung cancer in 2011 than women.

2011 lung cancer mortality rates for Whites and Blacks in Charles County was not available due to small case counts and data suppression. On a state level, rates for Whites and Blacks are similar (44.2 for Whites and 47.2 for Blacks).

Number of Lung Cancer Deaths, 2011

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	2685	1394	1291	1937	698	47
Charles County	51	28	23	32	19	0
Calvert County	47	22	25	44	<5	<5
St Mary's County	55	36	19	48	s	<5

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

Lung Cancer Mortality Rates, 2011

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	43.7	52.3	37.4	44.2	47.2	16.6
Charles County	38.5	46.4	31.8	35.8	**	**
Calvert County	50.2	57.3	47.2	55.0	**	**
St Mary's County	58.7	79.1	**	62.1	**	**

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

2007-2011 Results:

The Charles County 2007-2011 lung cancer mortality rate was 50.7 per 100,000. This rate is higher than the Maryland state average rate of 47.7, but the difference is not statistically significant. The Charles County rate is lower than the other 2 Southern Maryland counties: 51.2 in Calvert and 54.0 in St Mary's. The Charles County lung cancer mortality rate also falls 10-25% above the United State national rate of 46.0 per 100,000.

The Charles County lung cancer mortality rates stratified by gender were higher than the state rates. Charles County men were 1.53 times more likely to die from lung cancer from 2007-2011 than county women. Charles County's rate for men was higher than the state average rate (63.7 vs. 59.5).

When comparing rates by race, Whites in Charles County had a greater rate of lung cancer mortality than African Americans (54.3 vs. 43.5). 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, 2007-2011

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	47.7	59.5	39.4	48.9	49.0	19.2
Charles County	50.7	63.7	41.5	54.3	43.5	**
Calvert County	51.2	57.1	47.1	53.5	39.2	**
St Mary's County	54.0	64.0	44.6	57.0	45.5	**

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

Colon and Rectal Incidence:

2011 Results:

For 2011, Charles County had a colon and rectal cancer incidence rate of 41.6 per 100,000. This rate is higher than the Maryland state average rate of 37.3 per 100,000. Charles County is the highest among the Southern Maryland counties. Rates for Calvert and St Mary's Counties are below the state rate.

Charles County men are disproportionately affected by colon and rectal cancer incidence. The Charles County male colon and rectal cancer incidence rate for 2011 was 44.3 per 100,000, which is slightly higher than the Maryland state average rate for males at 42.6. The Charles County male rate is also higher than the Charles County female rate (44.3 vs. 37.6). Rate by gender are not available for Calvert and St Mary's Counties where case counts are less than 15.

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 rate is not available for Charles County African Americans.

Number of New Colon and Rectal Cancer Cases, 2011

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	2352	1187	1163	1603	632	632
Charles County	59	30	29	37	15	<6
Calvert County	24	14	10	19	<6	0
St Mary's County	32	18	14	27	<6	0

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

2011 Colon and Rectal Cancer Incidence Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	37.3	42.6	33.1	36.6	39.9	25.8
Charles County	41.6	44.3	37.6	40.9	**	**
Calvert County	26.6	**	**	24.9	**	0
St Mary's County	32.1	35.8	**	32.6	**	0

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

2007-2011 Results:

For the time period 2007-2011, Charles County had a colon and rectal cancer incidence rate higher than the Maryland state average rate and the other Southern Maryland counties. Charles County had a 2007-2011 Colon and Rectal Cancer incidence rate of 40.9 per 100,000. This rate is between 10% below and 10% above the United States rate of 43.7 per 100,000.

Rates were higher for Charles County men than Charles County women (53.4 vs. 31.9). This difference is statistically significant ($p<.05$). This gender trend was also seen for the state of Maryland and for St Mary's and Calvert Counties.

Charles County African Americans had a similar colon and rectal cancer incidence rate to Charles County Whites (40.6 vs. 38.8). Charles County Whites had a higher rate than Maryland Whites, and Charles County African Americans had a lower rate to Maryland African Americans.

2007-2011 Colon and Rectal Cancer Incidence Rates

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	39.3	45.1	34.8	37.9	43.3	26.3
Charles County	40.9	53.4	31.9	38.8	40.6	**
Calvert County	37.1	41.7	32.0	35.6	47.4	**

St Mary's County	38.2	40.3	35.3	40.7	26.7	**

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

Colon and Rectal Cancer Mortality:

2011 Results:

The Charles County colon and rectal cancer mortality rate for 2011 was 22.2 per 100,000. This is greater than the Maryland state average rate of 14.3. 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, 2011

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	885	455	430	578	277	27
Charles County	28	17	11	16	12	0
Calvert County	13	8	5	S	<5	0
St Mary's County	15	10	5	s	<5	0

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

2011 Colon and Rectal Cancer Mortality Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	14.3	17.4	12.1	13.0	19.0	9.7
Charles County	22.2	**	**	**	**	**
Calvert County	**	**	**	**	**	**
St Mary's County	**	**	**	**	**	**

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

2007-2011 Results:

The 2007-2011 Charles County colon and rectal cancer mortality rate of 19.4 per 100,000 is higher than the Maryland state average rate of 16.0 and the other Southern Maryland counties (17.3 for Calvert and 14.8 for St Mary's County).

Charles County males were more likely to die from colon and rectal cancer than Charles County females (29.9 vs. 13.3). This trend was also seen for Maryland and the other Southern Maryland counties.

2007-2011 Charles County colon and rectal cancer mortality rates for African Americans were higher than the rates for Charles County Whites (30.5 vs. 16.6).

2007-2011 Colon and Rectal Cancer Mortality Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	16.0	20.0	13.2	14.5	21.8	10.4
Charles Co	19.4	29.9	13.3	16.6	30.5	**
Calvert Co	17.3	20.7	15.7	16.7	**	**
St Mary's Co	14.8	18.5	12.0	16.6	**	**

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

Breast Cancer Incidence:

2011 Results:

The 2011 Charles County breast cancer incidence rate was 128.3, which was similar to the Maryland state average rate of 126.6 per 100,000. The Charles County rate was higher than the St Mary's County (98.8) and lower than Calvert County, which had a rate of 148.0 per 100,000.

The Charles County White breast cancer incidence rate was 110.8 per 100,000, which was lower than the Maryland state white average rate of 128.3. The Charles County white breast cancer rate was less than the Calvert and higher than St Mary's counties rates. The Charles County Black breast cancer incidence rate was 163.6 per 100,000, which was higher than the Maryland state average rate of 124.0. The Charles County Black breast cancer incidence rate was higher than the Charles County White rate (163.6 vs. 110.8).

Number of New Breast Cancer Cases, 2011

	Total	White	Black	Asian/PI
Maryland	4395	2965	1208	167
Charles County	105	55	48	<6
Calvert County	79	72	7	0
St Mary's County	55	48	<6	<6

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

2011 Breast Cancer Incidence Rates

	Total	White	Black	Asian/PI
Maryland	126.6	128.3	124.0	87.1
Charles County	128.3	110.8	163.6	**
Calvert County	148.0	159.7	**	0
St Mary's County	98.8	103.8	**	**

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

2007-2011 Results:

From 2007-2011, Charles County had a breast cancer incidence rate of 116.5. This rate was lower than the Maryland state average rate of 127.8 and the Calvert County rate of 142.0 and similar to the St Mary's County rate of 116.0. It is 10% below to 10% above the US rate of 124.6 per 100,000.

The Charles County White breast cancer incidence rate was 101.7, which was less than the Maryland White state average rate (127.9) and the other Southern Maryland counties' rates. The Charles County Black breast cancer incidence rate was higher than the Maryland state average rate (145.6 vs. 125.0) and was higher than the African American rates in the neighboring Southern Maryland counties.

Charles County black women had a higher incidence of breast cancer (145.6) than Charles County white women (101.7) from 2007-2011.

2007-2011 Breast Cancer Incidence Rates

	Total	**White**	**Black**	**Asian/PI**
Maryland	127.8	127.9	125.0	85.3
Charles County	116.5	101.7	145.6	**
Calvert County	142.0	145.7	132.3	**
St Mary's County	116.0	119.2	101.0	**

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

Breast Cancer Mortality:

2011 Results:

The 2011 Charles County breast cancer mortality rate was 26.8 per 100,000. This rate was higher than Maryland state average rate of 22.4 per 100,000. This was the second highest rate among the Maryland jurisdictions with a calculated rate.

Breast cancer mortality rates could not be calculated by race or gender for 2011 due to small case counts.

Number of Breast Cancer Deaths, 2011

	Total	**White**	**Black**	**Asian/PI**
Maryland	786	483	287	14
Charles County	22	13	9	0
Calvert County	8	6	<5	0
St Mary's County	10	s	<5	0

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

2011 Breast Cancer Mortality Rates

	Total	**White**	**Black**	**Asian/PI**
Maryland	22.4	19.9	29.5	**

Charles County	26.8	**	**	**
Calvert County	**	**	**	**
St Mary's County	**	**	**	**

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

2007-2011 Results:

From 2007-2011, Charles County experienced a breast cancer mortality rate of 25.0 per 100,000. The 07-11 Charles County rate is slightly higher than the Maryland state average rate of 24.0 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 (22.9) and for Calvert County (23.3). The Charles County breast cancer mortality rate is 10-25% above the United States breast cancer mortality rate of 21.5 per 100,000.

The 07-11 Charles County African American breast cancer mortality rate was 31.7, which was slightly higher than the rate for Charles County Caucasians of 22.5 per 100,000. Rates by race could not be calculated for the other Southern Maryland counties due to small case counts.

2007-2011 Breast Cancer Mortality Rates

	Total	**White**	**Black**	**Asian/PI**
Maryland	24.0	21.7	31.7	8.6
Charles County	25.0	22.5	31.7	**
Calvert County	23.3	22.5	**	**
St Mary's County	22.9	23.3	**	**

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

Prostate Cancer Incidence:

2011 Results:

The 2011 Charles County prostate cancer incidence rate was 140.2 per 100,000. This rate is slightly higher than the Maryland state average rate of 131.7. The Charles County incidence rate is higher than the rates in the other Southern Maryland counties (132.9 in Calvert and 76.5 in St Mary's counties).

Disparities are seen for African Americans in terms of prostate cancer incidence. The 2011 Charles County African American prostate cancer incidence rate was 155.8, which was higher than the rate for Charles County Caucasians of 127.2 per 100,000. This disparity is also seen on the state level where Maryland African Americans had a rate of 191.4 and Maryland Whites had a rate of 110.2 per 100,000. The 2011 prostate cancer incidence rates for African Americans could not be calculated for Calvert and St Mary's counties due to small case counts.

Number of New Prostate Cancer Cases, 2011

	Total	**White**	**Black**	**Asian/PI**
Maryland	3961	2359	1341	84
Charles County	92	58	28	<6

Calvert County	63	50	11	0
St Mary's County	43	34	8	0

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

2011 Prostate Cancer Incidence Rates

	Total	**White**	**Black**	**Asian/PI**
Maryland	131.7	110.2	191.4	64.3
Charles County	140.2	127.2	155.8	**
Calvert County	132.9	125.6	**	0
St Mary's County	76.5	72.9	**	0

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

2007-2011 Results:

The Charles County prostate cancer incidence rate for 2007-2011 was 158.3 per 100,000 population. This rate is only slightly higher than the Maryland state average rate of 148.7; this rate difference is not statistically significant. The Charles County rate was also higher than the other Southern Maryland counties for this time period (131.0 for Calvert and 120.2 for St Mary's). The Charles County rate is between 10 % below and 10% above the United States rate of 147.8 per 100,000.

Disparities are again visible for African Americans. The 2007-2011 Charles County African American prostate cancer incidence rate was 223.6, which was significantly higher than the rate for Charles County Caucasians of 129.4 per 100,000. This disparity is also seen on the state level where Maryland African Americans had a rate of 206.8 and Maryland Whites had a rate of 129.3. The same disparities were also seen for Calvert and St Mary's counties.

The 07-11 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 seventh highest rate among the Maryland jurisdictions.

2007-2011 Prostate Cancer Incidence Rates

	Total	**White**	**Black**	**Asian/PI**
Maryland	148.7	129.3	206.8	63.4
Charles County	158.3	129.4	223.6	**
Calvert County	131.0	120.9	197.4	0
St Mary's County	120.2	113.7	160.1	0

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

Prostate Cancer Mortality:

2011 Results:

For 2011, 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, 2011

	Total	White	Black	Asian/PI
Maryland	475	302	170	<5
Charles County	10	<5	6	0
Calvert County	9	7	<5	0
St Mary's County	6	<5	<5	0

2007-2011 Results:

The 2007-2011 Charles County prostate cancer mortality rate was 24.9 per 100,000. This rate is similar to the Maryland state average rate of 24.6. The Charles County rate is lower than the Calvert County rate of 25.7 and the St Mary's County rate of 28.6. The county prostate cancer mortality rate is 10-25% above the United States rate of 20.8 per 100,000.

Disparities are seen for the African American population. Charles County African Americans have a higher prostate cancer mortality rate of 47.8 compared to 18.4 for Charles County Caucasians.

2007-2011 Prostate Cancer Mortality Rates

	Total	White	Black	Asian/PI
Maryland	24.6	20.4	46.3	6.1
Charles County	24.9	18.4	47.8	**
Calvert County	25.7	19.3	**	**
St Mary's County	28.6	23.0	**	**

** 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 2007-2011 incidence data will be presented. Case counts for 2011 alone were few, and rate calculations could not be performed.

Oral Cancer Incidence:

The Charles County oral cancer incidence rate for 2007-2011 was 10.7. This rate is comparable to the Maryland state average rate of 10.1. The Charles County oral cancer incidence rate is between 10% below and 10% above the United States rate of 11.0 per 100,000.

Racial comparisons can't be done due to small case counts for minorities. However, it should be noted that the Charles County white oral cancer incidence rate was higher than the Maryland state average rate (12.9 vs. 11.0).

Males are disproportionately affected by oral cancer compared to women. The 07-11 Charles County oral cancer incidence rate for males was 16.8, which is significantly higher than the oral cancer incidence rate for women (5.6).

2007-2011 Oral Cancer Incidence Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	10.1	15.5	5.6	11.0	7.8	6.7
Charles County	10.7	16.8	5.6	12.9	**	0
Calvert County	12.1	17.5	7.4	12.9	**	0
St Mary's County	10.2	13.9	6.8	11.1	**	0

** 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 2007-2011 mortality data will be presented. Charles County case counts for 2011 alone were few, and rate calculations could not be performed.

Oral Cancer Mortality:

For 2007-2011, a Charles County oral cancer mortality rate could not be calculated due to small case counts.

Even for a combined time period of 2007-2011, deaths due to oral cancer are few, and rate calculations by race and gender were not possible.

2007-2011 Oral Cancer Mortality Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	2.4	3.7	1.4	2.3	2.9	1.7
Charles County	**	**	**	**	**	**
Calvert County	**	**	**	**	**	**
St Mary's County	**	**	**	**	**	**

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

Melanoma of the Skin Incidence:

2007-2011 Results:

For 2007-2011, the Charles County melanoma cancer incidence rate 11.5 was per 100,000. This rate was less than the Maryland state average rate of 21.0 per 100,000, and it was less than the rates in the other Southern Maryland counties (Calvert 34.1 and St Mary's 24.7). The Charles County rate was greater than 25% below the United States rate of 21.3 per 100,000.

The incidence rate for melanoma cancer is higher for Charles County males than females (18.0 vs. 6.8). This rate difference is also seen on the state level for men and women (27.5 vs. 16.5).

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 somewhat lower melanoma cancer incidence rate (16.1) than Maryland Whites (29.1). On a state level, Maryland Whites were disproportionately affected by melanoma cancer incidence compared to Maryland African Americans (29.1 vs. 1.1).

2007-2011 Melanoma Incidence Rates

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	21.0	27.5	16.5	29.1	1.1	**
Charles County	11.5	18.0	6.8	16.1	**	0
Calvert County	34.1	44.5	26.2	39.9	**	0
St Mary's County	24.7	22.8	27.0	29.5	0	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 2007-2011 melanoma of the skin cancer mortality rate was 2.6 per 100,000. The rates were much higher for males than females (4.1 vs. 1.6), and the rates were much higher for Whites than Blacks (3.5 vs. 0.5).

2007-2011 Melanoma of the Skin Mortality Rate

	Total	**Male**	**Female**	**White**	**Black**	**Asian/PI**
Maryland	2.6	4.1	1.6	3.5	0.5	**
Charles County	**	**	**	**	**	**
Calvert County	**	**	**	**	**	**
St Mary's County	**	**	**	**	**	**

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

Cervical Cancer Incidence:

The 2007-2011 Charles County cervical cancer incidence rate was 5.1 per 100,000, which is below the Maryland state average rate of 6.7. Rates could not be calculated for Calvert County and St Mary's County due to a small case count. The Charles County had a cervical cancer incidence rate that was greater than 25% below the United States rate of 7.8 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.

2007-2011 Cervical Cancer Incidence Rates

	Total	White	Black	Asian/PI
Maryland	6.7	6.0	8.0	5.9
Charles County	5.1	**	**	**
Calvert County	**	**	**	0
St Mary's County	**	**	**	0

** 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 2007-2011 cervical cancer mortality rate was 2.2 per 100,000. The rate was double for Maryland African Americans compared to Maryland Caucasians (3.6 vs. 1.7).

2007-2011 Cervical Cancer Mortality Rates

	Total	White	Black	Asian/PI
Maryland	2.2	1.7	3.6	**
Charles County	**	**	**	**
Calvert County	**	**	**	**
St Mary's County	**	**	**	**

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

Cancer References:

1. 2013 Charles County and Maryland Cancer Mortality Statistics. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at: http://dhmh.maryland.gov/vsa/Documents/13annual.pdf.

2. 2007-2011 and 2011 Charles County and Maryland Cancer Mortality Rates by Site. 2014 Maryland DHMH Cigarette Restitution Fund Program's Cancer Reports. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/cancer/SiteAssets/SitePages/surv_data-reports/2014%20CRF%20Cancer%20Report.pdf.

Qualitative Data Relating to Cancer:

On the long survey, Cancer had the 5th highest percentage of people reporting it as a serious health problem. 60.5% felt that it was a health problem in Charles County on any level, and 33% reported it as a "serious problem."

16.6% of long survey participants 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, 15.52% smoke cigarettes or cigars, 33% are exposed to secondhand smoke at home, 11.6% eat 5 or more servings of fruit and vegetables each day, 12% always perform cancer self-exams, 23% report always using sunscreen, and 15% participate in physical activity each day.

Almost half of short survey participants (40%) felt that Cancer is big health problems in Charles County. 41% of respondents believe that there are some or many resources available in Charles County for cancer.

Breast, prostate, and lung cancer were cited as big health problems in Charles County. Cancer in general was discussed at every focus group as a county health issue. Social determinants of health such as transportation and proximity to services were cited as barriers and challenges for accessing care in Charles County.

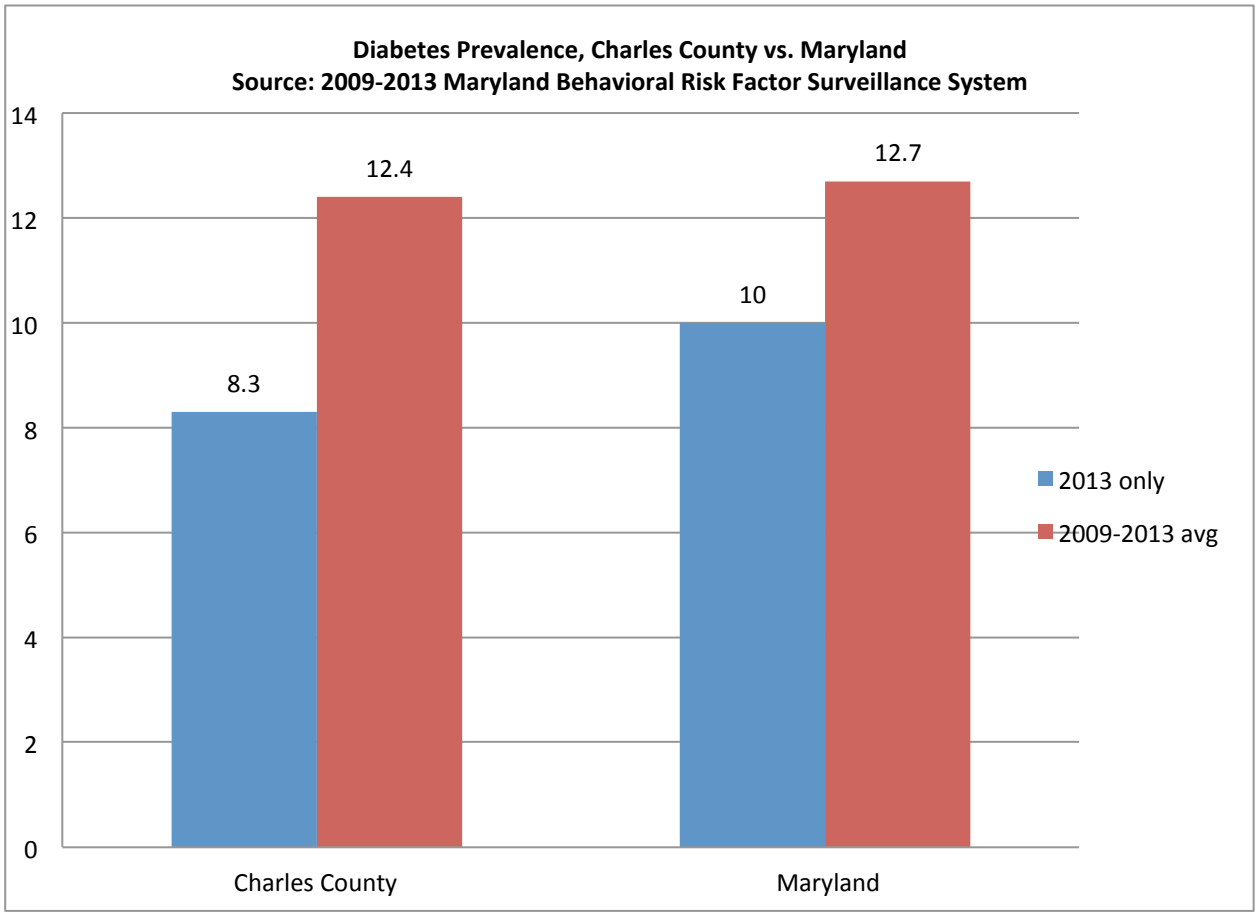
The leadership focus group led an engaging discussion regarding the perception of medical services especially cancer treatment services in Charles County. The services are currently available in the county; however, there is a perception that the cancer treatment centers and specialists in bigger cities like Washington DC and Baltimore are better options with better care. Cancer treatment services are spread out throughout the 301 Corridor in Charles County and are not a one stop shop like cancer treatment centers. But the services are here, and the level of quality rendered is equal to those in bigger cities. It may be an option for all hospitals in the Southern Maryland region to work collaboratively to provide specialized services that may not be attainable by one county hospital.

Diabetes Mellitus:

Diabetes Prevalence:

2009-2013 Maryland Behavioral Risk Factor Surveillance System (BRFSS) can be used to estimate diabetes prevalence within Charles County and Maryland. Diabetes prevalence percentages have been weighted to reflect the Maryland and Charles County populations.

The data from the question, "Have you ever been told by a doctor that you have diabetes?" was combined into a five-year period in order to increase the sample size and therefore increase the reliability of the statistics. The combined data for 2009-2013 for Charles County and the state of Maryland is listed below. The estimated prevalence of diabetes in Charles County is 12.4%, similar to the state diabetes prevalence of 12.7%. The county diabetes prevalence has increased by 4% from the 8.3% reported in the 2011 community health needs assessment report.



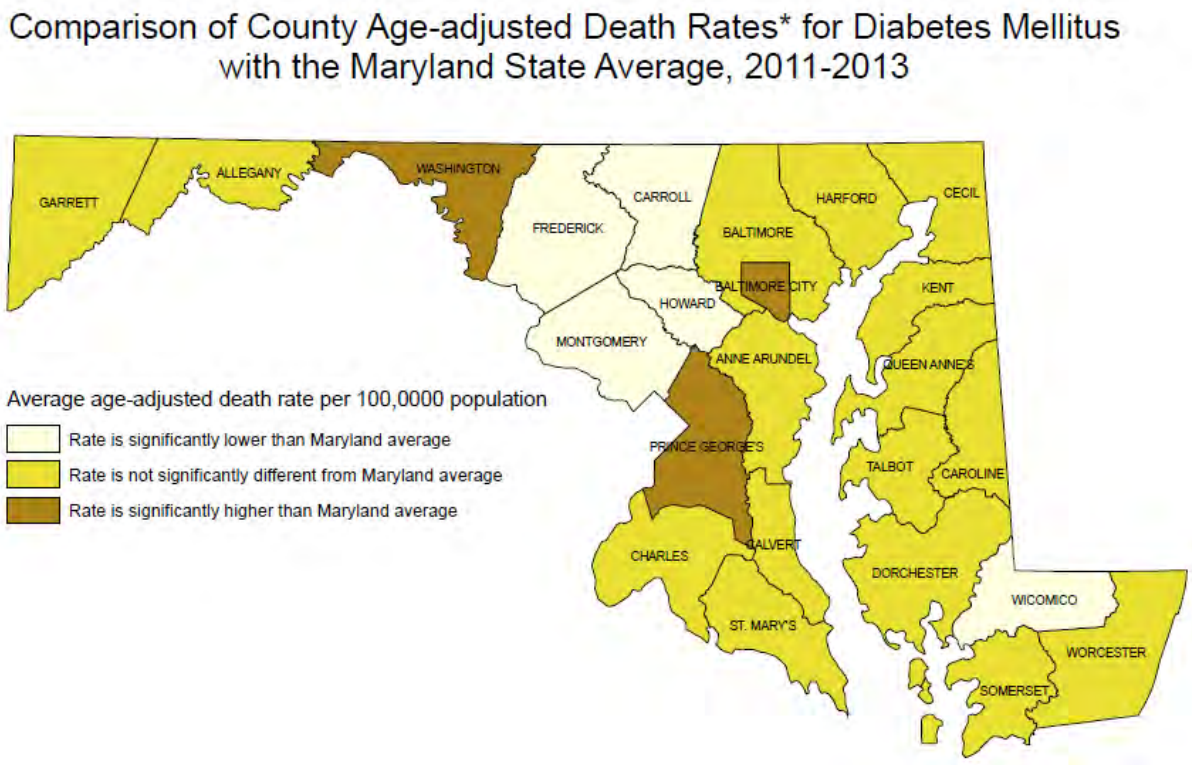
Diabetes Mellitus Death Rates

According to the 2013 Maryland Vital Statistics Report, there were 34 deaths in Charles County attributed to Diabetes mellitus in 2013. When comparing the 2013 crude diabetes death rates per 100,000 population, the Charles County rate of 22.2 per 100,000 was slightly greater than the state rate

of 20.9 per 100,000 though the difference was not significant. The county's diabetes death rate is similar to the rate of 21.8 reported in 2011 community health needs assessment report.

Number of Diabetes Deaths and Crude Diabetes Death Rates, Charles County vs. Maryland, 2013		
Jurisdiction	Number of Deaths	Death Rate per 100,000
Charles County	34	22.2
Maryland	1242	20.9

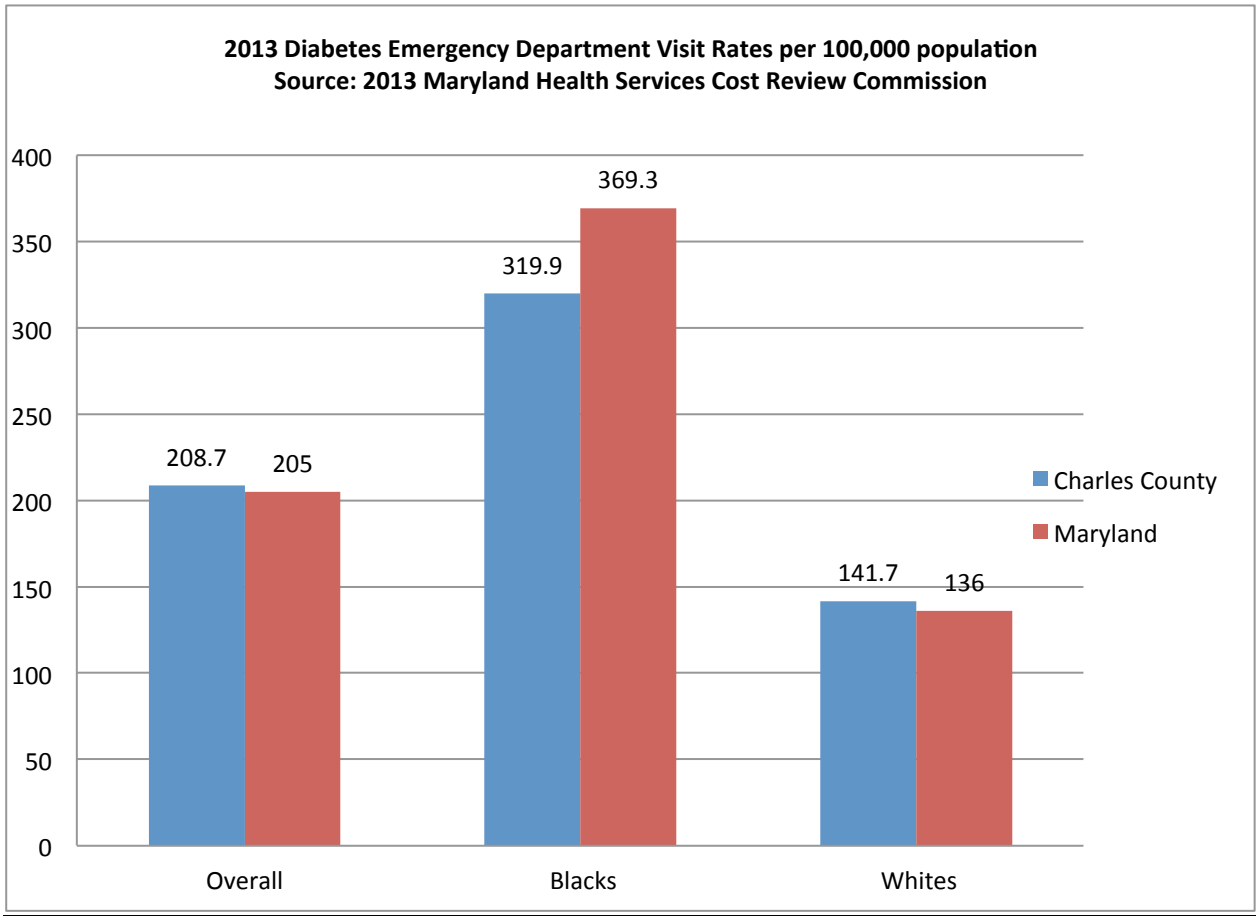
The age-adjusted death rate for Diabetes mellitus for 2011-2013 in Charles County is 22.8 (per 100,000 populations). It is slightly higher than the state diabetes death rate of 19.6 per 100,000, though the difference is not statistically significant. The 2011 Charles County diabetes mortality rate is a significant improvement from the 2007-2009 rate of 34.1 reported in the 2011 community health needs assessment report. According to the map below from the 2013 Maryland Vital Statistics Report, the 2011-2013 Charles County diabetes mellitus death rate is not significantly different from the MD cumulative rate.



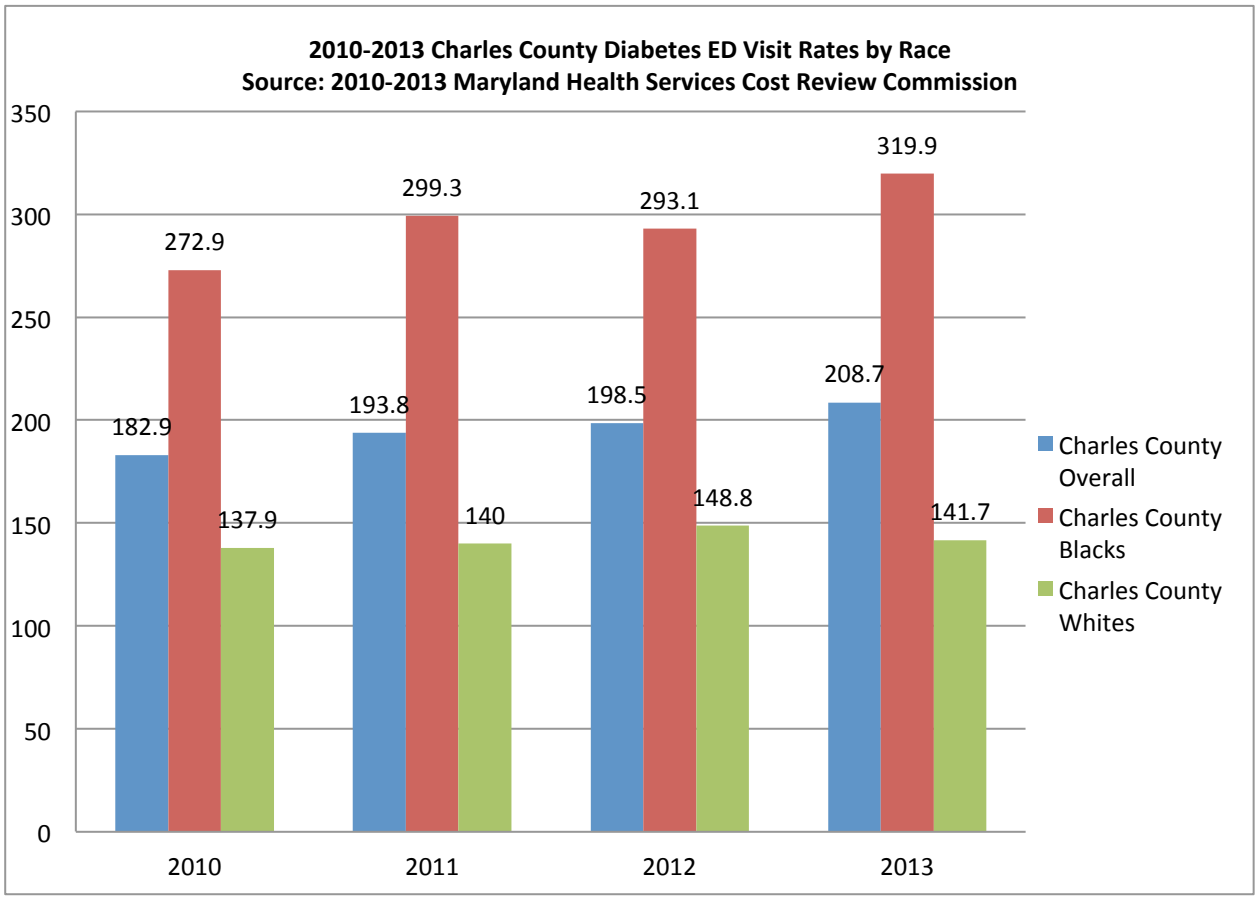
Source: Maryland 2013 Vital Statistics Report. Available at www.dhmh.state.md.us.

Diabetes Emergency Department Visit Rates:

The 2013 Charles County Diabetes Emergency Department (ED) Visit Rate was 208.7 per 100,000. This rate was similar to the Maryland state average rate of 205 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 319.9, which was significantly higher than the White rate of 141.7 per 100,000.



Looking at trends over the past 4 years, the Charles County Diabetes ED visit rate has increased from 182.9 in 2010 to 208.7 in 2013. The greatest increase was seen in the Charles County African American population where the rate increased from 272.9 in 2010 to 319.9 in 2013.



Juvenile Diabetes:

The 2009-2011 average Charles County juvenile Diabetes (0-20 years) in-patient hospitalization rate was 0.7 per 1,000 residents. The 2009-2011 average Charles County juvenile Diabetes (0-20 years) out-patient ED visit rate was 1.2 per 1,000 residents.

Diabetes References:

1. 2009-2013 Charles County Diabetes Prevalence Data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at: www.marylandbrfss.org.

2. 2011-2013 and 2013 Charles County Diabetes mellitus mortality counts and rates. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at: http://vsa.maryland.gov.

3. 2010-2013 Charles County Diabetes Emergency Department Visit Rates. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

4. 2009-2011 Charles County Juvenile Diabetes Hospitalization and Emergency Department Rates. Maryland Health Services Cost Review Commission. Accessed by request through the Maryland Virtual Data Unit.

Qualitative Data Relating to Diabetes:

62% of long-survey participants felt that diabetes was a health problem in Charles County. Approximately one-third (29%) felt that diabetes is a "serious problem" in Charles County. Thirteen percent (13%) 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 increase their chances of diabetes included: only 12% always eat 5 or more servings of fruits and vegetables each day, 17% always or most of time eat fast food at least once a week, 37% always take a vitamin, and 15% participate in physical activity each day.

40% of the short survey participants felt that Diabetes is the greatest health problem in Charles County. This was the fourth highest ranking health condition. Additionally, 45% of the respondents felt that there are "many" or "some" services available in Charles County to address diabetes.

Adult Diabetes:

Dieticians and health professionals in the focus groups expressed concern for Diabetes and the need for more prevention education especially among those with pre-diabetes. Those newly diagnosed with pre-diabetes and are compliant at first but become non-compliant when they do not see optimal results.

The cardiac rehabilitation program at the hospital is seeing an increase in individuals with Diabetes (1 out of 5). Their patients are getting younger. Some are already fit but are affected by stress, sleep deprivation, and glucose intolerance.

Focus group participants stressed the need for a diabetes education program in Charles County. Currently, there is no place to send people. Additionally, more programming is needed for the ever-growing pre-diabetes population. We need to catch it in this stage in order to prevent diabetes and improve quality of life.

Juvenile Diabetes:

The local gyms talked in focus group discussions about the group of youth who are doing no physical activity. They are coming into the gym to learn basic movement. Families are joining together in order to get their obese children in the gym for increased activity. There is now some reimbursement from insurance companies for gym memberships which gives families incentive to join and improve their health.

The county dieticians expressed concern for the younger ages of diagnosis for Type 2 Diabetes. They are seeing youth diagnosed with Type 2 in need of nutrition counseling. Additionally, food services through

the Charles County Public Schools are seeing an increase in the number of children with diabetes who must have special dietary planning. School nurses felt that in-roads can be made if education efforts target the parents of children with Diabetes, i.e WeCan Program.

Charles County Asthma Prevalence and Mortality:

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 2013, approximately 13.9% of adults in Maryland and 10.5% of adults in Charles County have ever been diagnosed with asthma (2013 Maryland BRFSS). An estimated 9.4% of Maryland adults and 6.4% of Charles County adults reported that they currently have asthma (2013 Maryland BRFSS). 2013 Charles County BRFSS participants also reported that an estimated 17.5% of their children have ever been diagnosed with asthma compared to 16.1% for Maryland.

Juvenile Asthma Prevalence:

The 2013 Maryland Behavioral Risk Factor Surveillance System (BRFSS) asks participants if they have any children under the age of 18 who have ever been diagnosed with asthma and if those children still have asthma. Charles County specific data for those questions is presented below.

One in every six Charles County BRFSS participants (17.5%) reported that they have a child who has been diagnosed with asthma.

The majority of those children who were diagnosed with asthma are still currently living with the chronic condition (81.3%).

Asthma Emergency Department and Hospitalization Rates:

Juvenile:

From 2009-2011, Charles County had a total of 103 hospitalizations and 1119 emergency department visits for asthma in children 0-17 years of age. The 2009-2011 Charles County juvenile asthma hospitalization rate was 2.8 per 1000 residents. The 2009-2011 Charles County juvenile asthma ED visit rate was 30.3 per 1000 residents.

The juvenile asthma hospitalization rate was available for the zip code 20601 with a rate of 5.7 per 1000 residents. This is greater than the county overall rate of 2.8.

Juvenile asthma ED visit rates were available for several zip codes with Charles County. The rate was highest in the Charles County zip code 20695, White Plains, with a rate of 45.7 per 1000 residents. The rate was also high in the Waldorf zip code 20602 (42.1 per 1000 residents). The rate was lowest in the zip code 20637, Hughesville (17.1).

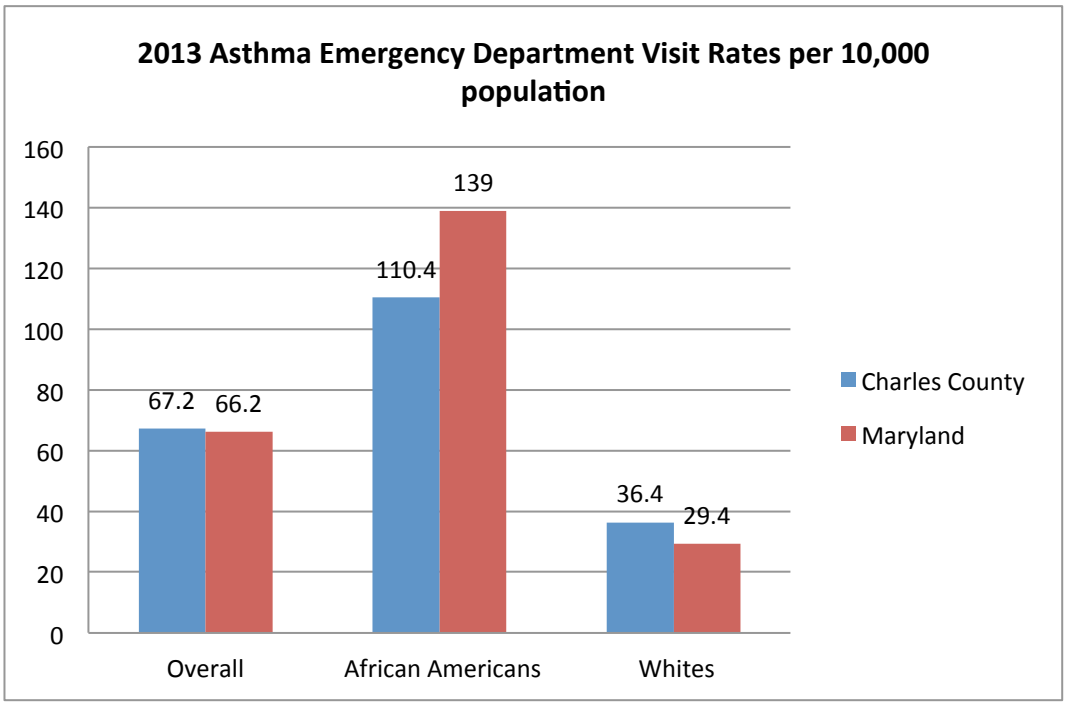
2009-2011 Charles County Juvenile Asthma ED Visit Rates by Zip Code	Rate per 1000 residents

20601	37.3
20602	42.1
20603	23.1
20613	**
20616	33.8
20617	**
20637	17.1
20640	39.6
20646	24.6
20695	45.7

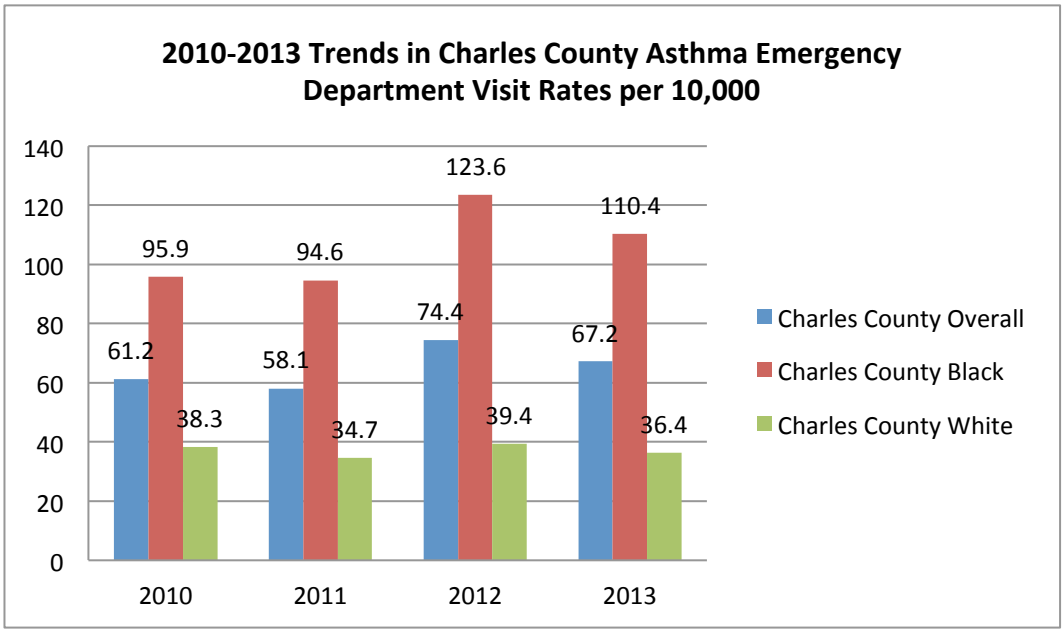
All ages:

This indicator shows the rate of emergency department (ED) visits due to asthma per 10,000 population in 2013. 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 2013 Charles County asthma ED visit rate was 67.2 per 10,000 population. This rate is similar to the Maryland state asthma ED visit rate of 66.2 per 10,000. Racial disparities are clearly seen on the state and county level. Charles County African Americans had a 2013 asthma ED visit rate of 110.4 per 10,000 population. This was significantly higher than the rate for Charles County Whites (36.4).



Charles County has seen some increases in asthma ED visit rates since 2010. The 2010 Charles County asthma ED visit rate was 61.2 versus 67.2 in 2013. The Charles County African American population has seen an increase from 95.9 in 2010 to 110.4 in 2013. Charles County Whites have seen a decrease from 38.3 in 2010 to 36.4 in 2013.



Asthma Mortality:

From 2006 to 2010, Charles County averaged approximately 1.4 deaths each year due to asthma. This constitutes a 2006-2010 average asthma mortality rate of 12.2 per million residents for Charles County. This is similar to the Maryland state average asthma mortality rate of 11.7 per million.

Asthma References:

1. 2013 Adult and Juvenile Asthma Prevalence. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at: www.marylandbrfss.org.

2. 2009-2011 Charles County Juvenile Asthma Hospitalization and ED counts and visit rates. Maryland Health Services Cost Review Commission. Accessed by request through the Maryland Virtual Data Unit.

3. 2013 Charles County and Maryland Asthma Emergency Department Visit rates for all ages. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

4. 2006-2010 average Charles County asthma death count and death rate. 2012 Asthma in Maryland Report. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/mch/Documents/Asthma%20in%20Maryland%202012.pdf.

Qualitative Data Pertaining to Asthma:

Participants of the disease specific focus group mentioned the increase in both pediatric and geriatric residents with breathing problems such as asthma and COPD. The school nurses also mentioned the increase in asthma cases seen in the schools. There are a great number of children prescribed albuterol for symptoms, but they do not have sufficient follow-up and completed asthma action plans.

Focus group 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 14% of short survey respondents felt that asthma was the biggest health problem in Charles County. This was the second lowest percentage among the listed health conditions. 41% of short survey respondents felt that the county has “many” or “some” services in regards to asthma.

On the long survey, 59% of respondents felt that asthma was a problem on some level in Charles County. 21% thought that asthma is a serious problem in Charles County. 10% reported that they have seen improvements in Charles County in regards to asthma.

Health of the Aging Population:

Life Expectancy:

The 2011-2013 average life expectancy at birth for a Charles County resident was 78.7 years. The life expectancy is similar for Charles County Whites at 78.7 years and Charles County African Americans at 78.2 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 2013, there were 21 deaths in Charles County and 911 deaths in Maryland attributed to Alzheimer's disease.

The 2013 crude Alzheimer's disease mortality rate for Charles County was 13.7 per 100,000. This rate was slightly below the Maryland state average rate of 15.4 and below the Southern Maryland regional rate of 19.6 per 100,000.

The 2011-2013 average age-adjusted Alzheimer's disease mortality rate for Charles County was 18.4 per 100,000. This three-year average rate is more reliable than the 2013 only rate. The 2011-2013 Charles County average rate was higher than the Maryland state average rate of 14.6 per 100,000. The Southern Maryland region had the highest Maryland regional mortality rate of 21.9 per 100,000.

Burden of Disease:

It is estimated that up to 5.1 million Americans are living with Alzheimer's disease. In 2010, 14.9 million family members and friends provided 17 billion hours of unpaid care to those with Alzheimer's or other forms of dementia. This care is valued at $202.6 billion. In Maryland, it is estimated that just fewer than 300,000 care givers provided over 300 million hours of unpaid care. The total value of this unpaid care is estimated to be close to $4 million.

Number of Alzheimer's and Dementia Caregivers, Hours of Unpaid Care, and Economic Value of Care

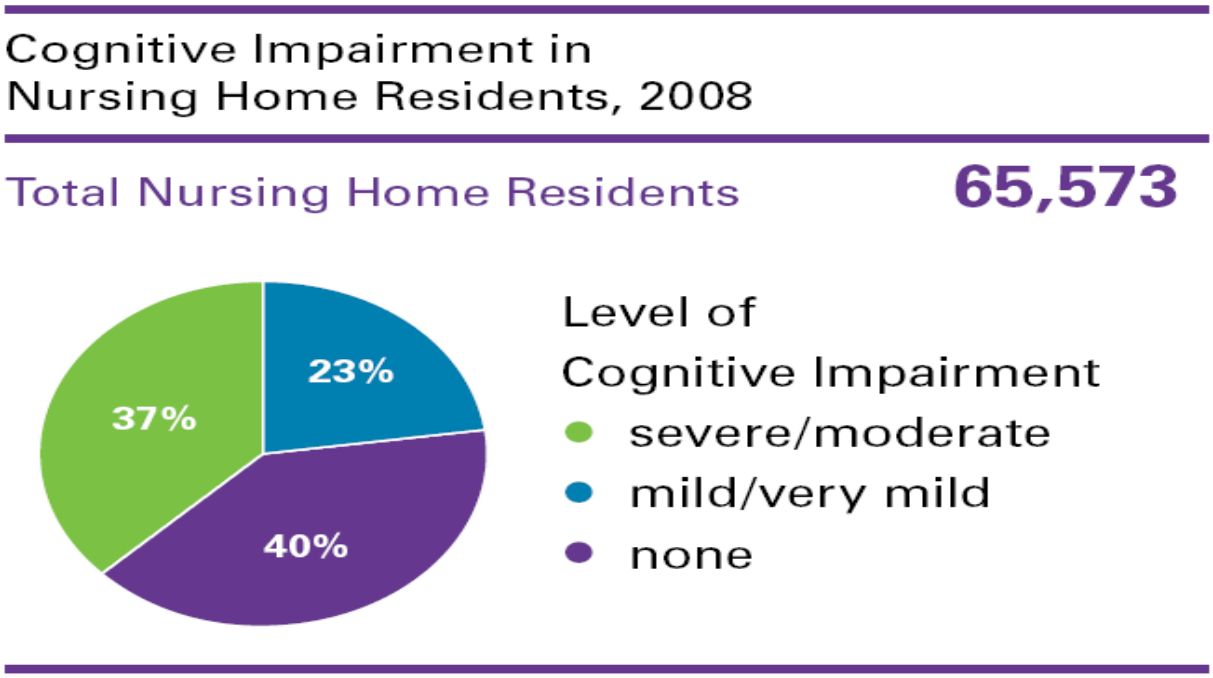
Year	Number of Caregivers	Total Hours of Unpaid Care	Total Value of Unpaid Care
2008	168,071	145,079,317	$1,610,380,420
2009	187,814	213,882,421	$2,459,647,842
2010	270,156	307,654,020	$3,670,312,453

It is estimated that approximately 86,000 Marylanders over the age of 65 years are living with Alzheimer's disease. This is a 10% increase the 2000 prevalence. It is projected that the number of Marylanders with Alzheimer's disease will continue to increase over the next couple decades.

Number of People Aged 65 and Older with Alzheimer's by Age

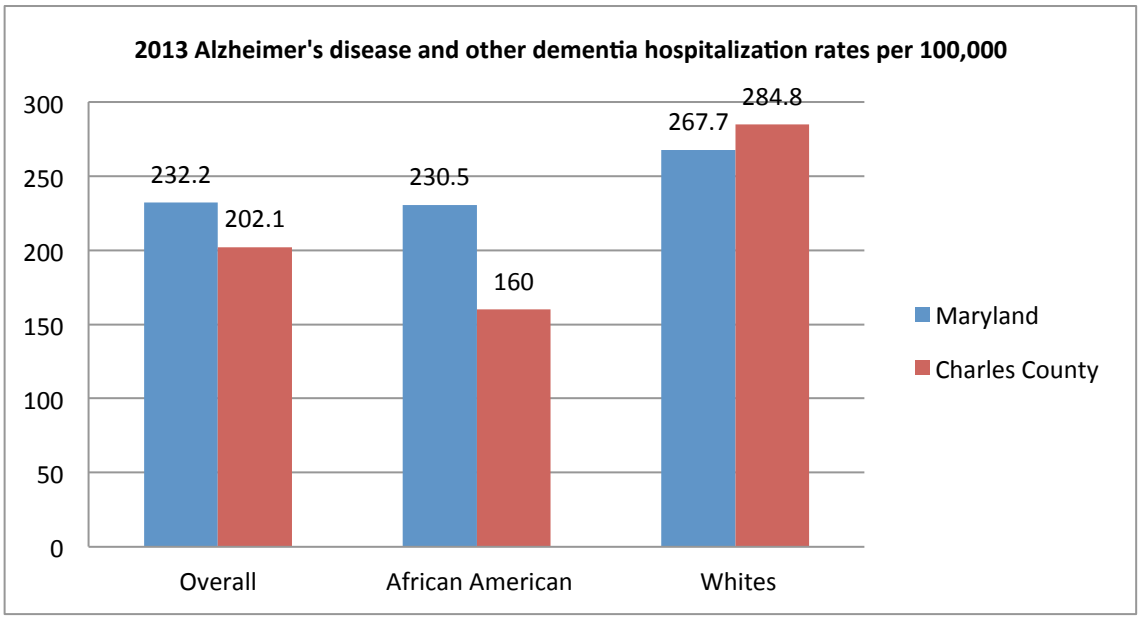
Year	65–74	75–84	85+	Total	% change from 2000
2000	5,100	42,000	31,000	78,000	
2010	4,400	40,000	41,000	86,000	10%
2020	5,800	41,000	44,000	90,000	15%
2025	6,600	49,000	45,000	100,000	28%

Many studies have been and are currently trying to determine the cognitive impairment of individuals in nursing homes and assisted living centers in Maryland. In a 2008 study, 60% of the Marylanders living in nursing homes had some level of cognitive impairment. There were more individuals with moderate to severe levels of cognitive impairment then those with very mild to mild impairment.

