# Monmouth Medical Center Southern Campus

RWJBarnabas HEALTH

COMMUNITY HEALTH NEEDS ASSESSMENT

MONMOUTH MEDICAL CENTER SOUTHERN CAMPUS

2019

# **ACKNOWLEDGEMENTS**

The following partners led the Monmouth Medical Center Southern Campus (MMCSC) Community Health Needs Assessment.

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The RWJ Barnabas Health CHNA Steering Committee oversees the 2018-2019 CNA process to update Hospitals CNAs and create new Implementation/Community Health Improvement Plans. The key tasks of the Steering Committee include:

- Oversight and guidance of CHNA implementation plan development
- Review facility implementation/health improvement plans and results
- Review of suggested priorities for facility implementation planning
- Share strategies and best practices

Members of the RWJ Barnabas Health CHNA Steering Committee include:

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- Bruno & Ridgway, Inc. (Joseph Ridgway)

Questions regarding the Community Needs Assessments should be directed to RWJ Barnabas Health System Development & Planning at <a href="mailto:BHPlanningDept@RWJUH.org">BHPlanningDept@RWJUH.org</a>.

<sup>1</sup> The CHA's development consultants, New Solutions, Inc., have planned and conducted numerous community needs assessments and implementation plans with multiple organizations including individual hospitals, health systems, other health care and community organizations such as consortia comprised of a wide range of participant organizations. The NSI team, of which two are Ph.D. prepared, includes: planning consultants, market researchers, epidemiologists, computer programmers and data analysts. NSI has extensive regional and local community knowledge of health issues, community services and provider resources for the community reviewed by this assessment. This expertise, as well as the methodological and technical skills of the entire staff, was brought to bear in conducting this Community Health Needs Assessment.

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# **EXECUTIVE SUMMARY**

# **Background**

The Monmouth Medical Center Southern Campus (MMCSC) Community Health Needs Assessment (CHNA) is designed to ensure that the Medical Center continues to effectively and efficiently serve the health needs of its service area. The CHNA was developed in accordance with all federal rules and statues, specifically, PL 111-148 (the Affordable Care Act) which added Section 501(r) to the Internal Revenue Code. The MMCSC Needs Assessment was undertaken in this context and developed for the purpose of enhancing health and quality of life throughout the community. This assessment builds upon the CHNA completed in 2016. The 2016 Implementation Plan results are reviewed in Appendix A.

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**MMCSC Service Area** 

The CHNA uses detailed secondary public

health data at state, county, and community levels, a community health survey, and focus groups with other community stakeholders. MMCSC is a member of RWJ Barnabas Health, which convenes a multi-disciplinary, multi-facility Steering Committee that provides additional support and leadership. Also, insight and expertise from the Monmouth Medical Center Southern Campus CHNA Local Oversight Committee helps to identify health assets, gaps, disparities, trends, and priorities. The Methodology section details the data collection process and analysis.

# Service Area

The service area is determined by considering three factors: patient origin, market reliance on the Hospital (market share), and geographic continuity and proximity. Zip codes representing approximately 50% of the MMCSC patient origin form the initial primary service area (PSA); any zip code in which the Hospital has a high market share presence is also included. Zip codes with lower market share are deleted from the PSA definition and included in the secondary service area (SSA). Geographic proximity is used to create a contiguous area and completes the service area determination. MMCSC's PSA is predominantly located in the northern section of Ocean County. The SSA is comprised of other sections in the central and southern areas of the county. For purposes of this assessment, Ocean County, MMCSC's home county, was selected to best represent communities served by the Medical Center in reviewing data sources presented at the county level.

| MMCSC Primary Service Area |             |  |
|----------------------------|-------------|--|
| ZIP Code                   | ZIP Name    |  |
| 07727                      | Farmingdale |  |
| 07731                      | Howell      |  |
| 08527                      | Jackson     |  |
| 08701                      | Lakewood    |  |
| 08723                      | Brick       |  |
| 08724                      | Brick       |  |
| 08733                      | Lakehurst   |  |
| 08753                      | Toms River  |  |
| 08755                      | Toms Rive   |  |
| 08759                      | Manchester  |  |
| 08754                      | Toms River  |  |
| 08756                      | Toms River  |  |

# **TOP HEALTH ISSUES**

The MMCSC Oversight Committee considered primary and secondary data to determine top health issues based on capacity, resources, competencies, and needs specific to the populations it serves. These issues are within the Hospital's purview, competency and resources to impact in a meaningful manner: substance abuse, management of chronic diseases: heart disease, diabetes and cancer.

# 1. Substance Abuse

Substance abuse refers to a set of related conditions associated with the consumption of mind- and behavior-altering substances that have negative behavioral and health outcomes. Risk factors for substance abuse are similar to mental health conditions and also include poverty and drug availability. Substance abuse has a major impact on individuals, families, and communities. The effects of substance abuse are cumulative, significantly contributing to costly social, physical, mental, and public health problems.

Approximately 10% of American's suffer from a drug abuse problem. Despite a steady decline of drug addiction in the early 2000's substance abuse has increased dramatically in over the past decade. The pervasive use of drugs stems from a variety of factors including the increase availability of drugs. Alterations in brain chemistry caused by prescription and street drugs, as well as untreated emotional and psychological conditions that lead to drug experimentation.

Behavioral health disparities impact diverse groups in the U.S., including racial and ethnic groups, young adults, women, and the LGBTQIA community. There is stigma associated with mental health diagnosis and treatment, particularly among African-Americans and Latinos. Behavioral health plays a major role in one's ability to maintain good physical health. Problems with physical health, such as chronic diseases, can have a serious impact on mental health and decrease a person's ability to participate in treatment and recovery.

Of late, the issue of opioid misuse and addiction has captured the attention of federal and state governments, leading to the U.S. President declaring the opioid crisis a public health emergency. To help clarify some of the reasons for this decision, the National Institute on Drug Abuse has estimated that 115 people a day die as a result of an opioid overdose. In 2014 alone, AHQR reported New Jersey had the 6<sup>th</sup> highest rate of emergency room visits for opioids (265.4/100,000 population). Between 2014 and 2016, there was a 40% rise in the number of deaths as a result of drug overdoses in the State. The majority of the victims had heroin or fentanyl in their systems.

To help combat this issue, New Jersey announced a statewide initiative to help combat the opioid crisis. One of the initiatives will include a 24-hour response team which will include first responders, mental health advocates, substance abuse counselors specially trained in dealing with addiction, and a beefedup prescription monitoring program funded by more than a million dollars in federal grants.

- In 2016, there was a higher percentage of binge drinkers in Ocean County (16.4%) than the County Health Ranking benchmark (12.0%).
- Alcohol-impaired driving deaths were 24.3% compared to the County Health Ranking benchmark of 13.0%
- In 2016, 49.4% of primary drug treatment admissions for heroin compared to 43.4% statewide.
- The number of opioid dispensations reached more than 75% of the County's population.

- Drug overdose deaths increased from 134 in 2014, to 242 in 2016.
- Naloxone administrations increased from 624 in 2015, to 977 in 2016.

MMCSC patients have access to an array of prevention, intervention and substance use disorder services through the RWJBarnabas Health Institute for Prevention and Recovery (IFPR) is a leader in New Jersey for substance use disorder, focused prevention, and recovery services. IFPR has almost 30 years of experience providing programs and services implemented by a team of highly skilled professionals. Through comprehensive programs offered across NJ, IFPR perpetuates real change by facilitating effective, long-term impact which creates prevention and recovery prepared communities. IFPR is also recognized for its tobacco cessation services, as well as its Training Institute.

# 2. Management of Chronic Diseases

# (1) Cardiovascular Disease

Cardiovascular disease is the leading cause of death for both men and women of most ethnicities, causing 1 in every 4 deaths in the United States. Cardiovascular disease refers to a constellation of conditions affecting the heart and blood vessels. These conditions are caused by the failure of valves or muscle of the heart and are worsened by blockage of veins and arteries. Some of the most prevalent types of heart disease include coronary artery disease, heart attack, heart failure, congenital heart diseases, and stroke. Comorbid conditions include high blood pressure, high cholesterol, and diabetes. Each of these conditions contribute to and exacerbate cardiovascular disease by diminishing blood vessel function. High blood pressure is usually asymptomatic but damages the heart, kidneys, and brain. High levels of LDL cholesterol can build up in blood vessels, eventually causing fatal blockages. Nearly two-thirds of diabetics die from some form of heart vessel disease. All three comorbidities are preventable and can be contained by changing behavioral risk factors.