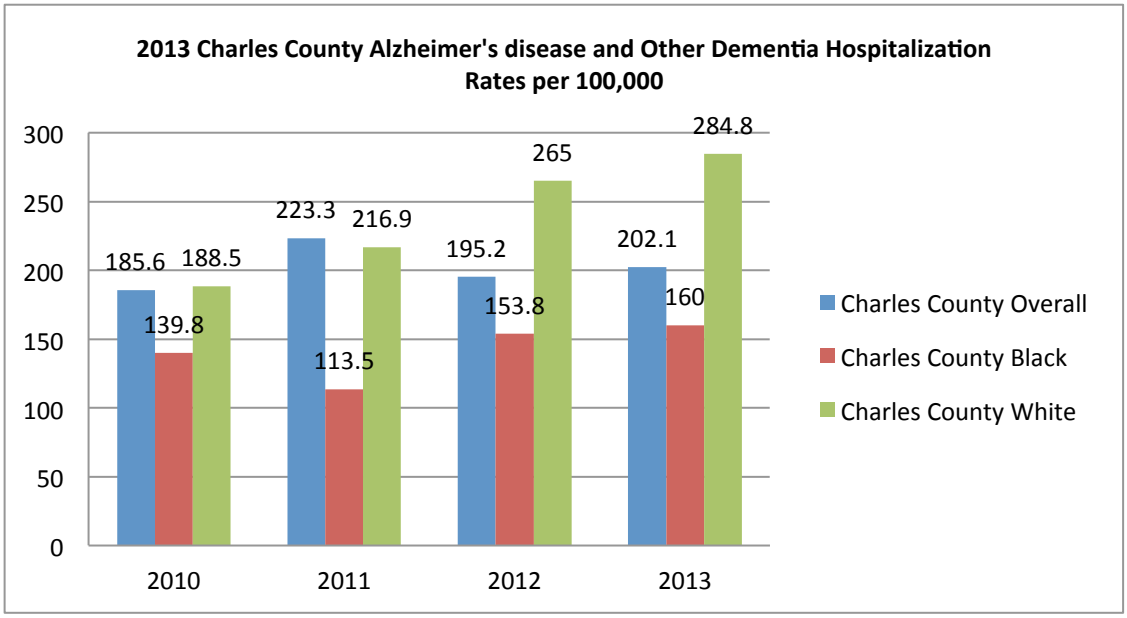


Hospitalizations for Alzheimer's disease and Other Dementias:

In 2013, the Charles County hospitalization rate for Alzheimer's disease and other dementias was 202.1 per 100,000. This is slightly below the Maryland state average rate of 232.2 per 100,000. Racial disparities are seen on a county level where Charles County Whites have a much greater Alzheimer's disease hospitalization rate than African Americans (284.8 vs. 160.0).



When looking at trends in the hospitalization rates from 2010 to 2013, increases can be seen overall and by race. The 2010 Charles County Alzheimer's disease and other dementia hospitalization rate was 185.6 and increased to 202.1 by 2013. The 2010 Charles County White Alzheimer's disease and other dementia hospitalization rate was 188.5 and increased to 284.8 by 2013. A smaller increase was seen in the African American population with rates increasing from 139.8 in 2010 to 160 in 2013. The Charles County African American Alzheimer's disease hospitalization rate for 2013 was significantly lower than the Maryland rate for this time period and race (160 vs. 230.5).



Arthritis:

It is estimated that 23.6% of Marylanders and 23.2% of Charles County residents are currently living with arthritis (2013 Maryland BRFSS). 21.8% of Charles County residents with arthritis 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. 91.6% 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 4-6 out of 10.

Among Charles County residents who reported having arthritis, the majority are not hindered by their arthritis. Nearly 63.8% reported that they can do most things or everything, even with arthritis. 21.8% reported that they can do some things, and 14.4% reported that they can hardly do things. 44% reported having limited activities due to joint symptoms.

Disability and Health Impairment:

The 2013 Charles County BRFSS data estimates that approximately 17.4% of Charles County residents are limited in their activities due to physical, mental, or emotional problems. In addition, 6.8% of Charles County BRFSS respondents reported that they have health problems that require them to use special equipment.

The 2013 BRFSS included a module with 5 questions regarding health impairment. 3.7% of Charles County reported that they are blind or have difficulty seeing even while wearing glasses. 4.4% of county residents reported having a difficult time doing errands alone due to a physical, mental, or emotional condition. 7.9% of residents reported that they have serious difficulty concentrating, remembering, or making decisions due to a physical, mental, or emotional condition. 2.3% have difficulty bathing or dressing. 11.7% of Charles County residents reported having difficulty walking or climbing stairs.

Chronic Lower Respiratory Disease Mortality:

In 2013, there was a total of 40 deaths in Charles County and 2044 deaths in Maryland attributed to Chronic Lower Respiratory Disease. The 2013 Charles County Chronic Lower Respiratory Disease (COPD) mortality rate was 26.2 per 100,000. This is lower than the Maryland state average rate of 34.5 and the Southern Maryland regional rate of 33.4 per 100,000.

The 2011-2013 average Charles County COPD mortality rate was 33.6 per 100,000. The three-year average rate has an increased sample size leading to increased rate reliability. The 2011-2013 Charles County rate was similar to the Maryland state average rate of 32.9 and was below the Southern Maryland regional rate of 36.8 per 100,000.

Aging Data References:

1. 2013 Charles County Life Expectancy and Alzheimer's disease mortality. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at vsa.maryland.gov.

2. 2011 United States and Maryland Alzheimer's Disease Facts And Figures. National Alzheimer's Association. Available at: www.alz.org.

3. 2010-2013 and 2013 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 http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

4. 2013 Maryland Behavioral Risk Factor Surveillance System. Arthritis Prevalence, Severity, and Management. Maryland Department of Health and Mental Hygiene. Available at: www.marylandbrfss.org.

5. 2013 Maryland Behavioral Risk Factor Surveillance System. Disability and Health Impairment Statistics. Maryland Department of Health and Mental Hygiene. Available at: www.marylandbrfss.org.

6. 2013 Charles County Chronic Lower Respiratory Disease Mortality Rates. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at vsa.maryland.gov.

Qualitative Data Pertaining to the Aging:

Several of the focus groups discussed the unmet need of palliative care for the aging population in Charles County. Currently, there are no services in the county. This was especially true within the hospital for those with end-stage chronic disease. At this point, there is nothing else that can be done for these patients in terms of acute care and goal setting. They will not recover from their conditions, yet they are not severe enough to enter into hospice care. They cannot be cured, but they need assistance with symptom maintenance. This would keep them from bouncing in and out of hospital with extended stays and reduce hospital readmission rates.

Many of the focus groups touched on the need for additional specialized, geriatric medical services in the region. There is a shortage of specialists in Southern Maryland including endocrinologists, podiatrists, and pulmonologists. Resources are limited for those with COPD in Charles County. Focus group participants felt that the county needs additional dialysis centers and pain management, especially for those with medical assistance.

Cardiac Rehabilitation and hospital inpatient case managers reported that they are seeing increases in patients with heart attacks, bypasses, stents, COPD, asthma, pneumonia, diabetes, stroke, and hyperglycemia. They are helping patients to manage many chronic conditions. Patients could benefit from increased education on chronic disease self management in order to reduce the burden of disease emergencies and hospital readmissions for unmanaged disease.

Many programs designed to assist the elderly and aging in Charles County have long waiting lists. The adult evaluation and referral system (AERS) and MAP have long waiting lists and limited numbers of participants. Sometimes, we must put the individuals in nursing homes to get them on the list for the Medicare Waiver Program to try and get them back in their homes. They must go broke in order to qualify.

Other focus groups addressed the complicated health care system and the difficulties the elderly have in navigating the appropriate services. They may not understand what is being told to them or how to set

up the appropriate care. Increased care coordination and patient navigation could improve their access to care and services.

Transportation can also be a barrier to care for the elderly. They have limited mobility and abilities to drive and often have to rely on public transportation. Some use the county EMS as a means of transportation to the hospital for services, even in non-emergent situations. Many focus group participants felt that the county needs more home visiting services and doctors for those who need care in their homes.

The Special Populations focus group discussed the stigma still associated with disabilities. There is a need for additional day programs to get individuals with disabilities out in the community during the day. This group also discussed the aging population with developmental disabilities. Previously, individuals with disabilities did not live past the age of 40 years. Physicians and providers do not always know how to address this growing population.

Several focus groups brought up the need for respite care for dependents and caregivers. Sometimes the main provider in the home has to address their own health care and go to the doctor or run errands. Additionally, there is a small population who “drop off” their aging or disabled relative at the hospital during holidays when they do not know of any other resources or services to help provide care.

Injury-Related Morbidity and Mortality Data Analysis

Injury-related Mortality:

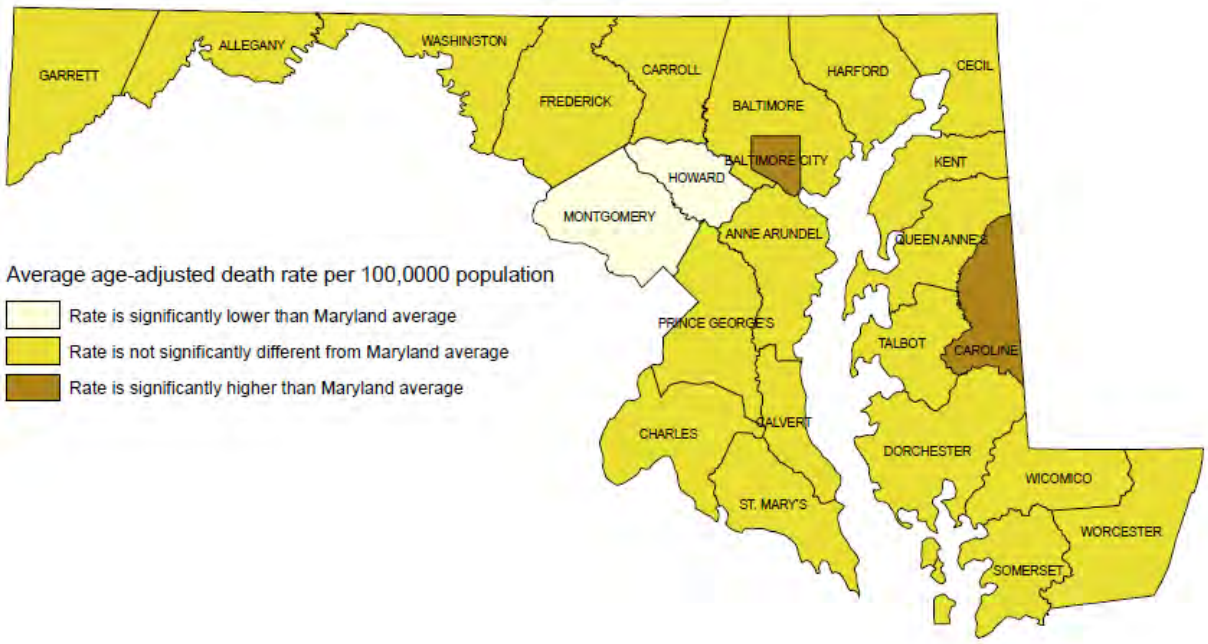
There are various deaths recorded in the Maryland Vital Statistics Report related to accidental and intentional injuries. Accidents were the third leading cause of death in Charles County and the number one cause of death in individuals under the age of 24 years. In 2013, there were 45 deaths in Charles County and 1679 deaths in Maryland due to accidents. 21 of the Charles County accident deaths were due to motor vehicle accidents. There were also 18 deaths due to intentional self-harm or suicide and 8 homicides.

The 2013 Charles County crude accident death rate was 29.4 per 100,000. This is slightly above the Maryland state rate of 28.3 per 100,000.

The 2011-2013 age-adjusted Charles County accident death rate was 34.4 per 100,000 compared to 26.5 for the state of Maryland. There is no significant difference in the county and state rates.

The 2011-2013 age-adjusted Charles County suicide rate was 11.2 per 100,000 compared to 9.0 for the state of Maryland.

Comparison of County Age-adjusted Death Rates* for Accidents with the Maryland State Average, 2011-2013



Injury-related Morbidity:

Child maltreatment:

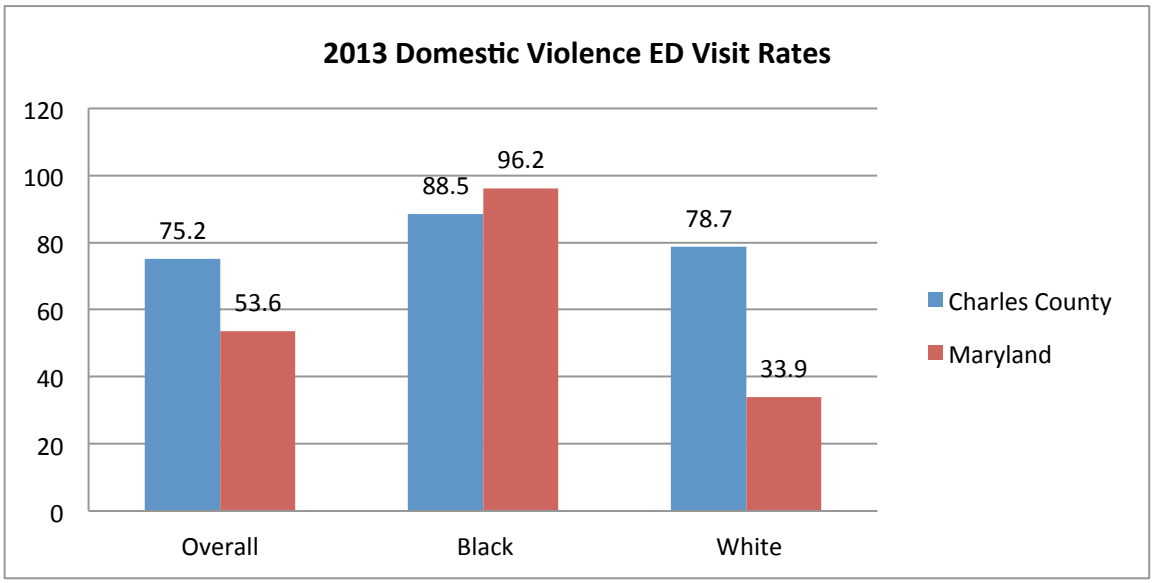
The 2013 Charles County rate of children who were maltreated per 1000 population under the age of 18 years was 7.5. This is below the Maryland state average rate of 9.2 per 1000 population under the age of 18 years.

The rate for Charles County fluctuates each year. In 2011, the Charles County child maltreatment rate was 6.7 and rose to 8.5 in 2012. It has since decreased to 7.5 for 2013.

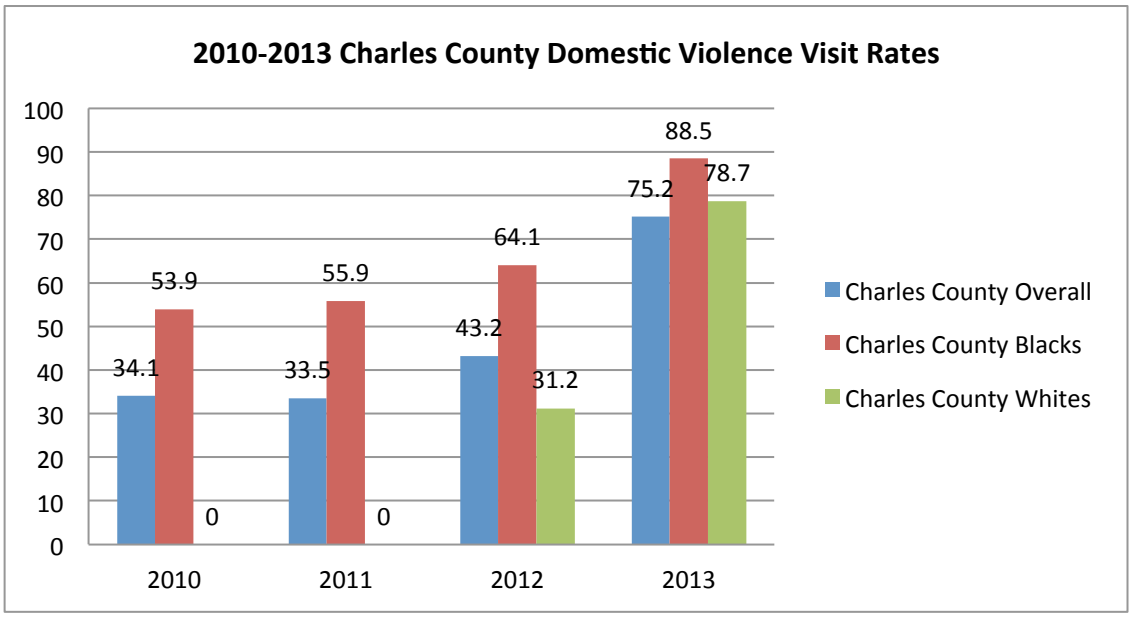
Domestic violence:

This indicator shows the rate of emergency department (ED) visits related to domestic violence/abuse (per 100,000 population). Domestic violence contributes greatly to the morbidity and mortality of Maryland citizens. Up to 40% of violent juvenile offenders witnessed domestic violence in the homes, and 63% of homeless women and children have been victims of intimate partner violence as adults.

The 2013 Charles County domestic violence ED visit rate was 75.2 per 100,000. This was significantly higher than the Maryland domestic violence ED visit rate of 53.2 per 100,000. Racial disparities are seen on a county and state level. Charles County African Americans have a domestic violence ED visit rate of 88.5 compared to 78.7 for Charles County Whites. The largest disparity from the state rate is seen in the White population with a Charles County White domestic violence ED visit rate of 78.7 compared to 33.9 for the state.



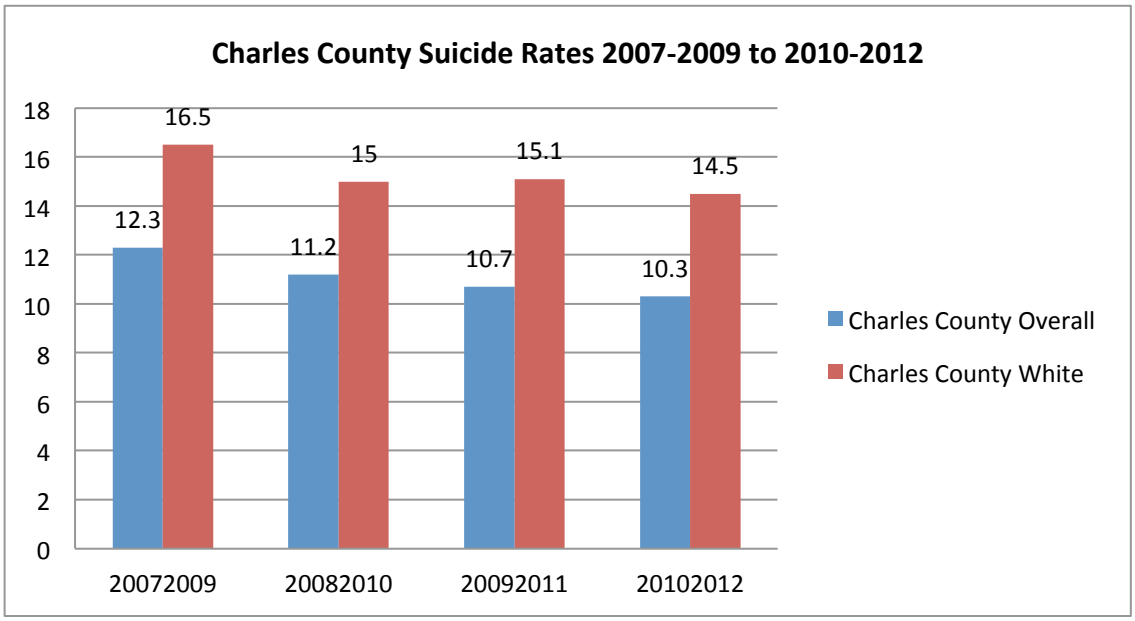
The Charles County Domestic Violence ED visit rate has been increasing steadily since 2010. The county rate has more than doubled from 34.1 in 2010 to 75.2 in 2013. Rates were not available for Charles County Whites for 2010 and 2011 due to small case counts.



Suicide:

The 2010-2012 average Charles County Suicide rate was 10.3 per 100,000. This was similar to the Maryland state rate of 9.5 per 100,000. The Charles County White suicide rate was 14.5 per 100,000 for 2010-2012. A Charles County African American rate could not be calculated due to small case counts for this population.

The Charles County suicide rate has seen small and steady decreases since the 2007-2009 average rate of 12.3 per 100,000.



Fall related deaths:

This indicator shows the rate of fall-related deaths per 100,000 population. Falls are a major cause of preventable death among the elderly and have increased across age groups in the past decade. Causes of fall-related deaths differ between the elderly and young and middle-aged populations, and require different prevention strategies. In 2009, falls accounted for 30% of accidental deaths.

The 2010-2012 average Charles County fall-related death rate was 5.8 per 100,000. This rate was lower than the Maryland state average rate of 8.6 per 100,000. The 2010-2012 Charles County White fall-related death rate was 9.5 per 100,000 and fell below the state rate of 12.8 per 100,000.

The 2010-2012 Charles County fall-related death rate of 5.8 was a slight increase from the 2009-2011 rate of 5.0 per 100,000.

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. There were 2,340 pedestrian injuries in Maryland in 2009. Children are especially at risk for pedestrian injuries and fatalities.

The 2010-2012 Charles County pedestrian injury rate on public roads was 19.7 per 100,000. This is significantly lower than the Maryland state average rate of 41.2 per 100,000.

The Charles County rate has remained consistent for the last 5 years of data. The 2007-2009 average rate was 20.3 and similar to the 2010-2012 average rate of 19.7 per 100,000.

Injury References:

1. 2013 Charles County Injury/Motor Vehicle Accident Mortality Data. 2013 Maryland Vital Statistics Report. Maryland Department of Health and Mental Hygiene. Available at http://vsa.maryland.gov.

2. 2013 Child maltreatment data. Maryland Department of Human Resources. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

3. 2013 Charles County Emergency Department Visit Rate for Domestic Violence. 2013 Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

4.2012 Charles County and Maryland Suicide Rate. 2012 Maryland Vital Statistics Administration. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

5. 2010-2012 Charles County Fall related death rates. 2013 Maryland Vital Statistics Administration. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

6. 2010-2012 Pedestrian Injury Rate on public roads. Maryland State Highway Administration. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.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 did not perceive injuries, asthma, and services for the disabled as serious problems in the county. Injury received the lowest percentage of people reporting a serious problem. Traffic safety was seen as a "slight" or "moderate" problem.

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
Injuries	9	55	12
Highway Safety/Traffic Accidents	10	69	20

Survey participants reported improvements in traffic safety in Charles County (20%). This was the fourth highest percentage among the health conditions. Injuries reported the lowest percentage of people reporting any improvements (3%).

Health Issues where improvements have been seen	Response Count	Response Percent
Traffic Accidents	65	20
Injuries	9	3

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

- 95% always wear a seat belt
- 50% always follow road safety rules
- 39% always wear a helmet when riding a bike
- 72% always wear a helmet when riding an ATV, scooter, or motorcycle
- 15% always participate in daily physical activity

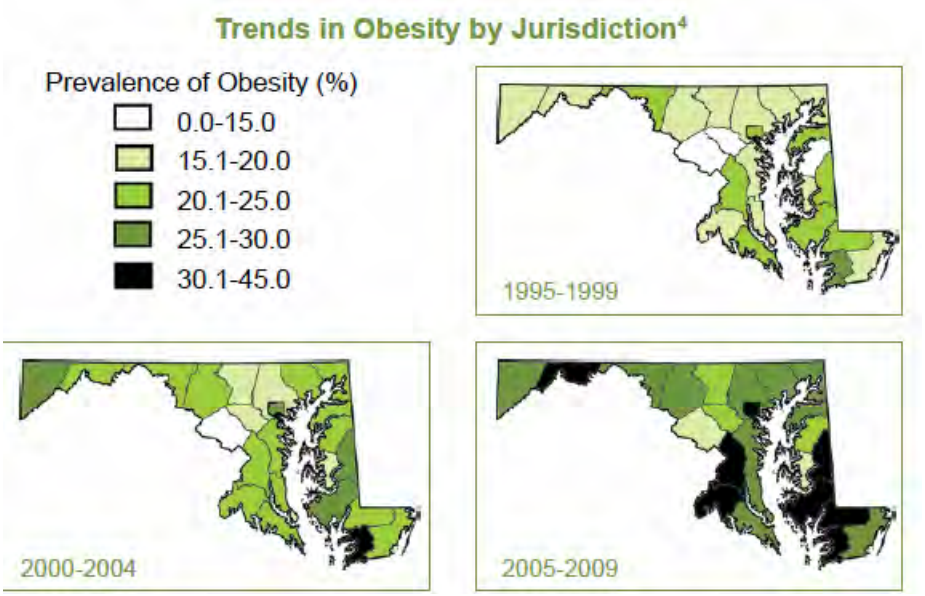
Injuries and Traffic Safety scored low on the short survey when participants were asked to choose the biggest health problems in Charles County. Six percent (6%) felt that injuries were the biggest health problem in Charles County. This was the lowest among the health conditions listed. 15% of the short survey participants chose Traffic Safety as the biggest health problem in Charles County. This was the third lowest percentage among the health conditions listed.

The prevention and safety focus group touched on safety issues that could decrease the presence of injuries in Charles County. These suggestions included more balance and physical activity programs among the county seniors and more programs to educate the community on driver safety.

Charles County Obesity and Overweight Data:

Introduction and General Statistics:

Overweight and obesity has increased steadily in the United States and Maryland over recent years. This increase in obesity has also been seen on a county level. Examining the map below, Charles County is one of few Maryland jurisdictions with obesity prevalence between 30-40% of the population. The county prevalence has doubled in the last decade.



Source: 2011 Chronic Disease in Maryland Facts and Figures

2013 Charles County adult obesity and overweight prevalence:

2013 Maryland BRFSS data estimates that over two-thirds of Charles County adults are either overweight or obese (72.1%). This is an increase from the 70.6% reported in the previous needs assessment report. Obesity prevalence was determined by weighting Charles County BRFSS BMI responses to reflect the county population. 2013 results found that 35.3% of Charles County adults are obese; and 36.8% are overweight. The Charles County obesity prevalence is higher than the Maryland state average obesity prevalence (35.3% vs. 28.3%). The Charles County overweight prevalence is higher than the Maryland state average overweight prevalence (36.8% vs. 35.9%).

BMI Status: Charles County	Healthy Weight	Overweight or Obese	Overweight	Obese
2013	27.9%	72.1%	36.8%	35.3%
Previous CHNA	29.4%	70.6%	37.9%	32.7%

Childhood Obesity:

High School Students 13-18 years:

Childhood obesity statistics on a state and county level are limited. The 2013 Maryland Youth Tobacco and Risk Behavior Survey (YTRBS) found that Maryland high school students have a 12.3% obesity prevalence and a 17% 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 and obesity was highest in the 11th grade. Hispanic high school students had the highest prevalence of obesity and overweight than any other racial or ethnic group.

Overweight Prevalence in High School Students: 2013 YTRBS	Total High School Population (%)	Male (%)	Female (%)
Total	17	15	19.1
Age			
15 and younger	18.3	16.8	19.9
16-17	17	15	19
18 and older	10.6	7.3	--
Grade			
9th	18.1	15.6	21.2
10th	16.6	17.3	15.8
11th	19.2	15.3	23
12th	14.3	11.9	16.7
Race/Ethnicity			
Black	18	13.7	22.7
Hispanic	24.8	20.1	29
White	15	17	12.9
All Other Races	10.1	--	--
Multiple Races	16.1	11.1	19.9

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

Obesity Prevalence in High School Students: 2013 YTRBS	Total High School Population (%)	Male (%)	Female (%)
Total	12.3	15.2	9.1
Age			
15 and younger	10.9	12.5	9.2
16-17	13.7	18.8	8.6
18 and older	10.9	10.5	--

Grade			
9th	12.4	15	9.3
10th	11.6	13.5	9.5
11th	13.4	17.2	9.8
12th	11.9	15.9	7.7
Race/Ethnicity			
Black	13.5	15.6	11.1
Hispanic	13	18.1	8.4
White	11.5	15.5	6.9
All Other Races	9.3	--	--
Multiple Races	9.4	10.8	8.4

The Maryland Pediatric Nutrition Surveillance Survey provides data on low-income children 2-5 years of age in the WIC Program. The 2009-2011 average obesity rate for Charles County children 2-5 years was 14.4% obesity rate. This is an increase from the 2006-2008 Charles County 2-5 year old obesity rate of 13% reported in the previous needs assessment report.

Determinants of Health:

Physical Activity:

Sedentary lifestyle increases risk of obesity, heart disease, hypertension, diabetes, and other chronic diseases and conditions. The Healthy People 2020 objective recommends engaging in moderate physical activity for at least 30 minutes, five or more days a week or vigorous physical activity for at least 20 minutes, three or more days a week for health benefits. Despite the benefits of physical activity, 2013 Maryland BRFSS data found that only 55.3% of Charles County residents are meeting physical activity recommendations each week. This is the highest percentage reported for any Maryland jurisdictions in the 2013 BRFSS and is well above the Maryland average percentage of 48%.

The 2013 BRFSS examined respondents by their physical activity levels. 37.5% of Charles County are highly active and get a minimum of 300 minutes of moderate physical activity or 150 minutes of vigorous physical activity each week. 16.7% are active and get between 150-300 minutes of moderate physical activity or 75-150 minutes of vigorous physical activity each week. The remaining 45.8% are insufficiently active or inactive each week. That is large percentage of the population who are at risk for obesity and health complications due to physical inactivity.

High Cholesterol:

An indicator of poor nutrition is high cholesterol. The 2013 BRFSS found that an estimated 33.7% of Charles County residents and 37% of Marylanders have been told that their cholesterol is high.

Sodium Intake:

34.3% of Charles County residents have been told by their doctor or health professional that they need to reduce their sodium or salt intake (2013 BRFSS). This percentage is much higher than the Maryland state average percentage of 25.5%.

Costs associated with Overweight and Obesity:

The economic consequences of overweight and obesity and associated health complications are considerable. Nationwide, in 2003, an estimated $75 billion of adult medical expenditures were attributable to obesity, with $17.7 billion paid for by Medicare and $21.3 billion by Medicaid. In Maryland, an estimated $1.5 billion of adult medical expenditures were attributable to obesity, with $368 million paid for by Medicare and $391 million by Medicaid (Burden of Overweight and Obesity in Maryland Report, DHMH).

Costs to overweight children, adolescents, and adults go far past the financial burdens. They often face issues of social discrimination and poor body image. Overweight or obese children and adolescents may face parental neglect and behavioral and learning problems.

The percentage of hospital discharges with obesity as part of the reason for the hospital stay has increased in Maryland for children aged 5-19 years from 1.4% in 2000 to 6.2% in 2008.

Increasing Proportion of Hospital Discharges for children aged 5-19 years with Obesity as a Co-morbidity, Maryland, 2000-2008

	Discharge Year																		Total	
	2000		2001		2002		2003		2004		2005		2006		2007		2008		Hospital Discharges	
Obesity	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	%	%	#	%
No	26,568	98.6	27,382	98.1	26,898	97.5	26,418	97.0	25,746	96.3	25,950	95.5	25,704	94.7	25,721	94.0	25,192	93.8	235,579	96.2
Yes	373	1.4	527	1.9	699	2.5	810	3.0	980	3.7	1,234	4.5	1,450	5.3	1,645	6.0	1,658	6.	9,376	3.8
Total	26,941	100	27,909	100	27,597	100	27,228	100	26,726	100	27,184	100	27,154	100	27,366	100	26,850	100	244,955	100.

Obesity and Overweight References:

1. 1995-2009 Cumulative Obesity Estimates for all Maryland Jurisdictions. 2001 Chronic Diseases in Maryland Facts and Figures Report. May 2011. Available at: http://phpa.dhmh.maryland.gov/cdp/pdf/Chronic-Disease-Maryland-Facts-Figures-2011.pdf.

2. 2013 Charles County and Maryland Overweight and Obesity Estimates. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at www.marylandbrfss.org.

3.2013 13-18 year old Charles County and Maryland overweight/obesity Estimates. 2013 Maryland Youth Tobacco and Risk Behavior Survey. Maryland CRF Program. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/cdp/SitePages/youth-risk-survey.aspx.

4. 2006-2008 and 2009-2011 2-5 year old Charles County and Maryland Obesity Estimates. United States Department of Agriculture. Economic Research Service. Available at: http://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas.aspx.

5. 2013 Charles County Obesity Health Complication and Risk Factor Data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at www.marylandbrfss.org.

6. 2000-2008 Maryland Hospitalizations with Obesity as a Co-Morbidity among those 5-19 years. Maryland Assessment Tool for Community Health. Available at: http://fha.maryland.gov/match.cfm.

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 (77%). It was also seen as a serious health problem by 43% of long survey participants (second most common response).

11% of long survey participants 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 12% always eat 5 or more servings of fruits and vegetables every day. 34% reported that they eat 5 or more servings of fruits and vegetables most of the time.

2. 5% always eat fast food at least once a week.

3. 13% eat fast food at least once a week most of the time.

4. Only 15% always participate in physical activity each day. 63% reported that they participate in daily physical activity sometimes or most of the time.

On the short survey, overweight/obesity was seen as the biggest health problem in Charles County. Nearly half of the respondents (48%) felt that overweight and obesity are a big health issue in Charles County. This was the most commonly reported health condition. When asked if services were available in Charles County to address obesity and overweight, only 33% 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, 46% 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, physical activity, and nutrition dominated many of the focus groups.

Childhood obesity continues to be a concern among focus group participants. The Charles County school nurses continue to see obesity as the number one health issue among the school aged population. They are seeing children diagnosed with chronic conditions such as Type 2 diabetes at a younger age.

The physical education teachers find it is harder to get students in the "healthy fitness" zone. The schools are working on the fitness component and not just the sports focus. The physical education programs are teaching the children how to set up their own fitness programs and not just concentrating on who can throw the furthest. The schools continue to work on eliminating the loss of recess time as a punishment for behavior. They are also looking at new ways to remain active even during indoor recess. They are giving teachers ideas on how to engage the students in the classroom.

Outside of the school day, county residents are joining local gyms as a family in order to get their overweight children active. Health insurance companies have expanded and will now reimburse gym memberships if you can show a usage log. Gym memberships and prevention are much cheaper than hospitalization and medical costs due to chronic disease. Physical activity is low among youth. Many gyms and trainers are working with obese youth to learn basic movement patterns.

Improvements have been made by food services within the school system to improve the school lunches. These are not the same foods that are in the stores. The pizza is healthier with whole grains and the frosted flakes are not the sugary things found in the stores. They are dealing with both childhood obesity and hunger. They must encourage them to eat but to make healthy choices.

Parks and Recreation expressed the importance of getting the word out about their programs for both children and adults. They are all reasonably priced. However, you can offer all the programs in the world, but you have to get people there. Factors such as time and transportation influence whether families will participate in after school activities. Many of our county residents do not have the time. Charles County is a bedroom community with many residents who have long commutes into the larger cities, such as Washington DC and Baltimore, for work. After their long commute, they do not want to go back out after dinner for physical activities.

The Fitness and Nutrition focus group discussed food preparation. This generation does not know how to fix food. They did not have grandma or mom at home to fix their dinner. Home economics is no longer taught in the schools. Both parents are working full time in order to afford to live here. The knowledge isn't there on how to prepare food. They have never even tried some vegetable or fruit options. How do we solve this problem? We need to build the infrastructure to increase more white-collar businesses into Charles County. Adding more restaurants only adds more low-paying service jobs and not skill professions. We need jobs here so people have shorter commutes and remain in the community. Then, they can engage in physical activity during their lunch breaks, in the morning, and in the early evening.

Focus group participants were asked how we may change the culture toward healthy. People need visuals. They need to see that their super size fries are equivalent to a stick of butter. There is a need for healthier food options in convenience stores and local grocery stores. We need to have more recreational opportunities so that we appeal to young families looking to move here. Participants also felt that fundraisers need to have a health focus such as swim night instead of Chick fil a night.

Many participants expressed a need for more education and awareness of county resources and programs to address obesity. People do not know where to go. There was also the discussion that many

of the programs were successful in addressing childhood obesity but have been discontinued due to lack of funding. The We Can Program, Healthy Stores, and the School Wellness Champions were cited as strengths in the community that successfully implemented behavioral level changes at the population level and in the targeted communities and schools. However, funding has dried up for each of these programs, and they could not be sustained. Additionally, the county currently has no free nutritional or dietary services and counseling. Focus groups participants were concerned that they cannot make any in-roads with families if the education is not readily available.

Charles County Communicable Disease and Environmental Health Data:

The table below shows the incidence for the twelve most commonly reported communicable diseases in Charles County in 2013. The communicable disease with the highest 2013 incidence count was Chlamydia.

Case Counts for Selected Notifiable Conditions Reported in Charles County, 2013

Selected Notifiable Conditions Reported in Charles County, 2013	**Case Counts**	**Incidence Rates per 100,000 population**
Chlamydia	754	496.4
Animal Bites	362	238.3
Gonorrhea	145	95.5
Lyme Disease	51	33.6
Aseptic Meningitis	17	11.2
Salmonellosis, other than typhoid fever	15	9.9
Mycobacteriosis, other than TB or leprosy	12	7.9
Primary and Secondary Syphilis	11	7.2
Invasive Group B Strep	8	5.3
Invasive Strep pneumoniae	7	4.6
Campylobacteriosis	5	3.3
Pertussis	4	2.6

Rabies:

No human rabies cases were reported in Charles County from 2010-2014. Charles County has seen a decline in animal rabies cases from 12 in 2010 to 8 in 2014. 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 2014 are presented below for overall animal rabies cases, bats, raccoons, and skunks.

2010-2014 Animal Rabies Case Counts for Charles County	**2010**	**2011**	**2012**	**2013**	**2014**
Total Animal Rabies Cases	12	14	14	9	8
Bat Rabies Cases	1	0	7	1	1

Raccoon Rabies Cases	7	6	6	3	4
Skunk Rabies Cases	1	1	1	0	1

Influenza Vaccination:

The 2011-2013 average percentage of Charles County residents who received a flu vaccination was 37.3%. The Charles County flu vaccination percentage is the 7th lowest in the state of Maryland. It was also much lower than the Maryland state average percentage of 53.1%. Charles County Whites had a higher rate of flu vaccination coverage than Charles County African Americans (41.8% vs. 29.2%).

Salmonella Infection Rate:

The Charles County 2011-2013 average salmonella infection rate was 11.5 per 100,000. This is lower than the Maryland state average rate of 14.5 per 100,000. The Charles County salmonella infection rate has remained steady since a 2008-2010 average infection rate of 11.0.

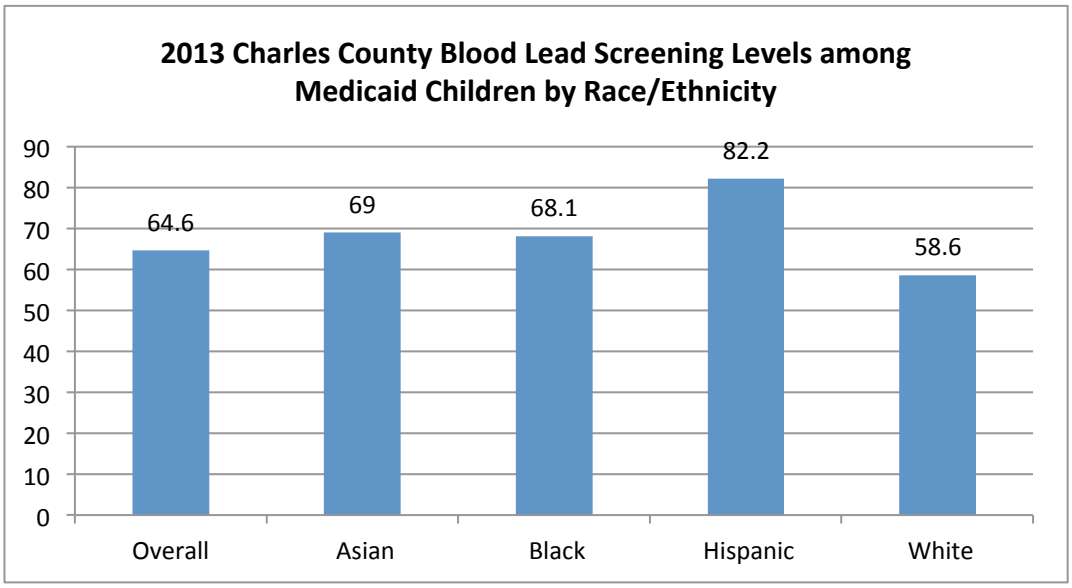
Environmental Health:

Blood Lead Levels:

The first indicator shows the percentage of children (aged 12-35 months) enrolled in Medicaid (90+ days) who had received a blood lead screening. Because symptoms may not be visible until blood lead levels of 70 µg/dL are reached, it is important to screen for elevated blood lead levels among toddlers.

In 2013, 64.6% of Charles County children enrolled in Medicaid had a blood lead screening. This is similar to the state percentage of 66.2%. Blood lead screenings were highest in Charles County Hispanics (82.2%) and lowest in Charles County Whites (58.6%).

The Charles County blood lead screening percentage has increased from 57.1% of Medicaid children in 2010 to 64.6% in 2013.



Communicable Disease and Environmental Health References:

1. 2013 Charles County Reportable Communicable Disease Data. Infectious Disease and Environmental Health Administration. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/SitePages/infectious_disease.aspx.

2. 2010-2014 Charles County and Maryland Rabies Data. Infectious Disease and Environmental Health Administration. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/SitePages/infectious_disease.aspx.

3. 2011-2013 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. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

4. 2011-2013 Charles County and Maryland Salmonella Infection Rates. Maryland Department of Health and Mental Hygiene: Infectious Disease and Environmental Health Administration. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

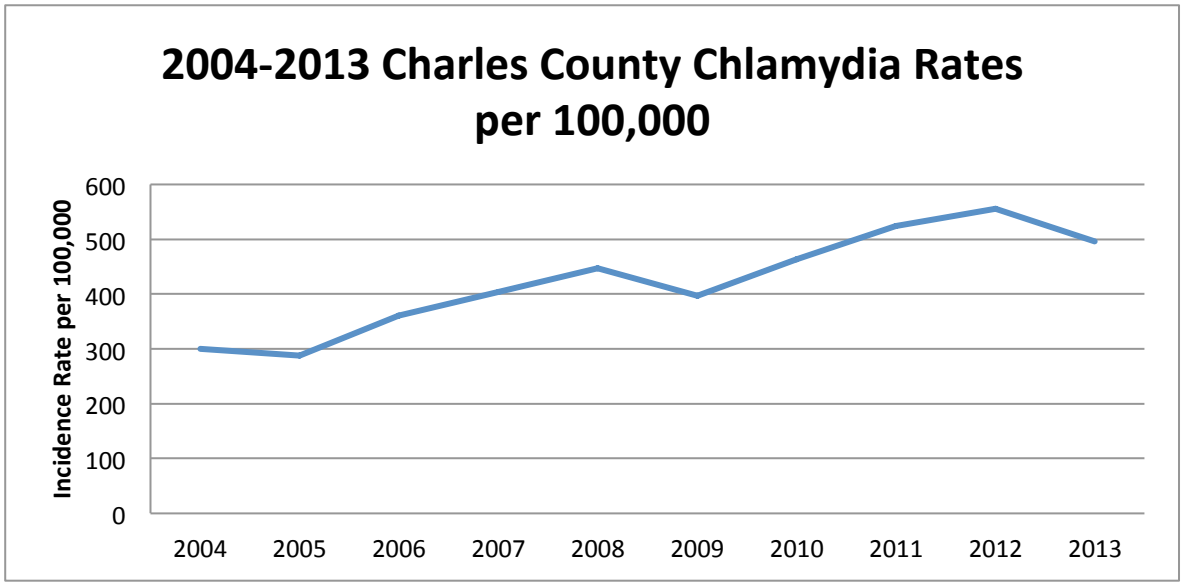
5. 2013 Charles County Blood Screening Percentages in Medicaid enrolled children. 2013 Maryland Medicaid Service Utilization data. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

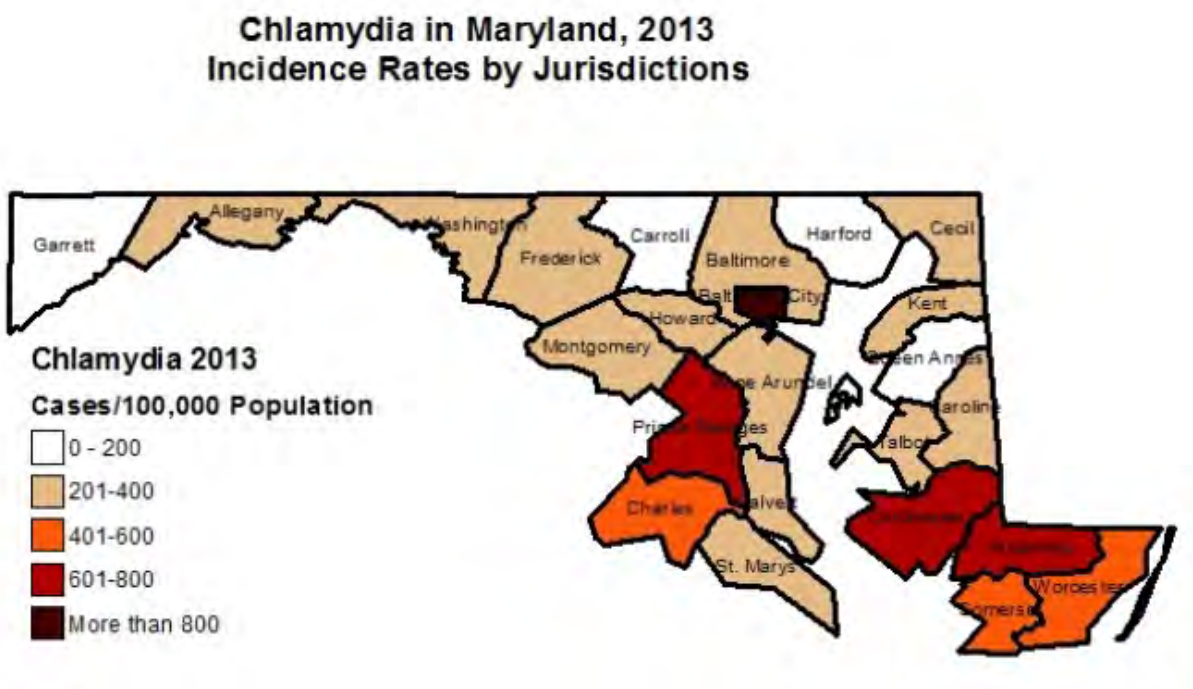
HIV/AIDS and STI's:

Sexually Transmitted Infections:

Chlamydia:

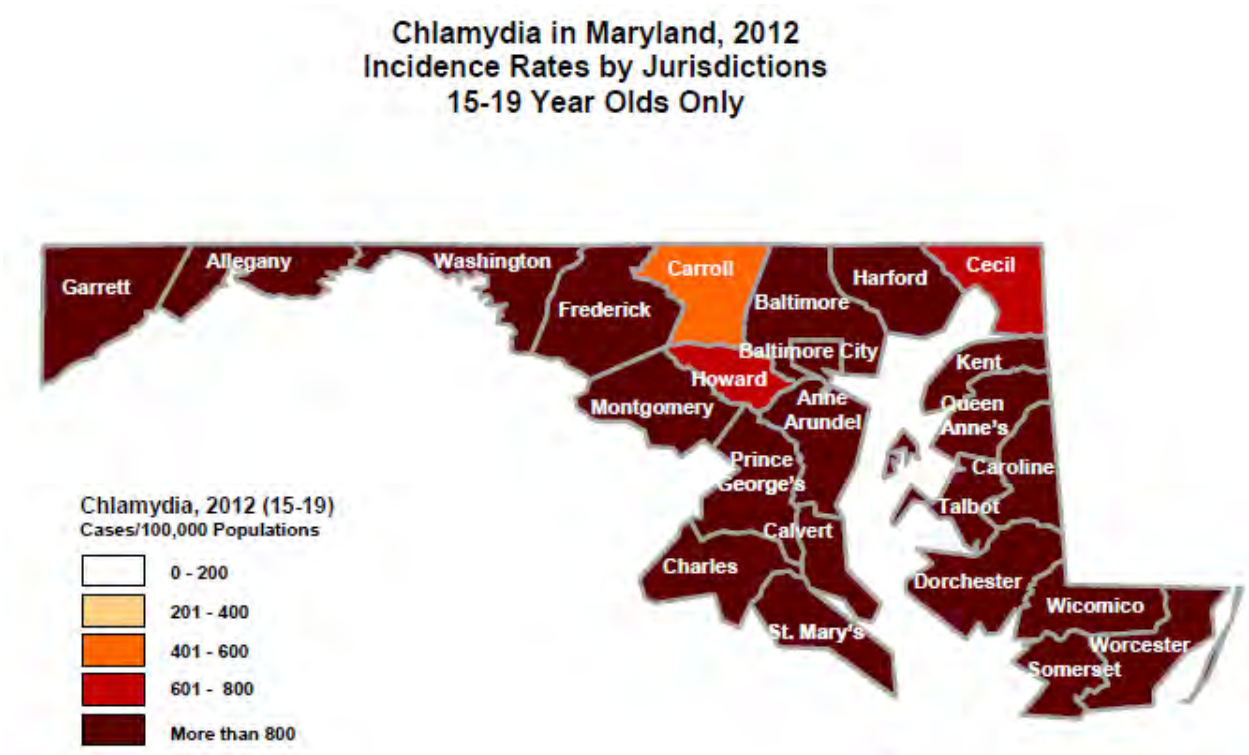
The STI incidence rates for Chlamydia, Gonorrhea, and Syphilis have all seen increases on the national, state, and local level. Charles County Chlamydia rates are generally below the state average rates. The 2013 Charles County Chlamydia incidence rate was 496.4, which is higher than the 2013 Maryland Chlamydia incidence rate of 450.7 per 100,000. The 2013 Charles County Chlamydia incidence rate is an increase from the 2009 rate of 396.7 reported in the last needs assessment report.





Source: Maryland Department of Health and Mental Hygiene. 2013 Epidemiology and Disease Control Programs.

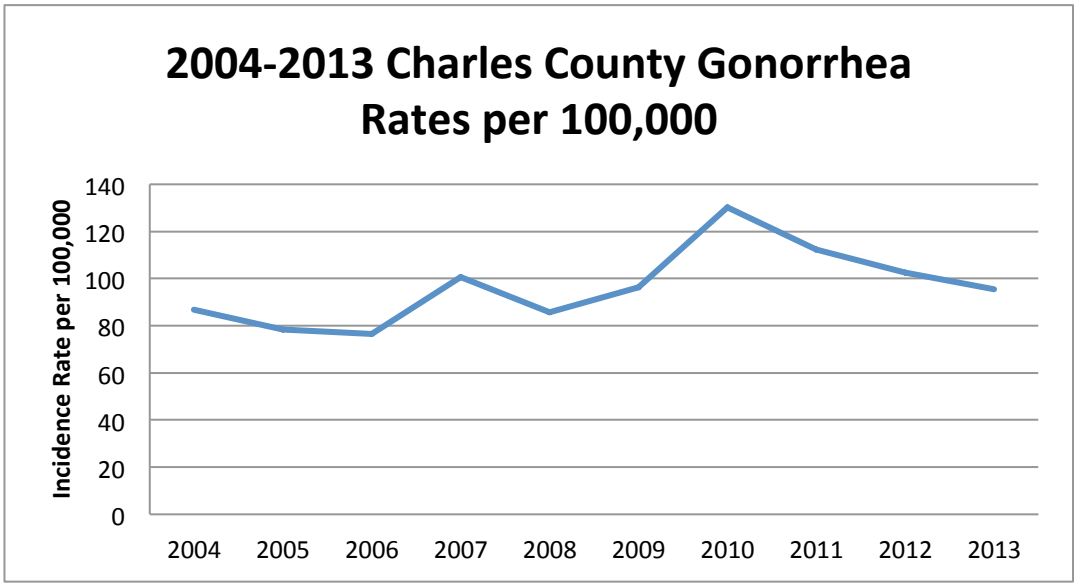
Adolescents are disproportionately affected by Chlamydia in Charles County. In 2012, the Charles County Chlamydia incidence rate for individuals aged 15-19 years was more than 800 per 100,000 population.

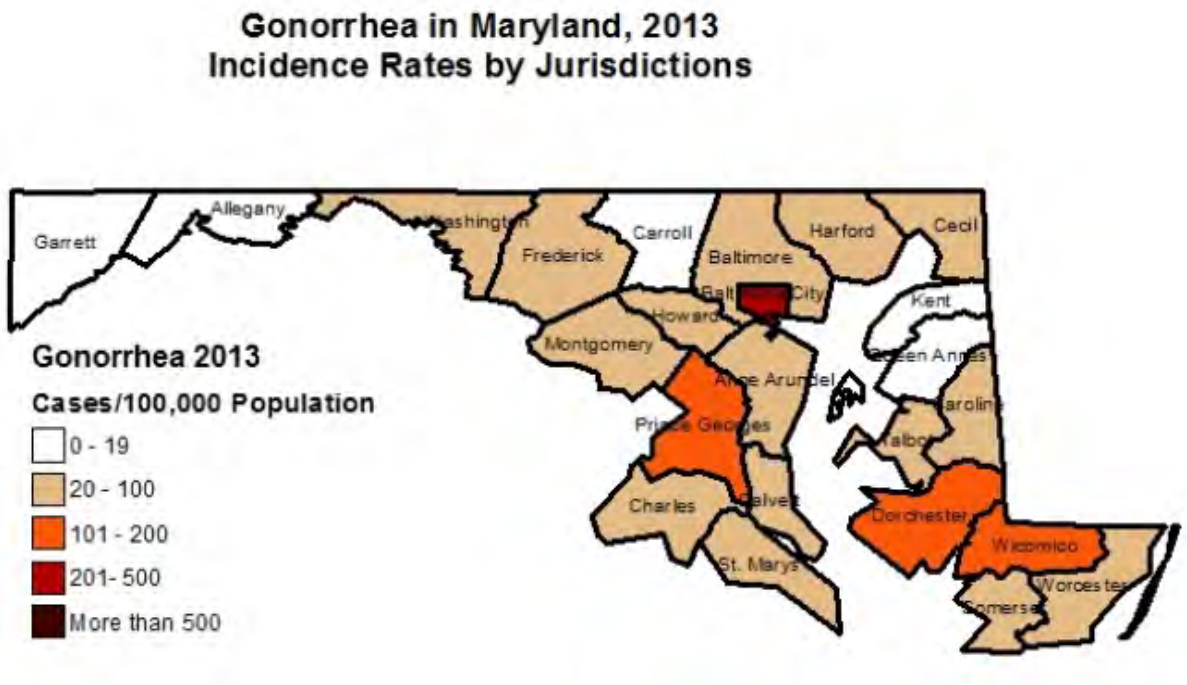


Source: Maryland Department of Health and Mental Hygiene. 2012 Epidemiology and Disease Control Programs.

Gonorrhea:

The 2013 Charles County Gonorrhea incidence rate was 95.5, which was slightly below the 2013 Maryland Gonorrhea incidence rate of 101.0 per 100,000. The 2013 Charles County Gonorrhea incidence rate is similar to the 2009 county rate reported in the last needs assessment report.

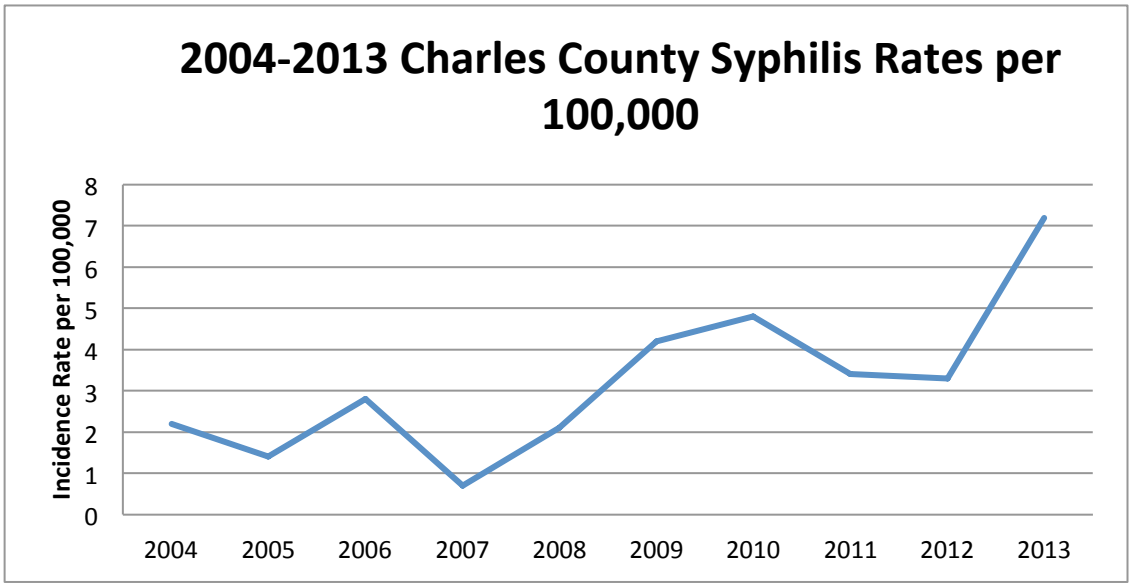


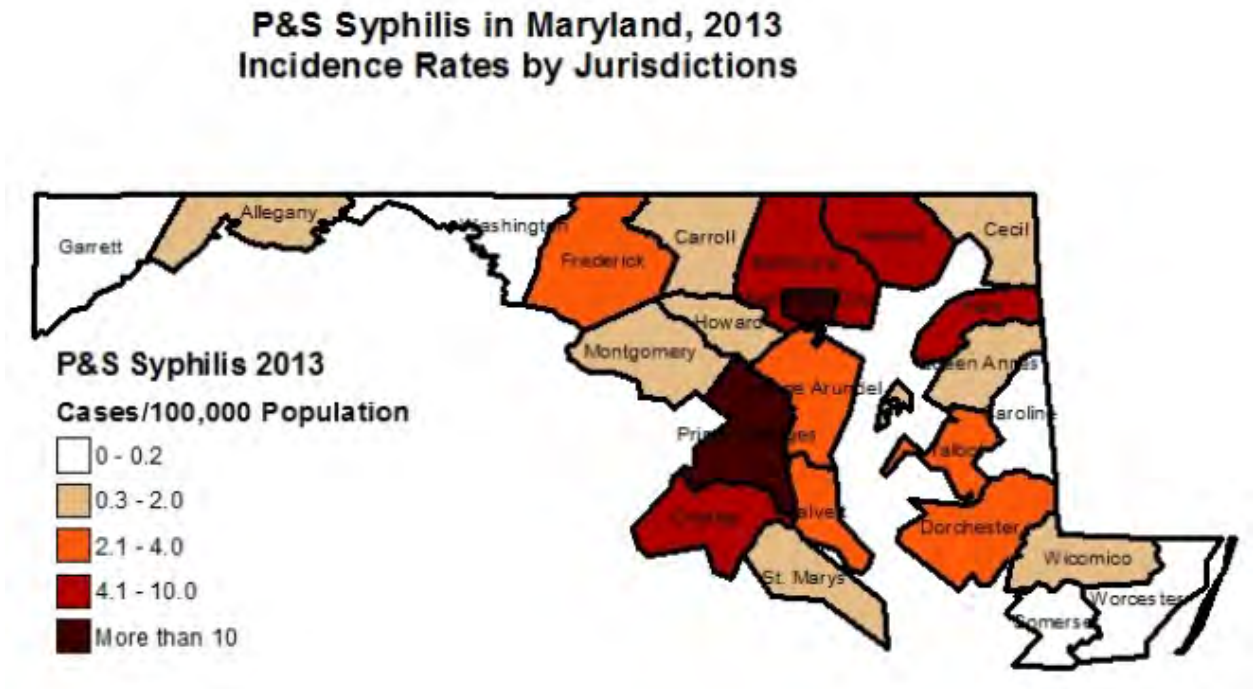


Source: Maryland Department of Health and Mental Hygiene. 2013 Epidemiology and Disease Control Programs.

Syphilis:

In terms of Syphilis, Charles County rates have been increasing. However, the number of cases each year is low, and the rate can change dramatically with just a few additional cases. The 2013 Charles County syphilis incidence rate was 7.2; the 2013 Maryland state syphilis incidence rate was similar at 7.7 per 100,000. The Charles County 2013 Syphilis incidence rate is an increase from the 2009 rate of 4.2 reported in the last needs assessment report. The 2013 Charles County Syphilis incidence rate is also the third highest rate among the Maryland jurisdictions.





Source: Maryland Department of Health and Mental Hygiene. 2013 Epidemiology and Disease Control Programs.

Demographics of Charles County HIV/AIDS Prevalence Cases:

In 2012, 27 people were diagnosed with HIV in Charles County. As of 12/31/2012, a total of 327 Charles County residents were living with HIV. Southern Maryland makes up only 2.0% of the total HIV cases in Maryland. The 2012 Charles County HIV prevalence rate was 262.0 per 100,000. The Charles County prevalence rate is significantly below the Maryland HIV prevalence rate of 588. However, the 2012 Charles County Living HIV/AIDS rate is an increase from the 2008 rate of 198 reported in the previous needs assessment report.

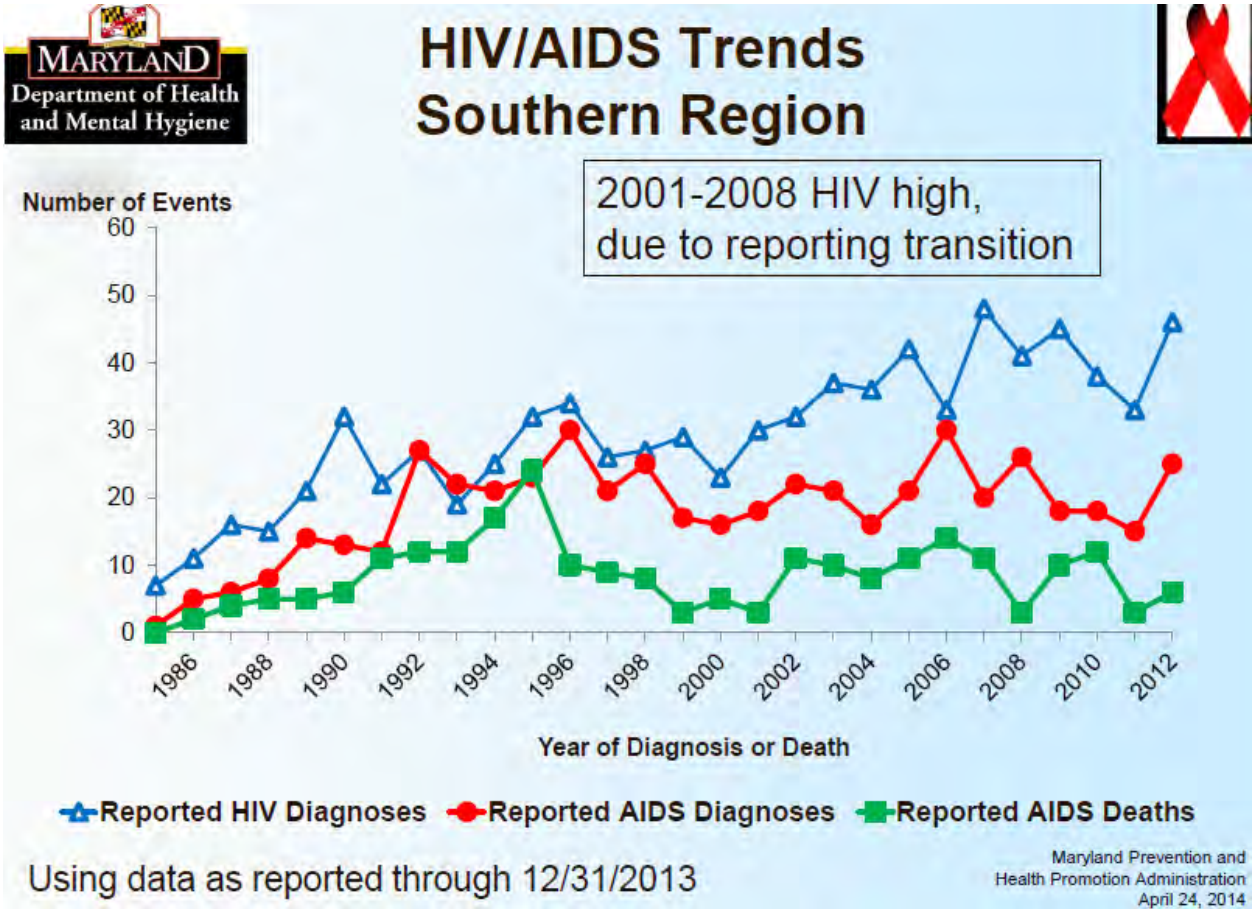
Of the 27 cases newly diagnosed with HIV in Charles County in 2012, 55.6% were linked to care within 3 months of their diagnosis. This percentage was lower than the Southern Maryland percentage of 62.2%.

Of the 327 Charles County living HIV cases as of 12/31/2012, 60.2% were retained in care and 45.3% had viral suppression.

The remaining data is presented for the Southern Maryland Region including Calvert, Charles, and St Mary's Counties.

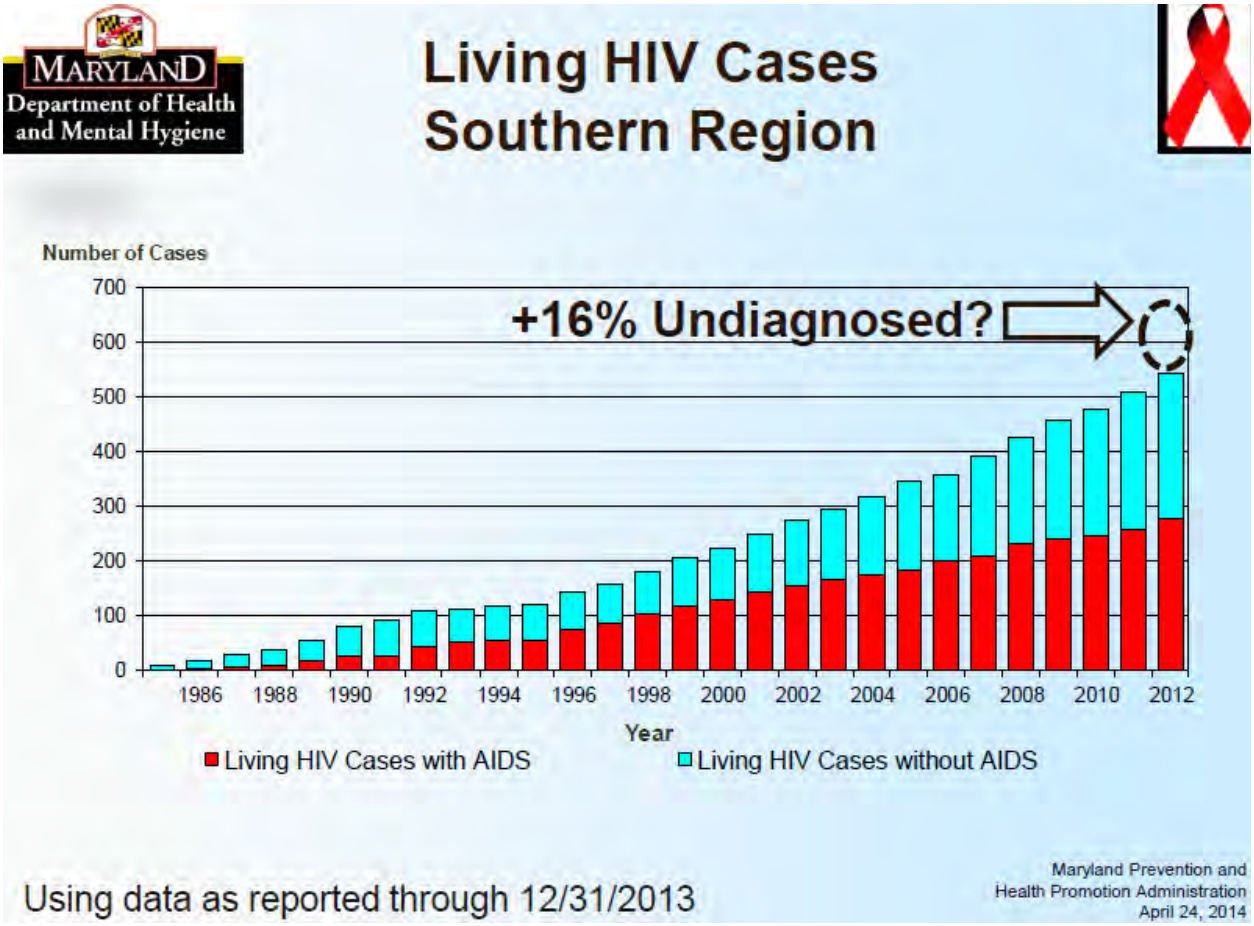
Trends in HIV/AIDS for the Southern Maryland Region:

Reported HIV diagnoses in Southern Maryland see fluctuation from year to year, but the general trend shows an increase in HIV diagnoses. Reported AIDS diagnoses have remained stable since their rise in the late 1980's and early 1990's. Deaths from AIDS have seen dramatic decreases since their peak in the mid-90's.



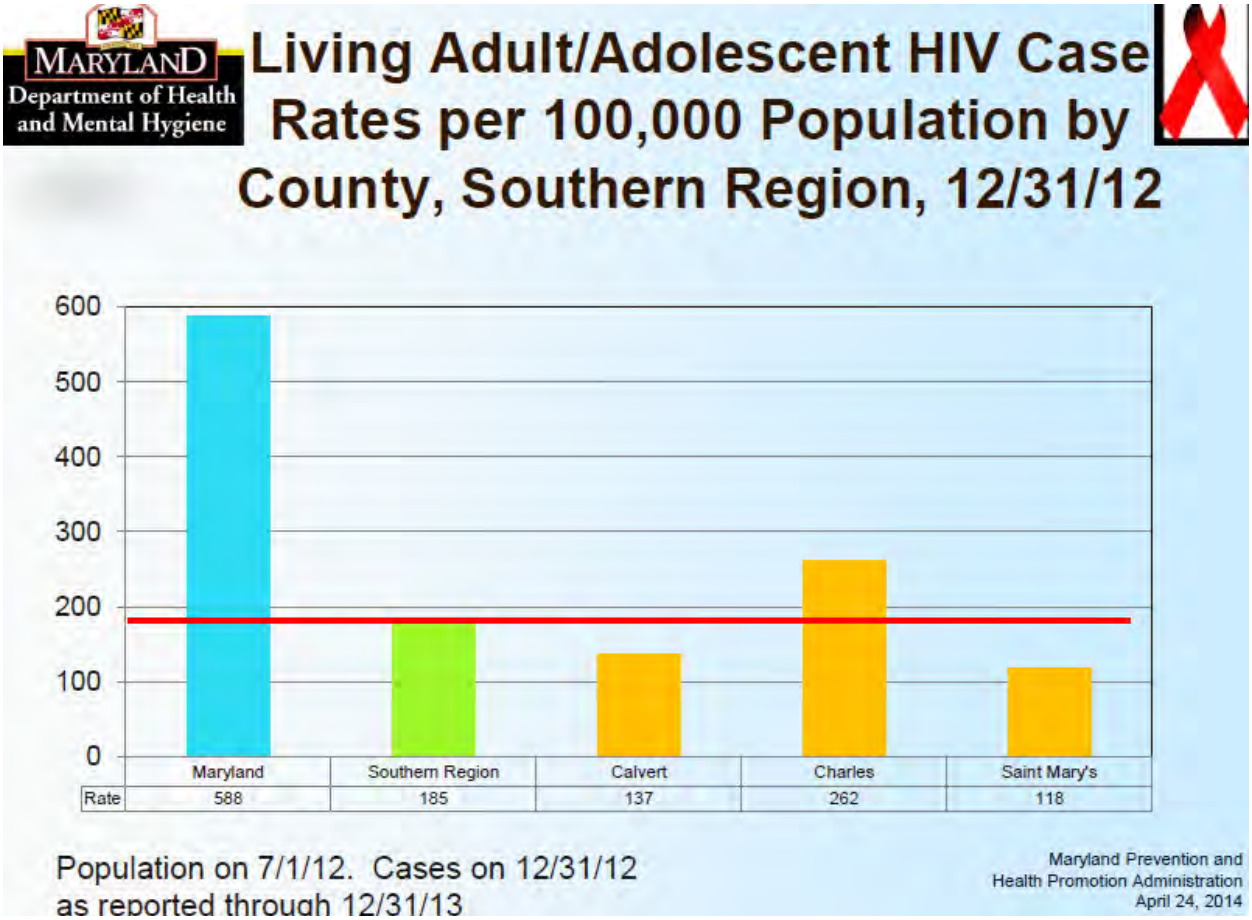
Living HIV Cases in Southern Maryland:

The total number of living HIV cases has increased steadily from 1985 to 2009. The number of living HIV cases with AIDS and the number of HIV cases without AIDS is approximately equal. It is estimated that greater than 16% of living HIV cases in Southern Maryland have yet to be diagnosed.



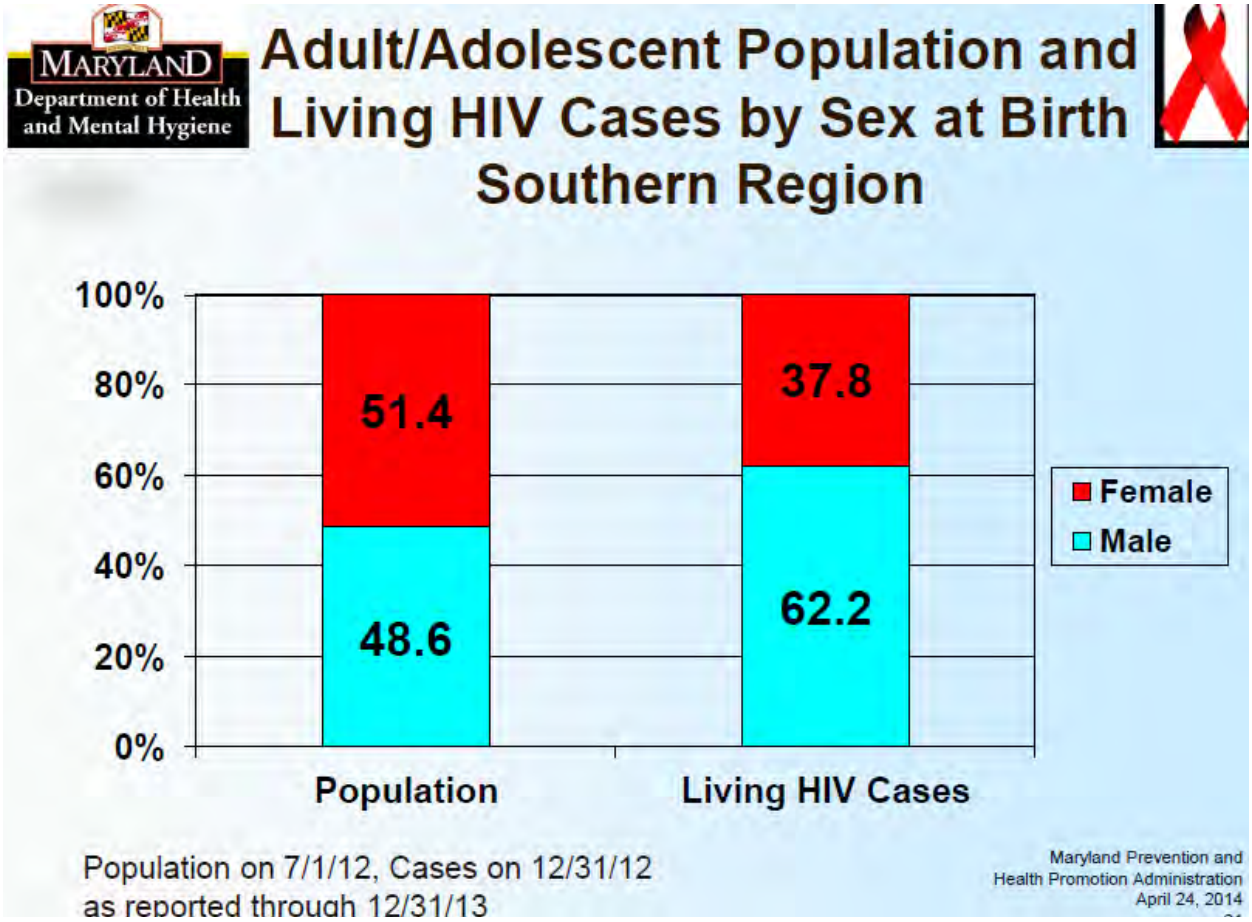
Living HIV Cases Rate per 100,000 population by County, Southern Maryland, 2013:

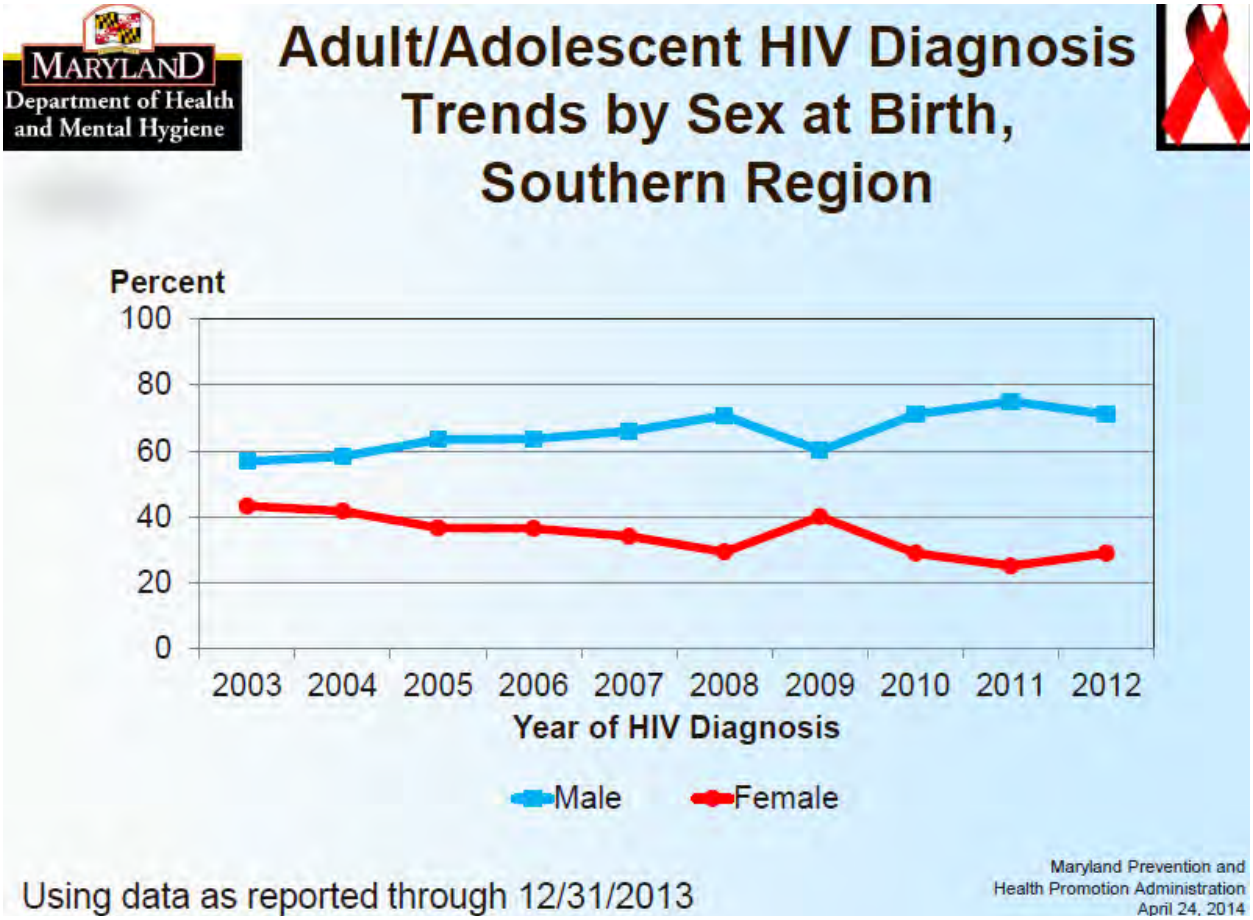
Charles County has the highest living HIV case rates among the Southern Maryland jurisdictions at 262 per 100,000. However, Charles County's rate is much lower than the Maryland state average rate of 588.



Reported HIV Diagnosis Trends by Sex, Southern Maryland Region:

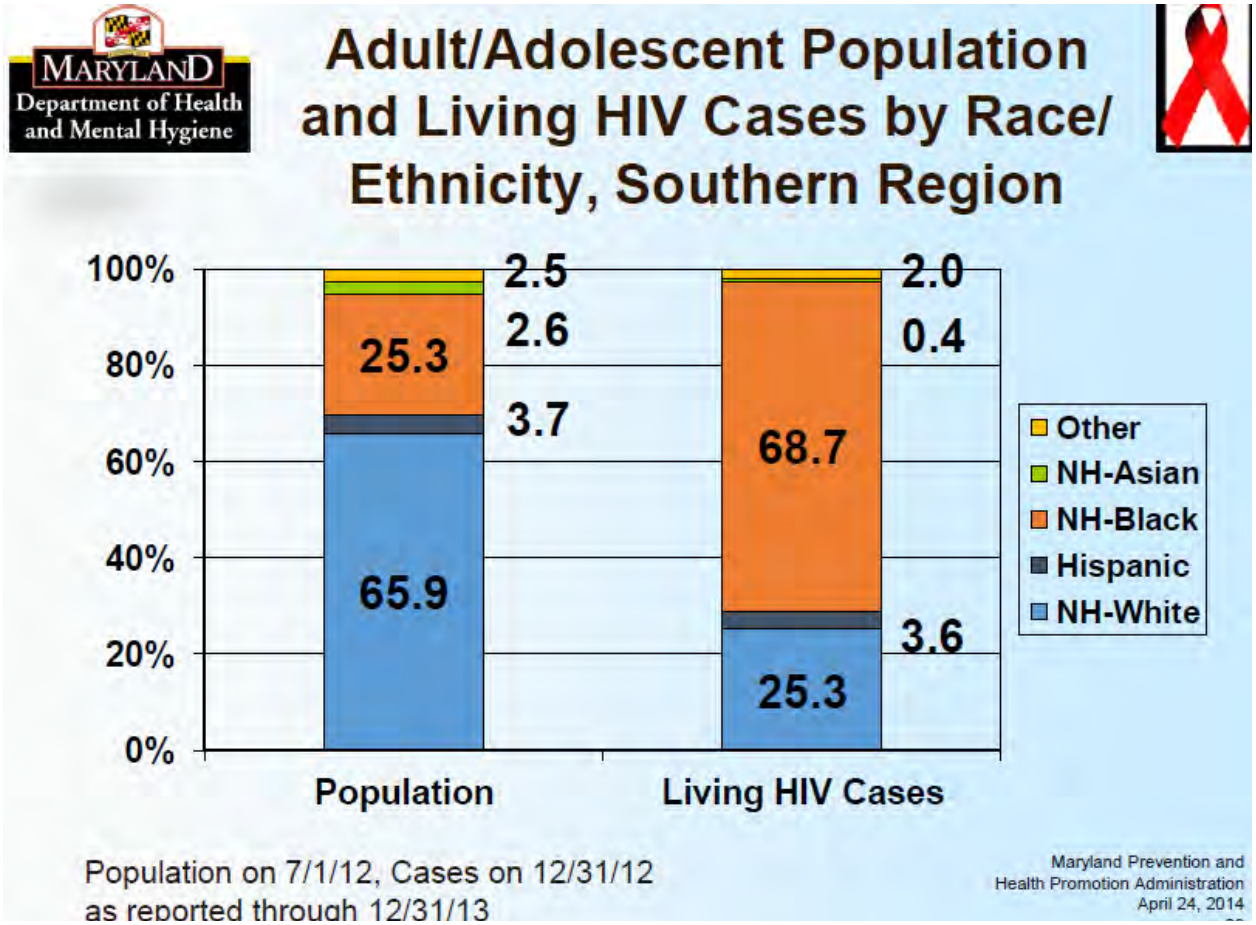
For the last decade, more males have been diagnosed with HIV in Southern Maryland than females. Males have represented approximately two-thirds of the yearly HIV diagnoses for most of the last decade.


MARYLAND
Department of Health and Mental Hygiene
Adult/Adolescent Population and Living HIV Cases by Sex at Birth
Southern Region
100%
80%
60%
40%
20%
0%
51.4
48.6
37.8
62.2
Female
Male
Population
Living HIV Cases
Population on 7/1/12, Cases on 12/31/12 as reported through 12/31/13
Maryland Prevention and Health Promotion Administration
April 24, 2014



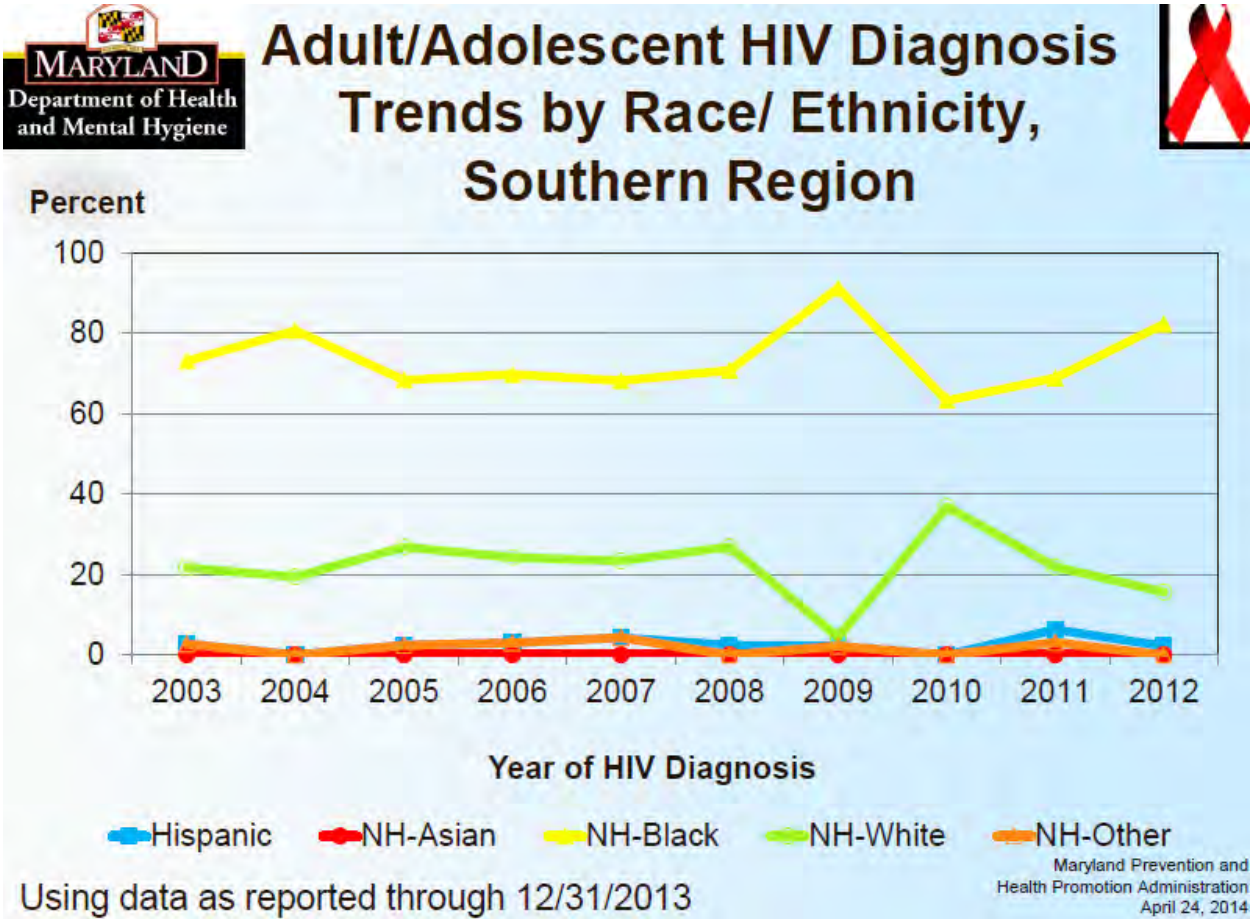
Population and Living HIV Cases by Race/Ethnicity, Southern Maryland Region:

African Americans in Southern Maryland are disproportionately affected by HIV. African Americans make up 25.3% of the total regional population; however, they represent 68.7% of the living HIV cases in Southern Maryland.



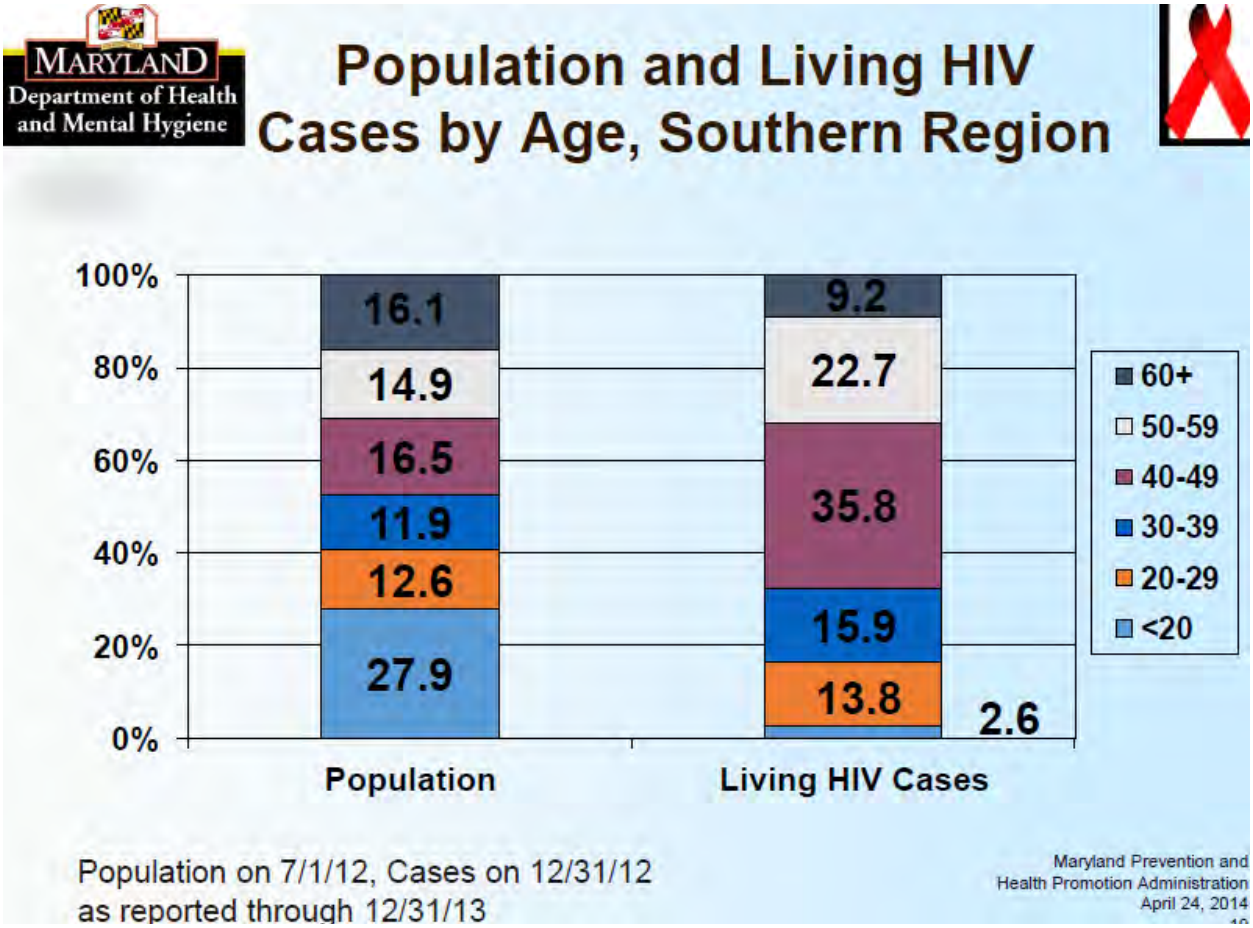
Reported HIV Diagnosis Trends by Race/Ethnicity, Southern Maryland Region:

HIV diagnoses for African Americans are well above all other races in Southern Maryland and are currently rising. There is a downward trend in HIV diagnoses for Caucasians, and HIV diagnoses for all other races appear steady.



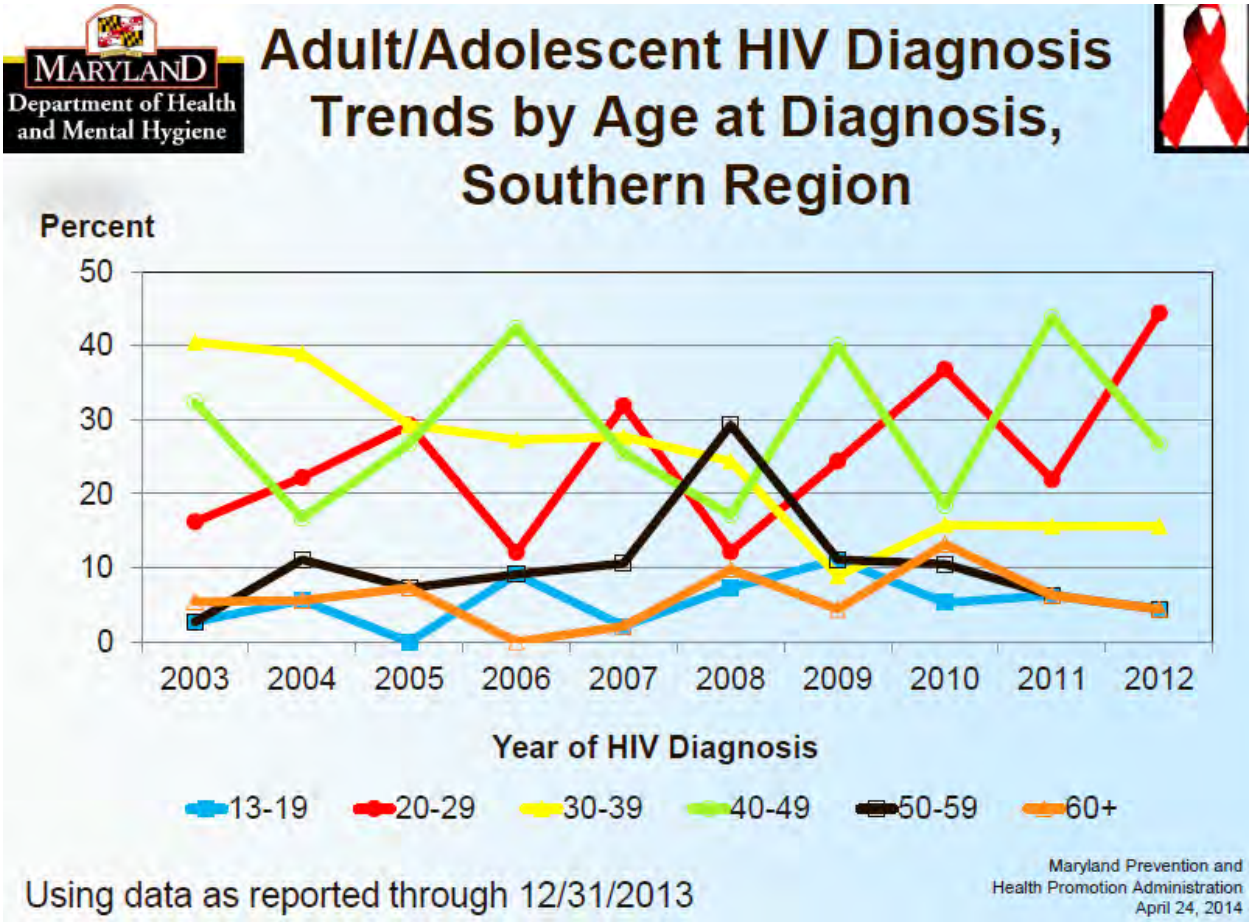
Population and Living HIV Cases by Age, Southern Maryland Region:

Persons aged 30-59 in Southern Maryland are disproportionately affected by HIV. The age group with the largest discrepancy is the 40-49 year old group. They represent 16.5% of the total regional population; however, they are 35.8% of the total living HIV cases in Southern Maryland.



Reported HIV Diagnosis Trends by Age of Diagnosis:

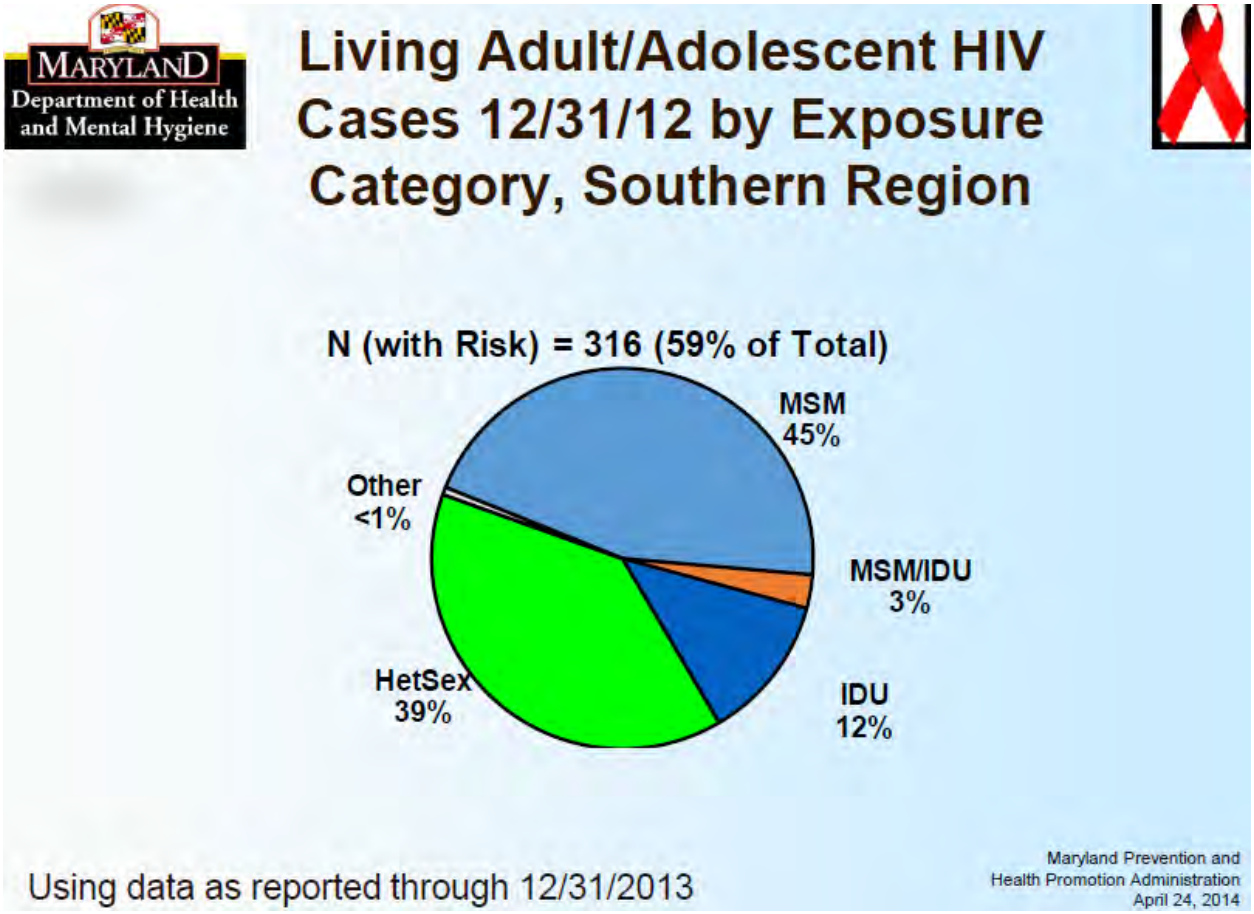
Recent increases in HIV diagnoses have been seen for the 20-29 and 40-49 year old populations. Large declines have been seen in the number of HIV diagnoses among those aged 30-39 years. HIV diagnoses have remained fairly steady for those less than 20 years and those greater than 60 years.



Living HIV Cases 12/31/2012 by Exposure Category, Southern Maryland region:

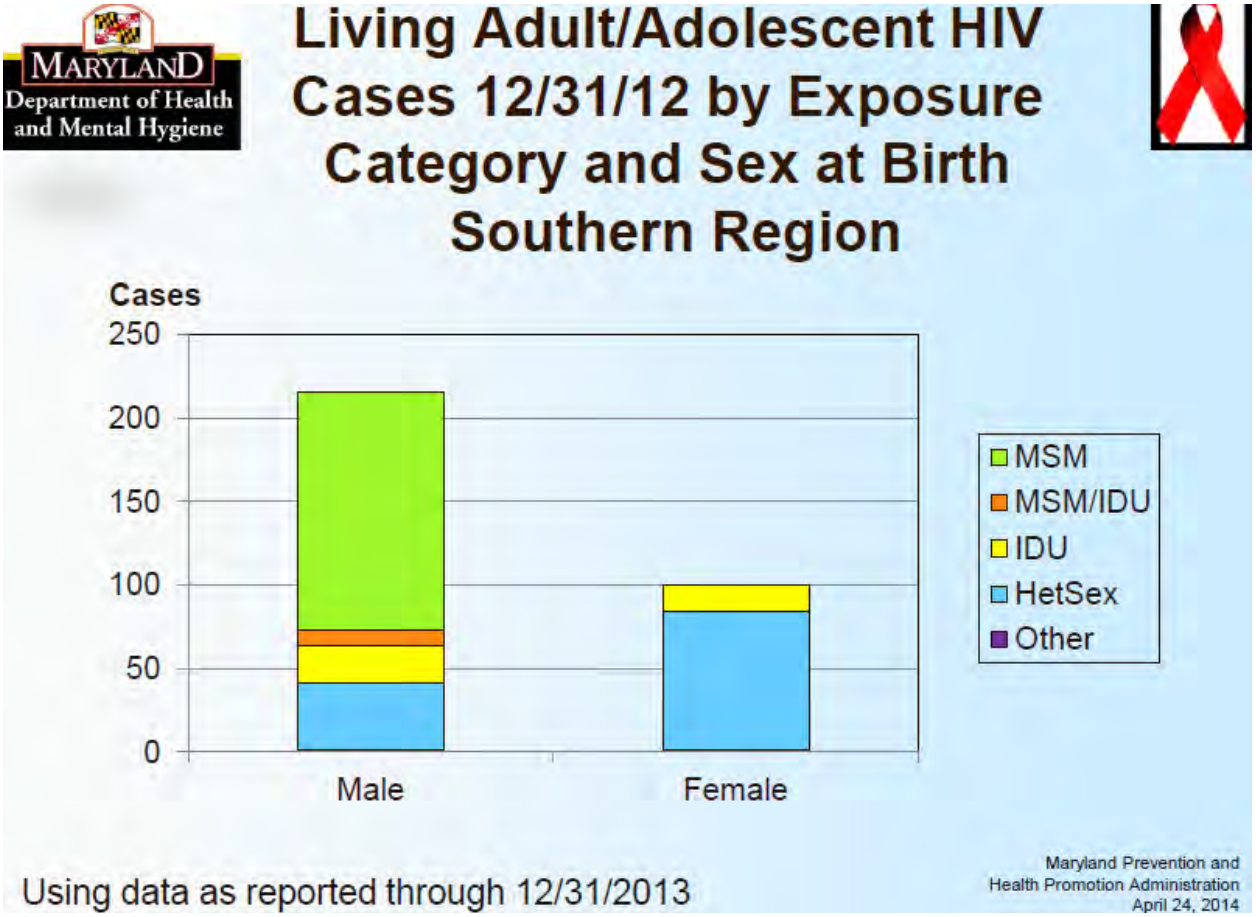
59% of the living HIV cases in Charles County have a known HIV/AIDS risk factor. The most common risk factors seen among HIV prevalence cases in Southern Maryland include heterosexual contact with a person who has or is at risk for HIV infection (39%) and men who have sex with men (45%).

MSM: Men who have sex with men
IDU: Injection drug use
MSM/IDU: Men who have sex with men and inject drugs
HetSex: Heterosexual Contact with a person who has or is at risk for HIV infection



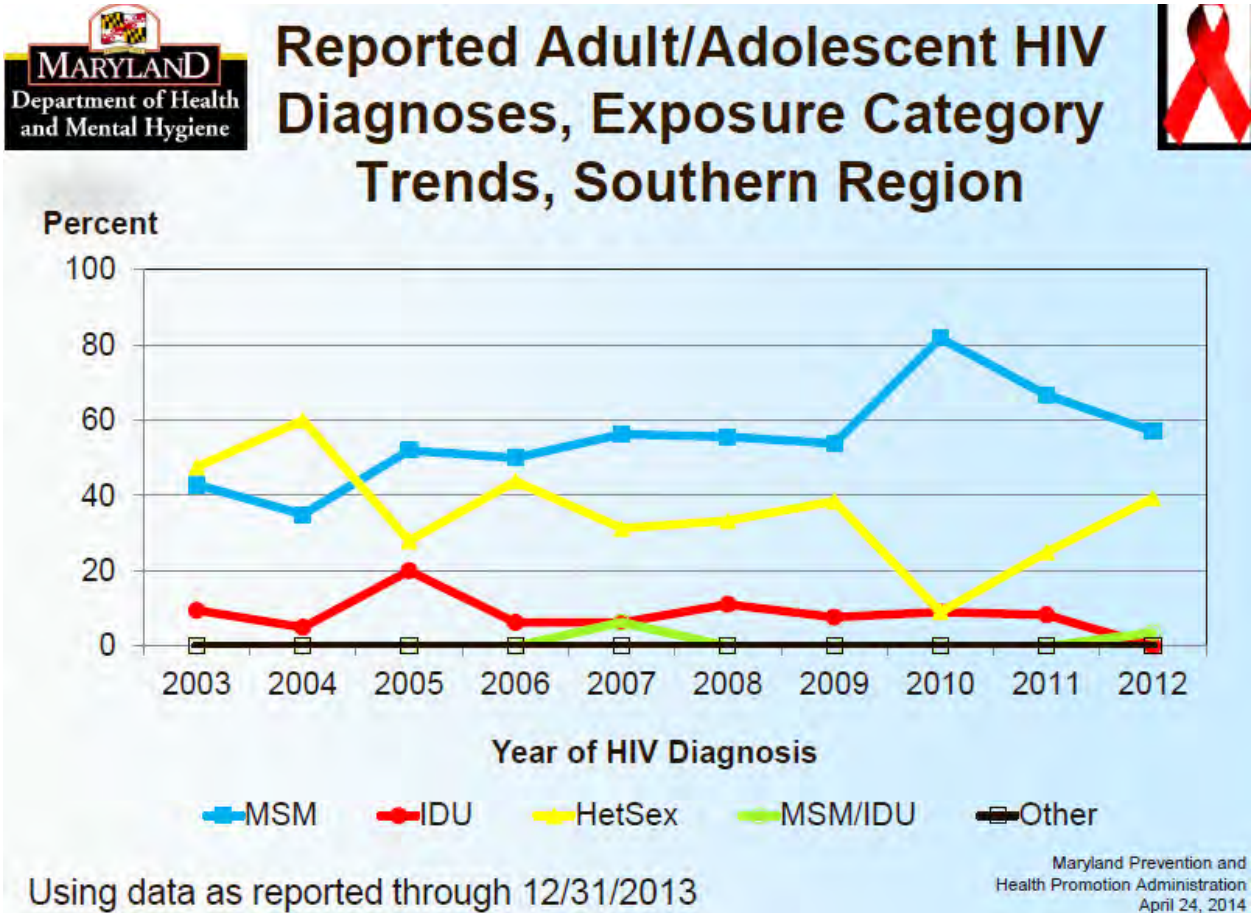
Living HIV Cases 12/31/2012 by Risk and Sex at Birth, Southern Maryland Region:

The most common risk factor among male HIV prevalence cases in Southern Maryland is men who have sex with men.
The most common risk factor among female HIV prevalence cases in Southern Maryland is having heterosexual contact with someone who has or is at risk for HIV infection.