Coronary artery disease, the most common type of cardiovascular disease, causes more than 370,000 deaths annually.<sup>2</sup> In 2012, this condition alone cost the United States \$444 billion, with annual increases projected. Heart failure kills more than 177,000 people every year and poses a significant economic burden. Older Americans are hospitalized for heart failure more than any other age group. As the nation's population skews older in coming decades, the cost of heart failure is projected to triple by 2030.

While some risk factors for heart disease (age, family history, male gender, post-menopause, race) cannot be altered, lifestyle changes minimize health conditions associated with heart disease, thereby lowering the likelihood of onset. Obesity increases cholesterol, elevates blood pressure levels, and causes diabetes, all comorbid conditions of heart disease. Healthy eating and exercise can lead to a healthy weight and lower the risk of heart disease. Physical inactivity leads to high blood pressure, high triglyceride levels, low levels of HDL cholesterol, diabetes, and obesity. Regular physical activity can improve these measures. Dietary choices can also increase one's risk of heart disease and obesity. Diets high in saturated fats and cholesterol raise blood cholesterol levels and promote atherosclerosis. Diets high in salt content can raise blood pressure levels. Excessive alcohol use leads to increased blood pressure and higher levels of triglycerides. Cigarette smoking increase the risk of developing heart disease and heart attack by 2 to 4 times by increasing blood pressure and promoting atherosclerosis. Second-hand smoke can increase the risk of heart disease to non-smokers as well.<sup>3</sup>

<sup>2</sup> www.cdc.gov/heartdisease/facts.htm

<sup>3</sup> www.cdc.gov/heartdisease/behavior.htm

- Cardiovascular disease is the leading cause of death in the nation, New Jersey and Ocean County.
- Between 2014 and 2016, the Ocean County age-adjusted mortality rate decreased for deaths due to heart disease but remained higher than statewide and surrounding counties.
- Between 2011 and 2015, the percent of Ocean County adult residents reported high blood pressure decreased 4.8 percentage points, from 38.4% to 33.6%, but remained above the *Healthy People 2020* target of 26.9%.
- Adults with high cholesterol in Ocean County were nearly 40% of the population.

Cardiovascular disease and related illnesses (high blood pressure, diabetes, and stroke) are prevalent among MMCSC service area residents. Cardiovascular disease was identified in a survey of local heath officers as one of the top six health-related concerns in the primary service area. Service area residents also identified cardiovascular disease as a key health concern in a Bruno & Ridgway survey.

Many chronic diseases are caused by a short list of risk behaviors including tobacco use and exposure to secondhand smoke; poor nutrition, including diets low in fruits and vegetables and high in sodium and saturated fats; lack of physical activity; and excessive alcohol use.

MMCSC addresses the risk factors associated with and the effects of cardiovascular illness. MMCSC provides COPD, obesity, high blood pressure, cancer, and cardiac disease screenings. Health education lectures developed collaboratively with local Health Departments, Boards of Education, libraries, and professional and community organizations are available to the community. The Heart Center at MMCSC earned disease-specific Joint Commission Certification for Heart Failure, Acute Coronary Syndrome, and Cardiac Rehabilitation.

# (2) Diabetes

Chronic diseases are non-communicable, prolonged in duration and rarely completely cured. Chronic illness is a significant driver of the national burden of disease and associated costs. Approximately 6 in 10 Americans live with at least one chronic health condition. Chronic diseases are responsible for 70% of deaths in the United States and treatment accounts for 86% of healthcare costs. Individuals living with severe chronic illness are heavy users of acute hospital services; better coordination of care can potentially improve health outcomes while reducing hospital use. Common chronic conditions include heart disease, cancer, stroke, diabetes and arthritis.

Diabetes is a disease in which blood glucose levels are elevated due to abnormal insulin levels. Type 1 diabetes does not allow the body to produce insulin. Type 2 diabetes, the more common disease type, inhibits the body from optimally making or using insulin. Without adequate insulin, glucose remains in the bloodstream and over time, excess blood glucose can cause serious problems, including damaging the eyes, kidneys, and nerves. Diabetes can also cause heart disease, stroke and amputation. Pregnant women may develop gestational diabetes.

• Based on the latest BRFSS survey, the percent of Ocean County residents told they had diabetes decreased from 9.9% in 2011, to 6.6% in 2016.