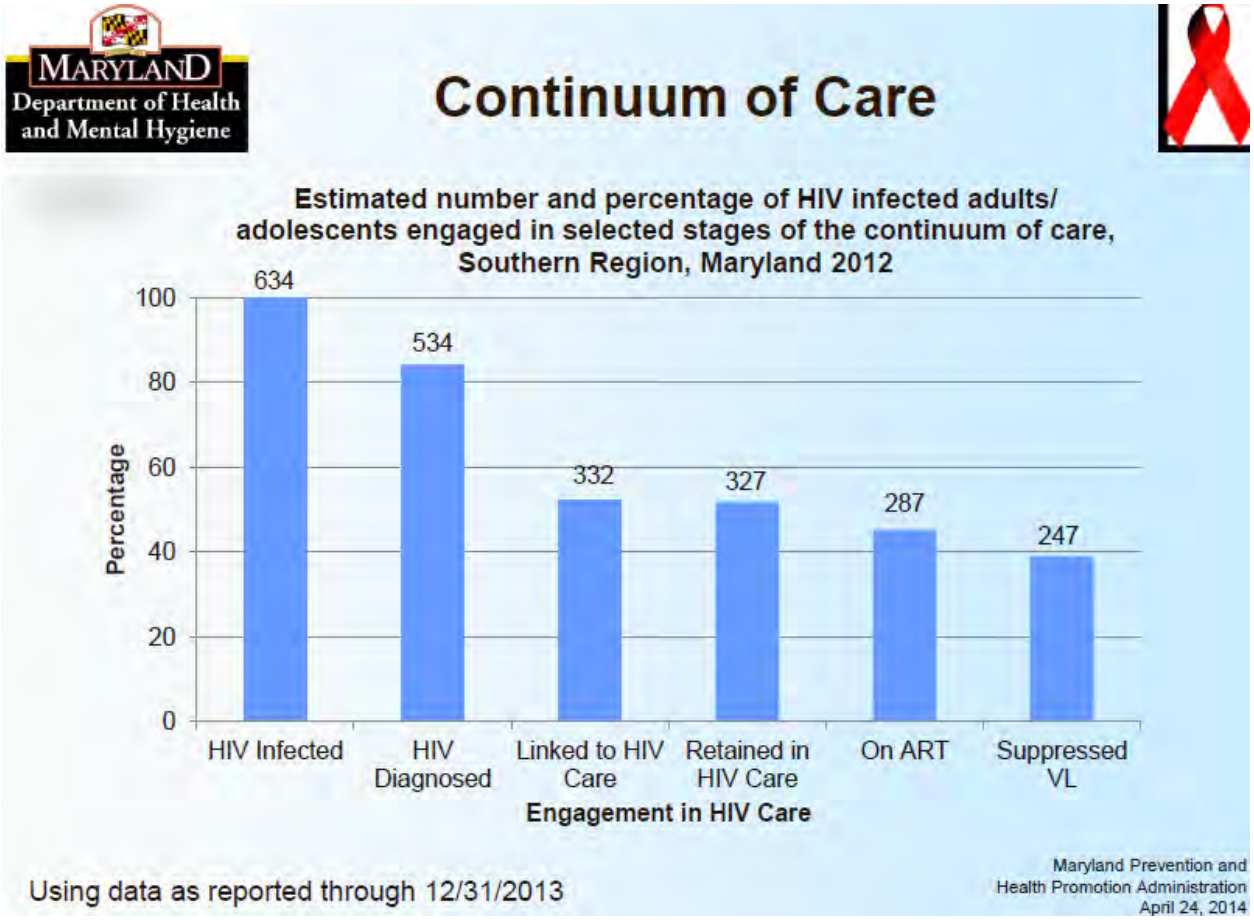


Reported HIV Diagnoses Exposure Category Trends, Southern Maryland Region:

HIV diagnoses for heterosexual contact have seen decreases in the last decade. However, MSM is becoming an increasingly more prevalent risk factor for exposure. However, 2011 and 2012 data shows decreases in MSM exposure and increases in heterosexual contact.


MARYLAND
Department of Health and Mental Hygiene
Reported Adult/Adolescent HIV Diagnoses, Exposure Category Trends, Southern Region
Percent
100
80
60
40
20
0
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year of HIV Diagnosis
MSM
IDU
HetSex
MSM/IDU
Other
Using data as reported through 12/31/2013
Maryland Prevention and Health Promotion Administration
April 24, 2014

Continuum of Care:



- There were 534 living HIV cases at the end of 2012 and 45 reported HIV diagnoses during 2012
- Charles County had the greatest share of living cases (61%)
- Rates of living cases were 2 higher in Charles County than the other Southern Maryland counties.
- Males were disproportionately affected (62% of cases vs. 49% of population) and the proportion male was increasing.
- Non-Hispanic blacks were disproportionately affected (69% vs. 25%), the proportion was stable.
- Persons 30-59 years old were disproportionately affected (74% vs. 43%), but the proportions were decreasing among 30-39 year olds.
- Sexual transmission predominates (>84%)
  -Homosexual and heterosexual transmission among men
  -Heterosexual transmission among women
  -Male homosexual transmission proportion was increasing
- Injection drug use is an important route of transmission (>12%), but the proportion IDU was decreasing.

HIV/AIDS/STI References:

1. 2004-2013 Charles County and Maryland Chlamydia, Gonorrhea, and Syphilis Rates. Maryland Department of Health and Mental Hygiene. Infectious Disease and Environmental Health Administration. Available at: http://phpa.dhmh.maryland.gov/OIDPCS/CSTIP/SitePages/Home.aspx.

2. 2012 Charles County and Maryland HIV/AIDS Diagnoses and Living Cases. Maryland Department of Health and Mental Hygiene. Infectious Disease and Environmental Health Administration. Southern Maryland HIV/AIDS Epidemiological Profile. April 24, 2014.

Qualitative Data Relating to Communicable Disease, Environmental Health, Sexually Transmitted Infections, HIV/AIDS:

Just about half of the long survey participants reported that HIV/AIDS (48%) and sexually transmitted diseases (51%) are a problem in Charles County on some level. Only 14% felt that HIV/AIDS is a "serious problem." 18% reported that sexually transmitted diseases are a "serious problem" in the county.

Environmental Health was seen as a problem in Charles County by over half of the respondents (56%) and 51% for flu and pneumonia. Environmental health and flu/pneumonia were given high percentages reporting no problem in the county (15%).

Health Issue/Condition:	Percent Reporting No Problem in county	% Reporting this as a problem at any level	Percent Reporting this as a serious problem
HIV/AIDS	12	48	14
Sexually transmitted diseases	11	51	18
Flu/Pneumonia	15	51	7
Environmental Health	15	56	12

Behavioral risk factor data relating to communicable disease, STI's, HIV/AIDS included:

- 84% reported that they always wash their hands before they prepare food and after they use the bathroom;
- 55% always get a flu shot each year;
- 68% always practice safe sex;
- 97% never use illegal drugs.

Communicable diseases were not a topic of discussion at many of the focus groups. The Reproductive Health and Infant Health focus group did discuss sexually transmitted diseases and AIDS and an increase in the Men having Sex with Men (MSM) population.

Participants of the special population focus group responded to topics regarding environmental health in Charles County. Unhealthy homes, particularly those without indoor plumbing and a potable water supply, were of concern. They are also concerned about impaired recreational waters. There is a need to

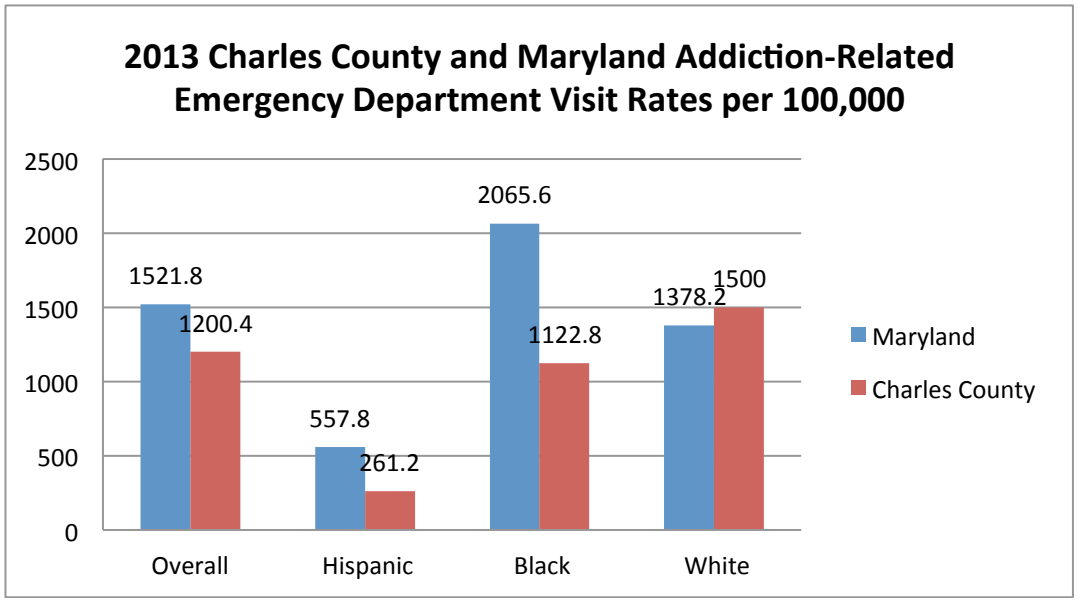
secure grant funding to address public environmental health concerns such as storm water management, lack of indoor plumbing and potable water supplies, and impaired recreational waters.

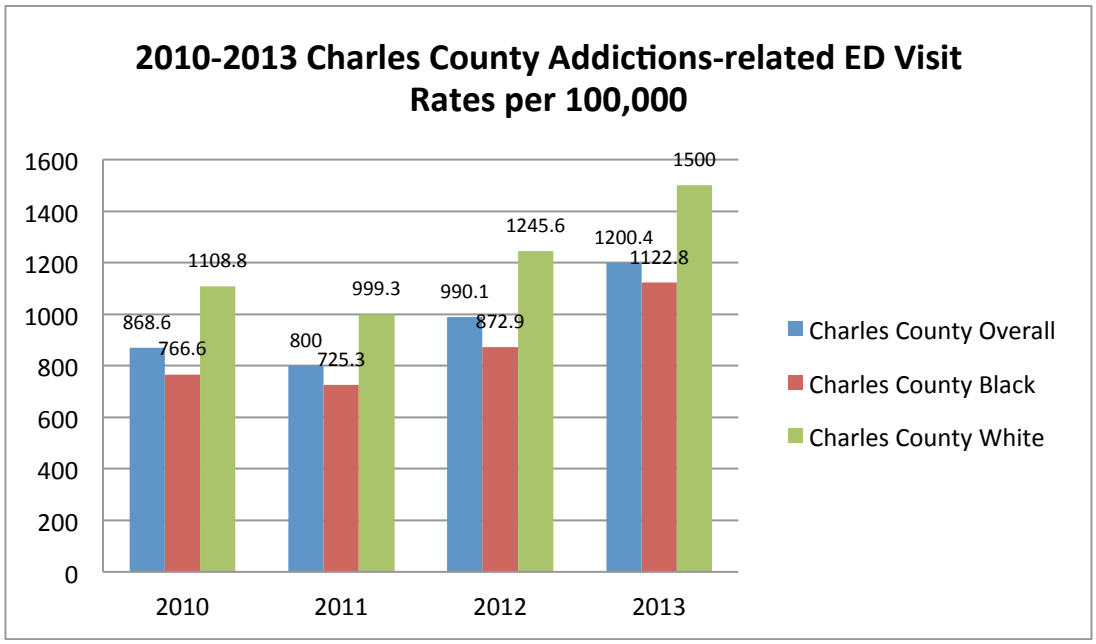
Charles County Substance Use Disorder Data:

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 persons in crisis utilize emergency departments instead of other sources of care when available. In Maryland, there were 66,383 emergency department visits for substance related disorders in 2010.*Diagnoses include alcohol-related disorders and drug related disorders. The 2013 Charles County emergency department visit rate for addiction-related conditions was 1200.4 per 100,000. This rate is below the state average rate of 1521.8 per 100,000. The county rate is highest among Non-Hispanic Whites with an ED visit rate of 1500 compared to 1122.8 for Charles County Blacks and 261.2 for Charles County Hispanics.

The Charles County Addiction-related ED visit rate has continued to climb each year from 868.6 in 2010 to 1200.4 in 2013. The largest increase in Addiction-related ED visit rates was observed among Charles County Whites who increased from 1108.8 in 2010 to 1500 in 2013.





Substance use related ED visit rates have increased from 2009-2013 for all Charles County available zip codes with the exception of Bryans Road (20616). Rates could only be calculated for zip codes with a population greater than 5000 people. Disparities can be seen in substance use ED visits rates by zip code of residence. The highest rates of addictions related emergency department visits are among those living in the zip codes of La Plata (20646) and Indian Head (20640). The zip code with the greatest increase from 2009 to 2013 was La Plata (20646). This may be due to the fact that the county hospital is located within this zip code.

ED Visits for Addictions Related Conditions per 100,000 Population, 2009-2013

Zip Code	2009	2010	2011	2012	2013
20601	675.5	884.4	690.2	1083.5	1249.5
20602	815.8	970.4	850.9	971.5	1207.8
20603	460.9	409.0	395.9	601.6	605.0
20613	622.8	556.4	593.7	719.4	1094.1
20616	987.2	987.4	1066.5	917.6	770.5
20637	756.1	625.4	755.4	829.4	894.6
20640	1053.2	1102.2	1136.7	1262.9	1539.4
20646	1049.0	1130.3	1015.1	1293.9	1865.3
20695	683.0	879.7	1011.5	880.5	1072.3

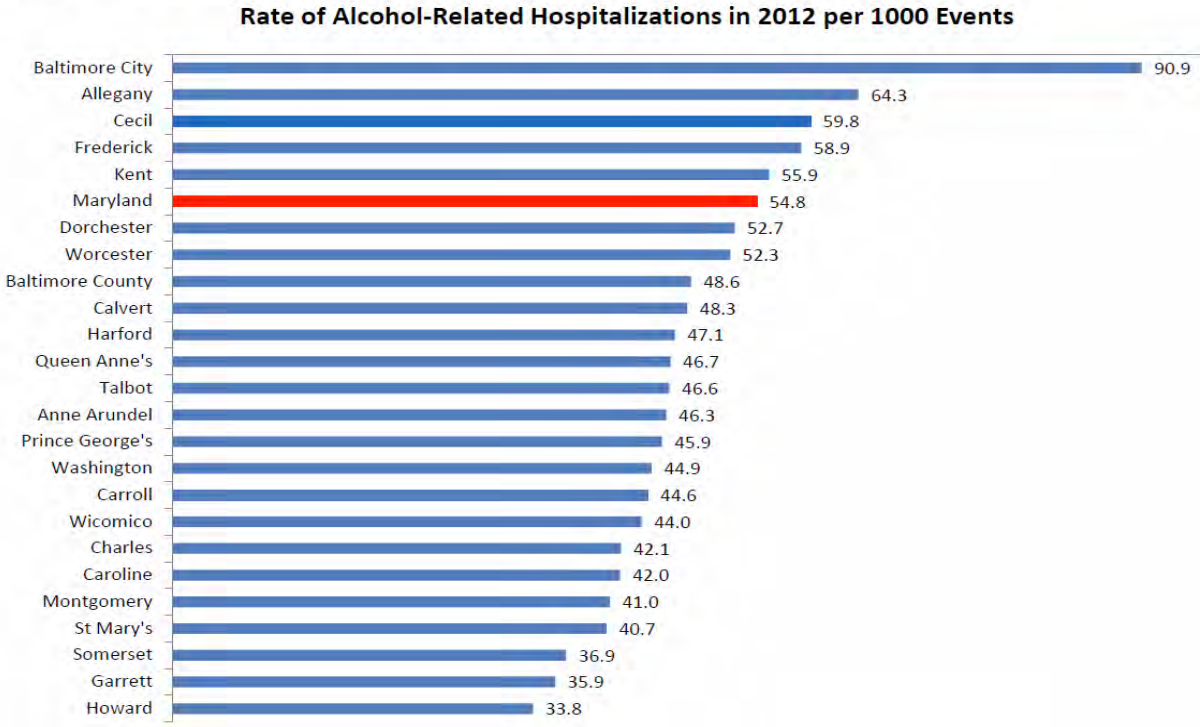
Source: Maryland HSCRC Outpatient Files 2009-2013

Alcohol Hospitalizations and Emergency Department Visit Rates:

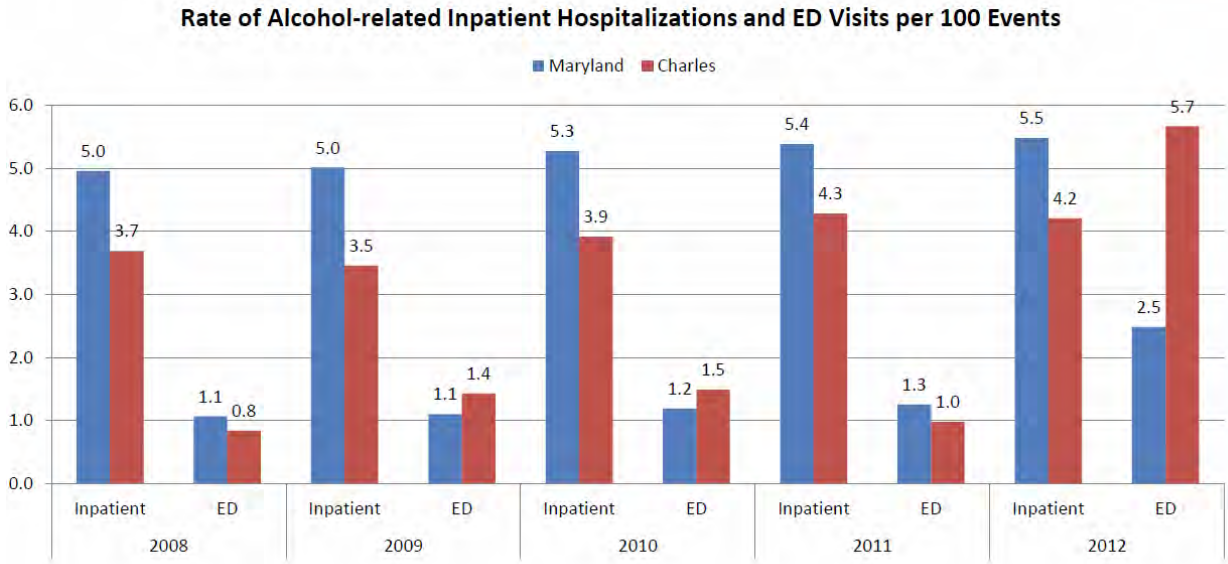
The 2012 Charles County Alcohol related hospitalization rate was 42.1 per 1000 events. This is lower than the Maryland rate of 54.8 per 1000 events. This is the 7th lowest rate in Maryland.

Alcohol-Related Inpatient Hospitalizations

Data Source: Health Services Cost Review Commission (HSCRC)

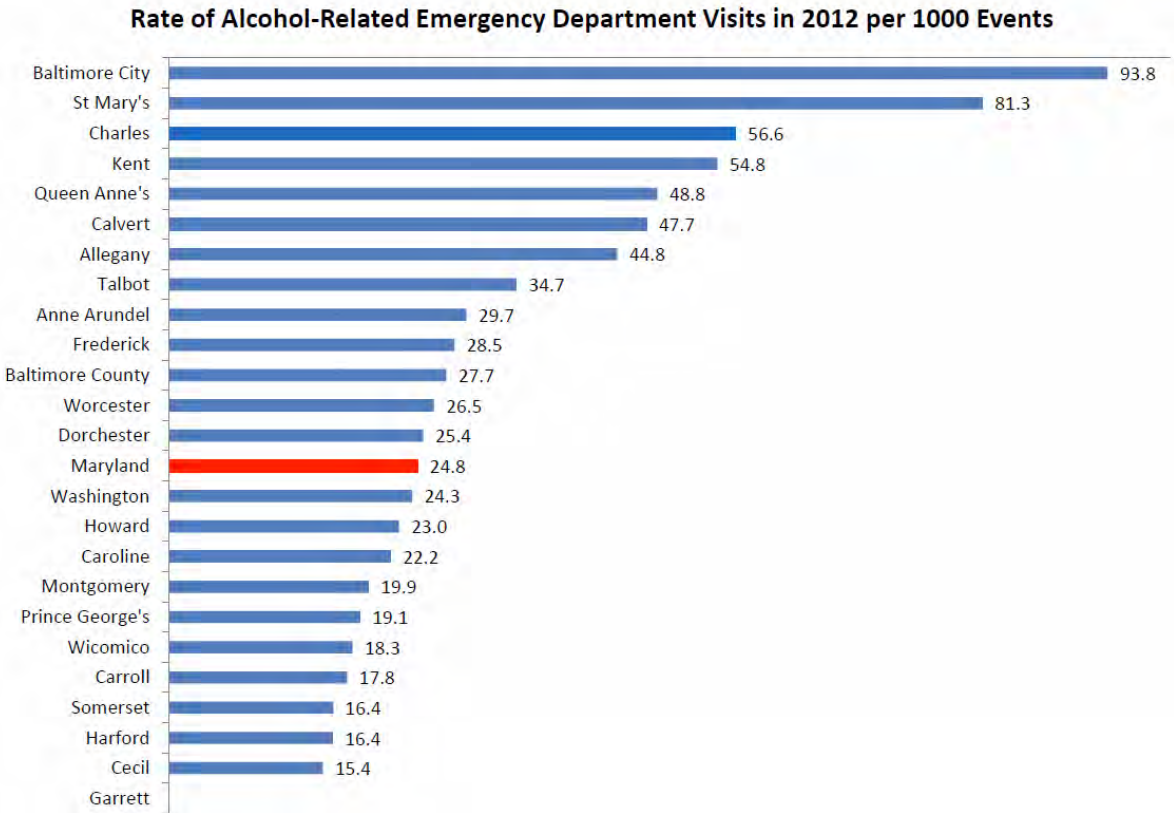


Charles County has seen a dramatic increase in the alcohol related ED visit rate from 0.8 per 100 events in 2008 to 5.7 in 2012. This is a seven fold increase in a 4 year period. Whereas, the alcohol related hospitalization rate has remained fairly stable from 2008-2012.



The 2012 Charles County alcohol related emergency department visit rate was 56.6 per 1000 events. This is more than double the Maryland state rate of 24.8 per 1000 events. The Charles County rate has seen a dramatic increase from the 2008 rate of 14 per 1000 events. Charles County has the third highest alcohol-related emergency department visit rate among the Maryland jurisdictions.

Alcohol-Related Emergency Department Visits
Data Source: Health Services Cost Review Commission (HSCRC)

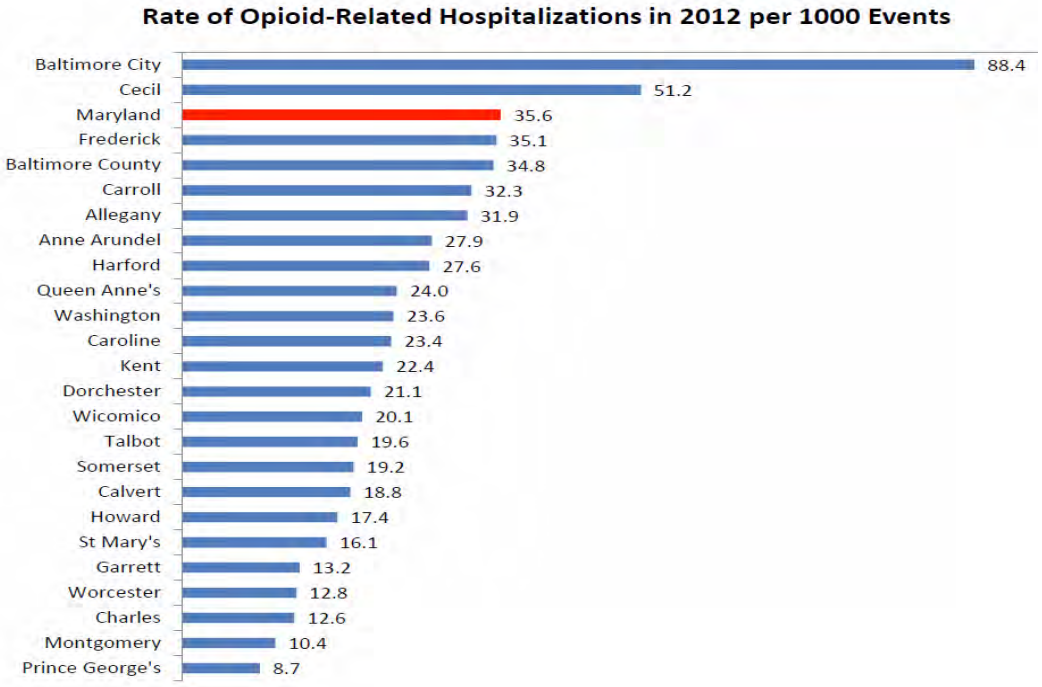


Opiate Hospitalizations and Emergency Department Visit Rates:

The Charles County 2012 opiate related inpatient hospitalization rate was 12.6 per 1000 events. This is far below the Maryland state rate of 35.6 per 1000 events. Charles County has the third lowest opiate related inpatient hospitalization rate among the Maryland jurisdictions.

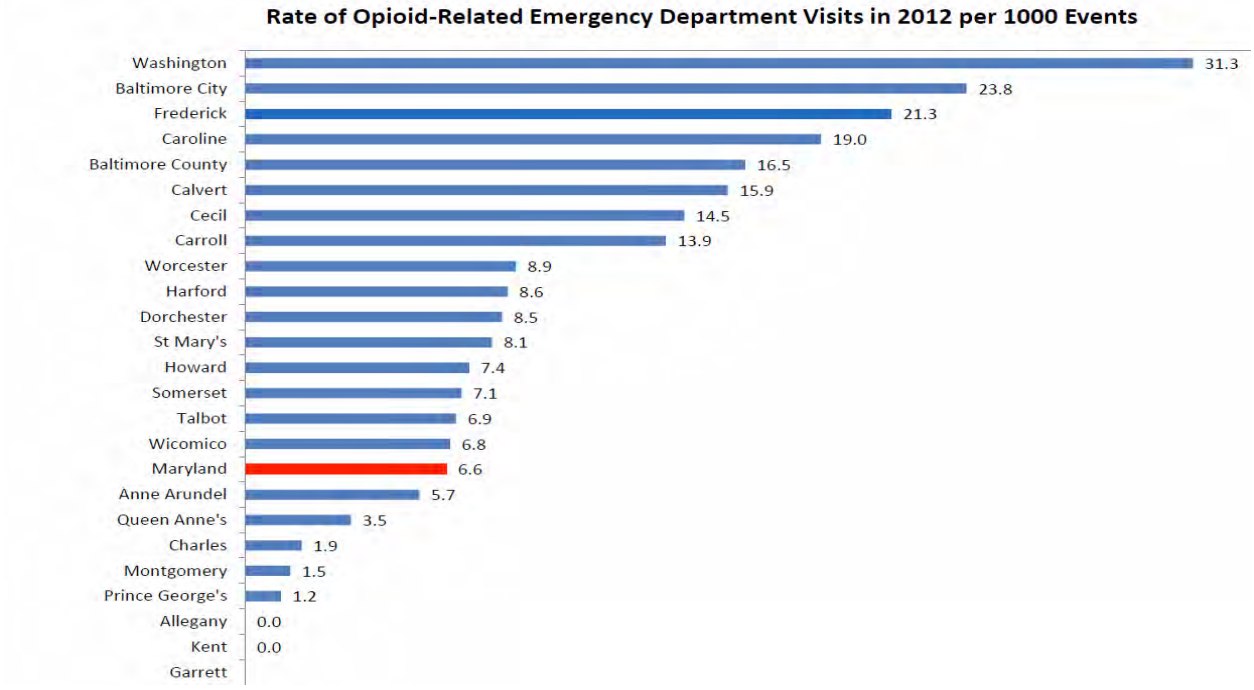
Opioid-Related Inpatient Hospitalizations

Data Source: Health Services Cost Review Commission (HSCRC)

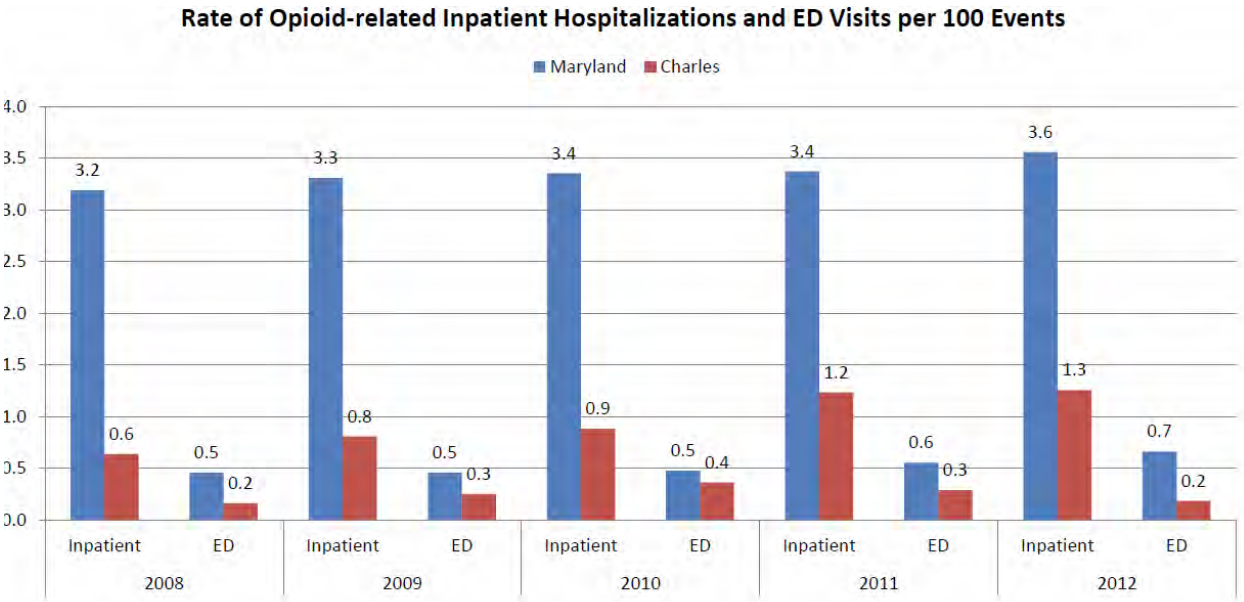


The 2012 Charles County opiate related emergency department visit rate was 1.9 per 1000 events. This is much lower than the Maryland state rate of 6.6 per 1000 events. Charles County has the 6th lowest opiate related emergency department visit rate among the Maryland jurisdictions.

Opioid-Related Emergency Department Visits
Data Source: Health Services Cost Review Commission (HSCRC)



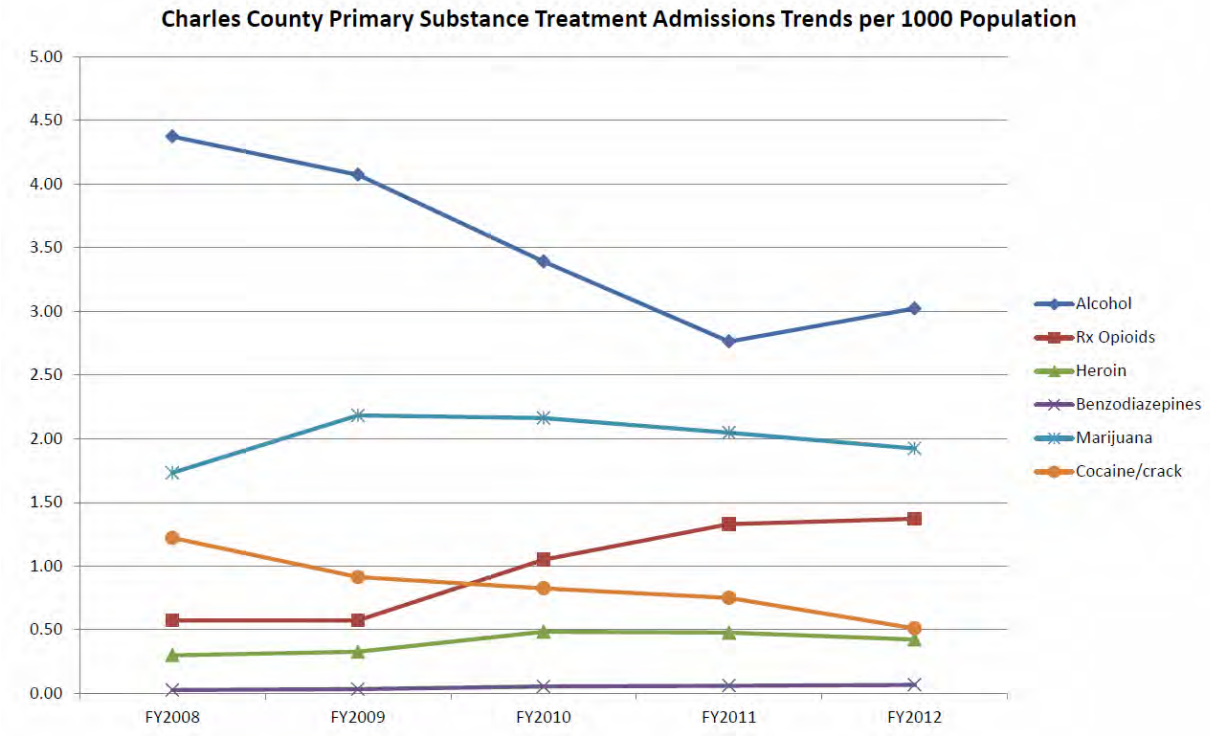
The Charles County Opiate-related inpatient hospitalization rate has seen an increase from 0.6 per 100 events in 2008 to 1.3 in 2012. The Charles County opiate-related hospitalization rate has remained consistent at 0.2 per 100 events.



The Charles County percent change in Opioid-related hospital inpatient visits from 2008 to 2011 was 0.60. This change in percentage is much greater than the Maryland state average percent change of 0.18. The same is true for Opioid-related emergency department visits. The Charles County percent change in Opioid-related ED visits from 2008 to 2011 was 0.12. This change is greater than the Maryland state average percent change of 0.07.

The Charles County 2011 opioid-related hospital inpatient admissions rate was 1.23 per 100,000. This is below the Maryland state average rate but higher than neighboring jurisdictions to the north (Prince George's 0.72 and Montgomery 0.98). (Source for Data points 1-9: Maryland Jurisdictional Epidemiological Profiles Chartbook, February 2014).

Substance Use Disorder Treatment Admission Rates:



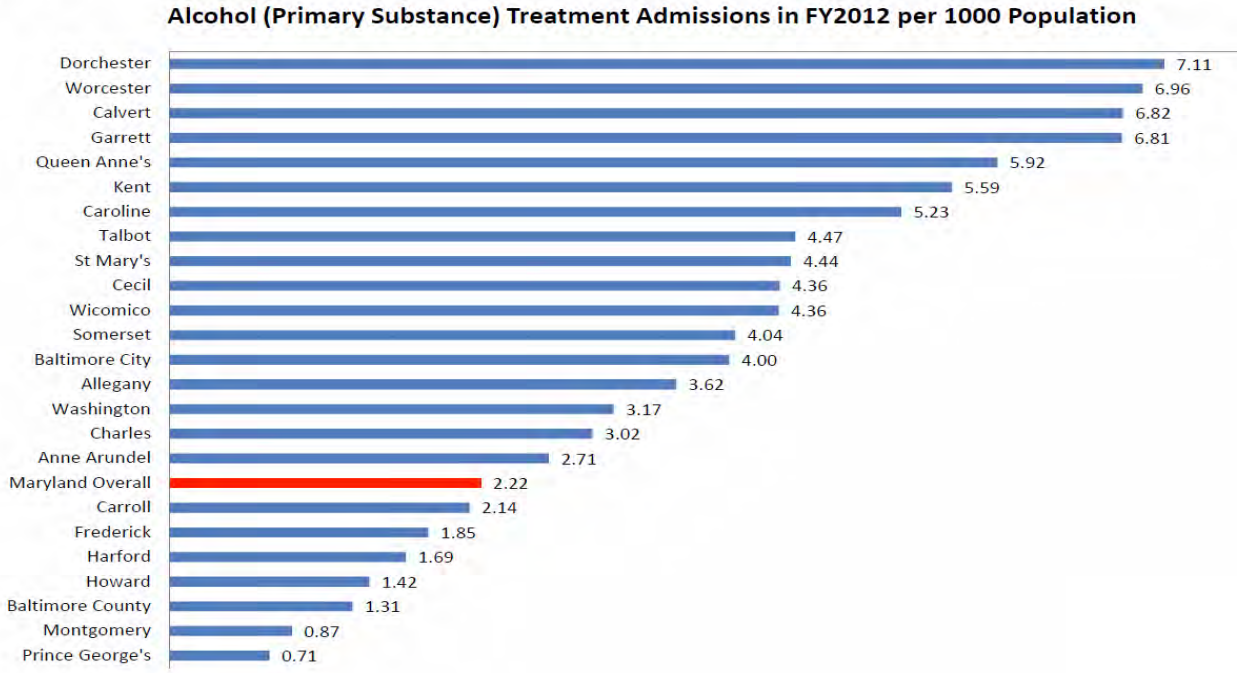
Source: Maryland Statewide Epidemiologic Outcomes Workgroup Jurisdictional Chartbook, February 2014.

The Charles County FY 2012 alcohol treatment admission rate into a state program was 3.02 per 1000 population. This was higher than the Maryland alcohol treatment admission rate of 2.22 per 1000 population.

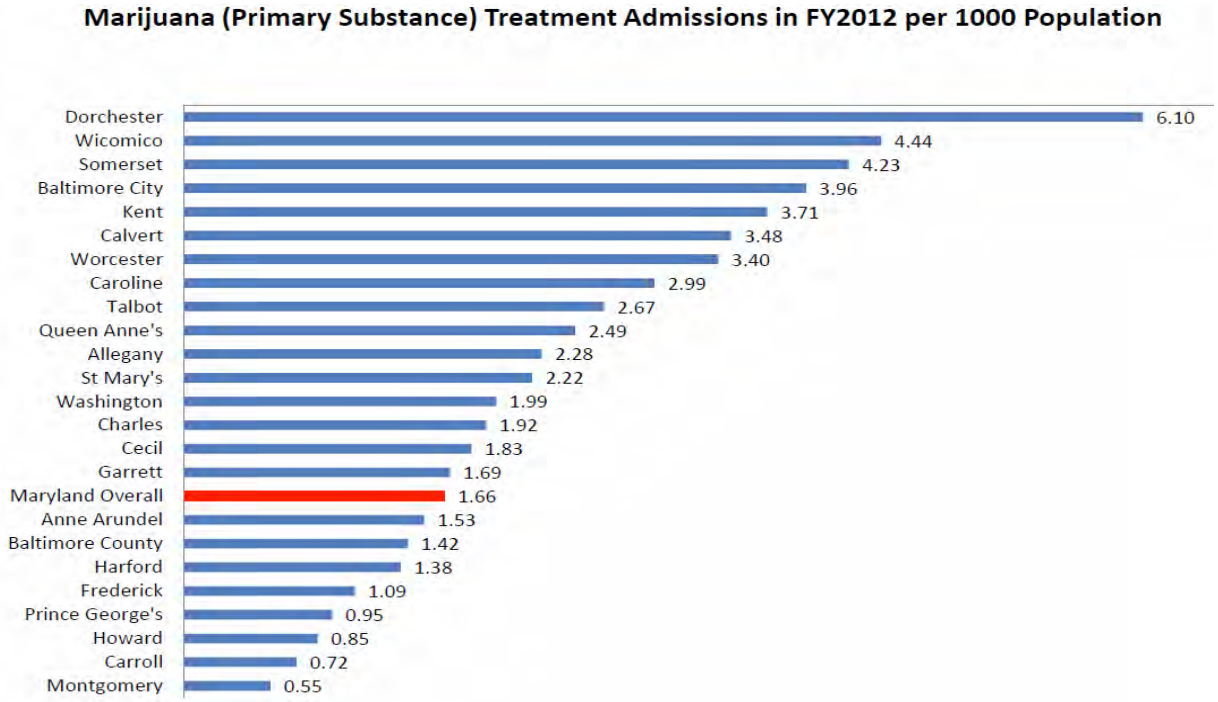
Treatment Admissions

Data Source: State of Maryland Automated Records Tracking (SMART)

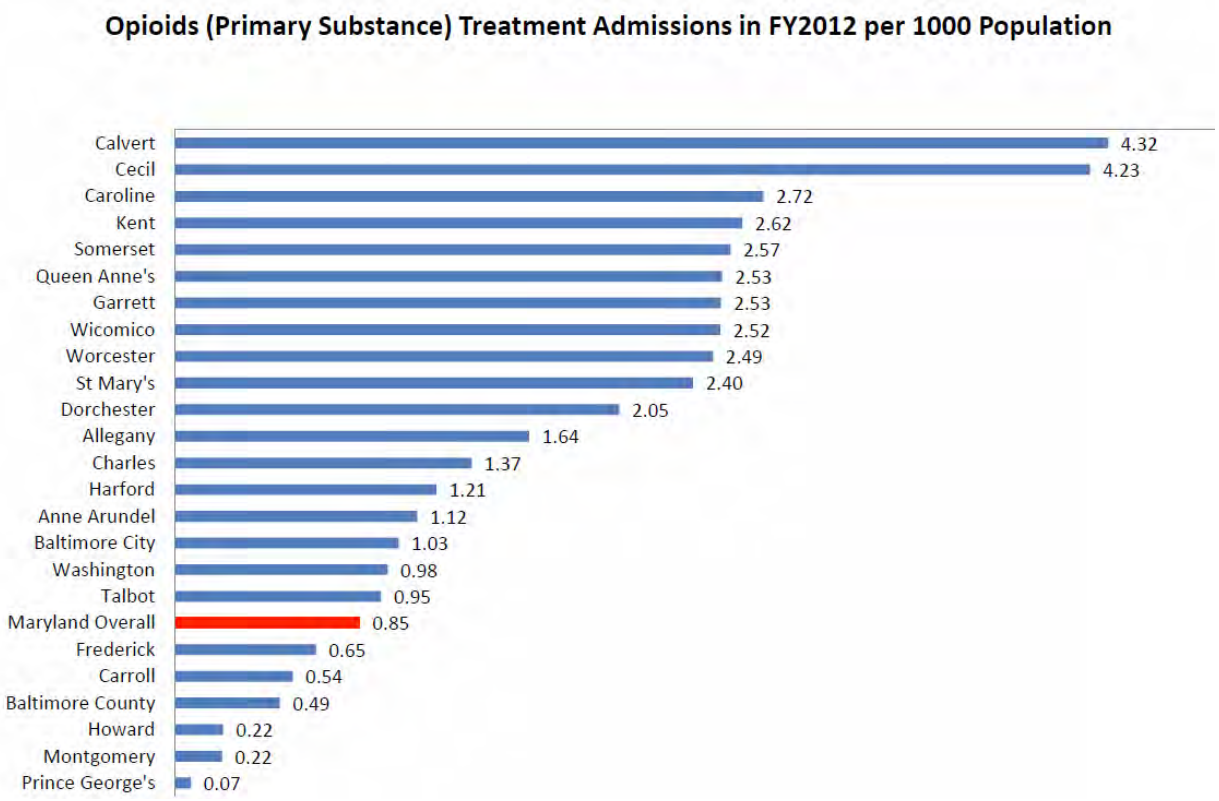
Alcohol



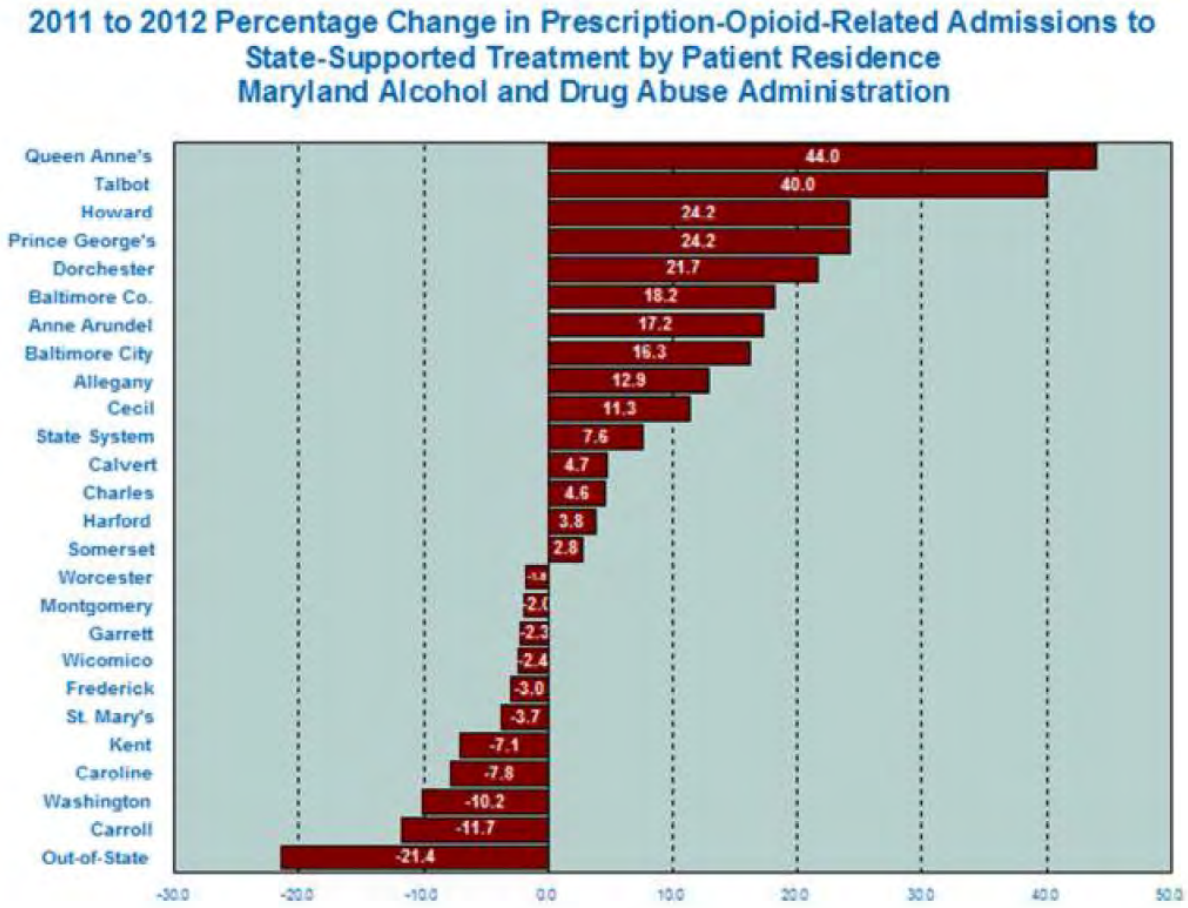
The FY2012 Charles County marijuana treatment admission rate into a state program was 1.92 per 1000 population. The Maryland state rate was 1.66 per 1000 population.



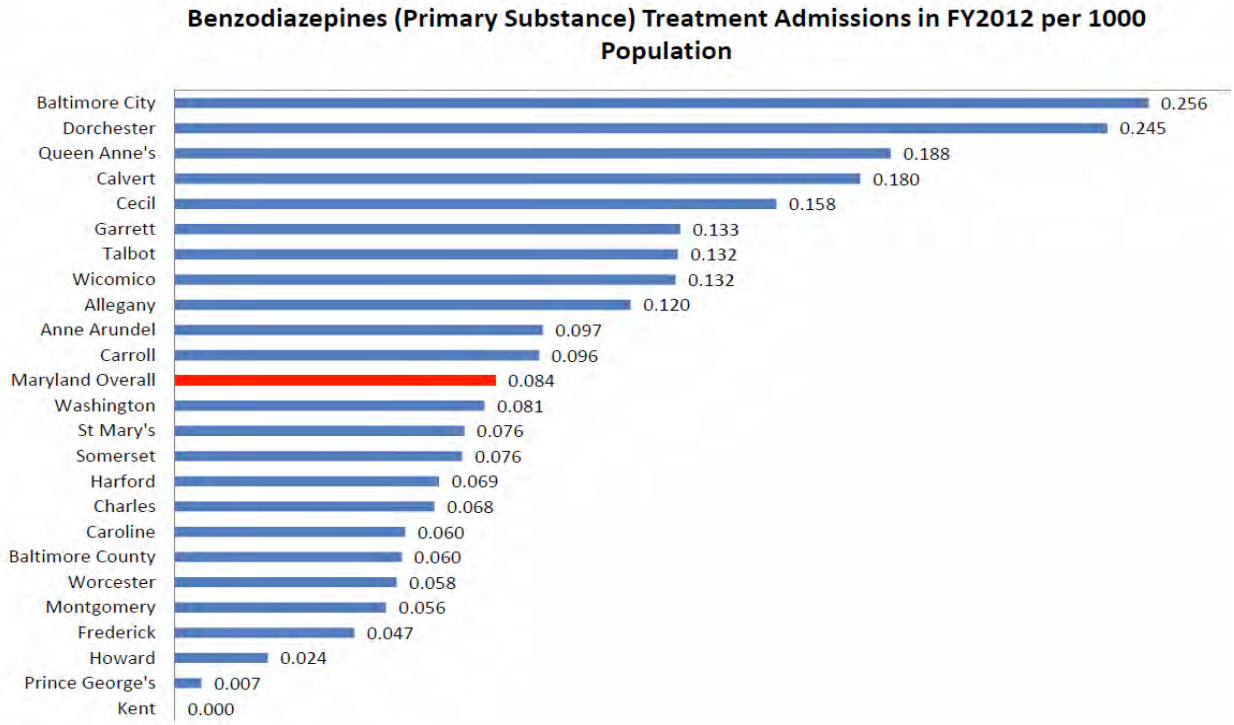
The FY2012 Charles County prescription Opioid treatment admission rate was 1.37 per 1000 population. This was higher than the Maryland state prescription Opioid treatment admission rate of 0.85 per 1,000 population.



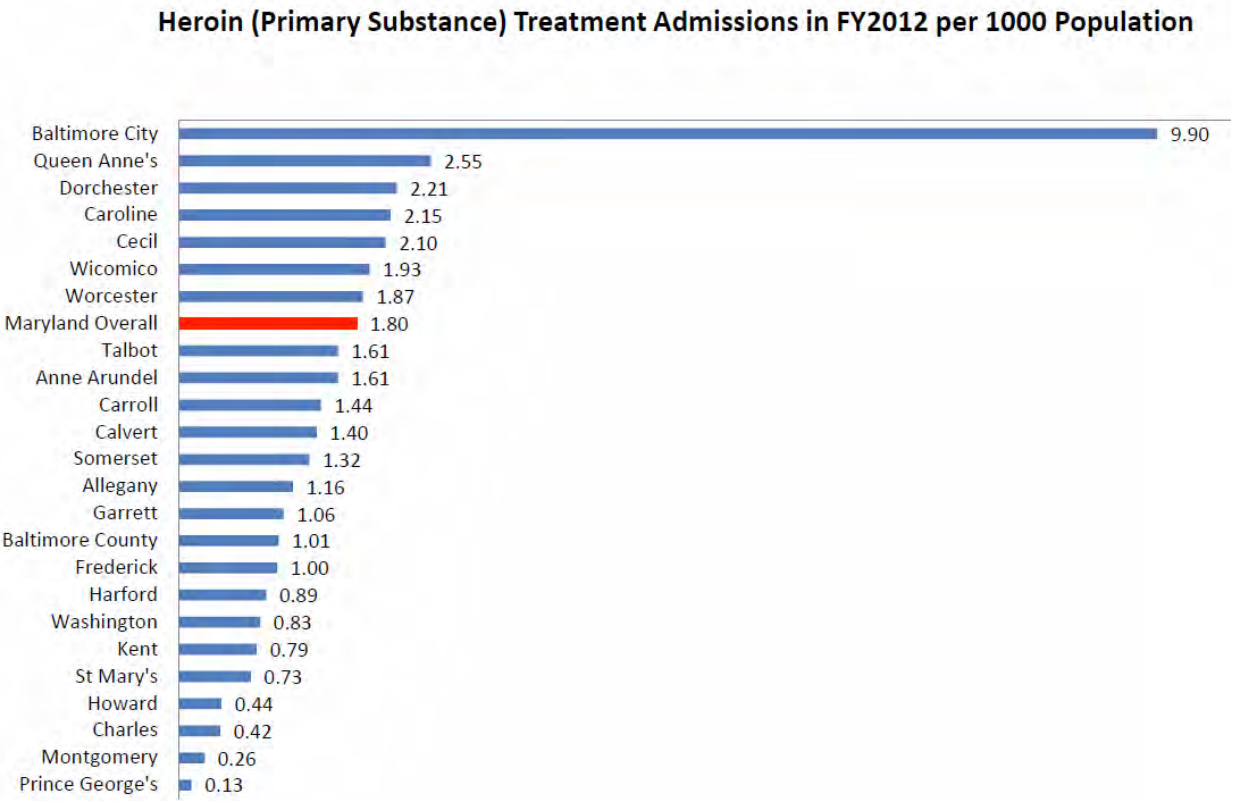
From 2011 to 2012, Charles County saw a 4.6% change in treatment admissions for prescription opiates.