<sup>4</sup> http://www.cdc.gov/chronicdisease/

<sup>5</sup> http://bmchealthservres.biomedcentral.com/articles/10.1186/1472-6963-13-164

- Diabetes is a contributing factor to renal failure. In 2016, the rate of Ocean County residents using a hospital service for renal failure was higher than the State rate.
- The percent of Ocean County residents with a BMI of >= 30 trended upward from 26.8% in 2012, to 28.8% in 2016.
- Within Ocean County, the percent of adults reporting no leisure-time physical activity trended upward from 25.5% in 2014, to 24.8% in 2016.

Educating those that have diabetes or who are at risk for diabetes is the goal of MMCSC's Diabetes Education Program. Recently awarded the prestigious American Diabetes Association (ADA) Education Recognition Certificate, the program is now certified by the ADA as offering a high-quality diabetes self-management that is an essential component of effective diabetes treatment.

The program is taught by certified diabetes educators who are also registered nurses and dieticians. Participants receive assistance with glucose monitors, receive nutritional information and advice with meal planning, and learn about treatment options.

# (3) Cancer Care

Cancer, the second leading cause of death in the United States, causes approximately 1,600 deaths per day. The disease initiates with unrestrained and abnormal cell growth and spreads via the blood and lymph systems. Cancer is caused by gene mutations that affect how cells grow and divide. Mutations can be inherited or caused by environmental and lifestyle factors. In 2011, the Agency for Healthcare Research and Quality estimated the cost of cancer in the United States totaled \$88.7 billion, with increases projected. There are over 100 different types of cancers, but lung, colorectal, and breast cancers carried the heaviest economic burden. Lung, colorectal, and breast cancers are also responsible for high disability-adjusted life years (DALYs).

Prevention, early detection, and treatment of common cancers yield economic benefits as treating late-stage cancer is more expensive than treating early-stage cancer. Late-stage breast cancer treatment costs three times more than management of early-stage disease. Screening for cervical, breast and colorectal cancers helps detect disease at an early and treatable stage. Vaccines to prevent Hepatitis B (HBV) and HPV are critical to prevention of liver and cervical cancers. Lifestyle-related health behaviors, such as tobacco use, diet, and physical activity can also be modified to reduce risk.

The elderly are at greater risk for developing cancer than younger age cohorts. The median age of cancer diagnoses is 66, with persons aged 65-74 having a 1 in 4 chance of developing the disease. Between 5–10% of all cancer cases can be attributed to genetic defects and the remaining 90–95% attributed to environmental and lifestyle factors. While genetics like age and family history cannot be manipulated, most other major risk factors and lifestyle choices can be changed.

Obesity increases the risk of several cancers; physical activity and nutritious eating can help bring about a healthy weight. One study of severely obese people found significant weight loss reduced risk by one-third. Obesity is associated with increased risks for many types of cancer including breast, colon, endometrial, esophagus, kidney, pancreas, gall bladder, thyroid, ovary, cervix, prostate, multiple myeloma and Hodgkin's lymphoma.<sup>6</sup>

<sup>6</sup> Retrieved from www.cdc.gov/healthyyouth/obesity/facts.htm. Accessed 7/8/13.

Carcinogens are substances that are responsible for damaging DNA, promoting and aiding cancer. Tobacco, asbestos, radiation (gamma and x-rays), the sun, and car exhaust fumes are well known carcinogens. The rate of breast cancer is greatly increased when women have excess estrogen levels for a prolonged time period. Viruses that weaken the ability of the immune system to fight infection (HPV, Hepatitis B and C, Epstein-Barr, HIV) and immunosuppressive drugs are also linked to an increased risk.

- Between 2007 and 2016, the age-adjusted mortality rate for cancer in Ocean County decreased from 200.2/100,000 to 162.6/100,000.7
  - The 2016 Ocean County cancer mortality rate was higher than the New Jersey AAMR of 148.3/100,000 and higher than Monmouth County.
- In 2016, 68.0% of Ocean County adults 50+ had a sigmoidoscopy or colonoscopy, higher than New Jersey (65.1%).
- In 2016, 79.9% of Ocean County women 40+ reported having a mammogram screening within the past 2 years, compared to 77.3% in New Jersey.<sup>8</sup>
- In 2016, in Ocean County, 73.4% of women aged 18 and older had a pap smear within the last three years, compared to 74.5% in New Jersey.<sup>9</sup>
- In 2016, the overall incidence of cancer in Ocean County (509.4/100,000) was higher than the State and Monmouth County rates.
- In the Community Health Survey, cancer was identified as one of the top five health-related concerns in the primary service area.