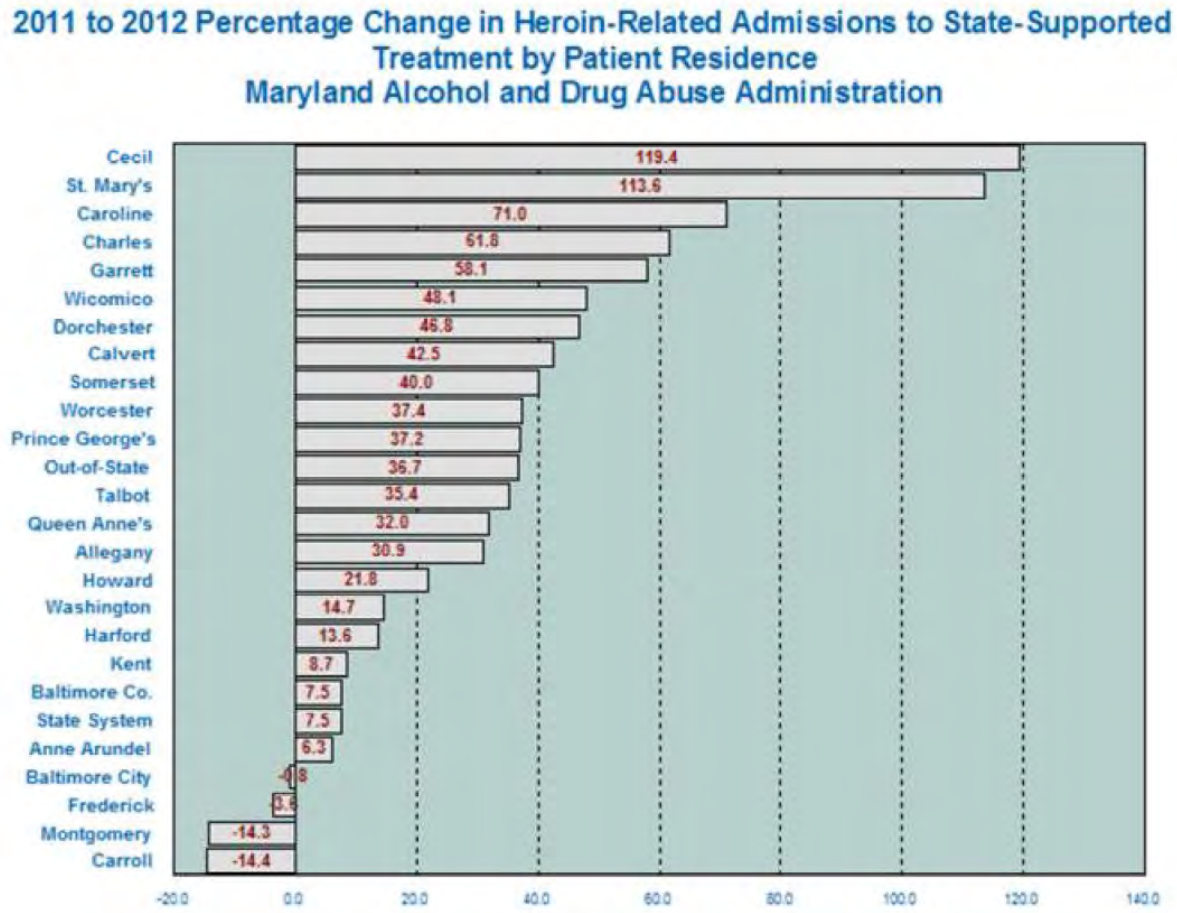
The FY2012 Charles County benzodiazepine treatment admission rate was 0.068 per 1,000 population. This is below the Maryland state rate of 0.084 per 1,000 population.



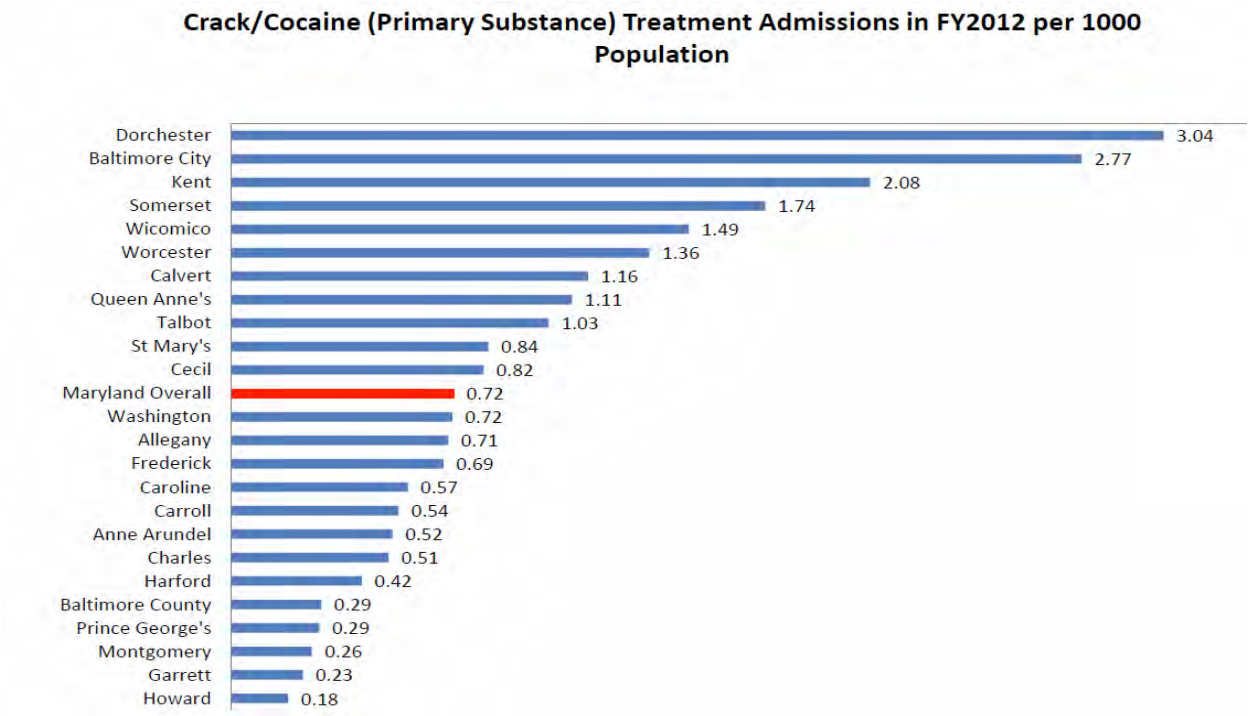
The FY2012 Charles County heroin treatment admission rate was 0.42 per 1,000 population. This is below the Maryland state rate of 1.80 per 1,000 population.



Between 2011 and 2012, Charles County had a 61.8% change in heroin-related treatment admissions. This was the third largest percent change in the state of Maryland.



The FY2012 Charles County cocaine treatment admission rate was 0.51 per 1,000 population. This is below the Maryland state rate of 0.72 per 1,000 population.



Charles County Drug-Induced Death Data:

From 2007-2013, Charles County saw 84 deaths due to drug intoxication. 77 of those deaths were opiate-related. That represents 90% of the drug intoxication deaths for the county.

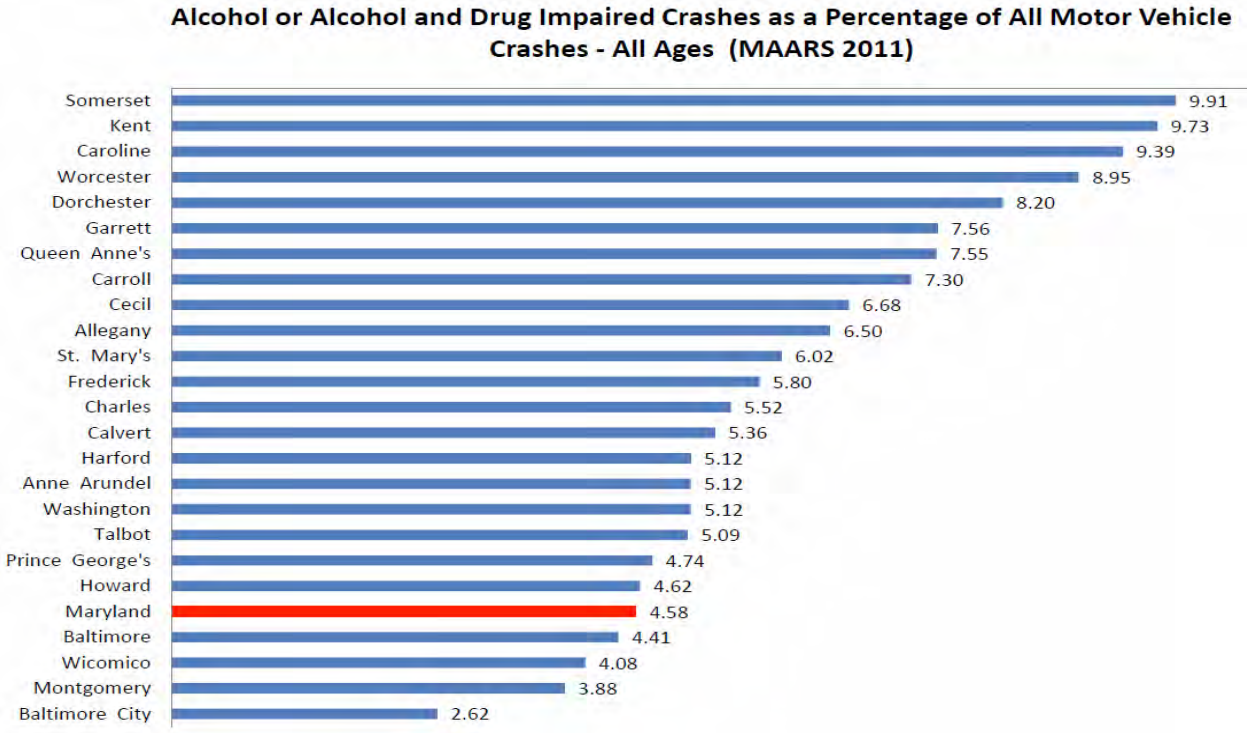
Charles County Drug Intoxication Deaths 2007-2013	2007	2008	2009	2010	2011	2012	2013
Total Drug and Alcohol Related Deaths	13	16	11	13	11	13	9
Heroin-Related Deaths	2	5	3	6	6	5	5
Prescription Opiate Related Deaths	6	6	7	4	5	7	5
Cocaine-Related Deaths	3	3	2	2	1	1	0
Alcohol-Related Deaths	5	5	1	4	3	2	4
Fentanyl-Related Deaths	0	0	0	0	1	1	3

The 2010-2012 average Charles County age-adjusted drug induced death rate was 11.2 per 100,000 population. This rate is less than the Maryland state average rate of 12.7 per 100,000 population. The 2010-2012 Charles County White drug-induced death rate was 17.3 per 100,000

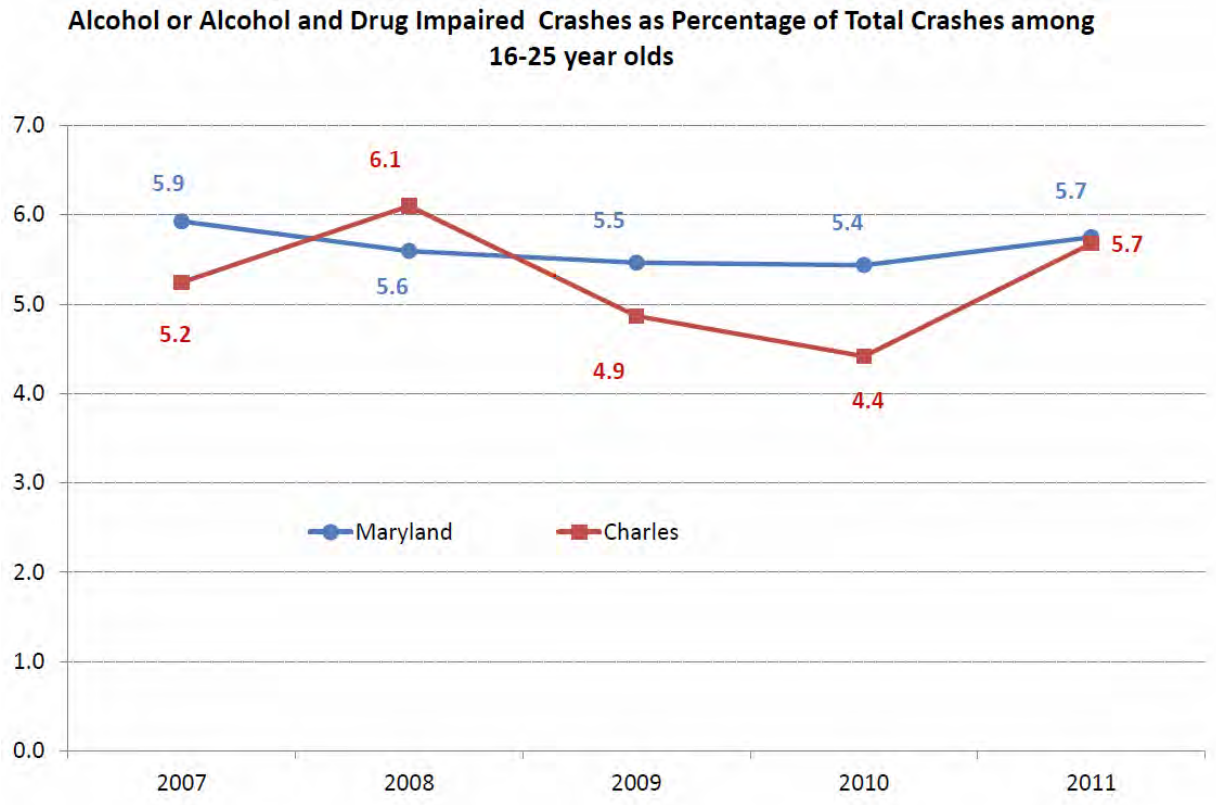
and was similar to the Maryland state average rate of 17.2 per 100,000. Rates for other races were not calculated on a county level due to small case counts.

Alcohol or Drug Related Crashes:

The 2011 Charles County Alcohol and/or drug impaired crashes as a percentage of all motor vehicle crashes was 5.52%. This is higher than the Maryland average percentage of 4.58%.



In 2011, there was a total of 1,039 vehicle crashes among young drivers aged 16-25 years in Charles County. In 59 of those crashes, the driver was impaired by alcohol. This represents 6% of the total county crashes for this population. The 2011 Charles County alcohol-related crash rate for the 16-25 age group was 29 per 10,000 population. This is higher than the Maryland state average rate of 24 per 10,000 population. Most of those impaired crashes are seen in individuals between the ages of 21 and 25 years.



The 2009 Charles County Juvenile arrest rate for possession of drugs was 381.8 per 100,000. This exceeded the Maryland state average juvenile drug possession arrest rate of 337.8 per 100,000.

National Survey of Drug Use and Health: Estimates of Drug Use

The 2008-2010 average estimates of drug use in the past year for Southern Maryland residents is presented in the table below. The biggest disparity between Southern Maryland regional data and the state rate was non-medical use of pain relievers in the 12-17 year old population (6.5% vs. 5.4%). The most commonly reported substance use was alcohol (50.7% of those over 12 years of age).

Percent of population reporting use:	Southern Maryland 12+ years	Southern Maryland 12-17 years	Southern Maryland 18-25 years	Maryland 12+ years	Maryland 12-17 years	Maryland 18-25 years
Marijuana use in past month	5.1%	6.2%	NA	5.7%	6.8%	NA
Cocaine Use in past year	2.0%	4.7%	NA	1.7%	4.1%	NA
Non-medical use of pain relievers in	4.5%	6.5%	10.5%	4.0%	5.4%	10.0%

past year						
Illicit drug use in past month	3.4%	4.2%	6.8%	3.1%	4.1%	6.5%

NA: Data not available for this age group
Source: 2008-2010 National Survey of Drug Use and Health

Percent of population reporting use:	Southern Maryland 12+ years	Southern Maryland 12-20 years	Maryland 12+ years	Maryland 12-20 years
Alcohol use in past month	50.7%	26.6%	53.0%	25.9%
Alcohol binge drinking in past month	21.4%	16.9%	20.9%	16.3%

Source: 2008-2010 National Survey of Drug Use and Health

The reported non-medical use of pain relievers in the past year has increased in Southern Maryland regardless of age or socioeconomic status. The highest reported non-medical use of pain relievers was in the 18-25 years age group. 10.5% reported using in the past year. This is more than double the Southern Maryland regional overall estimate of 4.5% for all individuals 12 years and older.

Maryland Youth Tobacco and Risk Behavior Survey:

Charles County middle and high schools students participated in the 2013 Maryland Youth Tobacco and 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 schools students were alcohol (27% middle and 61% high school) and marijuana (9.4% middle and 36.4% high school).

Alcohol was the most commonly reported substance for high school students (61%). Lifetime usage percentages increased for students 18 years of age and older (72.5%) and those in 12th grade (74.1%).

Marijuana is the second most commonly reported substance for high school students (36.4%). Lifetime usage percents increased for students 18 years of age and older (54.6%) and those in the 12th grade (50.8%).

Substance Lifetime Usage Rates, 2013 Charles County YTRBS	High School Percent Reporting	Middle School Percent Reporting
Alcohol	61	27

Marijuana	36.4	9.4
Cocaine	6.7	3.6
Sniffed glue, aerosol cans, paint	11	10
Heroin	4.8	NA
Methamphetamine	4.8	NA
Ecstasy	9.1	NA
Steroids	5.2	2.7
Prescription drugs without a prescription	15	6.8
Injectable illegal drugs	3.9	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. 28.3% reported that they have been sold or given illegal drugs on school property in the last year. This percent was highest among high school students 18 years of age and older (34.6%).

One out of three Charles County high school students reported using alcohol in the past 30 days (31.3%). Charles County high school students were also asked a question regarding binge drinking. They were asked if they have had 5 or more drinks of alcohol in a row within a couple of hours on one or more of the past 30 days. 17.1% reported binge drinking in the past 30 days. Finally, 20.6% of high school students reported using marijuana in the past 30 days.

2013 Charles County High School YTRBS 30 day usage rates	Percentage Reporting
Alcohol	31.3
Marijuana	20.6
Binge Drinking	17.1

Maryland Core Drug and Alcohol Survey: College Age Population

The CORE Alcohol and Drug Survey was developed to measure alcohol and other drug usage, attitudes, and perceptions among college students at 2-year and 4-year institutions. Development of this survey

was funded by the US Department of Education. The survey includes several types of items about drugs and alcohol. One type deals with the students' attitudes, perceptions, and opinions about alcohol and other drugs, and the other deals with the student's own use and consequences of use. For the Southern Maryland Region, the College of Southern Maryland (CSM) administered this survey.

The College of Southern Maryland Safe Communities Center (SAF) administered the CORE long form survey to 708 students enrolled in the La Plata, Prince Frederick, and Leonardtown campuses in Spring 2014. SAF administered the survey to students enrolled in General Psychology PSY-1010 and Introduction to Sociology SOC-1010 classes during the spring 2010.

A survey sample size of 349 was achieved at the La Plata campus. This campus is located in Charles County.

For comparison purposes, some figures are included from a reference group of 4787 students from 18 community colleges who completed the CORE Alcohol and Drug Survey (long form) in 2014.

Key findings of the CSM Core Drug and Alcohol Survey include:

Several key findings emerge from the 2014 survey concerning student use/abuse of controlled substances such as tobacco, alcohol, and illegal drugs, as well as associated behaviors and attitudes.

Overall, students experience higher rates of harassment, violence, and assaults when consuming alcohol or drugs shortly before these incidents.

In general, negative behaviors associated with alcohol and drug use among CSM students is showing a decline. Threats of physical violence and actual physical violence that are alcohol and drug related have declined over the past three years.

Fewer CSM students than those in the reference group report problematic consequences of alcohol or drug use such as DWI/DUI, trouble with police, or fighting. However, more CSM students than the reference group have damaged property, tried to commit suicide, or have been hurt or injured as a result of alcohol or drug use.

About one half of CSM students report a hangover as a result of drinking or drug use.

More than one fourth of CSM students get nauseated or vomit; done something they later regret; or have been criticized by someone they know as a result of drinking or drug use.

More than one third of the users report some form of public misconduct at least once during the past year as a result of drinking or drug use.

From 2007 to 2014, all problematic consequences of alcohol and drug use decreased.

At CSM, 18.1% of students report DUI or driving a car while under the influence of alcohol. While this is still an alarming number, this represents a decrease of about 8% since 2007.

More than half of CSM students report consuming alcohol in the past 30 days (51.7%) compared to 61.7% of the reference group.

Twenty-six percent (26%) of CSM students report using tobacco in the last 30 days which is lower than the reference group (39.6%) administered the same survey.

The most frequently reported illegal substance used by CSM students as well as the reference group in the past 30 days was marijuana (18.5% CSM, 15% reference group). This represents an increase of 2.6% since 2007.

Trends indicate a CSM decline of tobacco, alcohol, and designer drug use in the past year for the college as a whole. Marijuana and amphetamine use in the last year increased slightly from the last survey administration. 67% of CSM students say they did not use an illegal drug in the last 12 months.

The majority of students feel safe on campus (88.9%).

43% of the underage CSM respondents (fewer than 21 years of age) have consumed alcohol in the past 30 days. This represents a decrease of 12.5 percentage points from 2007.

Binge drinking (5 or more drinks/sitting) is showing a slight decline. Students who report not binging in the previous two weeks has increased since 2007 by 7 percentage points. However, one out of every three students who report drinking are binge drinking.

There is a misperception of students actual alcohol use by other students at CSM. 91% of students at CSM believe the average student on campus uses alcohol at least once a week or more, when in fact 59% of students did not drink in the last week.

Percentage with Problematic Consequences of Alcohol and Drug Use Experience (2014):

Consequences of Alcohol/Drug Use:	**CSM (%)**	**Reference Group (%)**
Been arrested for DWI/DUI	1.3	2.5
Been in trouble with police, residence hall, college authorities	6.5	12.2
Damaged property, pulled firearms	4.9	6.4
Driven a car while under the influence	18.1	34.3
Got into an argument or fight	24.2	31.6

Tried to commit suicide	2.5	2.2
Seriously thought about suicide	5.1	6.0
Been hurt or injured	13.0	14.0
Been taken advantage of sexually	6.7	10.2
Taken advantage of another sexually	2.0	3.1
Tried unsuccessfully to stop using	5.7	7.0
Thought I might have a drinking or other drug problem	8.4	10.3
Performed poorly on a test or important project	17.3	22.6
Done something I regret later	26.6	33.6
Missed a class	17.9	23.8
Been criticized by someone I know	26.1	27.6
Had a memory loss	24.2	26.1
Got nauseated or vomited	40.0	48.1
Had a hangover	49.4	58.4

Percentage Reporting Substance Use in the Last 30 Days, 2014

Substance Use in last 30 days:	**CSM (%)**	**Reference Group (%)**
Tobacco	25.9	39.6
Alcohol	51.7	61.7
Marijuana	18.5	15.0
Amphetamines	3.1	2.5

Designer Drugs	0.9	3.7
Opiates	0.9	0.7

Percentage Reporting Substance Use in the Last Year, 2014

Substance Use in last year:	**CSM (%)**	**Reference Group (%)**
Tobacco	33.9	48.1
Alcohol	71.9	80.3
Marijuana	30.9	25.1
Amphetamines	5.4	7.1
Designer Drugs	4.5	3.2

The average number of drinks per week reported was 2.6 drinks. 31.2% reported binge drinking in the past week. 60% reported that they had not drunk in the past week.

Trends in Average Drinks/Binges in Previous 2 Weeks

CSM Alcohol Use Percentages:	**2007**	**2010**	**2014**
Drinks	3.2	2.6	2.2
Binges	37.6	31.2	30.6
None	54.0	60.0	59.0

Trends in the Most Frequently Used Drugs in the Last Year

CSM Substance Use Percentages:	**2007**	**2010**	**2014**
Alcohol	74.8	74.0	71.9
Tobacco	38.7	36.0	33.9
Marijuana	29.0	27.0	30.9

Amphetamines	4.4	4.6	5.2
Designer Drugs	4.6	2.4	4.5

Trends in Students Perceptions: Frequency of Alcohol Use

CSM Alcohol Use Frequencies (%):	**2007**	**2010**	**2014**
Never	6.0	5.0	9.5
Once a week	32.0	32.0	31.0
3 times/week	28.0	30.0	25.3
5 times/ week	10.0	11.0	12.8
Every day	11.0	11.0	9.7

Trends in Students Perceptions: Frequency of Marijuana Use

CSM Marijuana Use Frequencies (%):	**2007**	**2010**	**2014**
Never	12.0	9.0	11.9
Once a week	24.0	24.0	17.7
3 times/week	13.0	17.0	17.6
5 times/ week	7.0	7.0	11.8
Every day	12.0	14.0	18.5

Maryland Behavioral Risk Factor Surveillance System Data:

Alcohol Use Data:

From 2013, 18.2% of Charles County adults reported binge drinking in the last month. Binge drinking was defined as males having more than 5 drinks and females having more than 4 drinks on one occasion. Charles County binge drinking rates were slightly higher than Maryland rates for this time period.

2013 Binge Drinking (Males having more than 5 drinks and females having more than 4 drinks in one occasion in the last month), Charles County and MD

Binge Drinking 2013	Yes	No	Total	Percentage of report binge drinking
Charles County	61	463	524	18.2%
Maryland	1360	11002	12362	14.2%

3.8% of Charles County BRFSS respondents reported that they are chronic drinkers. This is lower than Maryland rates. Chronic drinking was defined as males having two or more drinks and females having one or more drinks every day.

2013 Chronic Drinking (Males having two or more drinks and females having one or more drinks every day), Charles County and MD

Chronic Drinking 2013	Yes	No	Total	Percentage of who chronically drink
Charles County	22	505	527	3.8%
Maryland	631	11734	12365	5.2%

Substance Use Disorder References:

1. 2010-2013 Charles County and Maryland Addictions-Related Emergency Department Visit Rates. Maryland Health Services Cost Review Commission. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

2. 2009-2013 Charles County Zip Code Level Addictions-Related Emergency Department Visit Rates. Maryland Health Services Cost Review Commission. Data requested through the Maryland Virtual Data Unit.

3. Fiscal Year 2012 Maryland County Hospitalization and Emergency Department Visit Rates by Substance. Maryland Health Services Cost Review Commission. Accessed through the Maryland Statewide Epidemiologic Outcomes Workgroup 2014 Maryland Jurisdiction Epidemiological Profiles Chartbook. Available at: https://www.pharmacy.umaryland.edu/media/SOP/wwwpharmacyumarylandedu/programs/seow/PDF2014/CountyProfilesChartSummary_021214.pdf.

4. Fiscal Year 2012 Maryland County and Charles County Substance Use Treatment Admissions Rate into a state funded program. State of Maryland Automated Records Tracking data. Accessed through the Maryland Statewide Epidemiologic Outcomes Workgroup 2014 Maryland Jurisdiction Epidemiological Profiles Chartbook. Available at: https://www.pharmacy.umaryland.edu/media/SOP/wwwpharmacyumarylandedu/programs/seow/PDF2014/CountyProfilesChartSummary_021214.pdf.

5. 2007-2013 Charles County and Maryland Drug Intoxication Deaths by Related Substance. Drug and Alcohol Intoxication Deaths in Maryland 2007-13 Report. Maryland Vital Statistics Administration. Available at: http://dhmh.maryland.gov/data/SitePages/Alcohol%20and%20Drug%20Abuse.aspx.

6. 2011 Maryland Alcohol and Drug Related Crash Data. Maryland Automated Accident Reporting System. Accessed through the Maryland Statewide Epidemiologic Outcomes Workgroup 2014 Maryland Jurisdiction Epidemiological Profiles Chartbook. Available at: https://www.pharmacy.umaryland.edu/media/SOP/wwwpharmacyumarylandedu/programs/seow/PDF2014/CountyProfilesChartSummary_021214.pdf.

7. 2008-2010 Southern Maryland Drug Use Estimates. National Survey on Drug Use and Health. Accessed through the Maryland Statewide Epidemiologic Outcomes Workgroup 2014 Maryland Jurisdiction Epidemiological Profiles Chartbook. Available at: https://www.pharmacy.umaryland.edu/media/SOP/wwwpharmacyumarylandedu/programs/seow/PDF2014/CountyProfilesChartSummary_021214.pdf.

8. 2013 Charles County Middle and High School Substance Use Lifetime and 30 Day Usage Estimates. 2013 Maryland Youth Tobacco and Risk Behavior Survey. Available at: http://phpa.dhmh.maryland.gov/cdp/SitePages/youth-risk-survey.aspx.

9. 2013 Charles County College Age Substance Use Lifetime and 30 day Usage Estimates and Risk Behavior Data. 2013 Charles County CORE Alcohol and Drug Survey. Data provided by the College of Southern Maryland.

9. 2013 Charles County and Maryland Adult Binge and Chronic Drinking Estimates. Maryland Behavioral Risk Factor Surveillance System. Available at www.marylandbrfss.org.

Charles County Tobacco Use Data

Adult Tobacco Use:

The Maryland Behavior Risk Factor Surveillance System is used to provide estimates for Maryland and Charles County on smoking status. In 2013, approximately 13.2% of Charles County residents were currently smokers (every day and some day users). This is lower than the 16.4% of Maryland residents who are current smokers. It is also a slight decrease from the 2010 Charles County current smoking rate of 14% reported in the previous needs assessment report.

2013 BRFSS: Current Smoking Status	Current Smoker (Everyday)	Current Smoker (Some days)	Former Smoker	Never Smoked
Charles County	48 (9.7%)	17 (3.5%)	134 (19.3%)	333 (67.5%)
Maryland	1209 (11.7%)	472 (4.7%)	3656 (22.3%)	7255 (61.3%)

In 2013, the Maryland BRFSS included an additional module with questions regarding tobacco. Results of those questions for Charles County are presented below.

Charles County respondents were asked if there are any other adults 18 and older living in the household who smoke cigarettes now. 19.2% of Charles County respondents reported that there are other adults 18 and older living in the household who smoke cigarettes now. This percentage is greater than the Maryland state percentage of 14.6%. The Charles County percentage is the third highest reported among the Maryland jurisdictions.

Additional questions asked respondents if they have smoked other tobacco products in the past 30 days. 6.5% of Charles County respondents reported that they have smoked a cigar in the past 30 days. This is higher than the Maryland state average percentage of 4.6%. 2.6% reported that they have used chewing tobacco which was similar to the 2.5% reported for Maryland.

Among current Charles County smokers, 65.4% reported that they have quit smoking at least one day or longer in the past year. This is similar to the 61.7% reported for Maryland. Additionally, 75% of current Charles County smokers are planning to quit smoking cigarettes sometime in the next year.

Planning on quitting smoking: 2013 BRFSS	Within the next 30 days	Within the next 3 months	Within the next 6 months	Within the next year	Within the next 5 years	Sometime after 5 years	You are not planning on quitting
Charles County	16 (34.3%)	12 (17.3%)	5 (8.2%)	8 (15.1%)	8 (16.1%)	1 (0.3%)	8 (8.7%)
Maryland	309	248	142	219 (17%)	99 (6.6%)	33 (3%)	346

	(23.5%)	(18.4%)	(10.1%)				(21.3%)

Middle and High School Student Use:

The 2013 Maryland Youth Tobacco and Risk Behavior Survey surveyed both Charles County middle and high school students to look for trends in tobacco, alcohol, and drug use as well as other risky and protective factors.

3.1% of Charles County middle school children and 12.7% of Charles County high school students have smoked a cigarette in the past 30 days. In the middle school, the greatest increase is seen from age 13 to 14 years (2.9% to 6.6%). The greatest percentages of 30-day smoking in high school were seen in students 18 years of age and older (25.2%) and Hispanics in high school (23.9%).

Charles County Middle School 30 day cigarette smoking percentages, 2013 YTRBS	Total Percentage	Male	Female
Total County	3.1	2.8	3.5
Age			
11 or younger	1.3	2.0	0.5
12	2.2	2.3	2.2
13	2.9	1.4	4.5
14 or older	6.6	--	--
Grade			
6th	2.4	3.6	1.0
7th	1.6	0.7	2.5
8th	4.8	3.5	6.1
Race/Ethnicity			
Black	3.2	4.0	2.5

Hispanic	--	--	--
White	1.2	0	2.6
All other races	3.1	--	--
Multiple Races	5.7	--	--

-- Rates are not calculated for subgroups with less than 100 students.

Charles County High School 30 day cigarette smoking percentages, 2013 YTRBS	Total Percentage	Male	Female
Total County	12.7	14.8	10.1
Age			
15 or younger	9.0	8.6	8.8
16 or 17	13.8	17.3	10.2
18 or older	25.2	30.2	--
Grade			
9th	7.8	7.1	7.9
10th	10.6	11.6	9.4
11th	15.2	20.9	10.0
12th	16.4	20.3	12.4
Race/Ethnicity			
Black	8.2	9.3	6.8
Hispanic	23.9	28.2	19.0
White	17.5	21.2	13.6
All other races	14.2	--	--

Multiple Races	12.1	13.3	11.2

-- Rates are not calculated for subgroups with less than 100 students.

Looking at the various questions related to tobacco initiation and frequency of use, only a small percentage reported using cigarettes at a young age. 2.4% of middle school students reported using cigarettes before the age of 11 years, and 8.2% of high school students reported using before the age of 13 years. Additionally, only small percentages reported smoking 20 or more cigarettes in the past 30 days (0.5% of middle school students and 4.1% of high school students). 18.2% of high school students reported that they were able to buy their cigarettes from a convenience store or gas station. Among high school students who attempted to buy tobacco in a store in the past month, only 46.9% were asked to show proof age, and only 2.8% had someone refuse to sell them cigarettes because of their age.

6.9% of Charles County high school students and 1.5% of middle school students reported that they have used chewing tobacco, snuff, or dip in the past 30 days.

Cigar use has been on the rise in Maryland. 13.6% of Charles County high school students and 3.0% of Charles County middle school students reported that they had smoked cigars, cigarillos, or little cigars in the past month.

10.9% of Charles County high school students and 6.6% of Charles County middle school students reported that they had completely quit using all tobacco products during the past 12 months. For Charles County middle school students, the rate of tobacco cessation was higher than the rate of initiation (6.6% vs. 3.1%). There were more students who completely quit using tobacco than students who smoked cigarettes.

The latest trends in tobacco usage are flavored products. 15% of Charles County high school students and 3.1% of middle school students reported that they had used some type of flavored tobacco product in the past 30 days. For high school students, the percentage using flavored tobacco (15%) is greater than the percentage smoking cigarettes (12.7%).

Examining lifetime cigarette usage, 5.5% of Charles County high school students and 0.4% of Charles County middle school students reported that they have smoked 100 or more cigarettes in their life.

The survey also asked about secondhand smoke exposure in the home. 39.2% of Charles County high school students and 43.2% of Charles County middle school students admitted that they live with someone who now smokes cigarettes or cigars. 81.9% of high school students and 82% of middle school students describe the rule about smoking inside the home where they live is that it is never allowed in the house. However, 31.7% of the county high school

students and 23% of county middle school students were in the same room with someone who was smoking cigarettes at least once in the past week.

Tobacco References:

1. 2013 Charles County and Maryland Adult Smoking Rates. 2013 Maryland Behavioral Risk Factor Surveillance System. Available at www.marylandbrfss.org.

2. 2013 Charles County Youth Tobacco Use, Initiation, and Cessation Rates. 2013 Maryland Youth Tobacco and Risk Behavior Survey. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/cdp/SitePages/youth-risk-survey.aspx.

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. 43% of respondents felt that Drug Use was a serious problem in Charles County. 72% of long survey respondents felt that drugs use is a problem on some level in the county.

38% of the long survey respondents felt that Alcohol Use is a serious problem in Charles County. This was the 4th most serious health problem reported on the long survey. Additionally, 71% of the long survey respondents felt that alcohol use is a problem on some level.

Tobacco Use was cited as a serious health problem by 38% of the long survey respondents. 73% 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 second most common answer, with 27% reporting they have seen improvements. 16% 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:

- 1.7% reported that they always or most of the time drink three or more alcoholic beverages per day and 4.6% reported that they sometimes drink three or more alcoholic beverages per day.
- 1.1% reported that they drink 5 or more drinks in one sitting always or most of the time. 29% reported that sometimes or rarely they drink 5 or more drinks in one sitting.
- 16% reported that they always smoke cigarettes whether it is all the time or some of the time. 5% reported that they always smoke cigarettes.
- 1.8% of the respondents reported using smokeless tobacco.
- 8.2% have used e-cigarettes.

- 3.5% reported that they are always exposed to secondhand smoke at home or work. 33% reported that they are exposed to secondhand smoke at home or work to some degree.
- 1.6% misuse prescription drugs on some level whether it is always, most of the time, sometimes, or rarely.
- 2.6% reported that they have used illegal drugs.

On the short survey, 45% of total short survey respondents felt that Drug and Alcohol Use was the biggest health problem in Charles County. This was the second most commonly reported health issue on the short surveys. 43% of the short survey respondents felt that Smoking and Tobacco Use was the biggest health problem in Charles County. This was the third most commonly cited health problem on the short surveys.

Behavioral Health and substance use disorders were discussed heavily at all county focus groups. Focus group participants from the minority health group to the faith-based leaders discussed the need for more information on how to help their congregations and communities get connected to services when they come to them in crisis.

Many of the focus groups involving community leaders and stakeholders talked about the need for additional services and providers for behavioral health in Charles County. 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.

Focus group participants felt that substance use disorders are a health problem increasing in the county youth population. Kids have access to illegal drugs and prescription drugs. They are popping pills and having pill parties where they bring pills they found in their homes. The school nurses reported that they are starting to see issues in the elementary schools.

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. Emergency department providers are changing their

prescribing practices to give out only 4-5 days of pain medication. This is enough to get patients in with their primary care doctors or specialists who can help them manage chronic pain. We are limiting the amount of narcotics in the community by only prescribing what is needed. The prescription drug monitoring program is also a good way for doctors and pharmacists to look at patients to see if they have had any recent refills or new prescriptions for opiates or narcotics.

There are now two recovery houses in the county. Additionally, the Jude House, the transitional housing, is going to expand to a 60 bed facility. There is a cost benefit to investing in detoxification beds or recovery housing. It is less expensive than paying for their stays in the detention center or jail.

The Charles County Department of Health is working with EMS and the Sheriff's Office to train first responders in the administration of naloxone. Naloxone can be used to reverse the effects of an opiate overdose. The Sheriff's Office is often the first to arrive on the scene and can administer the medication. The Charles County Sheriff's Office also reported in the focus groups that they have seen an increase in calls relating to substance use emergencies and drug related crimes. They feel that opiates and heroin have made a huge comeback in Charles County.

The Charles County Department of Health Tobacco Cessation Program is cited as a strength in the county. It is well established and successful in helping people quit tobacco. They offer all services and medications for free to county residents.

Charles County Oral Health Statistics:

Introduction:

Access to dental health services for both children and adults has been a long standing issue on a county, state, and national level. The 2012 Center for Medicare and Medicaid Administration (CMS) *Quality of Care for Children in Medicaid and CHIP Report* found that 48% of Medicaid enrolled children in Maryland received preventive dental services, and 25% reported that they received treatment services. After the 2011 report, DHHS initiated many evidence based strategies for initiating new public and private collaborations to increase quality of care.

Maryland Office of Oral Health's *"Get the Facts*" (2013) reported that the prevalence of dental carries for Maryland is 33.2%, and Southern Maryland and the Eastern Shore have the highest

overall rate of dental sealants on permanent first molars. The Department of Health's dental program significantly contributes to this increase. The pediatric clinical program has seen an average of 3,000 children per year for the last 3 years, and more than 1,200 children each year receive sealant application either in a clinical location (or) in school locations. The same is true with fluoride applications.

Between 2010 and 2011, children ages 0-20 accounted for approximately 38,000 emergency room visits related to dental conditions and/or injuries in Maryland. The cost for this visit was roughly $17 million. According to MDOH (2013) report, in 2011, Medicaid paid for 43% of total cost, private insurance covered 42%, and self paying were 11%. The highest utilizers were ages 15-18 years of age. The emergency room dental visit categories include 77% of injuries, trauma – conditions affecting teeth and supporting structure, and 23% for oral cavity diseases.

Southern Maryland emergency room visits spared lowest with 8% of dental emergency room visits and Central Baltimore was highest with 46%. Preventable dental conditions were responsible for more than 830,000 visits to emergency rooms, a 16% increase since 2006. Since emergency rooms are not set up to treat non-accident related dental problems, most of these patients received only symptomatic treatment like pain medications or antibiotics, and 80% of them were referred to a dentist for follow up.

Children:

Survey of the Oral Health Status of Maryland's School Children 2011-2012:

The report describes the oral health status of school children in kindergarten and 3rd grade in Maryland during the 2011-2012 school year. County level data is not available for all data presented; in those cases, the Southern Maryland regional data is given.

83.1% of Southern Maryland public school children in kindergarten and third grade had a dental visit in the past 12 months. This percentage is similar to the Maryland state average of 82.8%. The percentage of Southern Maryland kindergarteners with a past year dental visit was 79%, which was lower than the percentage of Southern Maryland third graders with a part year dental visit (87%).

Rates were also higher in Southern Maryland male children (87%) compared to Southern Maryland female children (79.5%).

Non-Hispanic Black children in Southern Maryland had higher rates of past year dental visits (89.5%) than any other reported race. The lowest percent of past year dental visits was seen in Non-Hispanic Others (79.7%).

The education level of the parents greatly affected whether a children received a dental visit in the past year. Only 47.9% of children received a dental visit in the past year if their parents held less than a high school diploma. 71.1% of children who parents have a high school diploma or GED was able to get a dental visit in the past year. The highest percentage of past year dental visits was in families where the parents had some level of post secondary education (87.6%).

Rates of past year dental visits were higher among families with private dental insurance (91.3%). Rates were very low among families with no insurance (46%).

77.4% of Southern Maryland kindergarten and third grade public school students have a usual source for dental care. Rates were slightly higher in Southern Maryland third graders than kindergarteners (81.2% vs. 73.3%). There were low percentages reporting usual sources of dental care in families with parents who have less than a high school diploma (47.9%) and those with no insurance (46%).

11.5% of Southern Maryland children surveyed had a toothache in the past year due to a cavity. The percentage reporting a toothache was higher for third graders compared to kindergarteners (14.1% vs. 8.7%).

13.7% of Southern Maryland respondents reported that they had put off dental care in the past 12 months due to cost. This is the highest percentage reported among the Maryland regions. Percentages reported putting off dental care was lower for parents with post secondary education (9.5%) compared to parents with a high school diploma or less (24.4% and 32.3%).

The breakdown of dental insurance among Southern Maryland participants was: 57.1% private, 29.5% public, and 13.4% no insurance. The Southern Maryland percentage reporting no dental insurance is the highest reported among the Maryland jurisdictions. It is higher than the Maryland state average dental uninsured percentage of 9.8%.

Oral health screenings were performed on 174 Southern Maryland children in kindergarten and third grade. The percentages were weighted based on the county population. The results of this analysis are presented below.

Mean and Prevalence of Dental Caries, both primary and permanent dentition (Kindergarten and 3rd grade)

	Prevalence %
Southern Maryland	32.5%
Maryland	33.2%

Mean and Prevalence of Dental Sealants (Kindergarten and 3rd grade)

	Prevalence %
Southern Maryland	40.4%
Maryland	32.9%

Mean and Prevalence of Dental Sealants (3rd grade)

	Prevalence %
Southern Maryland	49.7%
Maryland	40.4%

Adults:

<u>Routine Dental Care</u>:

The Maryland Behavioral Risk Factor Surveillance System asked three questions regarding oral health. Two of those questions ask about dentist visits for routine cleanings and for all other reasons. The Charles County BRFSS data for 2013 has been evaluated below.

How long since your last dental cleaning?

Approximately three quarters of the respondents (74.9%) reported that they had been to a dentist in the last year to have their teeth cleaned.

Charles County	**Amount of**	**Time Since**	**Last Dental**	**Cleaning**	**# (%)**	
BRFSS	Never	< 1 year	1-2 years	2-5 years	>5 years	Total
2013	1 (0.1%)	170 (74.9%)	23 (9.6%)	13 (8.7%)	11 (6.7%)	218

How long since you last visited a dentist for any reason?

Once again, the majority of the participants reported that they had seen a dentist in the last year (75.8%). A very small percentage (0.5%) reported that they have never seen a dentist.

Charles County	**Amount of**	**Time Since**	**Last Dentist**	**Visit for any**	**Reason**	**# (%)**
BRFSS	Never	< 1 year	1-2 years	2-5 years	>5 years	Total
2013	2 (0.5%)	184 (75.8%)	25 (9.2%)	18 (9.7%)	8 (4.7%)	237

Number of Permanent Teeth Removed:

Half of the Charles County BRFSS participants have not had any of their permanent teeth removed (50.3%). Approximately 6% of the participants have had all of their permanent teeth removed.

Charles County	**Number of**	**Permanent**	**Teeth**	**Removed**	**# (%)**
BRFSS	None	1-5 teeth	6 or more, but not all	All	Total
2013	115 (50.3%)	80 (33.7%)	27 (9.9%)	14 (6.0%)	236

19% of Charles County BRFSS respondents reported that there was a time in the last year when they had a dental problem and would have liked to have seen a dentist, but they did not see

one. 66.7% of those individuals reported that they did not go to see the dentist because it would cost too much. The second most reported reason was that they did not have the time (16.5%).
Over half of Charles County BRFSS respondents reported that their teeth are in fair condition (52.4%). 35.5% reported that their teeth are in good condition. Only 5.8% reported their teeth in excellent condition. 6.4% reported that their teeth are in poor condition.

Oral Cancer Statistics:

Oral Cancer Incidence:

The Charles County oral cancer incidence rate for 2007-2011 was 10.7. This rate is comparable to the Maryland state average rate of 10.1. The Charles County oral cancer incidence rate is between 10% below and 10% above the United States rate of 11.0 per 100,000.

Racial comparisons can't be done due to small case counts for minorities. However, it should be noted that the Charles County white oral cancer incidence rate was higher than the Maryland state average rate (12.9 vs. 11.0).

Males are disproportionately affected by oral cancer compared to women. The 07-11 Charles County oral cancer incidence rate for males was 16.8, which is significantly higher than the oral cancer incidence rate for women (5.6).

2007-2011 Oral Cancer Incidence Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	10.1	15.5	5.6	11.0	7.8	6.7
Charles County	10.7	16.8	5.6	12.9	**	0
Calvert County	12.1	17.5	7.4	12.9	**	0
St Mary's County	10.2	13.9	6.8	11.1	**	0

** 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 2007-2011 mortality data will be presented. Charles County case counts for 2011 alone were few, and rate calculations could not be performed.

Oral Cancer Mortality:

For 2007-2011, a Charles County oral cancer mortality rate could not be calculated due to small case counts.

Even for a combined time period of 2007-2011, deaths due to oral cancer are few, and rate calculations by race and gender were not possible.

2007-2011 Oral Cancer Mortality Rates

	Total	Male	Female	White	Black	Asian/PI
Maryland	2.4	3.7	1.4	2.3	2.9	1.7
Charles County	**	**	**	**	**	**
Calvert County	**	**	**	**	**	**
St Mary's County	**	**	**	**	**	**

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

Source: Maryland Department of Health and Mental Hygiene: 2014 CRF Program's Cancer Report

2014 Maryland Oral Health Legislative Report:

The number of dentists in southern Maryland participating in medical assistance has increased over the last 5 years. Southern MD increased from 29 dentists in 2009 to 55 dentists in 2014 who participate in DentaQuest (medical assistance and MD Healthy Smiles Program). This represents 36.2% of the total dentists in the county.

Medicaid dental utilization among 4-20 year olds in Southern Maryland increased from 39.6% in 2003 to 59.7% in 2013.

Dental Health References:

1. 2011 Maryland Medicaid utilization for dental services. 2012 Center for Medicare and Medicaid Administration (CMS) *Quality of Care for Children in Medicaid and CHIP Report.*

2. Southern Maryland dental sealant and dental health program data. 2013 Get the Facts Publication. Maryland Office of Oral Health.

3. 2010-2011 Charles County Medicaid Children's Access to Dental Health Services Data. Access to Dental Services for Medicaid Children in Maryland: A Report of the Maryland Dental Health Committee.

4. Charles County School Age Oral Health Status. Survey of the Oral Health Status of Maryland's School Children 2011-2012. Available at: http://phpa.dhmh.maryland.gov/oralhealth/SitePages/reports-docs.aspx.

5. 2013 Charles County Dental health data. Maryland Behavioral Risk Factor Surveillance System. Maryland Department of Health and Mental Hygiene. Available at www.marylandbrfss.org.

6. 2007-2011 Charles County Oral Cancer Incidence and Mortality Rates. 2014 Maryland Cigarette Restitution Fund Program's Cancer Reports. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/cancer/SitePages/surv_data-reports.aspx.

7. Charles County Medicaid dental provider data. 2014 Maryland Annual Oral Health Legislative Report. Available at: http://phpa.dhmh.maryland.gov/oralhealth/SitePages/reports-docs.aspx.

Qualitative Data Related to Dental Health:

84.2% of the long survey participants reported that they have dental insurance. 20% reported that they travel outside of Charles County for their dental appointments.

64% of long survey participants reported that dental health is a problem on some level in Charles County. 28% felt that it was a "serious problem" in the county.

26% 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, 54% felt that many or some services are available in the county for dental health.

Focus group participants discussed the fact that dental coverage is provided to children through Maryland medical assistance; however, medical assistance does not cover dental services for adults.

Strengths in the county include the Charles County Department of Health's dental program and the Health Partners dental clinic. The Partnerships for a Healthier Charles County's Access to Care team has worked extensively over the past 3 years to improve access to dental health for county residents. The addition of a question to the school health forms can now connect parents who are in need of low cost or free dental health services for their children or themselves.

Approximately 1/5 of the short surveys were collected at the Southern Maryland Mission of Mercy weekend. Mission of Mercy is a volunteer-based dental clinic that provides free dental services over a two day period. The event was conducted at North Point High School in Waldorf, Maryland on July 18th and 19th, 2014. Participants felt that free clinics, such as Mission of Mercy, are vital and necessary. Dental health issues can decrease quality of life and affect all aspects of an individual's health and well-being.

Summary Statistics of Southern Maryland Mission of Mercy 2014 Clinic:

Number of SMMOM Patients:	**706**
Number of Procedures Performed:	**6033 (includes x-rays and exams)**
Total Value of Services Rendered:	**$873,145 (does not include RXs)**
Average Number of procedures per patient	**7 .7** (includes x-rays and exams)
Average Value of Services Rendered per Patient	**$1147**

Top 10 Procedures Performed

- X-rays and Exams
- Surgical Removal

- Extractions single tooth
- Prophylaxis
- Fluoride
- Extraction Impact Part Bony
- Extract Root Surgical
- Post Comp – 2 surface
- Post Comp – 1 surface
- Debridement

Other Statistics

163 Pre-screened Patients were no-shows (20%)

337 Pre-registered Patients were no-shows (44%)

5 Patients did not pass Medical Exam

7 Patients required EMS services

22 Patient did not return on Saturday for follow-up

9 Patients left before services could be rendered

Average wait time for Patients was 5 Hours and 4 minutes

- 30% less than 3 hours
- 14% less than 2 hours

Demographic data reflects all patients that registered for

Southern Maryland Mission of Mercy

State Information	
Maryland	1095
Virginia	4
Delaware	8
District of Columbia	6
West Virginia	1
California	1
Louisiana	1
Not Listed	29
Total	1,145

MD Counties Information	
St. Mary's	378
Charles	366
Calvert	229
Prince George's	98
Montgomery	15
Baltimore City	3
Baltimore	3
Worcester	2
Anne Arundel	1
Total	1,095

Other Counties Information	
District of Columbia	6
Kent (DE)	4
Sussex (DE)	3
New Castle (DE)	1
Fairfax (VA)	3
Hanover (VA)	1
Berkeley (WV)	1
Other (CA and LA)	2
Not Listed	29
Total	50

Ethnic Background Information	
African Am./Black	427
White	361
Hispanic	47
Asian	17
Am. Indian	6
Not Listed	293
Total	1,151
** 6 patients were marked with multiple backgrounds **	

Gender Information	
Female	685
Male	432
Not Listed	28
Total	1,145

Male - Age Information	
19-29	107
30-39	60
40-49	85
50-59	97
60-69	56
70+	27
Total	432

Female - Age Information	
19-29	128
30-39	98
40-49	138
50-59	188
60-69	89
70+	44
Total	685

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 is 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 anxiety/depression. Charles County BRFSS data is available for 2013.

Question 1: Has a doctor ever told you that you had an anxiety disorder (including acute stress, anxiety, obsessive compulsive, panic, phobia, PTSD, or social anxiety)?

For 2013, approximately 12.2% of Charles County BRFSS respondents reported that they have been diagnosed with an anxiety disorder.

Question 1: Anxiety disorders	**Yes**	**No**	**Total**
2013	67 (12.2%)	483 (87.8%)	550

Question 2: Has a doctor ever told you that you had a depressive disorder (including depression, major depression, dysthymia, or minor depression)?

For 2013, approximately 10.4% of Charles County BRFSS respondents reported that they have been diagnosed with depression.

Question 2: Depressive disorders	**Yes**	**No**	**Total**
2006-2009	68 (10.4%)	488 (89.6%)	556

Question 3: Are your activities limited due to physical, emotional, or mental problems?

For the time period 2013, 17.4% of Charles County BRFSS respondents reported that their activities are limited due to either physical, emotional, or mental problems.

Question 3: Limited activities	**Yes**	**No**	**Total**
2013	102 (17.4%)	440 (82.6%)	542

Question 4: Number of mental health days not good

The 2013 Charles County BRFSS results found that approximately one-quarter of county residents (26%) had experienced days in the past month where their mental health status was not good.

Question 4: Mental health days not good	**1-2 days**	**3-7 days**	**8-29 days**	**30 days**	**None**	**Total**
2013	40 (7.0%)	49 (9.9%)	48 (8.8%)	21 (2.5%)	394 (74.3%)	552

Question 5: How many days did poor physical or mental health problems keep you from your activities?