MMCSC presents community lectures addressing cancer prevention. Health education is supplemented with screenings for lung, breast, prostate, oral, cervical (PAP smear), and skin cancer. Screenings and lectures are collaborative efforts with local Health Departments, Boards of Education, libraries, and professional and community organizations.

MMCSC is accredited by the American College of Radiation Oncology and The American College of Surgeons. The staff at MMCSC's Cancer Center includes dieticians, hospice liaison nurses, medical oncologists, medical physicists, nurse educators, oncology-certified nurses, pastoral care, pathologists, radiation oncologists, radiation therapists, social workers (bilingual available), and surgical oncologists.

<sup>7</sup> ibic

<sup>8</sup> County Health Rankings 2016 http://www.countyhealthrankings.org/app/new-jersey/2016/measure/factors/50/data

<sup>9</sup> Behavioral Risk Factor Surveillance System 2012

# 1. INTRODUCTION

The Monmouth Medical Center Southern Campus (MMCSC) Community Health Needs Assessment (CHNA) is designed to ensure that the Medical Center continues to effectively and efficiently serve the health needs of its service area. The CHNA was developed in accordance with all federal rules and specifically, PL 111-148 (the Affordable Care Act) which added Section 501(r) to the Internal Revenue Code. The MMCSC Needs Assessment undertaken in this context and developed for the purpose of enhancing health and quality of life throughout the community. This assessment builds upon the CHNA completed in 2016. The 2016 Implementation Plan results are reviewed in Appendix A.

# - New Manner - Ocean - West Freehold - Freehold - Freehold - Freehold - Millistone - Millistone - Molitary State - Wall - Jackson - Lakewood - Jackson - Don't Rept - Molitary City - Grand Type And - Jackson - Manchester - Holiday City-Gollegiev - Toms River - Backmood - Manchester - Backmood - State River - Backmood - Toms River - Backmood - State River - Backmood - Toms River - Backmood - State River - Backmood - Toms River - Backmood - State River - Backmood - Toms River - Backmood - State River - Backmood - Toms River - Backmood - State River - Backmood - Toms River - Backmood - State Riv

**MMCSC Service Area** 

The CHNA uses detailed secondary public health data at state, county, and community levels, a community health survey, and focus groups with other community stakeholders. MMCSC is a member of RWJ Barnabas Health, which convenes a multi-disciplinary, multi-facility Steering Committee that provides additional support and leadership. Also, insight and expertise from the Monmouth Medical Center Southern Campus CHNA Oversight Committee helps to identify health assets, gaps, disparities, trends, and priorities. The Methodology section details the data collection process and analysis.

Monmouth Medical Center Southern Campus, located in Lakewood, New Jersey, is one of four acute care hospitals operating in Ocean County. MMCSC is an affiliate of RWJ Barnabas Health. The Medical Center's primary service area encompasses 12 zip codes that are part of the northern area in the County. Municipalities in Central and Southern Ocean County comprise the Secondary Service Area (SSA).

The MMCSC Oversight Committee determined a number of priority issues to be within the Hospital's purview, competency and resources to impact in a meaningful manner. These included substance abuse, chronic disease management: heart disease, diabetes and cancer.

The CHNA uses detailed secondary public health data at state, county, and community levels, from various sources including Department of Health and Human Services, Centers for Disease Control and Prevention, Census Bureau, *Healthy People 2020*, the County Health Rankings, and hospital discharge data, to name a few.

- Healthy People 2020 is a 10-year agenda to improve the nation's health that encompasses the
  entire continuum of prevention and care. For over three decades Healthy People has established
  benchmarks and monitored progress over time to measure the impact of prevention activities.
  Healthy People 2020 benchmarks are used throughout the report to assess the health status of
  residents.
- The County Health Rankings, published by the University of Wisconsin Population Health Institute and the Robert Wood Johnson Foundation, rank the health of nearly all counties in the United States. The rankings look at a variety of measures that affect health such as high school graduation rates, air pollution levels, income, rates of obesity and smoking, etc. These rankings are also used throughout the report to measure the overall health of Ocean County residents. County rates are also compared to statewide rates.

The MMCSC needs assessment was developed for the purpose of enhancing the health and quality of life throughout the community. To this end, both internal and external data were used to understand recent health indicators and opportunities to provide a positive impact on health and wellness. Other significant needs determined by this CHNA include:

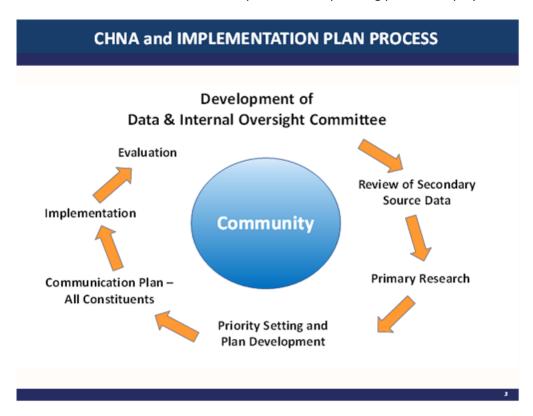
- Mental Health
- Access to Care
- Language/Cultural Barriers
- Access to Specialty Care Services
- Access to Physicians
- Maternal/Child Health
- Awareness of Resources

# 2. METHODOLOGY/SERVICE AREA

# A. METHODOLOGY

Monmouth Medical Center Southern Campus (MMCSC) developed an evidenced-based process to determine the health needs of Ocean County residents. CHNA data sources include both primary and secondary data to provide qualitative and quantitative information about the communities. Data from these sources were reviewed with the Steering Committee to identify and prioritize the top issues facing residents in the service area (see Top Health Issues section).

The flow chart below identifies the CHNA and implementation planning process employed.



# **Prioritization Process**

Following the Steering Committee's review of quantitative and qualitative data on April 30, 2019, a list of 11 issues were identified by consultants as common themes of the research. These issues became the suggested priority issues and included:

- Mental Health
- Substance Abuse
- Cancer
- Awareness of Resources
- Maternal & Child Health
- Access to Specialty Care Services
- Heart Disease

- Diabetes
- Access to Physicians

A ballot was developed, and a survey sent in August 2019 to members of the local Steering Committee asking them to rank each issue based on the following criteria.

- Number of people impacted
- Risk of mortality and morbidity associated with the problem
- Impact of the problem on vulnerable populations
- Meaningful progress can be made within a three-year timeframe
- Community's capability and competency to impact

A tally of the ballots cast resulted in the following five issues to be ranked highest overall.

- Substance Abuse
- Heart Disease
- Diabetes
- Cancer
- Mental Health

Rankings were also developed and weighted for each prioritization criterion.

Members of the Hospital's Executive Committee met to discuss and determine the priority/priorities it would undertake for the next three years. They agreed that for the next three years the Hospital would work on the following top priority areas:

- Substance Abuse
- Chronic Disease Management
  - o Heart Disease
  - Diabetes
  - o Cancer

# **Primary Data Sources**

# **Community Health Needs Surveys**

In order to obtain a service area-specific analysis for the MMCSC service area, on-line survey Interviews were conducted among 512 residents of the Hospital's PSA. Interviews were conducted online and by telephone. A link to the online survey was displayed on hospital web pages and social media sites. Additionally, postcards were handed out at area businesses and libraries, directing residents to the online survey link.

# **Focus Group Discussions**

Two focus groups were undertaken to uncover additional information from key community groups and individuals with respect to health needs, challenges and barriers, and suggestions for improving access to health care. MMCSC Focus Group Report is found in Section 4. (See Section 4) Focus group meetings were

conducted on July 8, 2019 by New Solutions, Inc. and included representatives of Hasidic population and those representing low income minority populations.

# **Secondary Data Sources**

Over 100 secondary data sources are compiled in this CHNA, presenting data by indicator by county and state. Sources include: The United States Census Bureau, Centers for Disease Control and Prevention (CDC), New Jersey Department of Health (NJDOH), and Behavioral Risk Factor Surveillance System (BRFSS). See **Appendix B** for a detailed list of sources.

**Appendix C** contains a detailed report of cancer incidence and mortality by cancer site for Ocean County for the years 2010-2017. In addition, hospital tumor registry data is utilized to understand stage of cancer at time of diagnosis.

# **Health Profile**

Section 5 provides a comprehensive presentation of health outcomes as well as the social determinants of health and other health factors that contribute to the health and well-being of Ocean County residents.