The 2013 Charles County BRFSS results found that approximately 20% 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	**1-2 days**	**3-7 days**	**8-29 days**	**30 days**	**None**	**Total**
2013	30 (6.7%)	31 (6.0%)	33 (5.5%)	19 (2.2%)	440 (79.7%)	553

Question 6: Because of a physical, mental, or emotion condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping?

The majority of Charles County BRFSS respondents do not have trouble doing errands alone, such as visiting a doctor or shopping (95.6%).

Question 6: Difficulty doing errands alone	**Yes**	**No**	**Total**
2013	29 (4.4%)	507 (95.6%)	536

Question 7: Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions?

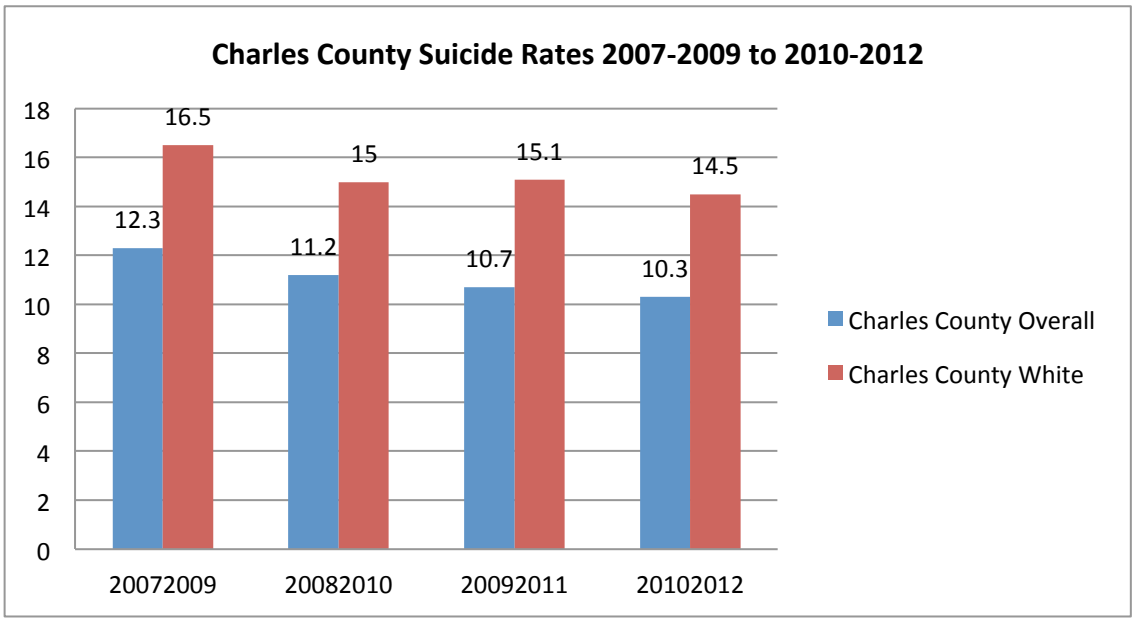
Approximately 8% of the Charles County participants reported that they do have difficulty concentrating, remembering, or making decisions due to a physical, mental, or emotional condition.

Question 7: Difficulty concentrating	**Yes**	**No**	**Total**
2013	46 (7.9%)	492 (92.1%)	538

***Suicide*:**

The 2010-2012 average Charles County Suicide rate was 10.3 per 100,000. This was similar to the Maryland state rate of 9.5 per 100,000. The Charles County White suicide rate was 14.5 per 100,000 for 2010-2012. A Charles County African American rate could not be calculated due to small case counts for this population.

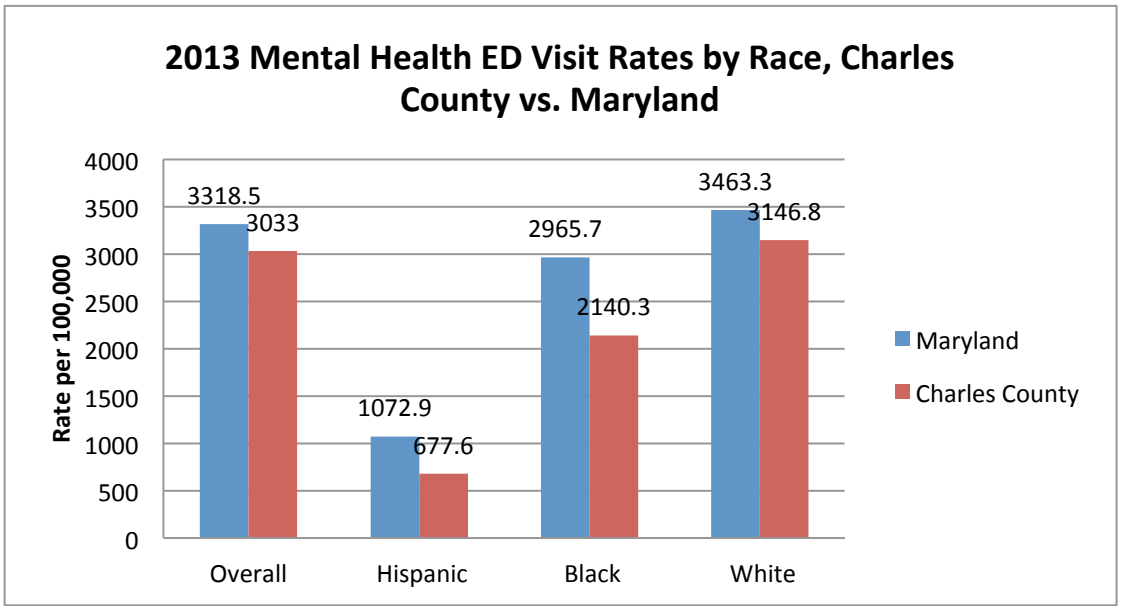
The Charles County suicide rate has seen small and steady decreases since the 2007-2009 average rate of 12.3 per 100,000.



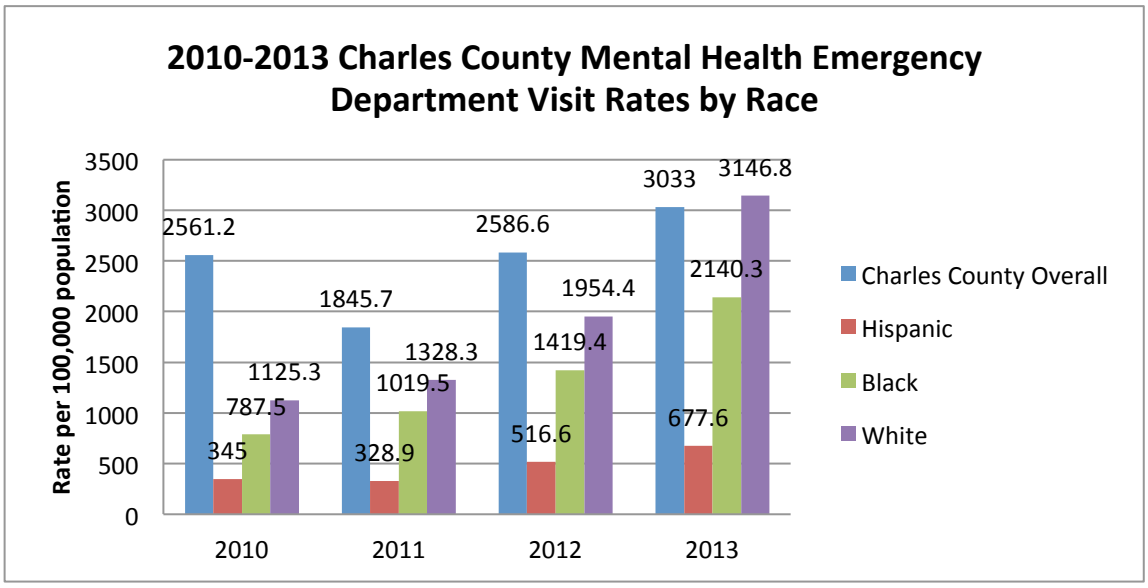
Emergency Department Visit Rates for Mental Health Conditions:

This indicator shows the 2013 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. In Maryland, there were 161,208 mental health disorder-related emergency department visits in 2010. 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 2013 Charles County Mental Health ED Visit Rate was 3,033 per 100,000. This is slightly below the Maryland state average mental health ED visit rate of 3,318.5 per 100,000. The Charles County Mental Health ED rate has increased from 2,561.2 in 2010 to 3033 in 2013.



Disparities in mental health ED visit rates can be seen on a county level. The highest rates of mental health ED visits are among the Charles County White population (3,146.8 per 100,000). The lowest mental health ED visit rate was among Charles County Hispanics (677.6 per 100,000). The rates have greatly increased for all Charles County races from 2010 to 2013.



Mental health related ED visit rates have increased from 2009-2013 for all Charles County available zip codes. Rates could only be calculated for zip codes with a population greater than 5,000 people. Disparities can be seen in mental health ED visits rates by zip code of residence. The highest rates of mental health related emergency department visits are among those living in the zip codes of La Plata (20646) and Indian Head (20640). The zip code with the greatest increase from 2009 to 2013 was La Plata (20646). This may be due to the fact that the county hospital is located within this zip code.

ED Visits Related to Mental Health Conditions per 100,000 Population, 2009-2013

Zip Code	2009	2010	2011	2012	2013
20601	2077.9	2242.8	1668.9	2252.5	2434.4
20602	2772.7	3103.5	2373.8	3070.3	3461.9
20603	1583.0	1757.7	1297.1	1808.1	1872.3
20613	1331.8	1678.7	1498.3	1665.2	1706.5
20616	2286.1	2159.0	1666.4	1768.4	2361.8
20637	1670.5	2233.7	1630.9	2537.0	2418.8
20640	3138.9	2949.8	2294.7	3037.0	3706.2
20646	3315.2	3216.9	2271.5	3448.8	4571.8
20695	2475.8	2738.4	1738.1	2560.5	3009.6

Source: 2009-2013 Maryland HSCRC Outpatient Files

FY 2014 Report on Expenditures for Individuals Dually Diagnosed with Mental Health and Substance Use Disorders in the Charles County Public Mental Health System:

According to paid claim dollars and consumer counts for Fiscal Year 2014, 382 Charles County consumers in the Public Mental Health System were dually diagnosed with mental health and substance use disorders, with expenditures of $2,295,850. This is an average cost of $6010 per consumers, as compared to the overall cost per consumer of $3,418 in Charles County. The Charles County public mental health system has seen a 45% increase in the number of consumers who are dually diagnosed in the past two fiscal years.

Health Professional Shortage Areas (HPSA) for Mental Health Services in Charles County, Maryland

As of January 1, 2015, 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.

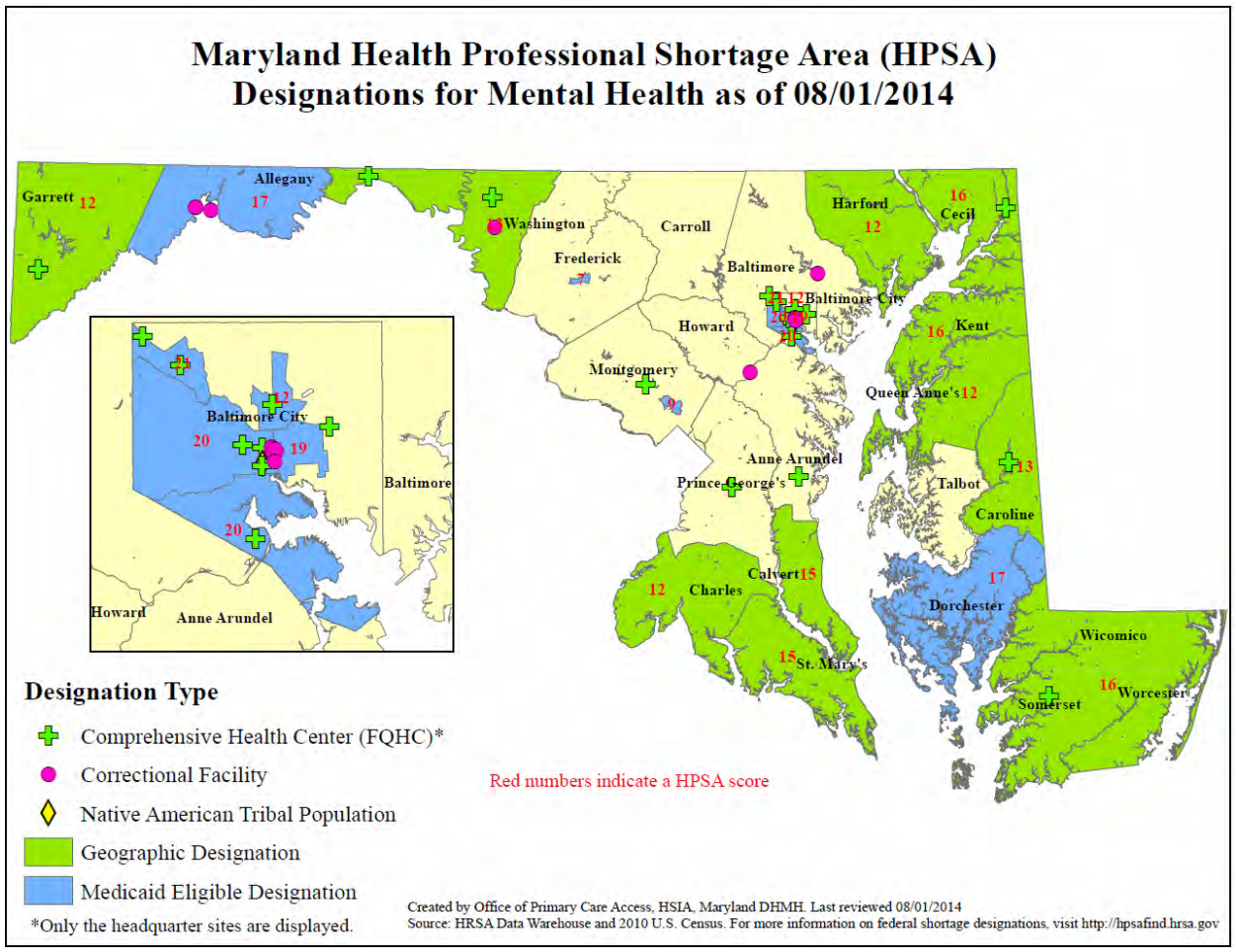
Geographic Areas must:

- 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 12. The National Health Services Corps uses a scaling system from 1-25 to determine priorities for assignment of mental health clinicians. The higher the score is the greater the priority.

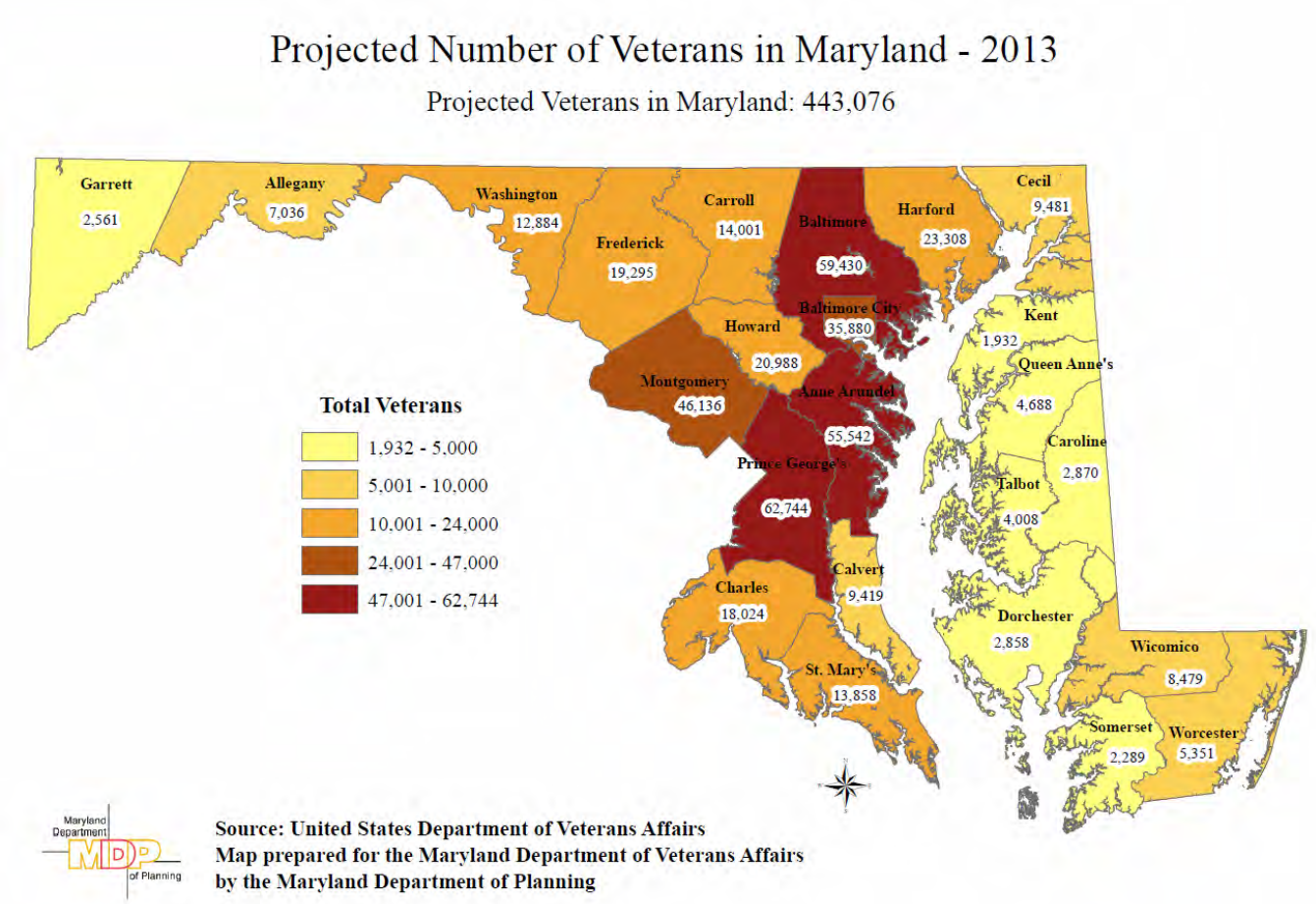


Information on HPSA designations can be found on the US Health Resources and Services Administration's HPSA website at: www.hpsafind.hrsa.gov/HPSASearch.aspx.

Veterans:

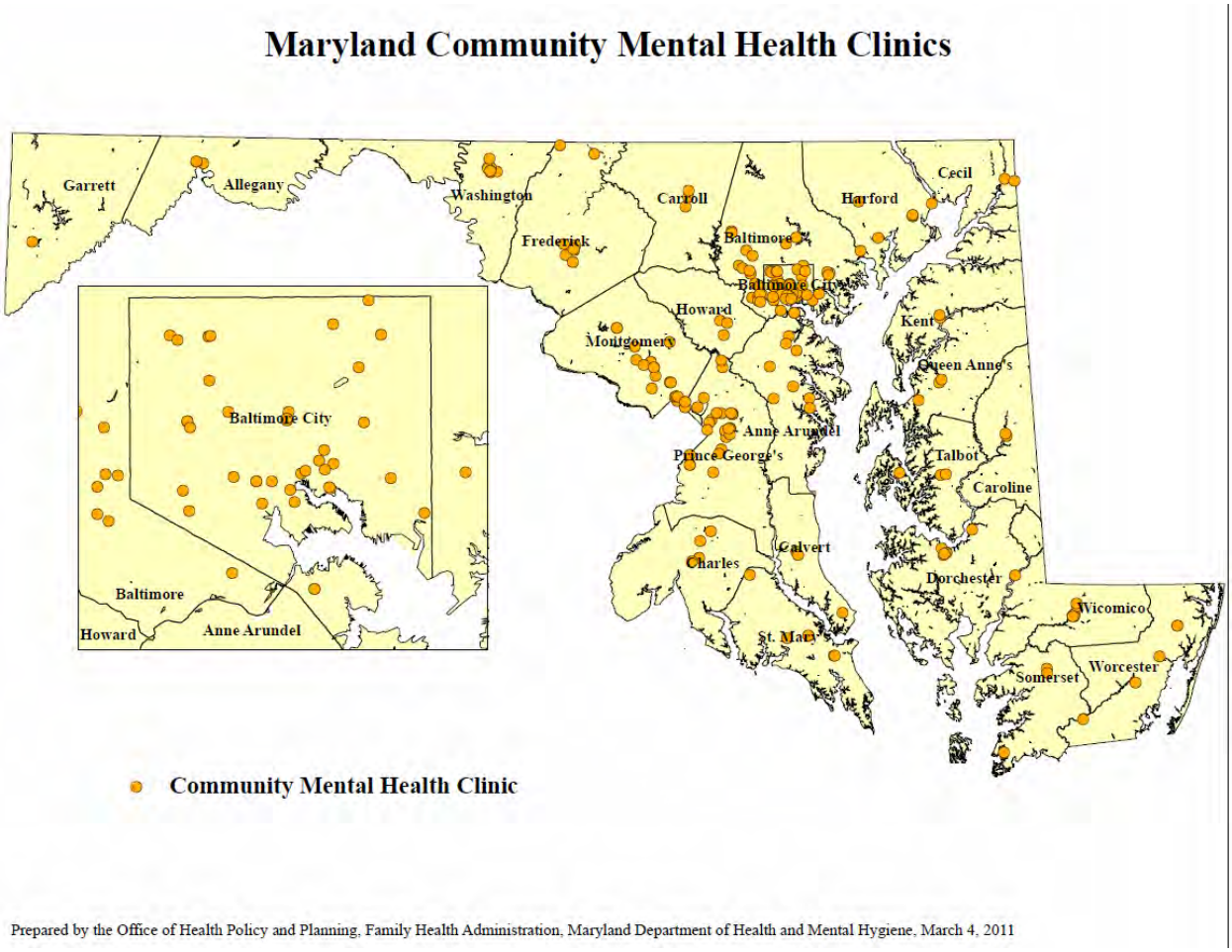
Behavioral health conditions are prevalent among the veteran population. In FY 2010, the US Department of Veteran Affairs' specialized homeless services worked with over 116,000 Veterans. Half had a serious psychiatric illness and approximately two-thirds had substance use disorders, with 40 percent of all those served dually diagnosed.

The US Department of Veteran Affairs estimates that there are a total of 443,076 veterans living in the state of Maryland in 2013. The 2013 projected number of veterans in Charles County is 18,024. This represents 4% of the total Maryland veteran population.

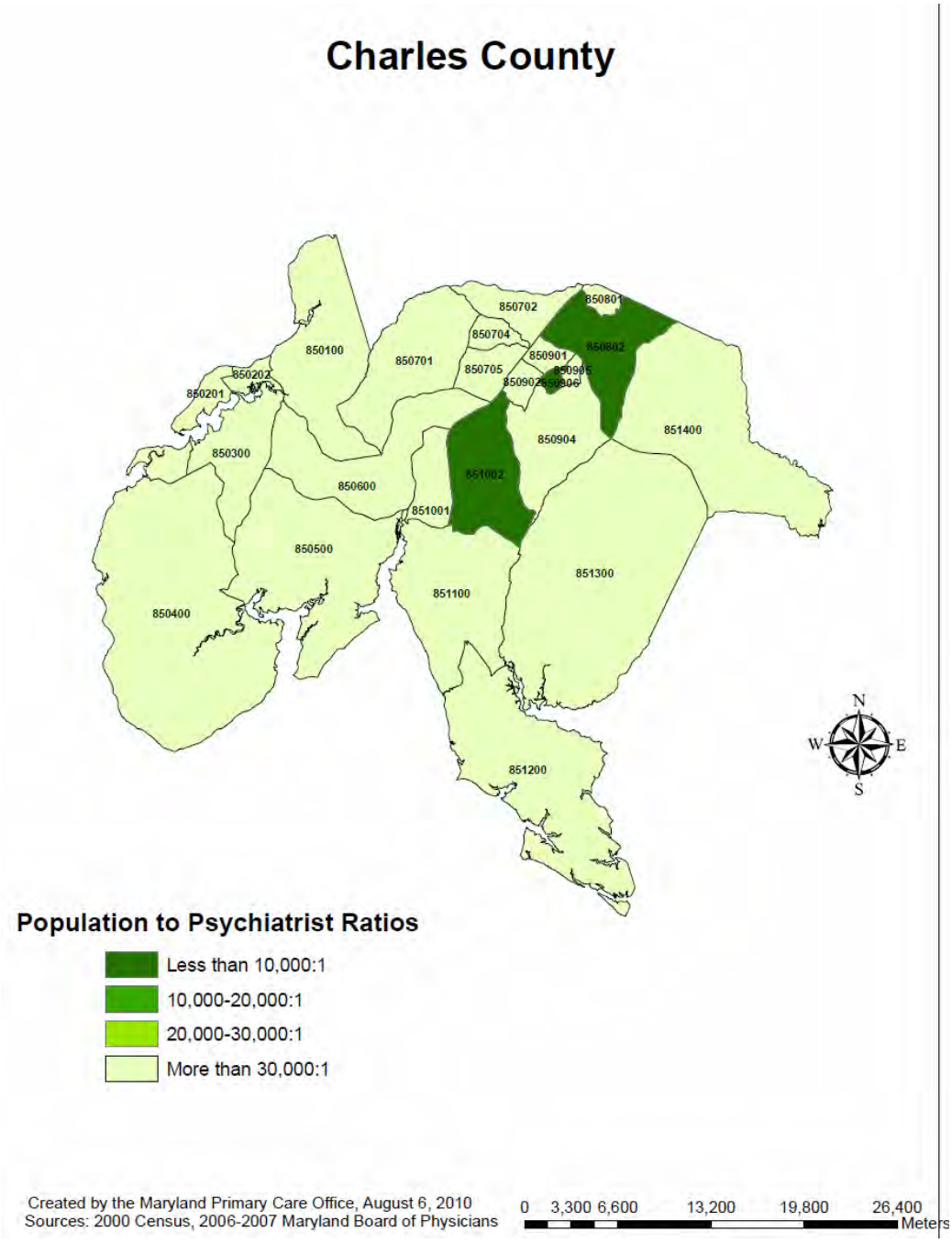


Availability of Mental Health Providers:

All community mental health clinics in Charles County are located along the Route 301 corridor, limiting availability to that region of the county.



The populations to psychiatrist ratios in Charles County vary greatly depending upon the census tract of residence. Those living in census tracts in Waldorf, MD along the Route 301 corridor have the smallest ratios at less than 10,000 to one provider. The other census tracts in Charles County have a population to psychiatrist ratio greater than 30,000 to one provider.



2013 Maryland Youth Tobacco and Risk Behavior Survey:

The 2013 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:

21.7% of Charles County middle school students and 15.8% of Charles County high school students have considered killing themselves. For both middle and high school students, females were more likely to report that they have considered suicide than males.

Beyond considering suicide, 11.9% of Charles County high school students reported that during the past 12 months they have made a plan about how they would attempt suicide.

Bullying:

19.8% of Charles County high school students and 45% 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 (22.5% vs. 17.1%). Younger students under 15 years of age (22.8%) and 9th grade students (23.6%) had higher rates of bullying than older students in the other grades in high school. Hispanics (24.3%) and individuals in the "Other" race category (28.8%) were more likely to report being bullied than Whites or African Americans.

For middle school students, females were more likely to report being bullied than males (48.2% vs. 41.7%). Students 11 years and younger (46.7%) and 7th grade students (45.7%) reported the highest rates of being bullied at school. Whites were more likely to report being bullied at school than any other race (54%).

An additional question asked students if they have been electronically bullied in the past 12 months. 20.3% of Charles County middle school students and 13.5% of Charles County high school students reported that they have been electronically bullied in the past 12 months. For both middle and high school students, females were more likely to report being electronically bullied than males. For high school students, those 18 years and older (15.4%), those in 12th grade (13.5%), and Hispanics (20.7%) reported the highest rates of being electronically bullied. For middle school students, those 13 years of age (22.1%), those in 7th grade (22.1%), and those in the "Other" race category (26.1%) reported the highest rates of being electronically bullied in the past year.

Feeling of Hopelessness:

27.1% 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 (31.5% vs. 22.7%).The highest rates of hopelessness were reported among students 18 years and older (30.6%), 10th graders (28.5%), and individuals of multiples races (31.7%).

Mental Health References:

1. 2013 Charles County and Maryland Anxiety and Depression Prevalence Estimates, Mental Health data. 2013 Maryland Behavioral Risk Factor Surveillance System. Available at www.marylandbrff.org.

2. 2007-2009 and 2010-2012 Charles County and Maryland Suicide Rates. Maryland Vital Statistics Administration. Accessed through the Maryland State Health Improvement Process website. Available at: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

3. 2010-2013 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: http://dhmh.maryland.gov/ship/SitePages/Home.aspx.

4. 2009-2013 Charles County Zip Code Level Mental Health Related Emergency Department Visit Rates. Maryland Health Services Cost Review Commission. Data requested from the Maryland Virtual Data Unit.

5. Fiscal Year 2014 Charles County Dually Diagnosed Expenditures. FY 2014 Report on Expenditures for Individuals Dually Diagnosed with Mental Health and Substance Use Disorders in the Charles County Public Mental Health System. Data provided by the Charles County Core Service Agency.

6. 2015 Charles County Health Professional Shortage Area Designation for Mental Health. US Department of Health and Human Services: Health Resources and Services Administration. January 1, 2015 Health Professional Shortage Area Update. Available at: http://hpsafind.hrsa.gov/.

7. US Department of Veterans Affairs. Community Homeless Assessment Local Education and Networking Group for Veterans. Fiscal year 2010 Report. July 5, 2011.

8. 2013 Projected Number of Veterans in Maryland. Maryland Department of Planning.

9. Maryland County Maps of HPSA designations, mental health clinics, and psychiatrist ratios. Maryland Department of Health and Mental Hygiene: Maryland Primary Care Office. Available at: http://hsia.dhmh.maryland.gov/opca/docs/Maryland%20MH%20HPSA%208-4-14.pdf.

10. 2013 Charles County and Maryland Youth Data on suicide, bullying, and mental health status. 2013 Maryland Youth Tobacco and Risk Behavior Survey. Maryland Department of Health and Mental Hygiene. Available at: http://phpa.dhmh.maryland.gov/cdp/SitePages/youth-risk-survey.aspx.

Qualitative Data Relating to Mental Health:

Long Survey Results related to Mental Health:

5% of the long survey respondents 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. 8% reported that they always feel stressed out or overwhelmed. 21% reported that they are stressed most of the time. The greatest group of respondents (48%) reported that they feel stressed out or overwhelmed sometimes. 17% were rarely stressed out, and 5% are never stressed.

29% of the long survey respondents felt that mental health is a serious health issue in Charles County. 66% felt that mental health is a health problem on some level (serious, moderate, or slight).

20% 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:

25% of the short survey respondents reported Mental Health as one of the biggest health problems in Charles County.

43% of the short survey participants felt that many or some services are available in the county to address mental health. 6% 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 many of the focus groups. The issues discussed have been divided into populations in need, gaps and barriers in services, determinants leading to mental health crisis, and potential improvements and solutions.

Gaps and Barriers to mental health services:

- Child psychiatry
- Wait time in terms of getting services.
- When people have private insurance, they often have to leave the county for services. There are more support services, such as care coordination, for individuals on medical assistance than those with private insurance.
- There needs to be a continuity of care. There is an issue for all adults in the county. Need more psychiatric hours. Some need instant psych hours.
- Some give up, especially when they lose their medical assistance.
- It takes 35 days after jail release before they can get into mental health services. A lot can happen in 35 days. Many clients do not see the need anymore.
- Transitional youth 18-25 years of age: Once kids graduate or drop out of school, they no longer see the need and quit services.

- There is a need for increased funding to address the factors leading to barriers in access, like transportation.
- From children and adolescents, we do not have many places to refer. This is especially true for communities on the outskirts of the county like Mt Hope and Nanjemoy. Some residents can't get to Waldorf where services are concentrated.
- There is definitely a need for more mental health services.
- Crisis services for behavioral health are needed to address high ED utilization for mental health conditions.

What specific populations do you see in need of mental health services:

- Homeless population. The school system has seen increases in this population.
- Children, early prevention
- No targeted treatment for children with developmental disabilities. They can get support services, but it is limited for those with Autism or Asperger's Syndrome.
- Triple diagnoses with addictions (developmental disabilities, substance abuse, and mental health)
- Severe and complicated medical conditions make providers hesitant to deal with their mental health issues.
- Transitional youth aged 18-25 years

Social Determinants leading to increased mental health emergencies and crises:

- Transportation
- Juvenile crime and drug use/drinking
- Safe and stable family life and living situations
- Service agencies stretched beyond their means with waitlists to receive services
- Confusion for those needing services when navigating available services
- Health Care- access to primary and specialty (especially mental health) care
- Homelessness
- Disparities: race, socio-economic, geographic
- Housing, financial stability, hunger
- The school nurses are also seeing an increase in very young (even pre-k) students whose behavior is really out of control, likely due to a lack of parental awareness of basic parenting. The parents may be very young, unprepared or have mental health and/or substance abuse issues of their own, which leads to students entering with a lack of knowledge of basic societal rules and social skills.
- Continued drug use as evidenced by the juvenile delinquency population (drug offense, positive drug tests while on probation, positive drugs tests while in outpatient treatment, lack of effective inpatient substance abuse treatment facilities in the county).
- Families with transportation problems

Potential Solutions and Future Programming:

- Having a step down or transitional housing within the county. Some residents must relocate their families to neighboring counties where they can receive services. Sometimes, they do not need to go back to their home with their old friends and habits.
- We need to teach people with mental illness how to be independent. They need a sense of responsibility.
- There is a need for a mobile crisis response team. Accessing mental health is difficult due to transportation. We need mobile units.
- Need crisis beds in Charles County. We can use Calvert County, but they are small and often full. No partial inpatient admissions. Those in crisis use EMT services for mental health conditions and go to the Charles Regional ED, are released, and return the same day. Those who need to be admitted are moved to another hospital. There is no medical psychiatrist at University of Maryland Charles Regional Medical Center and no on-call. All case managers and social workers are contracted through Calvert Memorial Hospital.
- Getting jobs for consumers with mental illness is difficult. There is the Pathways-supported employment program. Providers must refer to this program. The consumers must meet criteria for the program and medical assistance. Many programs are not available to those with private insurance who do not recognize long-term care.
- Need to improve the wait time for accessing services through APS. They need to get them in as soon as possible.
- We need to continuously improve the public mental health workforce. There is a need for additional providers in Charles County.
- Increased child psychiatry services in Charles County.
- Continue collaboration and communication among county agencies and providers to increase access to behavioral health services.

Access to Care:

Access to Routine Exams:

From 2013, 79.6% of Charles County BRFSS respondents reported that they had been to a doctor for a routine checkup in the last year. There were only a few people who reported that they never go to the doctor for routine checkups.

Time since last routine checkup	Never went	< 1 year	1-2 years	2-5 years	5+ years	Total
Charles County	4 (0.3%)	452 (79.6%)	62 (12.4%)	21 (3.5%)	14 (4.1%)	553

Charles County BRFSS respondents were also asked how many times that they have been to see a doctor, nurse, or health professional in the past 12 months. The most common response was one time; however, the responses varied greatly from 1 time to 10 or more times.

# of visits to health professional in past year	1 time	2 times	3 times	4 times	5-9 times	10+ times	None	Total
Charles County	85 (17.4%)	90 (16.0%)	73 (14.1%)	68 (10.3%)	105 (17.1%)	81 (17.0%)	31 (8.1%)	533

An additional module was included in the 2013 Maryland BRFSS to ask specific questions on health care access after the initial implementation of the Affordable Care Act. Only those questions with a sample size greater than 50 persons will be displayed below due to rate instability. Note that all percentages have been weighted to reflect the Maryland and Charles County populations.

Question 1: Are you currently covered by any of the following forms of health insurance or health coverage plan?

Almost half of Charles County BRFSS respondents (44%) reported that they have health care coverage through their employer. One-third reported their health coverage is through someone else's employer, such as a parent or spouse. Charles County BRFSS respondents reported a lower percentage with Medicaid than the state percentage but a higher percentage with health coverage through the military. The percentage reporting no health insurance was similar for Charles County and Maryland (3.6% vs. 3.5%).

Type of Health Insurance	Your Employer	Someone else's employer	A plan bought on our own	Medicaid	Military	Some other source	None	Total
Charles County	248 (43.8%)	153 (30.8%)	29 (4.4%)	16 (3.9%)	38 (6.8%)	24 (6.7%)	17 (3.6%)	525
Maryland	5371 (45%)	3269 (30.2%)	1165 (8.1%)	555 (5.7%)	356 (2.5%)	602 (5%)	469 (3.5%)	11787

Question 2: Do you currently have any medical bills that are being paid off over time?

20.6% of Charles County BRFSS respondents reported that they have medical bills that are being paid off over time. This percentage is greater than the Maryland state average percentage of 16.4%.

Paying off medical bills over time?	Yes	No
Charles County	103 (20.6%)	451 (79.4%)
Maryland	1816 (16.4%)	10910 (83.6%)

Question 3: Do you have Medicare?

35.4% of Charles County BRFSS respondents reported that they currently have Medicare. This percentage was lower than the Maryland state average percentage of 43.8% with Medicare.

Do you have Medicare?	Yes	No
Charles County	236 (35.4%)	298 (74.6%)
Maryland	6690 (43.8%)	5290 (56.2%)

Question 4: Have you delayed getting medical care for any of the following reasons over the past year?

The majority of Charles County respondents felt that they could get medical care when needed and did not have to delay care (74.3%). Among those who had to delay care, the most commonly cited reason was that they could not get an appointment soon enough.

Reasons for delaying care	Could not get through on the	Could not get an appt soon	Once there, had to wait	Office was not open when	You did not have transportation	Other	Did not delay care	Total

	telephone	enough	too long to see the doctor	you got there				
Charles County	6 (0.8%)	52 (8.3%)	22 (7.6%)	6 (1.3%)	12 (3.4%)	24 (4.3%)	431 (74.3%)	553

Question 5: How satisfied are you with the health care you received in the past 12 months?

Most Charles County respondents were satisfied (very or somewhat) with the health care that they received in the past 12 months (97.7%).

How satisfied with your care	Very satisfied	Somewhat satisfied	Not at all satisfied	Not applicable/Have not gotten care in past year	Total
Charles County	368 (64.2%)	170 (33.5%)	10 (1%)	5 (1.3%)	553

Question 6: Was there a time in the past 12 months when you did not take your medication as prescribed because of cost?

Only a small percentage (4.4%) of Charles County respondents reported that there was time in the past 12 months when they did not take their medication as prescribed because of cost. 91.8% took their medication as prescribed, and 3.8% do not have any medications prescribed.

Health Status:

2013 Charles County BRFSS data indicates that the health status of most county residents is positive. Over half of county residents report themselves in Very Good to Excellent health (53.2%). A small portion considers themselves in Fair to Poor health (14.3%).

There was a decrease in the percentage reporting Very Good to Excellent health from the last needs assessment report (60.7% to 53.2%). There was an increase in the percentage reporting that they are in Fair or Poor Health (11.7% to 14.3%).

Health Status:	Excellent	Very Good	Good	Fair	Poor	Total
Charles County	96 (21.2%)	202 (32.0%)	161 (32.5%)	79 (11.6%)	17 (2.7%)	555

Health Insurance:

The 2013 Charles County BRFSS estimates that 5.3% of county residents do not have health insurance coverage of any kind. This is lower than the 12.9% estimated for the state of Maryland. The Charles County percentage of uninsured decreased significantly from 8% in the previous needs assessment report.

Health Insurance Coverage:	No	Yes	Total
Charles County	24 (5.3%)	532 (94.7%)	556
Maryland	904 (12.9%)	12063 (87.1%)	12967

2013 Charles County health un-insurance estimate as determined by the US Census Bureau's Current Population Survey is 7.4%. This is lower than the 2009 Charles County health un-insurance rate of 9.4% that was reported in the previous needs assessment report. The 2013 Charles County estimate is below the Maryland state health un-insurance estimate of 10.5% for 2013. In 2013, it was estimated that 82.1% of Charles County residents had private health insurance, and 21.4% had public health insurance such as Medicare or Medicaid. The percentage of Charles County uninsured is much higher for those who are unemployed (32.5%) versus those who are employed (7.7%) and those who are not in the labor force (12.5%).

The 2013 US Census Bureau Small Area Health Insurance Estimates reports Charles County and Maryland health un-insurance rates by age group. The age group most affected by lack of health insurance in Charles County is the 18-64 year-olds. Rates in Charles County are lower than the Maryland state rates for all age groups.

- Under 19 years: 4.6% for CC, 4.8% for MD
- 18-64 years: 10.7% for CC, 14.3% for MD
- Under 65 years: 8.5% for CC, 11.7% for MD
- 40-64 years: 8.2% for CC, 11.2% for MD
- 50-64 years: 7.5% for CC, 10% for MD
- All ages: 6.4% for CC, 10.8% for MD

Medicaid Enrollment Rates:

For fiscal year 2014, Charles County saw an increase in the number of persons both eligible for and enrolled in Medicaid.

Charles County Fiscal Year 2014 Medicaid Enrollment and Eligibility	Medicaid Enrollment	Medicaid Eligible
July	17157	23194

August	17201	23403
September	17254	23501
October	17399	23665
November	17506	23738
December	17815	23905
January	20258	25610
February	20937	26152
March	21708	27384
April	22634	27855
May	23639	28087
June	23886	28411

Medicaid and MCHP enrollment rates are available for Charles County zip codes with a population greater than 5,000. From 2007-2011, the number of enrollees increased for all zip codes available. The highest rates of medical assistance enrollment in Charles County can be found in the zip codes 20602 (Waldorf), 20640 (Indian Head), and 20616 (Bryans Road). Two of those zip codes, Bryans Road and Indian Head, are located in the western region of the county.

Medicaid and MCHP Enrollment in Charles County, by zip code January 2007 to January 2011							**Medicaid Enrollment Rate (2009 Claritas population denominator)**
	7/31/2007	7/31/2008	7/31/2009	7/31/2010	7/31/2011	Average (2007-2011)	
20601	1,877	1,925	2,310	2,619	2,855	2,317	91.5
20602	3,249	3,442	3,973	4,354	4,811	3,966	176.8
20603	1,462	1,744	2,033	2,320	2,494	2,011	76.0
20613*	113	109	118	159	164	133	n/a
20616	622	652	752	841	949	763	132.2
20637	295	307	355	379	491	365	64.3
20640	1,150	1,224	1,381	1,540	1,727	1,404	145.0
20646	1,797	1,846	2,129	2,298	2,506	2,115	104.7
20695	492	518	606	725	809	630	89.6
County Total	**13,507**	**14,347**	**16,424**	**18,219**	**20,036**		
State Total	**700,500**	**726,522**	**829,815**	**911,822**	**989,243**		

*Filtered to only include individuals in Charles County with 20613 zip code.

Source: Decision Support System (DSS)
As of July 31, 2014.

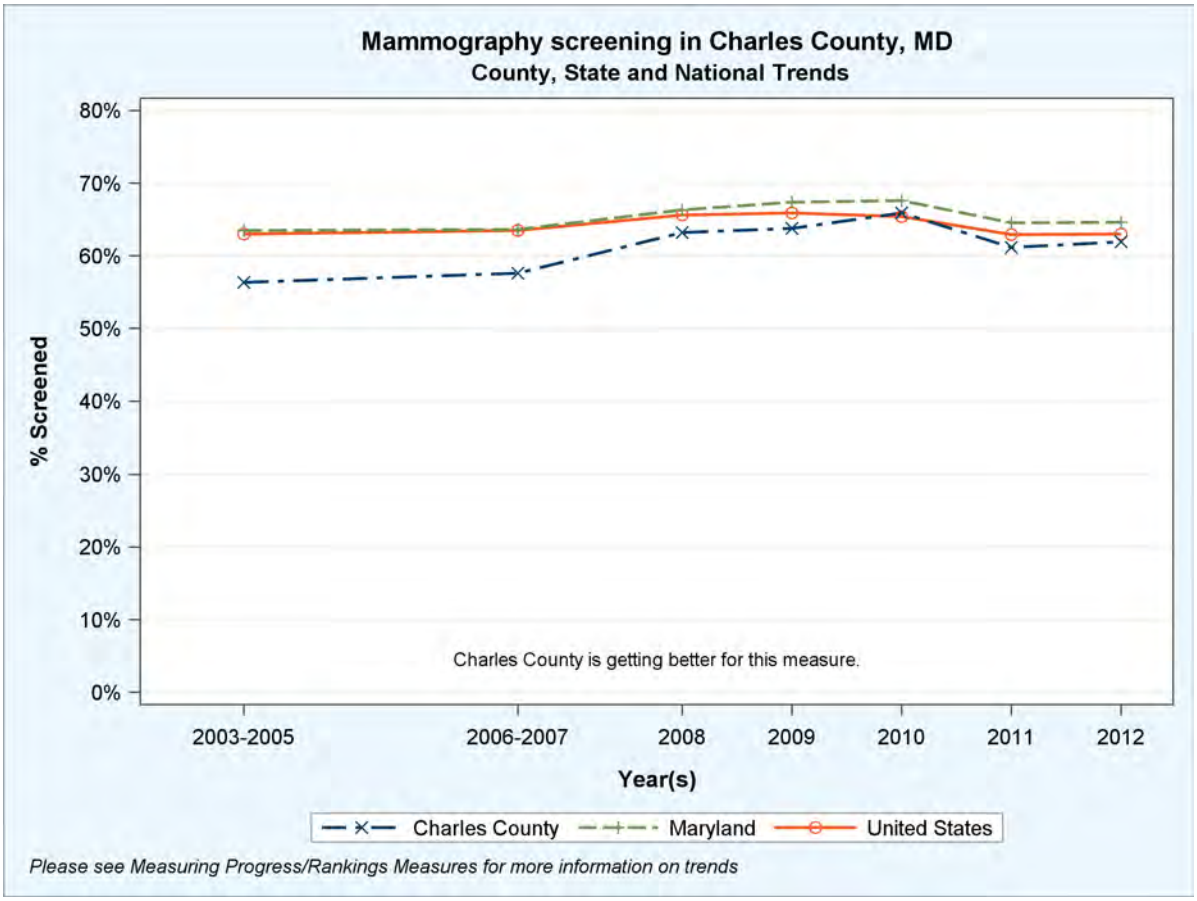
We can further breakdown the Medicaid enrollment data to look at the type of medical assistance. From 2007-2010, the highest Medicaid enrollments in Charles County were for families and children. Increases were seen in the number of Charles County residents enrolling for all medical assistance programs from 2007-2010 except for the Maryland Children's Health Program.

Maryland Chart Book on County Medicaid Enrollment 2007-2010:

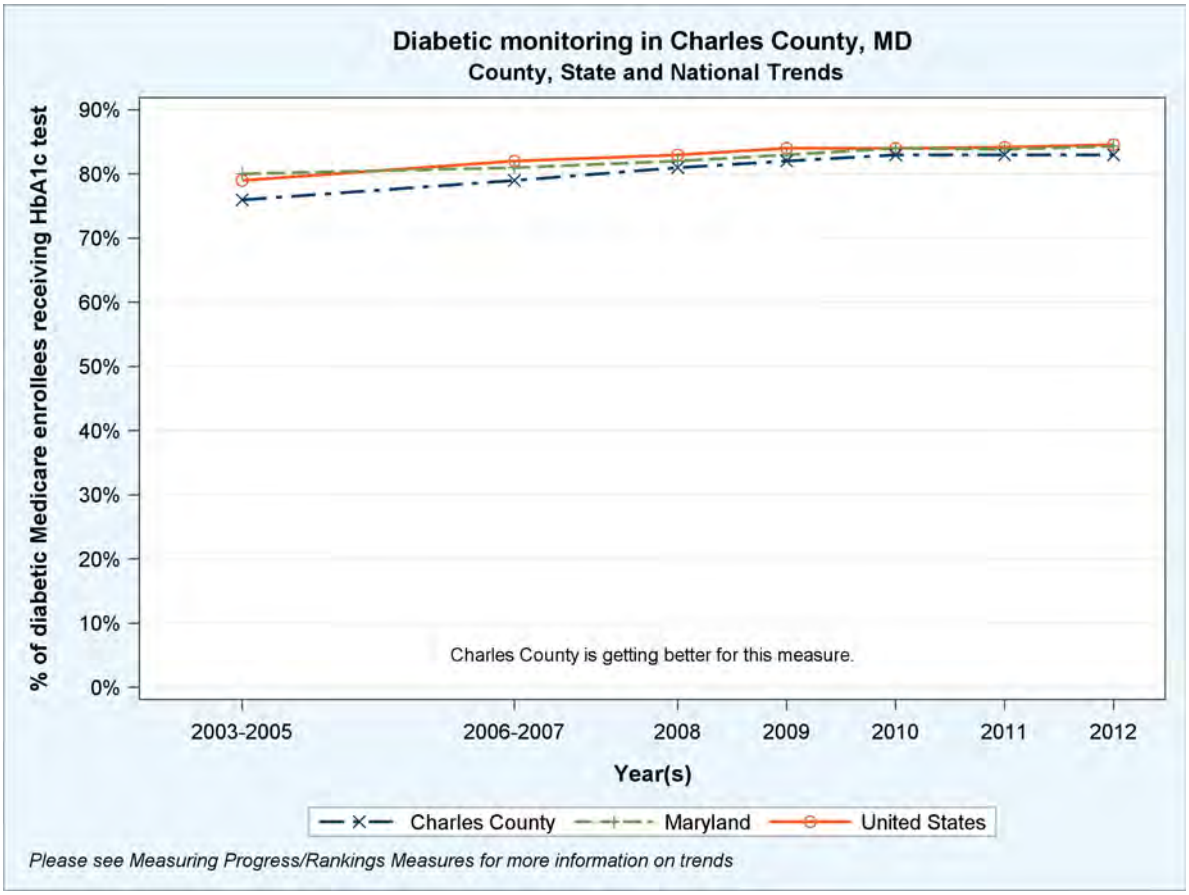
Charles County:	2007	2008	2009	2010
Aged/Disabled	2455	2545	2692	2774
Families and Children (FAC)	8188	9393	11103	12640
Maryland Children's Health Program	1923	1925	1827	1869
Other	586	638	667	737
PAC	395	402	708	894
Total	13547	14903	16997	18915

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 mammograms health screenings for women aged 67-69 currently enrolled in Medicare. 61.9% of Charles County women aged 67-69 years enrolled in Medicare received a mammography screening in 2012. The county percentage is similar to the Maryland state percentage of 64.6%. The Charles County rate of mammography screening has seen steady increases each year for the last decade.



The County Health Rankings also included the percentage of diabetic Medicare enrollees aged 65-75 years that receive HbA1C monitoring. Regular HbA1c monitoring among diabetic patients is considered the standard of care. It helps assess the management of diabetes over the long term by providing an estimate of how well a patient has managed his or her diabetes over the past two to three months. When hyperglycemia is addressed and controlled, complications from diabetes can be delayed or prevented. 83% of Charles County diabetic Medicare recipients are receiving HbA1C monitoring. This is similar to the Maryland state percentage of 84%. The Charles County rate of HbA1c monitoring has seen steady increases in the past decade.



Transportation:

Charles County's network of highways, waterways, railroads, and airports link residents and businesses with commercial hubs and cultural attractions throughout the Washington Metropolitan area, as well as nationally and internationally.

As one of Maryland's fastest-growing counties, Charles County is continually considering transportation enhancements to support growth. Near term projects include on-going improvements to county roads to facilitate traffic flow within the community. As a long-term, regional project, the County has made it the highest transportation priority to create a fixed-route, high-capacity transit service from the Washington, D.C. metro train (subway) system's Branch Avenue Metro Station to Waldorf/White Plains. Funding was recently approved for a feasibility study for commuter ferry service between the Naval Installation at Indian Head and Fort Belvoir and Quantico Marine Bases in Virginia, as well as to Maryland's National Harbor; Alexandria, Virginia; and Washington, D.C.

VanGo public transit provides transportation opportunities within Charles County and serves several desired primary destinations including the College of Southern Maryland, St. Charles Towne Center Mall, University of Maryland Charles Regional Medical Center, the Charles County Department of Health, employment locations and medical facilities, as well as numerous shopping centers. VanGo was named best fixed route system in the state of Maryland by the Transportation Association of Maryland (TAM).

Most routes operate Monday through Saturday from 7:00am-10:00pm on hourly schedules. Some secondary routes operate Monday through Friday with fewer loops throughout the day.

VanGo has stops at the Charles County Health Department, Charles County Department of Social Services, University of Maryland Charles Regional Medical Center, Western County Family Medical Center, Health Partners Inc., College of Southern Maryland, and the Pembrooke Medical Center.

VanGo comes to Charles Regional Medical Center on the 12th of every hour from 7:12 AM to 9:12 PM. VanGo comes to the Charles County Department of Health every 30 minutes from 7:07 AM to 5:07 PM. Additional buses to La Plata and Waldorf come every 30 minutes from 6:07 AM until 9:40 PM. VanGo comes to the College of Southern Maryland every 30 minutes from 6:17 AM to 9:17 PM. Additional buses to La Plata and Waldorf come every 30 minutes from 6:17 AM to 9:17 PM.

A general all day ticket is $2, or $1 for a one-way ticket. Fees are half-price for seniors, and children under 6 are free.

Specialized transportation services:

VanGo offers specialized transportation services targeted at under-served populations who are most in need of their services including seniors and those with disabilities. Special arrangements and transportation have been set up to accommodate those needs. Specialized services are available from 8am -5 pm.

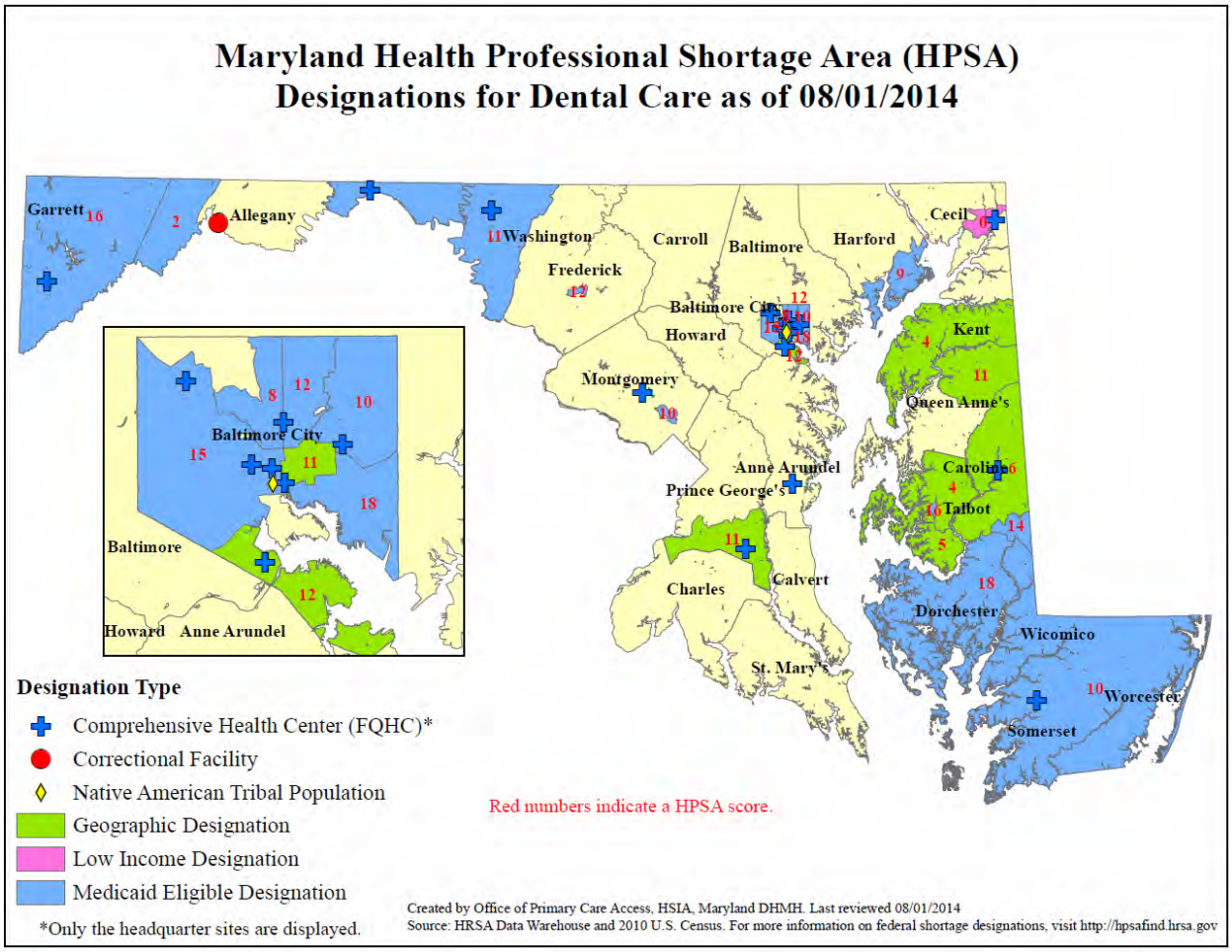
Some of the special services available include:

- *Indian Head Senior Center Route*
- *Americans with Disabilities Paratransit Service*: The VanGo ADA Transportation Service is a door-to-door service that provides passenger assistance from the customer's door and the vehicle.
- *Demand-Response Transportation*: VanGo provides door-to-door, shared ride, general purpose demand-response service for people 60 and older and people with disabilities who are not located on the VanGo public transit route or who are unable to use the route due to a disability.
- *Dialysis/Senior Center Subscription*: For customers needing transportation to dialysis and local senior centers, VanGo operates a guaranteed subscription service providing transportation based on where customers live.
- *Department of Social Services Demand-Response*: VanGo provides demand response transportation for DSS clients to work, work enrichment and training activities, and child care centers when VanGo public transit routes cannot meet the customer's needs.
- *Medical Assistance Transportation*: Medical Assistance transportation provides service to medical appointments for individuals participating in the Maryland Health Choice/Medical Assistance Program. When these appointments are in the Baltimore or Washington area, VanGo coordinates with the St. Mary's County Health Department to share rides when possible.

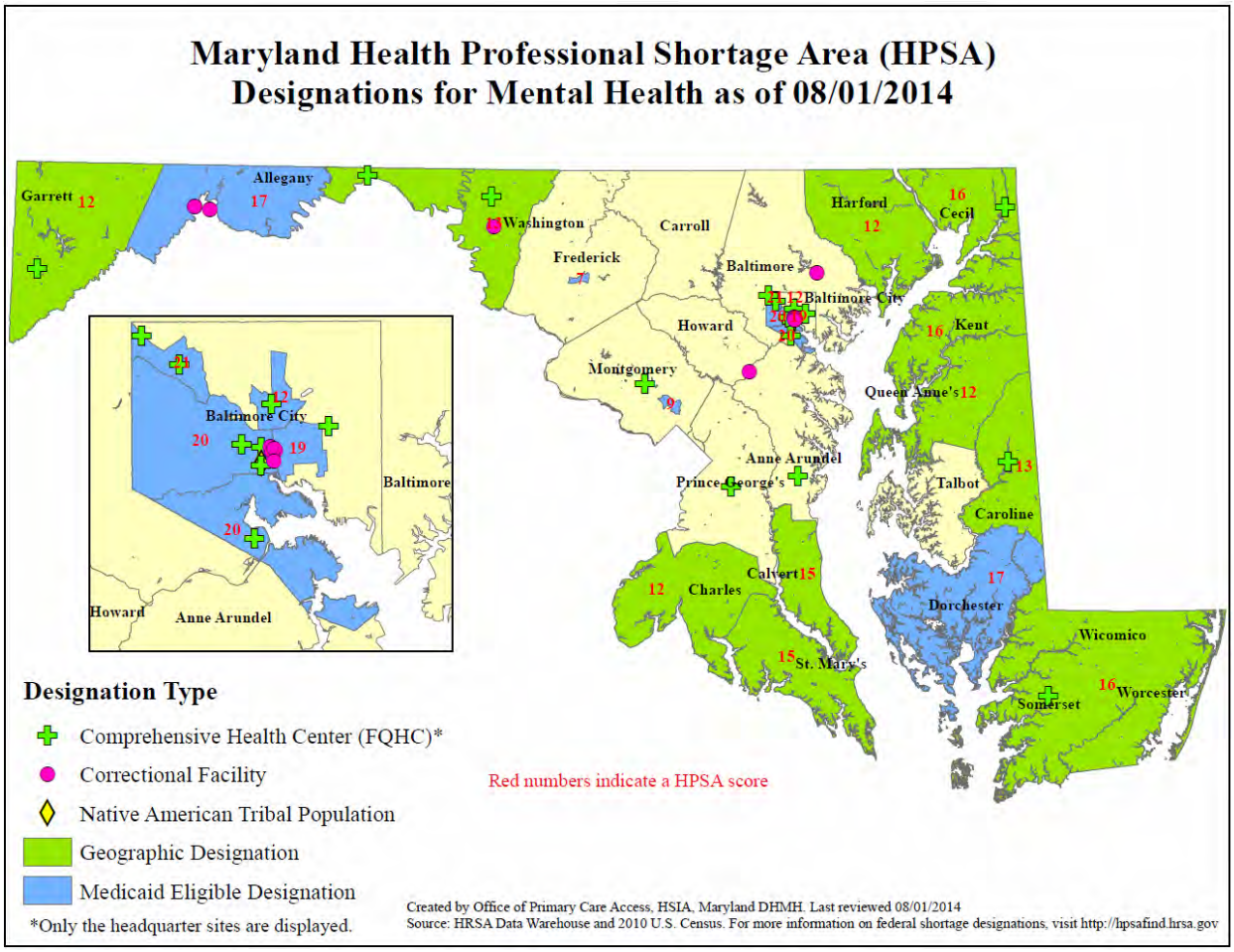
<u>Health Professional Shortage Areas/ Medically Underserved Populations and Areas</u>:

Health Professional Shortage Areas (HPSA):

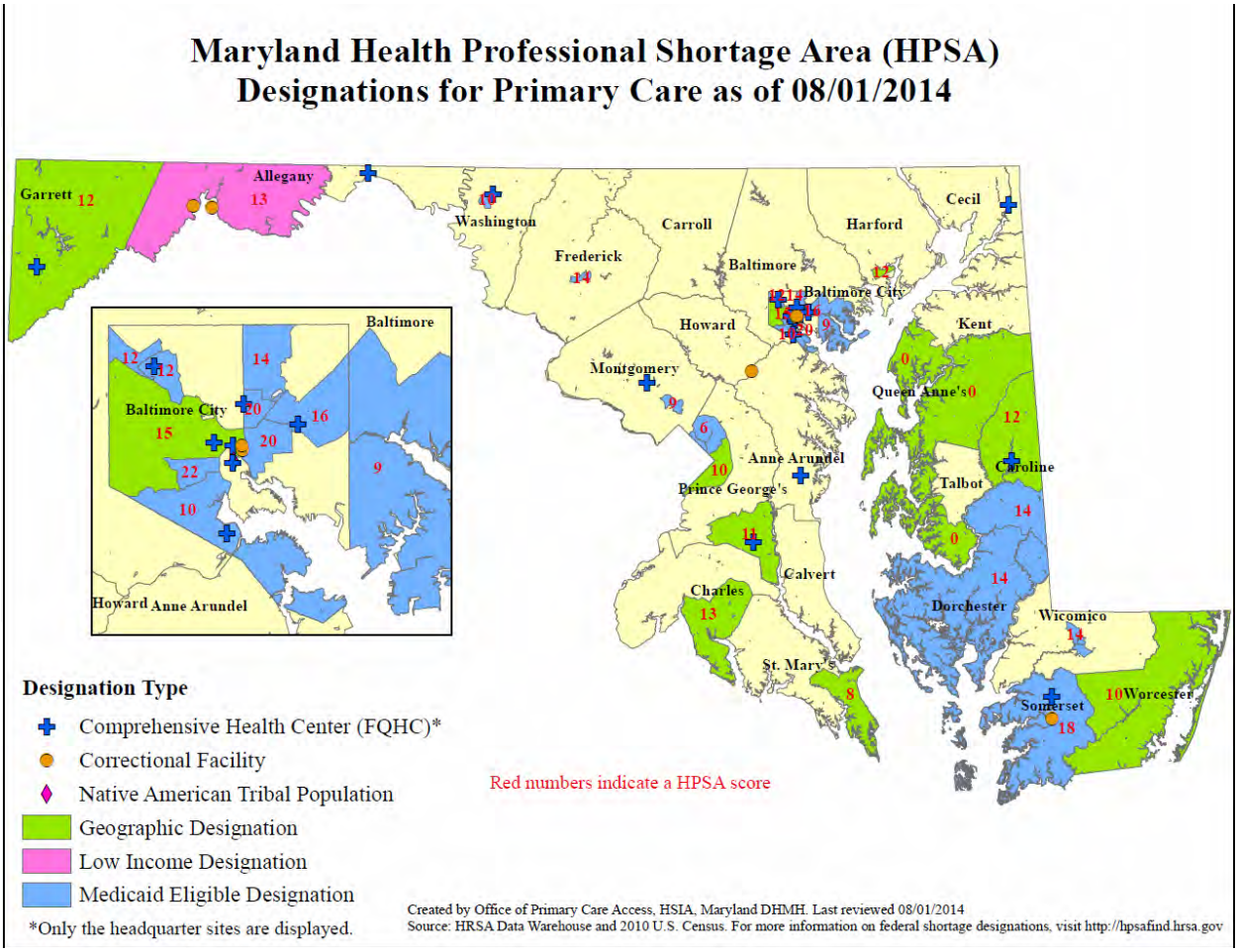
There is no federally designated health professional shortage area in Charles County for dental health. This designation is assigned by the United States Department of Health and Human Services' Health Resources and Services Administration (HRSA).



There is a federally designated mental health professional shortage area for the entire county. It is reported that there are 3 full-time equivalent non-federal mental health professionals practicing in Charles County. Charles County received a score of 12 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 and 1 to 26 for dental. The higher the score is, the greater the priority.



There is a federally designated primary care professional shortage area for Southern Charles County. 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 and 1 to 26 for dental. The higher the score is, 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 6 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.

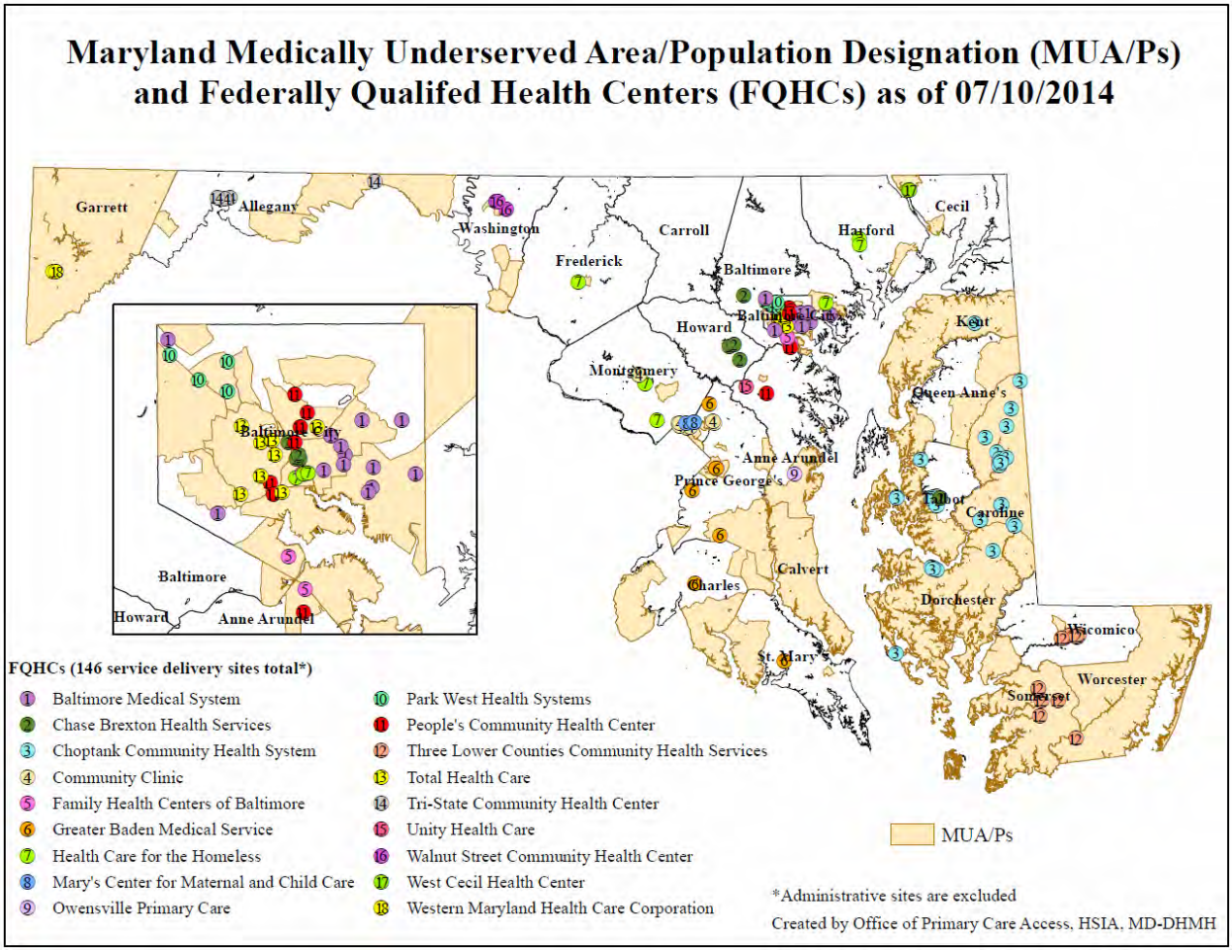
In addition to the MUP, there are 5 medically underserved areas (MUA) in Charles County. Medically Underserved Areas may be a whole county or a group of contiguous counties, groups of county or civil divisions, or a group of urban census tracts in which residents have a shortage of personal health services. 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.

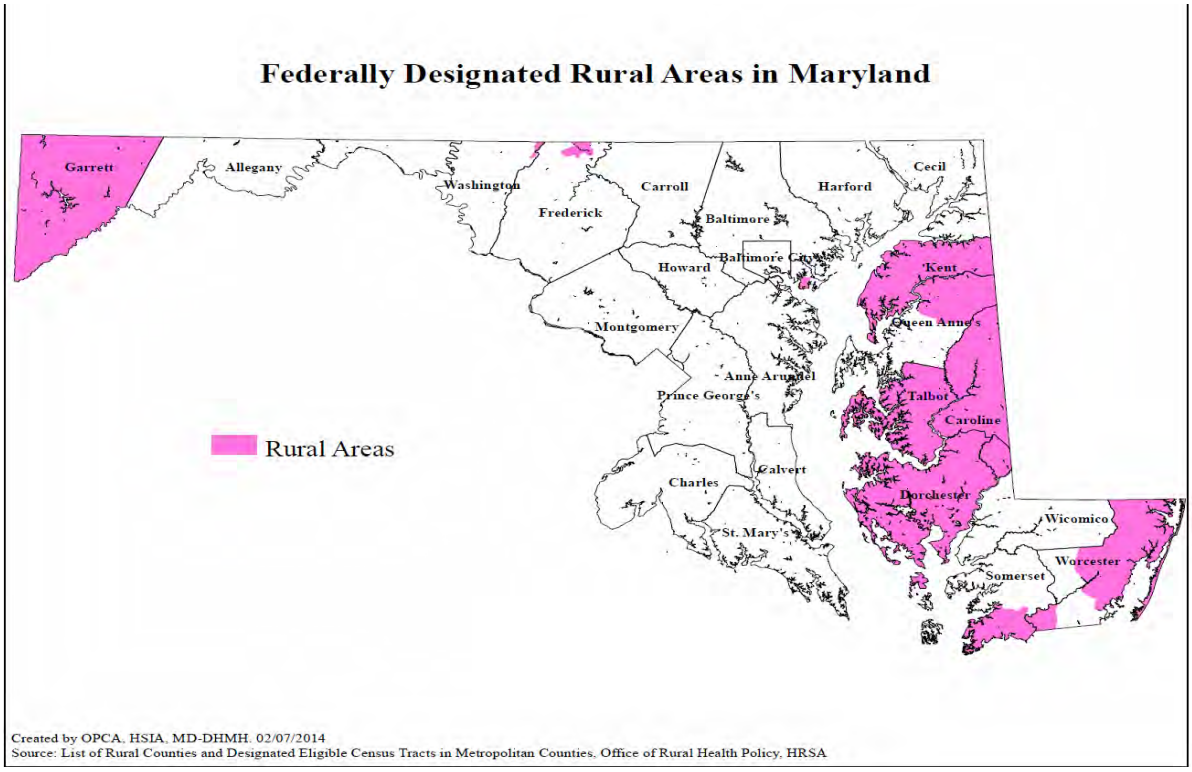
The IMU involves four variables - ratio of primary medical care physicians per 1,000 population, infant mortality rate, percentage of the population with incomes below the poverty level, and percentage of the population aged 65 or over. The value of each of these variables for the service area is converted 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.



Rural Health Designation:

Charles County no longer holds a federal designation as a rural area. As of February 2014, all Southern Maryland counties have lost their rural designation.



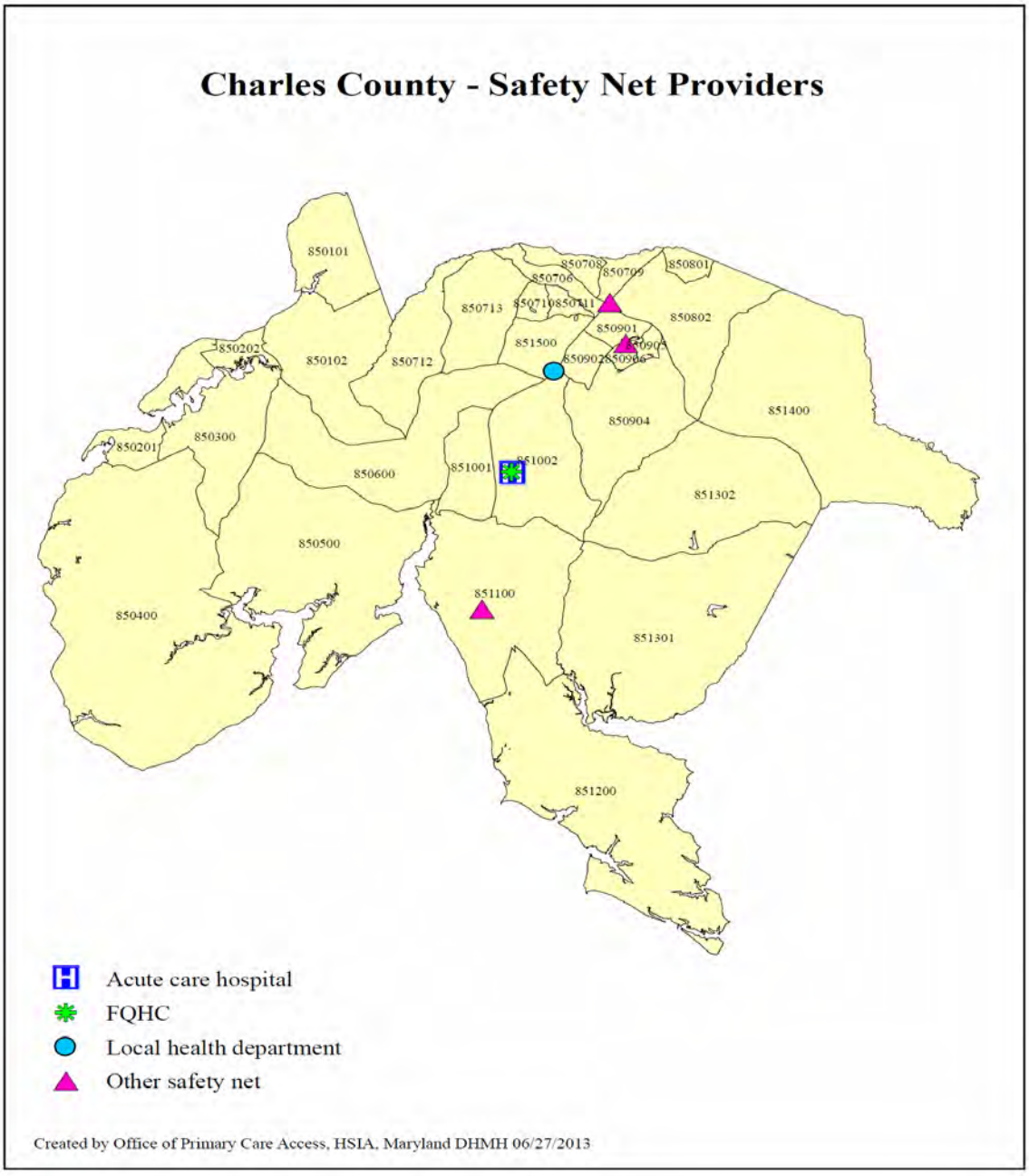
Availability of Health Services:

Maryland Health Assessment Tool 2013: Charles County Profile:

In 2013, the Maryland Office of Primary Care Access surveyed health safety net providers in each of the 24 Maryland jurisdictions in order to determine capacity and infrastructure for health service delivery. The following tables represent the Charles County profile of participating organizations. Not all health organizations in the county were asked to complete the survey, so the information below does not reflect all available services within the county.

1. Safety Net Organizations and Sites

Organization Name	Number of Sites
Charles County Department of Health	1
Greater Baden Medical Services, Inc.	1
Health Partners, Inc	1
Jude House Inc.	1
Walden Sierra Inc.	1



2. Hours of Operation

Hours of Operation	Number of Sites
Open weekdays and weekends	1
Open weekdays only	4
Open weekends only	0

3. Type of Facility

Type of Facility	Number of Sites
Federally Qualified Health Center (FQHC) or Look-alike	1
Native Hawaiian health center	0
Tribal/urban Indian health center	0
Tuberculosis clinic	1
Sexually transmitted disease clinic	1
Ryan White HIV/AIDs program grantees	1
Comprehensive Hemophilia diagnostic treatment center	0
Independent medical group	0
Hospital-based clinic	0
Local health department	1
Academic practice	0
School based health center	0
Free or charitable clinic	1
Migrant health center	0
Health care program for the homeless	0
Mobile clinic	0
Other	
Mental health and substance abuse clinic	2
Long term resident facility for substance abuse disorder	1

4. County Population[1]

Civilian non-institutionalized population	144,415
With health insurance coverage	132,275
With private health insurance	117,702
With public coverage	28,921
No health insurance coverage	12,140

5. Safety Net Patients

Total patients treated in safety net facilities	24,541
Total uninsured patients including PAC	5,525
Total Medicaid/SCHIP patients	4,044
Total Medicare patients	301
Total private insurance patients	543

6. Chronic Disease Burden of Uninsured Patients Treated in Safety Net Facilities

Total uninsured patients with diabetes	103

[1] American Community Survey, 2009-2011

Total uninsured patients with cardiovascular disease	26
Total uninsured patients with hypertension	206
Total uninsured patients with asthma/COPD	38
Total uninsured patients with behavioral health/substance abuse	1,371

7. Safety Net Providers

Primary Care Providers	Number	FTE
Family Medicine	0	0
General Practice	0	0
Internal Medicine	3	0.05
Pediatrics	1	1.00
Obstetrics/gynecology	1	0.03
Physician assistants	0	0.09
Nurse practitioners	4	2.48
Dental Care Providers	**Number**	**FTE**
Dentists	5	3.03
Dental hygienists/assistants	6	n/a
Mental Health Providers	**Number**	**FTE**
Psychiatrists	5	1.80
Behavioral/mental health providers	40	34.90

8. Population to Provider Ratio

Type of Provider	Safety Net Patients to Safety Net Provider Ratio
Primary Care	6,724:1
Dental Care	8,099:1
Mental Health	669:1
Type of Provider	**Current Uninsured Population[1] to Safety Net Provider Ratio**
Primary Care	3,326:1
Dental Care	4,007:1
Mental Health	331:1

9. Essential Health Benefits

Facilities providing the following Essential Health Benefits:	Number of Sites
Ambulatory patient services	2
Adult dental care	2
Adult vision care	0
Maternity and newborn care	0
Mental health and substance use disorder services, including behavioral health treatment	4

Prescription drugs	2
Rehabilitative and habilitative services and devices	2
Laboratory services	1
Preventive and wellness services and chronic disease management	4
Pediatric primary care	0
Pediatric dental care	2
Pediatric vision care	0
All services	0

10. Essential Health Benefits Reimbursement

Essential Health Benefits	Number of Sites Get Reimbursement				
	Medicaid FFS	Medicaid MCO	PAC	Private Insurance	Self Pay
Ambulatory patient services	2	2	2	2	2
Adult dental care	1	1	1	1	1
Adult vision care	0	0	0	0	0
Maternity and newborn care	0	0	0	0	0
Mental health and substance use disorder services, including behavioral health treatment	3	3	3	2	4
Prescription drugs	1	1	1	1	1
Rehabilitative and habilitative services and devices	0	0	0	0	0
Laboratory services	0	0	0	0	1
Preventive and wellness services and chronic disease management	2	1	2	2	2
Pediatric primary care	0	0	0	0	0
Pediatric dental care	1	1	1	1	1
Pediatric vision care	0	0	0	0	0

11. Contracts with Health Plans

Private insurance	**Number of Sites**
Aetna	2
Avalon Insurance Co.	0
Carefirst	3
Kaiser	0
Time Insurance Co.	0
United Health Care	3
Coventry	1
Cigna	1
Medicaid	
Amerigroup	3
MedStar Family Choice	1

Priority Partners	3
United Health Care (MCO)	3
Diamond Plan	1
Jai Medical Systems	0
Maryland Physicians Care	3
Standalone dental	
Aetna Dental	1
Atlantic Southern Dental	0
Ameritas	0
Delta Denta	0
Denta Quest	1
Metropolitan Life	0
United Concordia	1
Standalone vision	
Ameritas	0
Avesis	0
Superior	0
VSP	0

12. Maryland Uniform Credentialing Program

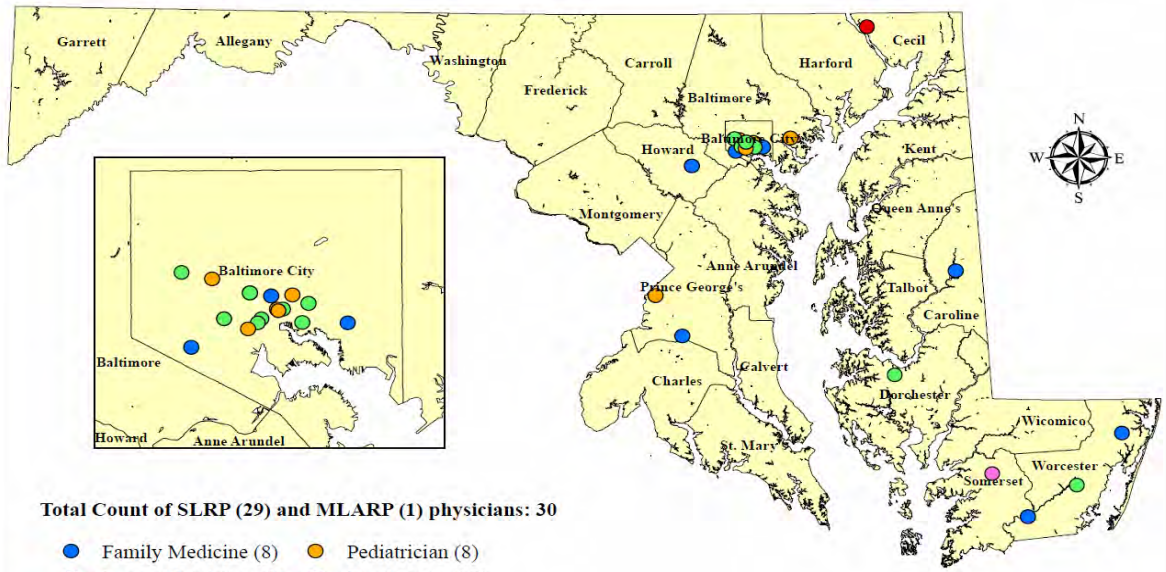
Number of facilities with credentialing program	1

13. Technical Assistance

Technical assistance needed	Number of sites
Strategic planning	2
Contracting assistance	2
Credentialing assistance	3
Marketing planning	3
Billing management assistance	3

The Maryland Office of Primary Care Access also compiles information on physicians participating in state incentive programs, such as the state loan repayment program and the J-1 Visa Waiver program. There are very few, if any, county physicians participating in these state level programs (see maps below).

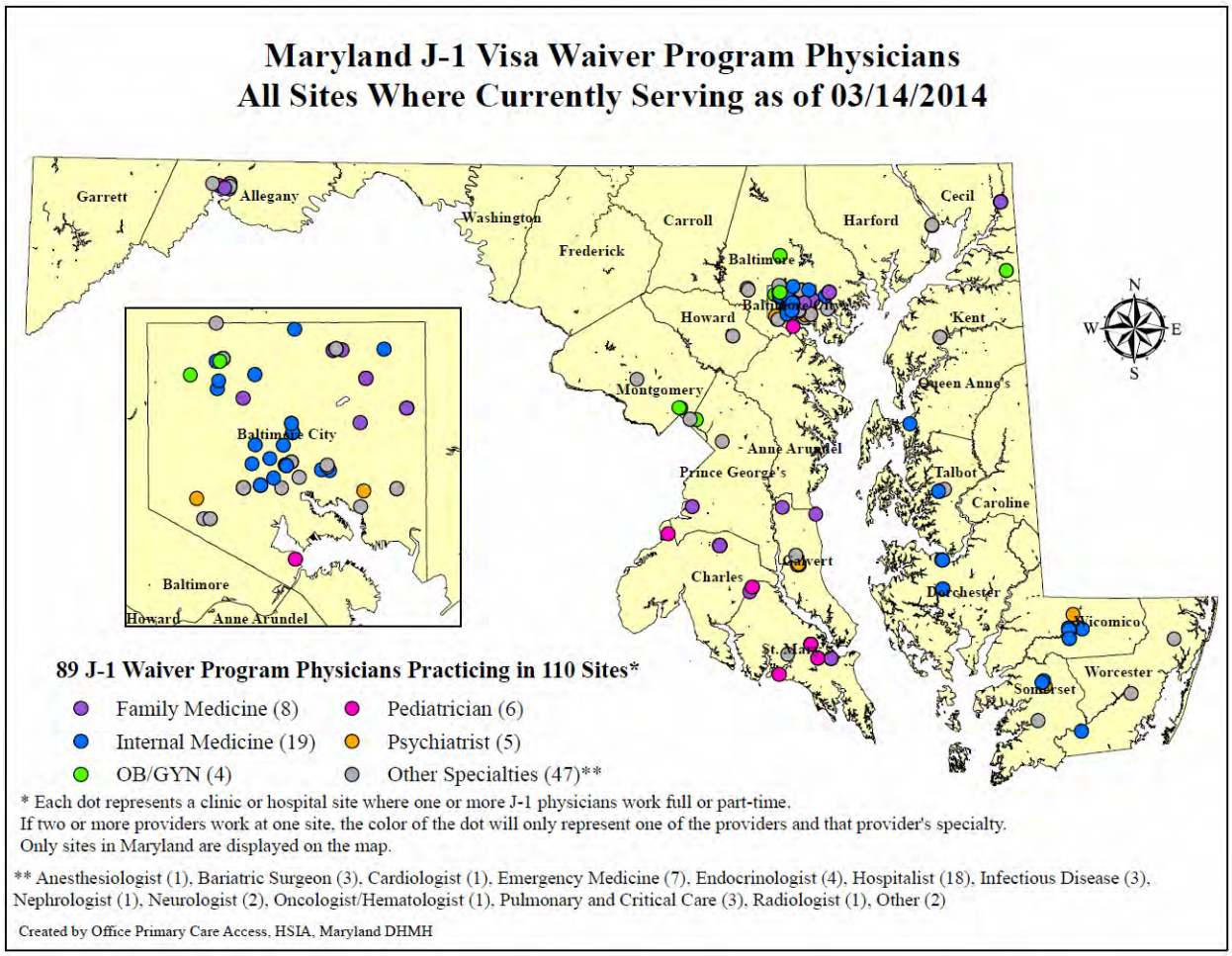
State Loan Repayment Program (SLRP) and Maryland Loan Assistance Repayment Program (MLARP) Physicians Currently Serving as of 03/14/2014



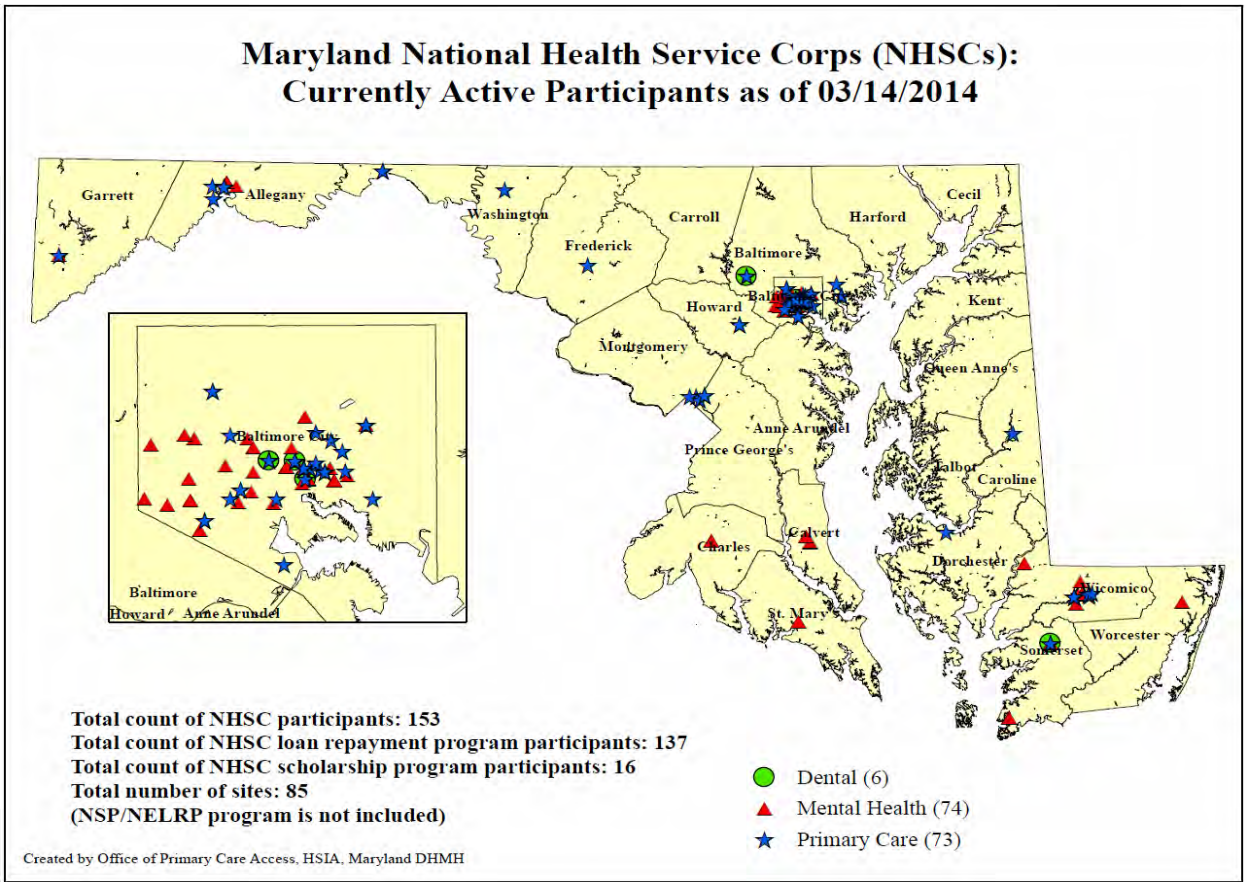
Total Count of SLRP (29) and MLARP (1) physicians: 30

- Family Medicine (8)
- Internal Medicine (1)
- OB/GYN (1)
- Pediatrician (8)
- Psychiatrist (12)

Created by Office Primary Care Access, HSIA, Maryland DHMH



Charles County has one provider actively participating in the Maryland National Health Services Corp. As of March 2014, there was one county mental health provider participating. This program offers incentives such as loan repayment and scholarships to participating physicians.



Access to Recreation and Fitness Facilities:

The ability to access recreational and fitness facilities for exercise is a critical component to health. More opportunities for physical activity make the healthiest choice, the easiest choice and eliminate barriers to being physically active. In Charles County, the rate of recreation and fitness facilities is 6.14 per 100,000 population. This is significantly lower than the Maryland state average rate of 11.1. It is also below the national average of 9.56 per 100,000.

Report Area	Total Population	Number of Establishments	Establishment Rate per 100,000 Population
Charles County, MD	146,551	9	6.14
Maryland	5,773,552	641	11.1
United States	308,745,538	29,506	9.56

This indicator reports the number per 100,000 population of recreation and fitness facilities as defined by North American Industry Classification System (NAICS) Code 713940

Health Care Professional Workforce Data:

2011 Maryland Health Care Workforce Study:

2011 Maryland Health Care Commission (MHCC)'s Physician Workforce Study highlighted the physician workforce in Maryland. This study looked at the HRSA Area Health Resource File for 2009 and 2010 to determine the supply of physicians in Maryland and its regions. Charles County has been included in the Southern Maryland region with Calvert and St Mary's Counties.
Looking at the table below, southern Maryland has physician to population ratios below the HRSA benchmark for all types of physicians.

Table 10: Maryland Supply by Type of Physician and Region, 2009/2010

	Total	Primary Care	Medical Specialties	Surgical Specialties	All Other
Maryland physicians per 1000, residents excluded, with all adjustments					
Baltimore Metro	2.85	0.86	0.48	0.61	0.90
Eastern Shore	1.86	0.62	0.27	0.39	0.57
National Capital	2.25	0.72	0.41	0.48	0.64
Western	2.17	0.73	0.39	0.42	0.63
Southern	1.34	0.53	0.25	0.26	0.30
Total	2.44	0.77	0.42	0.52	0.74
Memo: HRSA baseline, interns excluded, with all adjustments	1.93	0.69	0.27	0.43	0.53
Percent difference from HRSA baseline					
Baltimore Metro	48%	24%	76%	41%	70%
Eastern Shore	-4%	-10%	0%	-11%	8%
National Capital	17%	4%	49%	11%	21%
Western	12%	5%	41%	-4%	19%
Southern	-31%	-24%	-8%	-40%	-43%
Total	27%	11%	54%	19%	39%

Source: Analysis of Maryland 2009/2010 license renewal database, calculations from HRSA 2008, population counts from U.S. Bureau of the Census

The Maryland physician supply ratios were adjusted to account for variation in average patient-care hours. Even with the adjustment, Southern Maryland continued to see low physician to population ratios. The Southern Maryland region had a 26% total physician deficiency versus the HRSA standard. This was the only region in Maryland to have this deficiency. The Southern Maryland region also had

physician supply deficiencies for primary care (19%), medical specialties (7%), surgical specialties (34%), and all other physicians (39%). Four out of the five physician supply deficiencies are greater than 10% below the HRSA standard.

Maryland Physician Supply Versus HRSA Standard, All Adjustments					
Region	**Total**	**Primary Care**	**Medical Specialties**	**Surgical Specialties**	**All Other**
Entire State	27%	11%	54%	19%	39%
Baltimore Metro	44%	21%	69%	40%	66%
Eastern Shore	4%	0%	8%	-2%	13%
National Capital	18%	4%	56%	8%	23%
Western	20%	12%	48%	3%	29%
Southern	-26%	-19%	-7%	-34%	-39%
Key: Green = >10%, Yellow = -10% to 10%, Red = <-10%					

Note: Positive percentage indicates supply in excess of HRSA Standard, and negative percent indicates a supply deficit compared to the HRSA Standard. Southern: Charles, Calvert, and St Mary's Counties

Study implications for Southern Maryland from the 2011 Maryland Physician Workforce Study include:

Residents are likely to travel out of area for care:

- Physicians in Southern Maryland provide about 67% of Medicare beneficiaries' total Medicare physician care. Residents receive 14% of physician care in Montgomery and Prince George's counties and 12% in out-of-state (probably DC).

Table 14: Intrastate Travel for Care, Medicare Fee-for-Service Part B Beneficiaries, 2009								
Maryland Residents, Physician Services Spending Per Capita								
	Physician Location							
Beneficiary Residence	Baltimore Metro	Eastern Shore	National Capital	Western	Southern	Out of state	Total	% of spending in own region
Baltimore Metro	$ 2,503	$ 12	$ 56	$ 23	$ 7	$ 74	$ 2,675	94%
Eastern Shore	$ 299	$ 1,712	$ 26	$ 6	$ 2	$ 318	$ 2,362	72%
National Capital	$ 159	$ 4	$ 2,335	$ 15	$ 73	$ 595	$ 3,181	73%
Western	$ 121	$ 8	$ 101	$ 1,834	$ 3	$ 224	$ 2,290	80%
Southern	$ 182	$ 4	$ 378	$ 6	$ 1,806	$ 316	$ 2,692	67%
Source: Analysis of Medicare 5% sample limited data set standard analytic files and denominator file, 2009								

- Southern Maryland physicians are as likely as physicians overall to participate in Medicaid/Medicare and to accept new patients.

Table 13: Acceptance of Medicaid and Medicare Patients, by Region				
	Medicaid		Medicare	
Region	% of practices accepting Medicaid	Of those, % accepting new Medicaid patients	% of practices accepting Medicare	Of those, % accepting new Medicare
Percent of physicians				
Baltimore Metro	80%	88%	85%	94%
Eastern Shore	89%	90%	91%	94%
National Capital	61%	85%	79%	93%
Western	80%	85%	86%	91%
Southern	86%	86%	89%	93%
Total	75%	87%	84%	94%
Percent difference from state average				
Baltimore Metro	6%	1%	2%	1%
Eastern Shore	18%	4%	8%	1%
National Capital	-19%	-2%	-6%	-1%
Western	6%	-3%	2%	-3%
Southern	15%	-1%	6%	0%
Total	0%	0%	0%	0%
Source: Maryland license renewal survey, 2009/2010				

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 healthcare workforce on the state and jurisdictional level. Phase II presents estimates of current supply and demand for health professions designated by MHCC as 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 healthcare 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 healthcare services by care delivery setting; and 3. Staffing patterns that convert demand for healthcare services to demand for full time equivalent (FTE) providers.

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

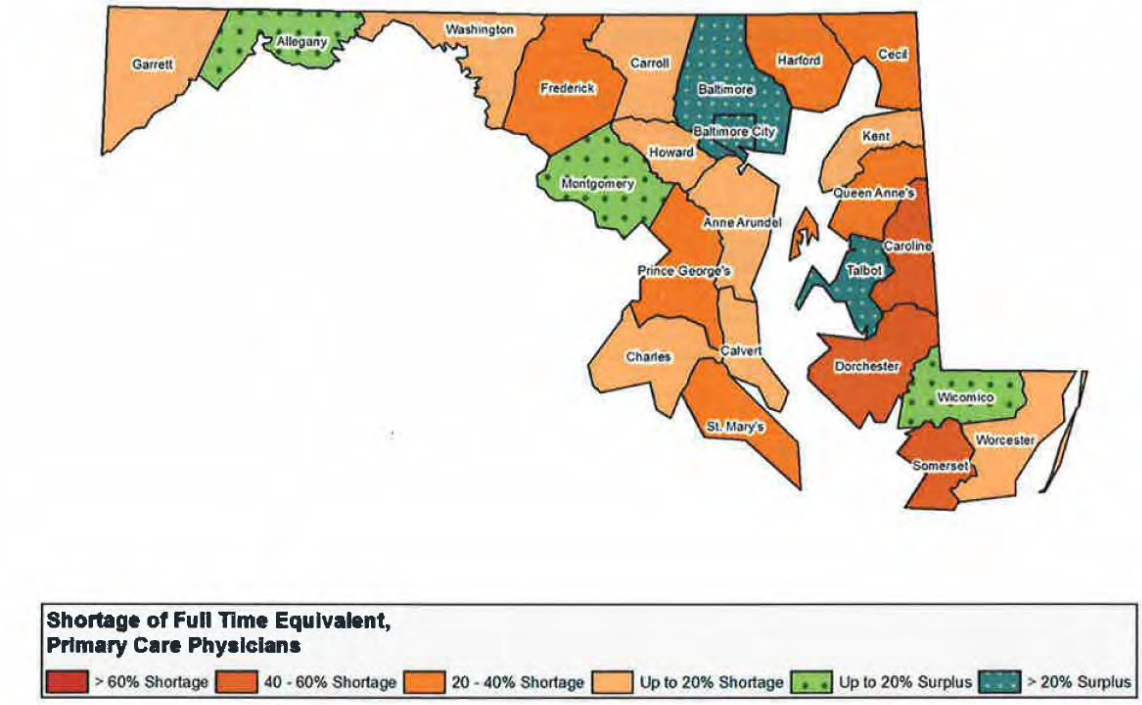


Exhibit 3: Adequacy of Supply for Primary Care Physicians by County, 2012

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**

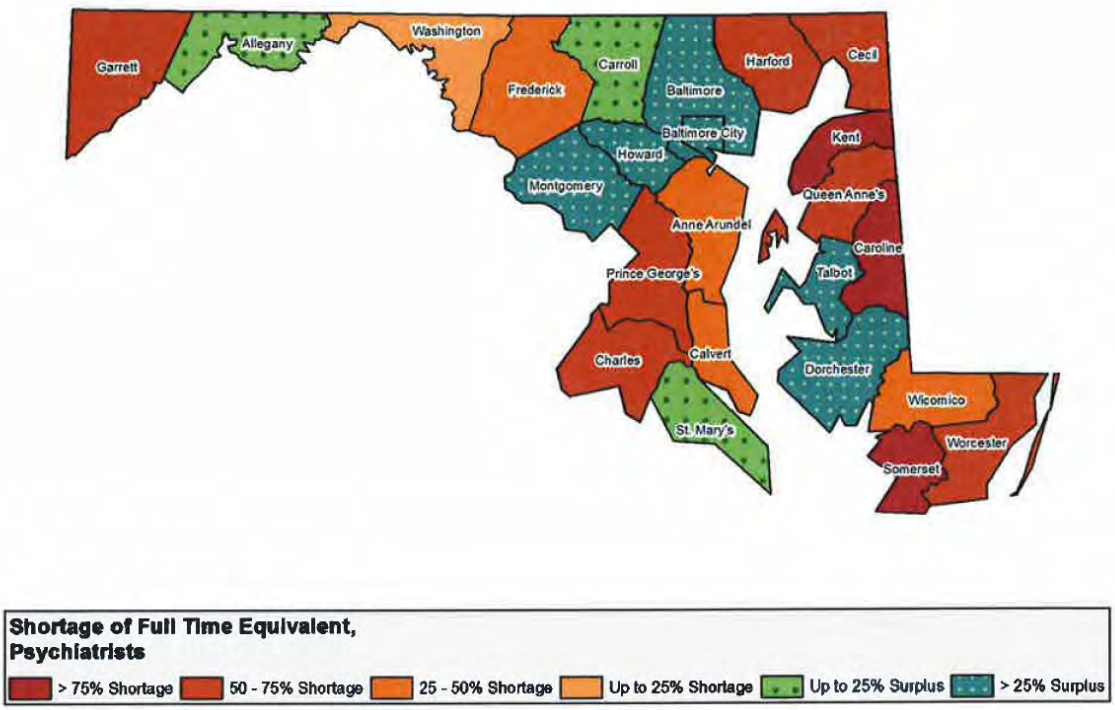
Note: These are professions for which only FTE supply analysis was possible at this time.

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

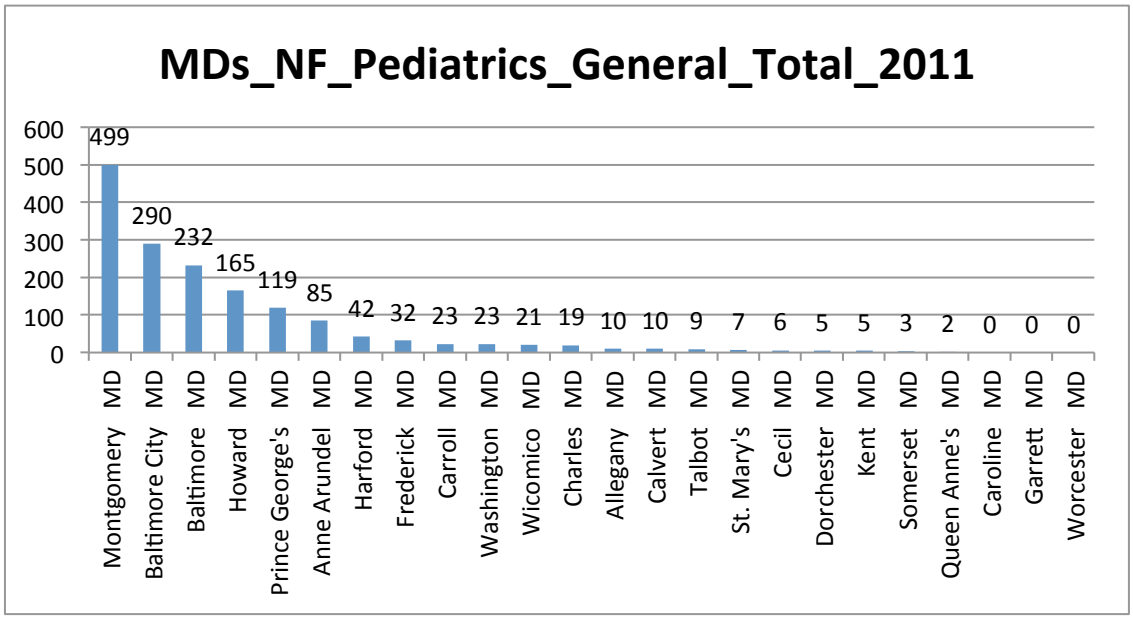
County	Total FTEs			FTEs/10,000 Population	
	FTE Demand	FTE Supply	Supply - Demand	FTE Demand	FTE Supply
Allegany	10	10	0	1.3	1.4
Anne Arundel	74	41	(33)	1.3	0.7
Baltimore City	94	233	139	1.5	3.7
Baltimore County	113	242	129	1.4	3.0
Calvert	12	6	(6)	1.3	0.7
Caroline	4	-	(4)	1.3	-
Carroll	22	26	4	1.3	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



2011 County Physician/Nurse Specialty Data:

The US Department of Health and Human Services' Health Resources and Services Administration publishes information on the number of physicians and nurses by speciality for each state. 2011 data on the number of pediatricians, nurse practitioners, nurse midwives, general surgeons, general practitioners, OBGYN's, internal medicine physicians, and family medicine practitioners were compiled for Maryland and its jurisdictions. Charles County falls near the middle on all of the graphs presented below. Specialities include Charles County in the lower half of Maryland jurisdictions including OBGYN, nurse practitioners, and general surgeons.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300
200
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0
499
290
232
165
119
85
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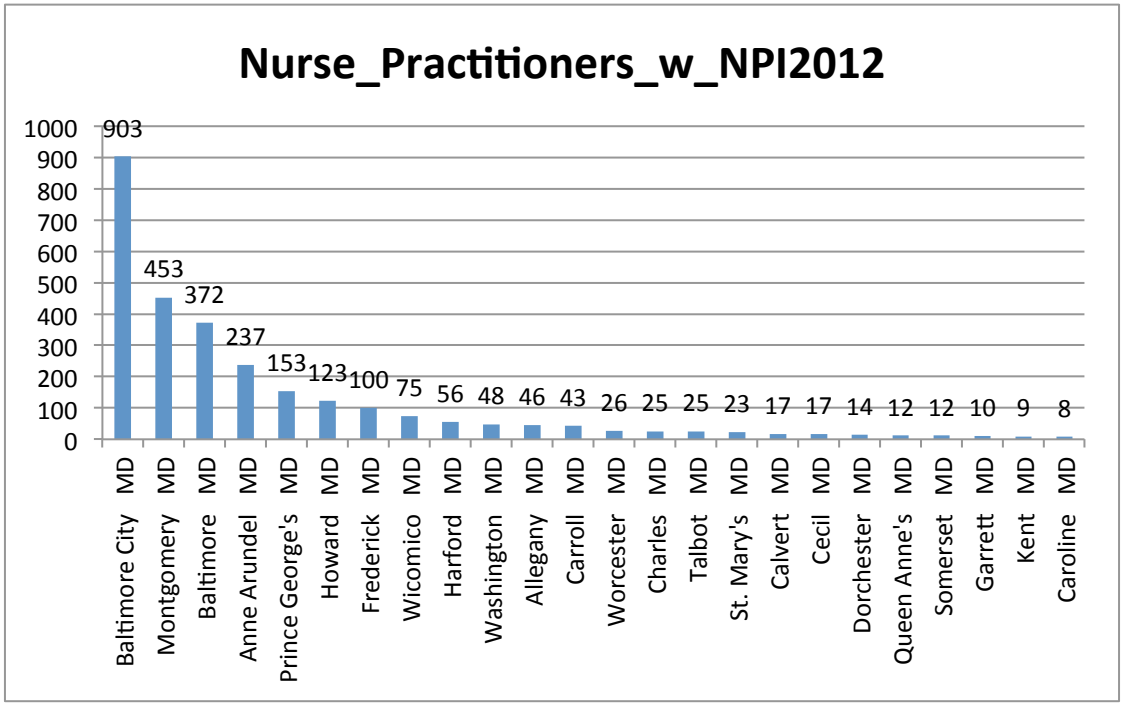
21
19
10
10
9
7
6
5
5
3
2
0
0
0
MD Montgomery
MD Baltimore City
MD Baltimore
MD Howard
MD Prince George's
MD Anne Arundel
MD Harford
MD Frederick
MD Carroll
MD Washington
MD Wicomico
MD Charles
MD Allegany
MD Calvert
MD Talbot
MD St. Mary's
MD Cecil
MD Dorchester
MD Kent
MD Somerset
MD Queen Anne's
MD Caroline
MD Garrett
MD Worcester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600
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300
200
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372
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153
123
100
75
56
48
46
43
26
25
25
23
17
17
14
12
12
10
9
8
MD Baltimore City
MD Montgomery
MD Baltimore
MD Anne Arundel
MD Prince George's
MD Howard
MD Frederick
MD Wicomico
MD Harford
MD Washington
MD Allegany
MD Carroll
MD Worcester
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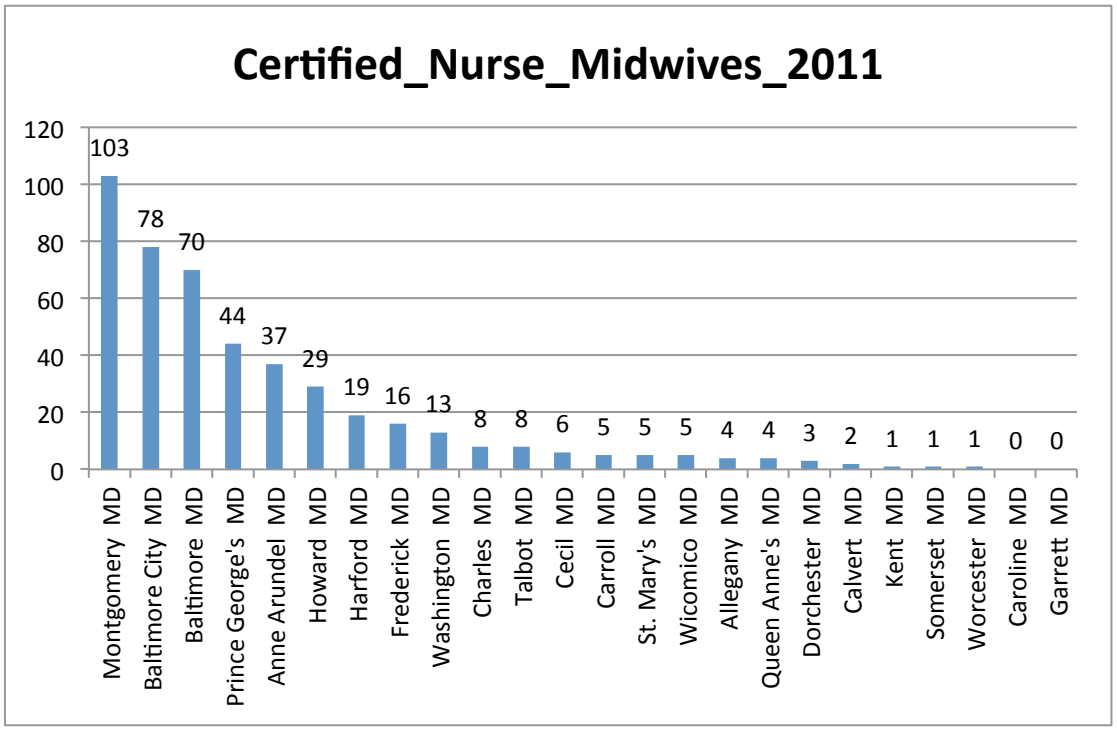
MD Talbot
MD St. Mary's
MD Calvert
MD Cecil
MD Dorchester
MD Queen Anne's
MD Somerset
MD Garrett
MD Kent
MD Caroline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8
8
6
5
5
5
4
4
3
2
1
1
1
0
0
Montgomery MD
Baltimore City MD
Baltimore MD
Prince George's MD
Anne Arundel MD
Howard MD
Harford MD
Frederick MD
Washington MD
Charles MD
Talbot MD
Cecil MD
Carroll MD
St. Mary's MD
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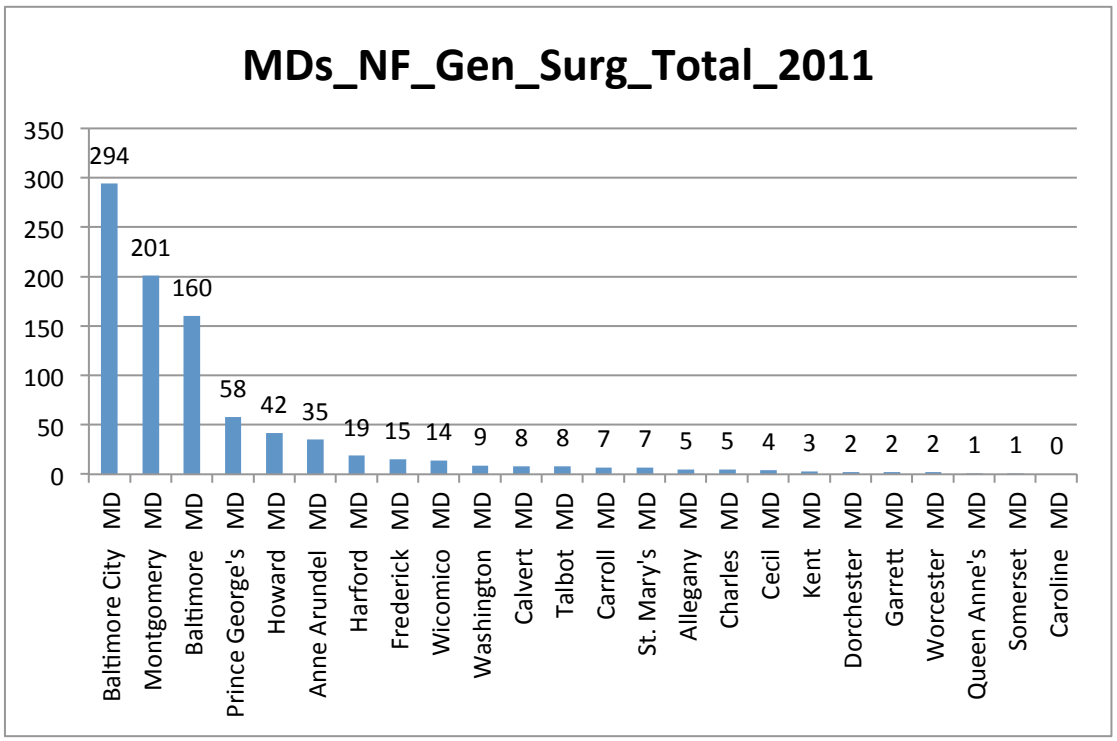
Allegany MD
Queen Anne's MD
Dorchester MD
Calvert MD
Kent MD
Somerset MD
Worcester MD
Caroline MD
Garrett MD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14
9
8
8
7
7
5
5
4
3
2
2
2
1
1
0
Baltimore City MD
Montgomery MD
Baltimore MD
Prince George's MD
Howard MD
Anne Arundel MD
Harford MD
Frederick MD
Wicomico MD
Washington MD
Calvert MD
Talbot MD
Carroll MD
St. Mary's MD
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Worcester MD
Queen Anne's MD
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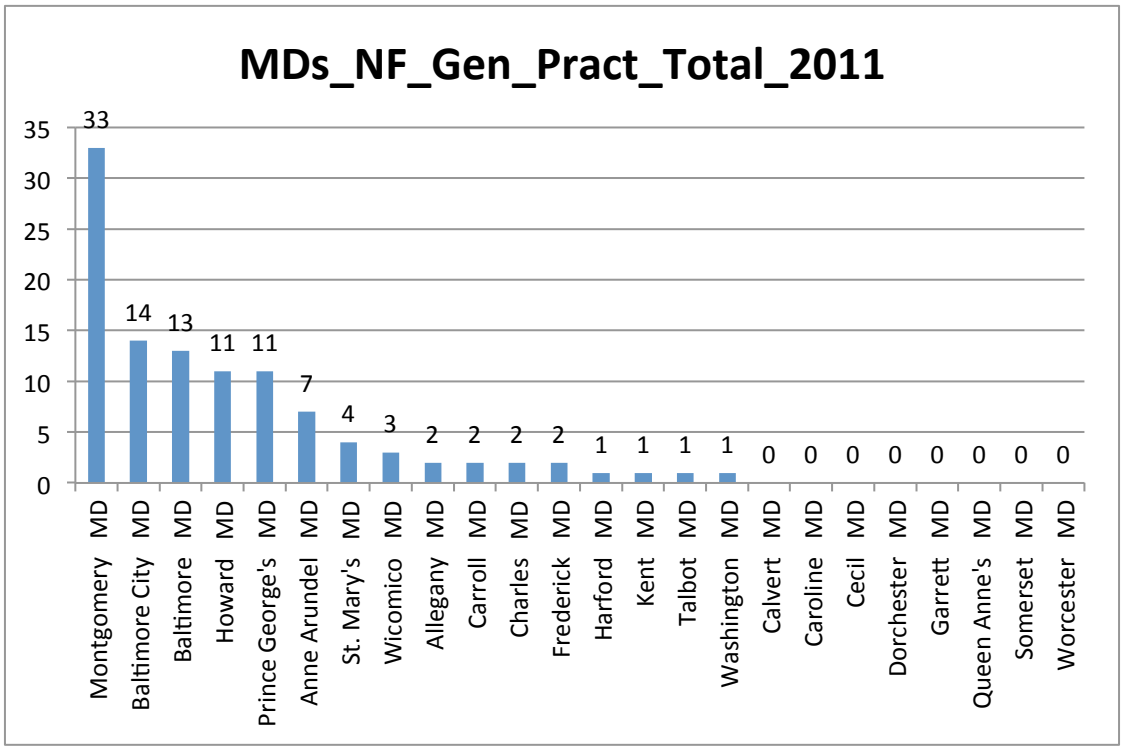
Caroline MD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11
7
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2
2
2
1
1
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Montgomery MD
Baltimore City MD
Baltimore MD
Howard MD
Prince George's MD
Anne Arundel MD
St. Mary's MD
Wicomico MD
Allegany MD
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Charles MD
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Garrett MD
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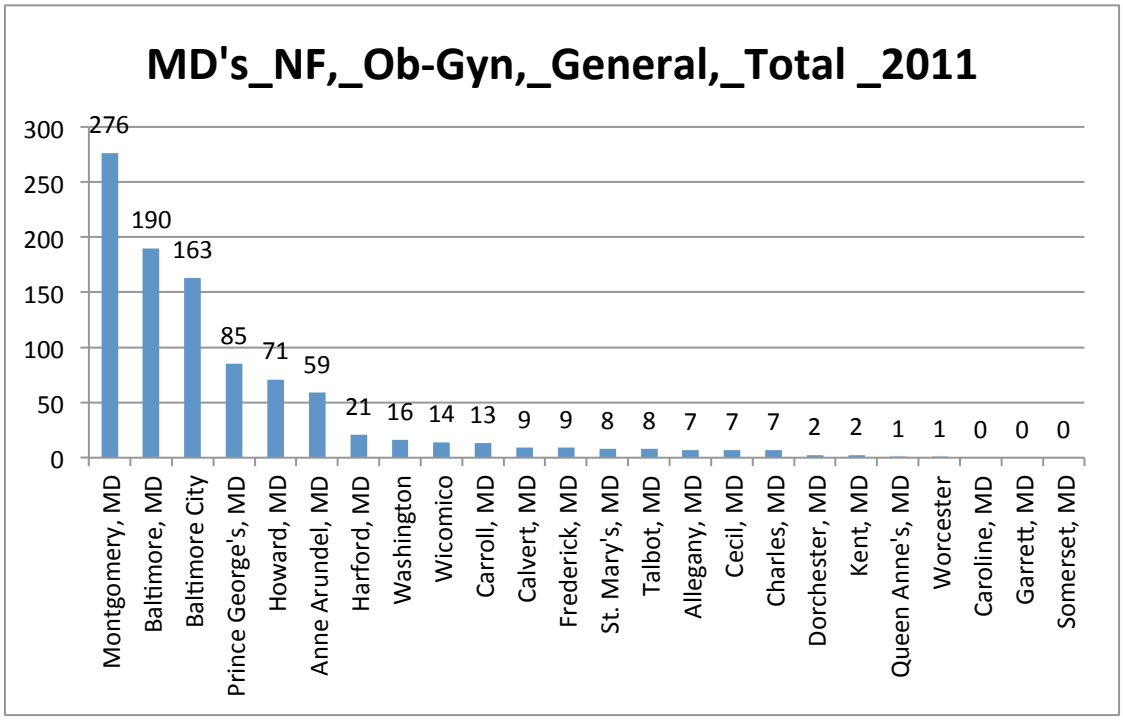
Somerset MD
Worcester MD


MD's_NF,_Ob-Gyn,_General,_Total _2011
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200
150
100
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0
276
190
163
85
71
59
21
16
14
13
9
9
8
8
7
7
7
2
2
1
1
0
0
0
Montgomery, MD
Baltimore, MD
Baltimore City
Prince George's, MD
Howard, MD
Anne Arundel, MD
Harford, MD
Washington
Wicomico
Carroll, MD
Calvert, MD
Frederick, MD
St. Mary's, MD
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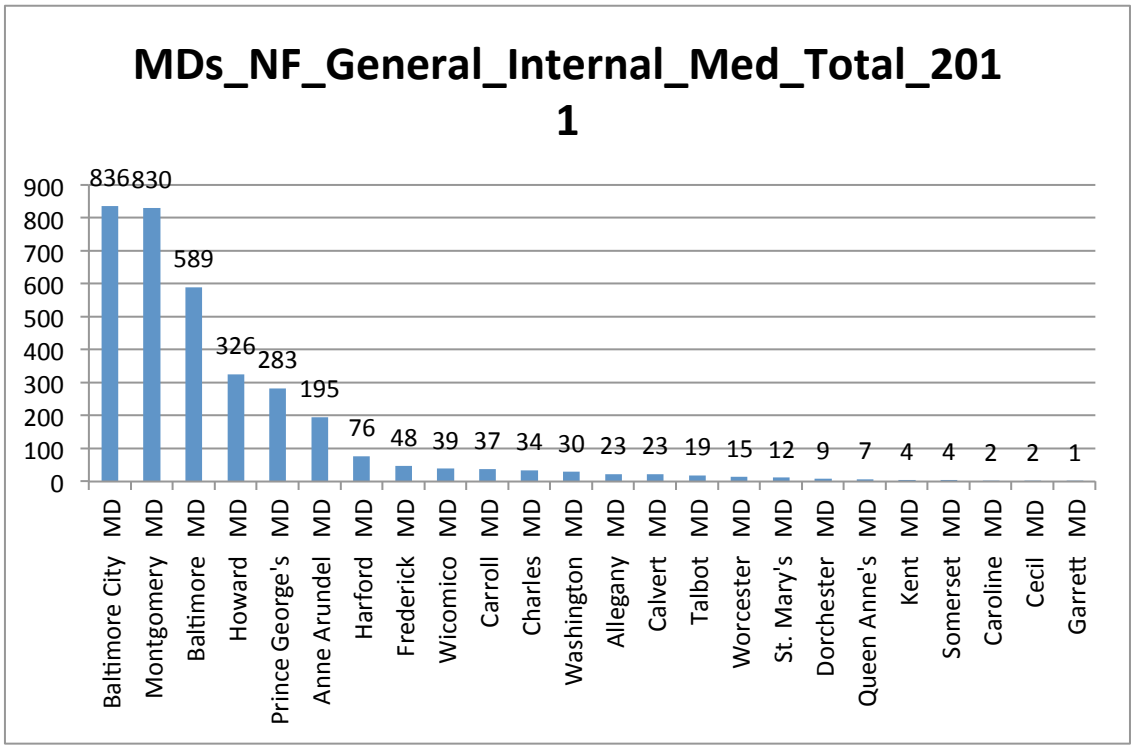
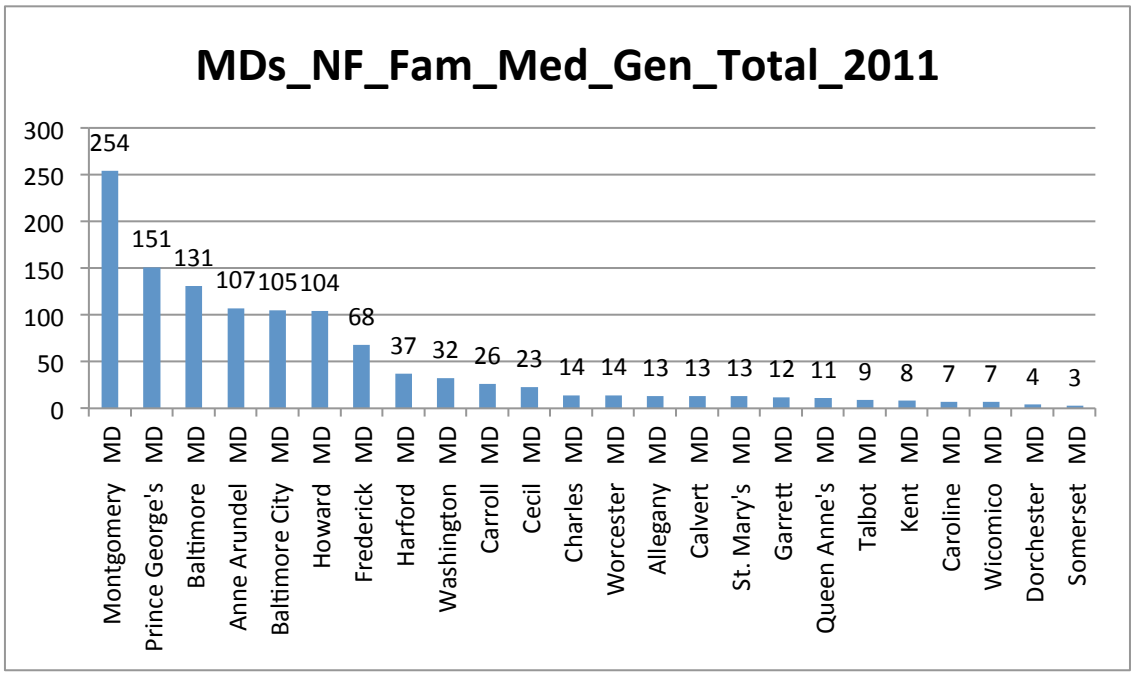




Primary Care Physicians Ratio:

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 2012 primary care physician ratios for all United States counties. For 2012, the Charles County primary care physician ratio was 2035:1. 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 2012 Charles County PCP ratio is almost twice as high as the Maryland state ratio of 1131:1.

Hospitalization Data:

Hospital inpatient discharge rates are available for all Charles County zip codes for calendar year 2011. Shared zip codes with bordering jurisdictions were included in this analysis. The highest 2011 hospitalization rate was in the Charles County zip code, 20658, Marbury (2507 per 10,000 population). This rate is twice as high was the Maryland state average rate and almost 3 times higher than the Charles County average hospitalization rate.

Zip codes Zip with a Hospital Inpatient Discharge Rate above the Maryland state average rate include: Marbury, Welcome, Bryantown, Bel Alton, Newburg, and Charlotte Hall.

2011 Maryland Hospital Inpatient Discharge Rates per 10,000 Population:

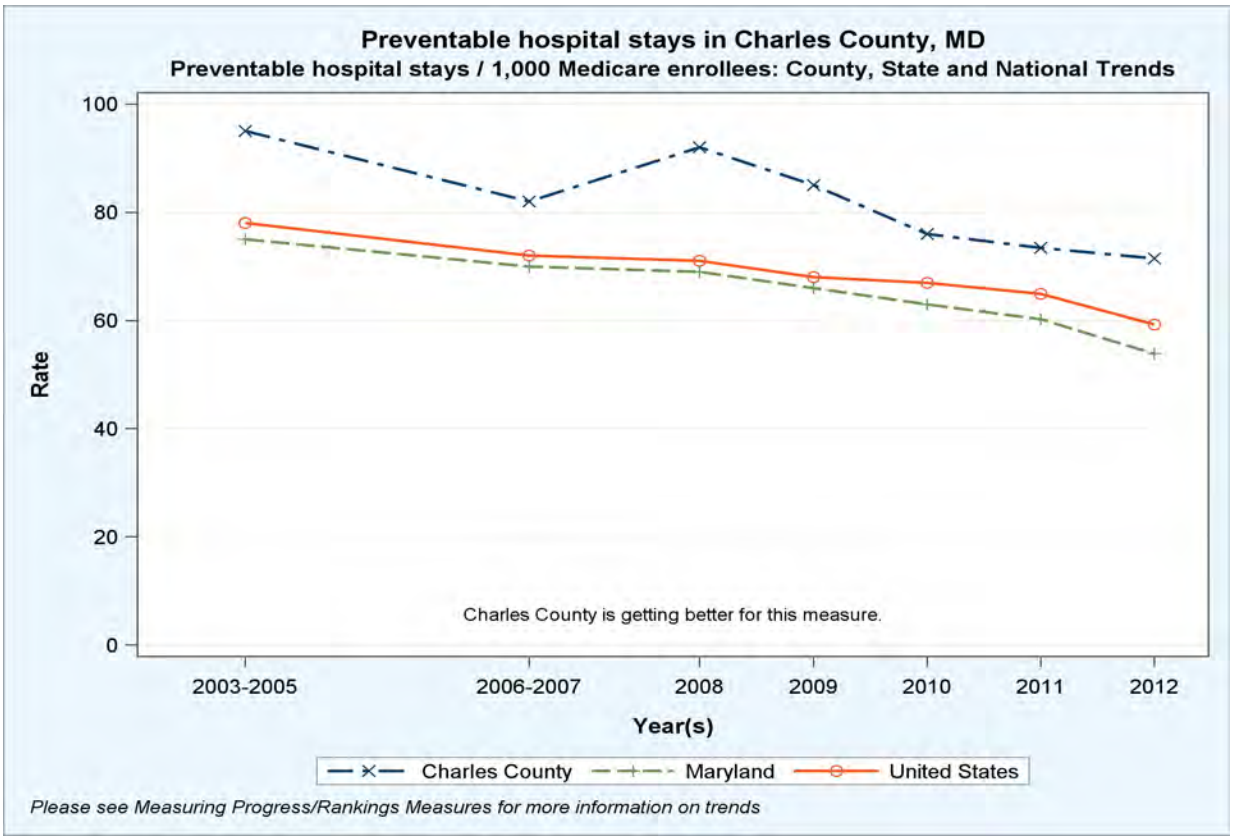
Jurisdiction/Zip Code	Town/City Name	Rate per 10,000 population
Maryland	State	1242
Charles County	County	923
20662	Nanjemoy	1056
20640	Indian Head	990
20658	Marbury	2507
20616	Bryans Road	962
20646	La Plata	1115
20693	Welcome	1362
20677	Port Tobacco	1008
20675	Pomfret	1147
20607	Accokeek	627
20603	Waldorf	597
20695	White Plains	832
20602	Waldorf	974
20601	Waldorf	826
20613	Brandywine	843
20617	Bryantown	2018
20637	Hughesville	962
20611	Bel Alton	1466
20632	Faulkner	2000
20664	Newburg	1362
20622	Charlotte Hall	1598
20604	Waldorf	NA
20612	Benedict	NA
20625	Cobb Island	NA

20643	Ironsides	NA
20645	Issue	700
20659	Mechanicsville	946
20661	Mt Victoria	NA
20682	Rock Point	NA

NA: Data is not available for this zip code.

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. For 2012, there were 14298 Medicare enrollees in Charles County. The 2012 Charles County preventive hospital stay rate was 71 per 1000 Medicare enrollees and is higher than the Maryland state average rate of 54 per 1000 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.



Access to Care References:

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14. 2011 Health Care Professional Counts for Charles County and Maryland. US Department of Health and Human Services. Health Resources and Services Administration. Area Health Resource File.

15. 2012 Charles County Primary Care Physician Ratio. Robert Wood Johnson Foundation. County Health Rankings. Data extracted from the HRSA Area Health Resource File and American Medical Association.

16. 2011 Charles County Zip Code Hospitalization Rates. Health Services Cost Review Commission Inpatient Hospitalization Data. Data requested from the Maryland Virtual Data Unit.

17. 2003-2012 Preventive Hospital Stay Rates. Robert Wood Johnson Foundation. County Health Rankings. Data extracted from the US Department of Health and Human Services: Center for Medicaid and Medicare Services. Available at: countyhealthrankings.org.

Qualitative Data Relating to Access to Care:

Long Survey Responses:

64% of long survey participants reported that access to healthcare is a health problem in Charles County on some level. 24% felt that access to health care is a “serious problem” in the county.

66% of the long survey participants reported that affordable health care is a health problem in Charles County on some level. 31% felt that access to affordable health care is a "serious problem" in Charles County.

64% of the long survey participants reported that health insurance is a health problem in Charles County on some level. 27% 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. Over half of the respondents to this question (58%) have seen improvements to increase access to health care within the county. 21% 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 (84%). Only 1% reported that they have never had a routine doctor’s visit.

Time since last doctor’s visit	Response Count	Response Percent
Within the last 6 months	479	61
Within 6-12 months	177	23
Within 13-18 months	44	6
Within 19-24 months	26	3
Within 2-5 years	33	4
Greater than 5 years	15	2
Never had a routine doctor visit	10	1

Most of the survey participants received their routine health care in a physician’s office (92%). In addition to routine medical care, 24% went to an eye doctor, 29% went to the dentist, and 3.5% went to the chiropractor. Many of the respondents also reported that they are under the routine care of specialists such as oncologists, OBGYN’s, and orthopedics.

There was also a large population who reported that they get their routine care at an urgent care center (12%). This may be due to a lack of primary care providers and the inability to get an appointment to see them in a timely manner.

It is believed that the routine care by the listed specialists (ex. Dentist and 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 physician's office even if they also routinely see the dentist.

Where they receive routine care	Response Count	Response Percent
Physician's Office	715	92
Hospital Emergency Department	24	3
Health Department Clinic	14	2
Urgent Care Center	95	12
Chiropractor	27	3
Medical/First Aid Center	6	1
Community Clinic	3	.4
Specialists (OBGYN, oncologist)	95	12
Eye Doctor	188	24
Dentist	224	28
Other	7	1

The majority of the survey participants were able to see the doctor when needed (76%). There were 18 people who 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 (13%) or that it was too expensive and they could not afford it (5.68%).

Able to see doctor when needed	Response Count	Response Percent
Always	596	76
Sometimes	170	22
Seldom	15	2
Never	3	0.3

Reasons for not seeing doctor	Response Count	Response Percent
No health insurance	23	4
Too expensive/Can't afford it	34	6
Have not met deductible for yr	19	3
Lack of transportation	6	1
Doctor is too far away	12	2
No available appointments	74	13
I was able to see a doctor when I needed one.	491	82

Only 23% reported that they never receive medical care outside of Charles County. Nearly half of the respondents (44%) claimed that they sometimes receive medical care outside of the county.

Receive medical care outside of	Response Count	Response Percent

Charles County		
Always	84	11
Sometimes	340	44
Seldom	119	15
Never	176	23
I live in another county and receive care there.	58	8

Participants were asked what medical services that they receive 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 (51%), primary care doctor appointments (24%), surgery (32.7%), and dental appointments (20%).

Services Received Outside of County	**Response Count**	**Response Percent**
Primary Care Doctor Appointments	178	24
Specialist Dr Appointments	380	51
Outpatient treatment	75	10
Hospitalizations	122	17
Dental Appointments	146	20
Mental Health or Substance Abuse Treatment	35	5
Laboratory or other tests	93	13
X-rays	78	11
Surgery	118	16
Emergency Care	72	10
Prenatal care	28	4
Do not travel outside Charles County	136	18
I live in another county and receive care there.	78	11

The participants were also asked why they chose to receive those medical services outside of Charles County. The most common responses were that the services were not available in Charles County (19%) and the quality of care was better elsewhere (33%).

Why do you travel outside of Charles County for care?	**Response Count**	**Response Percent**
Services not available within county	127	19
Quality is better elsewhere	220	33
Recently moved to Charles County	21	3

Local doctors not on my insurance plan	52	8
Closer to my place of work	32	5
Too hard to get appointment for local doctors	31	5
No physician available for the type of care I need	69	10
Not applicable	185	28
I live in another county and receive care there.	99	15

Doctors, employers, and the Internet are highly used means for obtaining needed health information. Nurses, pharmacists, and the health department were smaller yet significant sources of health information. 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.

Where do you get health information?	**Response Count**	**Response Percent**
Churches	27	4
Primary Care Doctor	618	81
Nurse	110	14
Pharmacist	123	16
Hospital	109	14
Health Department	120	16
Public Library	19	3
Community Clinic	13	2
Employer	174	23
Internet/Websites	380	50

Short Survey Responses:

24% 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.

The most commonly cited barriers to needed health care was lack of health insurance (50%) and care is too expensive/can't afford it (57%). Under "Other", several people explained that they do not have dental or vision insurance to cover those needed services, high deductibles/co-pays, services were not covered by their insurance, and language barriers.

Barriers to getting health care:	**Response Count**	**Response Percent**
Couldn't get an appointment with my doctor	113	11%

Doctor is too far away from my home	97	9%
Local doctors are not on insurance plan	254	25%
No health insurance	498	49%
No transportation	235	23%
Service is not available in my own county	102	10%
Too expensive/Can't afford it	573	57%
Other	54	5%

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 new patients, are not accepting medical assistance patients, are not spending time educating their patients on the their health conditions, and are not dealing with all of their problems. Many county physicians do not accept medical assistance due to low reimbursement rates. The county is considered a "rural" community and reimbursed at a lower rate than those near DC and Baltimore. It is hard to convince a physician to open a practice in Waldorf where they get reimbursed 15% less than those practicing over the county border in Brandywine (Prince George's County). The methods for changing the reimbursement status are complicated with many hurdles that affect other populations, including farmers.

Transportation within the county and outside of the county for health care was a frequent topic at focus groups. Health services are not centrally located within the county, making it difficult for those using public transportation to get to their appointments on time and without long wait times. Doctors have many no-shows due to transportation issues. The county public transit system, VanGo, has made many changes to improve services, but the demand for their specialized services continues to increase each year.

With all of these issues and all of these resources available, it was suggested that there is a need for patient resource guides and advocates to help navigate people through the system. Other suggestions to improve access to healthcare and to improve the health of the county in general include more health education in the community, more advertising of community health programs already in place, more soup kitchens and food pantries to feed those who are hungry, more services for the working poor, and more services and shelters for the growing homeless population.

Many of the focus groups talked about the overuse of the hospital emergency department (ED). People do not get preventive care and only go when necessary. They may not have health insurance or a primary care provider so they go to the ED for care. Transportation is also an issue that leads to overuse of the ED. Many residents do not have transportation to the hospital, especially on an evening or

weekend when VanGo is not running. They use the county ambulance service to get to the hospital. It was suggested that more urgent care centers that take patients without health insurance, more physicians willing to do a sliding scale for self pay, and an urgent care center attached to the hospital could reduce the burden on the ED. This is critical given the new Maryland payer system where hospitals must reduce inpatient and outpatient readmissions. The hospital-community and hospital-ambulatory care connections need to be strengthened in order to implement population health level initiatives aimed at ED diversion and reduction.

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. Many of the focus groups suggested a one-time stop shop for all health programs in the county. A comprehensive community resource guide and website that can be updated when needed and can be accessed by everyone in the community.

Health Literacy was a frequent topic of discussion at county focus groups. 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. Additionally, individuals are signing up for health insurance through the Health benefits exchange. 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.

Conclusions:

Data from the 2015 Charles County Community Health Needs Assessment Report was examined against the baseline 2011 needs assessment data. The previous needs assessment data was used to develop the 2011 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 eight objectives within the Charles County Health Improvement Plan that reached their anticipated goals. This means that 40% of the health improvement plan objectives reached their goals in the 3 year time period.

Diabetes Mortality:

1. *Reduce the death rate from diabetes in Charles County from 34.1 per 100,000 to 33.4 per 100,000 (2007-2009 average death rate from MD Vital Statistics Report).*

Update: The 2011-2013 Charles County diabetes death rate was 22.8 per 100,000. This is a significant reduction from the 2007-2009 rate of 34.1 per 100,000 and exceeded the goal set in the Charles County Health Improvement Plan of 33.4 per 100,000.

Heart Disease

1. *Reduce the rate of deaths in Charles County from heart disease from 228.5 per 100,000 to 211 per 100,000 (2007-2009 average death rate from the 2009 MD Vital Statistics Report).*

Update: The 2011-2013 average death rate for heart disease in Charles County was 184.7 per 100,000. This is a significant improvement from the 2007-2009 Charles County heart disease death rate of 228.5 per 100,000. This rate also exceeded the Charles County Health Improvement Plan goal of 211 per 100,000.

Cancer

1. *Reduce the rate of deaths caused by cancer in Charles County from 199.3 per 100,000 to 190.8 per 100,000 (2007-2009 average death rate from the 2009 MD Vital Statistics Report)*

Update: The 2011-2013 average Charles County cancer death rate was 184.2 per 100,000. This rate is a reduction from the 2007-2009 cancer death rate of 199.3 per 100,000. This rate also exceeded the Charles County Health Improvement Plan goal of 190.8 per 100,000.

2. *Reduce the incidence rate of cancer in Charles County from 468.9 to 455.3 per 100,000 (2007 CRF Cancer Report).*

Update: The 2007-2011 average Charles County all site cancer incidence rate was 427.3 per 100,000. This is a reduction from the 2003-2007 cancer incidence rate of 468.9 per 100,000. This rate also exceeded the Charles County Health Improvement Plan goal of 455.3 per 100,000.

Access to Care

2. *Increase primary care and specialty physicians in Charles County by 7 providers.*

Update: Efforts have been made by the University of Maryland Charles Regional Medical Center to recruit and retain new physicians in Charles County. They have recruited 12 physicians to Charles County since 2012.

Mental Health

2. *Increase the proportion of persons with co-occurring substance abuse and mental health disorders who receive treatment for both. Measure will be the Crystal Report for Dual Diagnosis SMI/SED. Increase by 10%.*

Update: For Fiscal Year 2014, 382 Charles County consumers in the Public Mental Health System were dually diagnosed with mental health and substance use disorders. The Charles County PMHS has seen a 45% increase in the number of consumers who are dually diagnosed in the past two fiscal years. The 45% increase far exceeded the Charles County Health Improvement Plan goal of a 10% increase.

Substance Use Disorders

1. *Reduce the proportion of high school students who have used alcohol from 69% to 62.1% or a 10% reduction and having 5 or more drinks in one setting from 48% to 43.2% or a 10% reduction (2010 Charles County Adolescent Survey).*

Update: The 2013 Maryland Youth Tobacco and Risk Behavior Survey found that 61% of Charles County high school students have had at least one drink of alcohol during their lifetime. This is a reduction from the 2007 reported percentage of 69%. This percentage has exceeded the Charles County Health Improvement Plan of 62.1%.

Accident and Injury Prevention

2. *Reduce the rate of hospitalizations due to motor vehicle incidence in Charles County from 99.5 to 89.5 per 100,000*.

Update: The 2011 Charles County motor vehicle incident-related crude hospitalization rate was 87 per 100,000. This is an improvement from the baseline rate of 99.5 per 100,000. This rate meets the goal of 89.5 per 100,000 from the Charles County Health Improvement Plan.

Health topics where the Charles County Health Improvement Plan Goals were not met:

There were 12 objectives within the Charles County Health Improvement Plan where the goals were not met. This means that 60% of the improvement plan objectives fell short of their anticipated goals.

Obesity:

1. *Decrease the percent of adults who are at a healthy BMI from 29.4% to 30.4% (2010 BRFSS)*

Update: According to the 2013 BRFSS, the percent of Charles County residents at a healthy BMI was 27.9%. This is a decrease from the 2010 BRFSS percentage of 29.4% for Charles County. The Charles County Health Improvement Plan goal of 30.4% was not met, and the percentage went in the opposite direction.

2. *Decrease the percent of children and adolescents who are obese from 13.3% to 11.2% (2006 MYRBS)*

Update: 2013 MYTRBS: 12.3% of 13-18 year old students are obese. Improvement has been made since the 2006 Charles County percentage of 13.3%; however, the Charles County Health Improvement Plan goal of 11.2% was not met.

Diabetes Prevalence

2. *Reduce the prevalence of diabetes in Charles County from 7.4% to 5.4% (2010 BRFSS).*

Update: 2013 BRFSS: 8.3% of Charles County residents report that they have diabetes. This is an increase from the 2010 Charles County diabetes prevalence of 7.4%. The goal for 2014 was not met.

Access to Care

1. *Reduce the proportion of uninsured from 9.4% in 2009 to the 2008 level of 6.4% (2009 US Census).*

Update: The 2013 Charles County uninsured percentage was 7.4%. This is a reduction from the 2009 percentage used as our baseline. However, it does not meet the Charles County Health Improvement Plan goal of 6.4%.

Dental Health Services

1. *Increase the proportion of Medicaid children and adolescents who received any dental care services in the past year from 53.4% to 56.3% (2009 Maryland SHIP).*

Update: In 2013, 50.7% of Charles County children aged 4-20 years enrolled in a Medicaid MCO received a dental service in the past year (Maryland SHIP). This is a decrease from the 2009 percentage of 53.4%. This does not meet the Charles County Health Improvement Plan goal of 56.3%. The percentage went in the opposite direction.

Mental Health

1. *Increase the proportion of adults and children with mental health disorders who receive treatment. Measures of success will be those with depressive disorders who receive treatment from 55% to 60% and an increase in public mental health treatment admissions that are very satisfied with treatment from 25.5% to 28% (Public Mental Health System Outcome Measurement System).*

Update: The percentage of Charles County adults in the public mental health system (PMHS) who reported that they are very satisfied with their treatment and recovery decreased from 25.5% at baseline to 19.9% for 2014. This does not meet the Charles County Health Improvement Plan goal of 28% very satisfied. The measure went in the opposite direction.

Unfortunately, the measure of those with depressive disorders who receive treatment has not been replicated by the Maryland Behavioral Risk Factor Surveillance System. Therefore, we do not have an update for this measure.

3. *Reduce the rate of suicide from 12.3 to 9.1 per 100,000 population (2007-2009 average death rate, 2009 MD Vital Statistics Report).*

Update: The 2010-2012 Charles County Suicide Rate was 10.2 per 100,000. This is a reduction from the 2007-2009 average suicide death rate of 12.3 per 100,000. However, the 2010-2012 suicide rate does not meet the Charles County Health Improvement Plan goal of 9.1 per 100,000.

2. *Increase the number of people receiving treatment for abuse or dependence of opiates and/or illicit drugs in the past year from 225 to 250 or a 10% increase*.

Update:

From 2011 to 2012, there has been a 4.6% increase in the number of opiate-related admissions to treatment in state funded programs. This does not meet the Charles County Health Improvement Plan goal of a 10% increase, but it is moving in the appropriate direction.

Sexually Transmitted Infections

1. *Reduce the rate of Chlamydia infections among Charles County African Americans by 10% from 569.6 per 100,000 to 512.5*.

Update:

The 2012 Charles County African American Chlamydia rate was 842.8 per 100,000. This is an increase from the baseline rate of 569.6 per 100,000. This does not meet the Charles County Health Improvement Plan goal of 512.5. The rate has gone in the opposite direction.

Infant Mortality

1. *Reduce the infant death rate from 7.4 per 1,000 live births to 6.6 deaths per 1,000 live births*.

Update: The 2013 Charles County infant mortality rate was 7.8 per 1,000 live births. This is a slight increase from the baseline rate of 7.4 per 1,000 live births. This does not meet the Charles County Health Improvement Plan goal of 6.6 per 1,000 live births.

2. *Reduce infant death rate from 10.4 for Charles County African Americans to 6.6 per 1,000 live births*.

Update: The 2013 Charles County Black infant mortality rate was 7.3 per 1,000 live births. This is a large reduction from the baseline rate of 10.4 per 1,000 live births. However, this does not meet the Charles County Health Improvement Plan goal of 6.6 per 1,000 live births.

Accident and Injury Prevention

1. *Reduce the rate of hospitalizations due to falls by the elderly population in Charles County from 289.1 to 259 per 100,000*.

Update: The 2011 Charles County fall-related crude hospitalization rate was 268.8 per 100,000. This is a decrease from the baseline rate of 289.1 per 100,000. However, it does not meet the Charles County Health Improvement Plan goal of 259 per 100,000.

Health Prioritization:

After a thorough analysis of all quantitative data on the health of Charles County and of the qualitative data gathered from the community, a list of health priorities has been developed to help guide future endeavors to improve the health of Charles County.

The Steering Committee of the Partnerships for a Healthier Charles County chose to use the National Association of City and County Health Officials (NACCHO) who recommended Hanlon Method for health prioritization. The *Hanlon Method for Prioritizing Health Problems* is a well-respected technique which objectively takes into consideration explicitly defined criteria and feasibility factors. Though a complex method, the Hanlon Method is advantageous when the desired outcome is an objective list of health priorities based on baseline data and numerical values.

A list of health problems was identified using the health data section of the community health needs assessment report. Then, using a scale of 0 to 10, each health problem was rated on the following criteria: size of the health problem, magnitude of the health problem, and effectiveness of potential interventions. The table below represents the numerical rating system for rating health problems against the criteria.

The Hanlon Method: Sample Criteria Rating			
Rating	**Size of Health Problem** *(% of population w/health problem)*	**Seriousness of Health Problem**	**Effectiveness of Interventions**
9 or 10	>25% (STDs)	Very serious (e.g. HIV/AIDS)	80% - 100% effective (e.g. vaccination program)
7 or 8	10% - 24.9%	Relatively Serious	60% - 80% effective
5 or 6	1% - 9.9%	Serious	40% - 60% effective
3 or 4	.1% - .9%	Moderately Serious	20% - 40% effective
1 or 2	.01% - .09%	Relatively Not Serious	5% - 20% effective
0	< .01% (Meningococcal Meningitis)	Not Serious (teen acne)	<5% effective (access to care)

The size of the problem was based on the baseline data collected on the county population through the community health needs assessment. If more than one data measure was available for a particular health topic, an average of the percentages was calculated to determine the size of the problem. Prevalence data was used whenever available; however, mortality data was used as a proxy measure when reliable prevalence sources were not available.

The seriousness of the problem was determined by asking a series of questions regarding the status of the health problem in the community. A score was determined based on the number of questions with an answer of "yes."

The seriousness of the problem questions included:

- Does it require immediate attention?
- Is there a public demand?
- What is the economic impact?
- What is the impact on quality of life?
- Is there a high hospitalization rate?
- Is the disparity between the county rate and state and national rates?
- Do racial/age/gender/ethnic disparities exist?

The effectiveness of the interventions was determined using the Centers for Disease Control and Prevention's (CDC) Guide to Community Preventive Services. The guide gives examples of evidence-based strategies that have been implemented to address each health problem. Systematic reviews are conducted on all available interventions, and they rank the evidence-based strategies as: recommended, not recommended, or insufficient evidence. The basis of the rankings are presented below.

Recommended:
The systematic review of available studies provides strong or sufficient evidence that the intervention is effective.

> The categories of "strong" and "sufficient" evidence reflect the Task Force's degree of confidence that an intervention has beneficial effects. They do not directly relate to the expected magnitude of benefits. The categorization is based on several factors, such as study design, number of studies, and consistency of the effect across studies.

Recommended Against:
The systematic review of available studies provides strong or sufficient evidence that the intervention is harmful or not effective.

Insufficient Evidence:
The available studies do not provide sufficient evidence to determine if the intervention is, or is not, effective. This does **NOT** mean that the intervention does not work. It means that additional research is needed to determine whether or not the intervention is effective.
Task Force findings may include a rationale statement that explains why they made a recommendation or arrived at other conclusions.

To determine the effectiveness of interventions, we calculated the percentage of available interventions that received a recommended score from the CDC's Guide to Community Preventive Services. Information was available in the guide for all health problems in our list expect for one: infant mortality. In that case, a World Health Organization (WHO) publication reviewing the effectiveness of infant mortality reduction interventions was used.

Based on the three criteria rankings assigned to each health problem in Step 1 of the Hanlon Method, we calculated the priority scores using the following formula:

$$D= [A+ (2 \times B)] \times C$$

Where: D= Priority Score

A= Size of the health problem ranking

B= Seriousness of the health problem ranking

C= Effectiveness of the Intervention ranking

* Note: Seriousness of health problem is multiplied by two because according to the Hanlon technique, it is weighted as being twice as important as size of the health problem.

Based on the priority scores calculated in Step 2 of the Hanlon Method, we assigned ranks to the health problem with the highest priority score receiving the rank of 1, the next high priority score receiving a rank of 2, and so on. The table below represents the results of our Hanlon Method ranking and priority scoring.

Health Problem:	**Size (A)**	**Seriousness (B)**	**Effectiveness of Intervention (C)**	**Priority Score (A+2B)C**	**Rank**
Heart Disease	8	9	10	260	1
Diabetes	7	10	6	162	6
Asthma	6	6	5	90	12
Cancer	9	9	8	216	3
Mental Health	7	10	8	216	3
Tobacco Use/Smoking	7	6	5	95	10
Injuries	6	7	5	100	9
Hypertension/Stroke	10	9	10	280	1
Obesity/Overweight	10	10	8	240	2
Dental health	9	7	4	92	11
Access to Care	8	10	5	140	7
Infant Mortality	5	5	4	60	13
STI/HIV/AIDS	5	6	6	102	8
Substance Use Disorders	8	10	7	196	5

Based on the priority score from the Hanlon Method, the health priorities chosen include:

1. Chronic Disease Prevention and Management
    - Major Cardiovascular Disease (Heart Disease, Hypertension, and Stroke)
    - Obesity and Overweight
    - Diabetes Prevalence
    - Cancer
2. Behavioral Health
    - Substance Use Disorders (Alcohol, Drug, and Tobacco Use)
    - Mental Health
3. Access to Care
    - Physician Recruitment and Retention
    - Social Determinants of Health (transportation, health literacy)

University of Maryland Charles Regional Medical Center
FY 15 Community Health Needs Assessment Focus Groups
Focus Group Representatives

Population Represented	Organization	Representative Name	Title
Minority Health and Health Disparities	X.2REP, Inc.	A. Murrill	Anti-Tobacco Advocate
	BLCE	B. Adeeb	
	NAACP	J. Wilson	President
	NAACP and Maryland State Delegate	E. Patterson	Delegate
		R. Newman	
		T. Wilson	
	Omega Psi Phi Fraternity	W. Leggett	
	Peacock Physical Therapy	V. Peacock	
	CC Dept. of Health	A. Starn	Epidemiologist
	CC Dept. of Health	T. Bailey	Outreach, HIV
	CC Dept. of Health	F. Grillo	Deputy Health Officer
	CC Dept. of Health	MB. Klick	Tobacco Cessation Counselor
	Health Partners	C. Mulcahey	Executive Director
	Bel Alton Community Development Center	J. Rudolf	Member Alumni
	Lifestyles of Maryland	C. Young	Support Director
School Health	School Nurses	L. Proctor	
		R. Proctor	
		S. Rutkai	
		S. Silva	
		M. Tyler	
		Y. Williamson	
		C. Barnas	
		C. Bicknell	
		C. Booker	
		J. Buntz	
		T. Butler	
		K. Chappelle	
		S. Cottmann	
		M. Crispin	
		V. Donnelly	
		P. Dunlevy	
		M. Golden	
		C. Smith	
		S. Brockman	
		P. Bird	
		C. Engleson	
		T. Crozier	

		L. Bazarre	
		K. DeBolt	
		P. Horner	
		L. Wathen	
		E. Hadley	
		J. Siewertsen	
		L. Petty	
		N. Williams	
		K. Williams	
		N. De Los Santos	
		D. Heim	
		C. Larsen	
		D. Gardiner	
		S. Presnell	
		L. Mulert	
		B. Keesler	
		K. Popp	
		D. Reeves	
		K. Jameson	
		S. Kiesel	
		C. Dawn	
		S. Hood	
		S. Krevey	
		D. Lawrence	
		J. Ledford	
		R. Martin	
		T. Moudry	
		K. Mehlfeld	
Special Populations	CC Dept. of Health	B. Leebel	Public Information Officer
	UM CRMC	S. Stowers	Case Management
	UM CRMC	D. Grace	Nurse Manager
	Shah Associates	M. Levy	Case Manager
	The Arc, Southern Maryland	N. Free	Director
	UM CRMC	A. Zimmerman	Health Promotions and Outreach
Infant and Reproductive Health	UM CRMC	M. Jenkins	Nurse Manager
	CC Dept. of Health	L. Beverage	Director of Infant and Toddlers Program
	Judy Center of Charles County	T. Osborne	Health Services Facilitator
	March of Dimes	J. Abell	Director
	March of Dimes	S. Sanna Buckles	Community Liaison
	CC Board of	M. Champion	Instructional

University of Maryland Charles Regional Medical Center
FY 15 Community Health Needs Assessment Focus Groups
Focus Group Representatives

	Education		Specialist/Coordinator
Disease Specific	CC Dept. of Health	L. Fenlon	Communicable Diseases Coordinator
	CC Dept. of Health	L. Thomas	Co-Chair Chronic Disease Prevention
	CC Dept. of Health	A. Deal	Outreach Worker
	UM CRMC	B. Loux	Manager, Cardiac Rehabilitation
	UM CRMC	B. Wolford	CDE
	UM CRMC	A. Booker	Respiratory Therapist
Prevention and Safety	UM CRMC	M. Hannah	Transition Case Manager
	UM CRMC	J. Riggs	Director, Community Development and Planning
	College of Southern Maryland	L. Smith	Project Coordinator, Safe Communities
	CC Dept. of Health	A. Starn	Epidemiologist
Leadership	UM CRMC	N. Cervino	President, CEO
	UM CRMC	Dr. R. Ferraro	Chief of Staff
	UM CRMC	Dr. Dumais	Chief Medical Officer
	Charles County Sheriff's Office	Major Saunders	
	Charles County Sheriff's Office	Lt. Salvas	Lieutenant
	Charles County Chamber of Commerce	B. Burian	Director
	Charles County Chamber of Commerce	S. Greer	President
	CC Dept. of Health	D. Abney, MD	Health Officer
	College of Southern Maryland	Dr. Gottfried	President
	Greater Baden	C. Malloy	President, CEO
	Charles County Government	T. Covington	States Attorney
	CC Volunteer Fire & EMA	J. Conlon	Volunteer Coordinator
	UM CRMC	A. Zimmerman	Health Promotions and Outreach
	UM CRMC	J. Riggs	Director, Community Development and Planning
	CC Dept. of Health	B. Leebel	Public Information Officer
		A. Starn	Epidemiologist
	CC Emergency Services	W. Stevens	Director

University of Maryland Charles Regional Medical Center
FY 15 Community Health Needs Assessment Focus Groups
Focus Group Representatives

Behavioral Health	Freedom Landing	J. Abramson	Executive Director
	CCDOH	C. Baker	
	CCDOH	J. Barnes	
	CCDOH	K. Black	
	CCDOH	J. Bridgers	Deputy Health Officer
	CCDOH	C. Camerino	
	CCDOH	T.C arrigan	
	CCDOH	R. Faulkner	
	CCDOH	S. Haina	Director of Substance Abuse
	CCDOH	C. Henderson	
	CCDOH	B. Locklear	
	CCDOH	K. Matsuoka	
	CCDOH	C. Nelson	
	CCDOH	T. Oshiyoye	
	CCDOH	H. Parent-Wetmore	
	CCDOH	P. Manula	
	CCDOH	R. Samson	
	CCDOH	P. Troffer	
	CCDOH	I. Wilkerson	
	Institute for Family Centered Services	J. Berry	
	Catholic Charities	D.Carter	
	UMM Student Intervention Programs	J. Clements	
	Calvert Health Care Solutions	W. Council	
	Pathways	B. Gass	
	Charles County Government	C. Hunt	Public Information Officer
	Circuit Court for Charles County	M. Kraese	
	Walden Sierra	B. Lenhart-Cooksey	
	Jude House	M. Logsdon	Director
	Mental Health Criminal Justice Parnership	D. Martin	
	Center for Children	C. Meyers	Director
	Southern Maryland Community Network, Inc.	B. Otts	
	MD Coalition for Health Care Reform	L. Preston	
	Morgan State	F. Weaks	

	University		
	College of Southern Maryland	K. Winters	
		J. Conte	
		G. Kerby	
		A. Sims	
Faith Based	Macedonia Baptist Church	M. Franklin	
	True Gospel	T. Freeman	
	Mt. Sinai AME Church	B. Edwards	
	New Life Church	L. Little	
	New Hope AME Church	K. Graham	
	UM CRMC	C. Kenney	Chaplain
	CC Justice & Advocacy and Holy Ghost	L. Saunders	
		J. Combs	
		R. Thomas	
		L. Detter	
Partnerships for a Healthier Charles County	Member Representation	60 member organizations represented	LHIC