# **Color Indicator Tables**

Throughout the Health Profile Section of this CHNA, the color indicator tables compare county level data to *Healthy People 2020* targets, County Health Rankings benchmarks, and New Jersey State data. Data by race/ethnicity are compared to data for all races in the county, unless otherwise indicated. Ocean County was the midpoint value compared to a range 20% higher than the value for New Jersey, *Healthy People 2020*, or County Health Rankings Benchmarks, or 20% lower than the value for New Jersey, *Healthy People 2020*, or County Health Rankings Benchmarks. If the county value was within the range 20% lower or 20% higher than the comparison indicator, or considered within reasonable range, the indicator will be yellow. The table will be red if the Ocean County value is more than 20% worse or lower than the indicator value. If the Ocean County value is 20% better or higher than the indicator value, the table will be green. Comparative counties are also presented providing additional context for select health indicators.

# **Assets and Gaps**

Section 6, Assets and Gaps, summarizes the preceding components of the CHNA. Assets highlight county information indicating improvement over time, in comparison to other counties and the State, or in comparison to other races or genders. Gaps focus on disparities in Ocean County or the MMCSC Service Area that have a negative trend, in comparison to other counties in the State or to other races or genders.

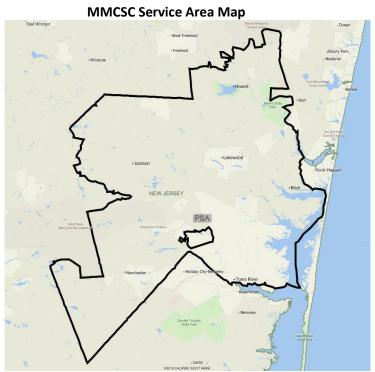
# **Resource Inventory**

A service area-specific resource inventory is included as **Appendix D**, which details health and social service resources available to residents in Ocean County. Providers' names, addresses, and phone numbers and type of services provided are contained in the inventory.

### B. SERVICE AREA

Monmouth Medical Center Southern Campus is located in Lakewood, New Jersey. It is one of four hospitals serving residents in Ocean County. The Medical Center's primary service area (PSA) consists of the following zip codes:

| MMCSC Primary Service |             |  |  |  |  |
|-----------------------|-------------|--|--|--|--|
| Area                  |             |  |  |  |  |
| ZIP                   | ZIP Name    |  |  |  |  |
| Code                  |             |  |  |  |  |
| 07727                 | Farmingdale |  |  |  |  |
| 07731                 | Howell      |  |  |  |  |
| 08527                 | Jackson     |  |  |  |  |
| 08701                 | Lakewood    |  |  |  |  |
| 08723                 | Brick       |  |  |  |  |
| 08724                 | Brick       |  |  |  |  |
| 08733                 | Lakehurst   |  |  |  |  |
| 08753                 | Toms River  |  |  |  |  |
| 08755                 | Toms Rive   |  |  |  |  |
| 08759                 | Manchester  |  |  |  |  |
| 08754                 | Toms River  |  |  |  |  |
| 08756                 | Toms River  |  |  |  |  |

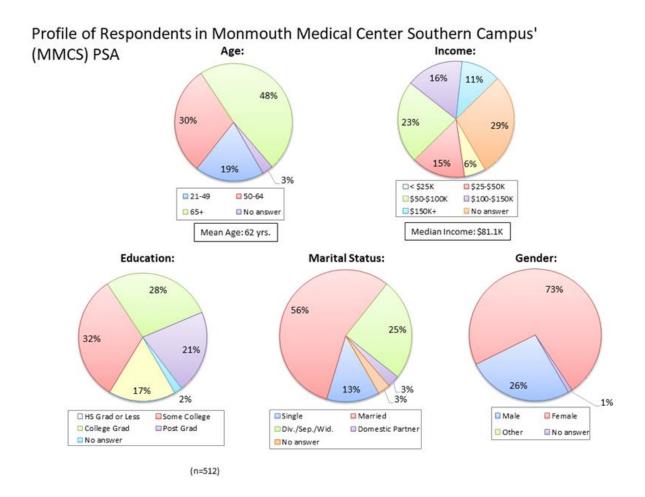


The service area is determined by taking into consideration three factors: patient origin, market reliance on the Hospital (market share), and geographic continuity/proximity. Typically, the combined service area represents 75-80% of the Medical Center's patients. Zips codes representing approximately 50% of the MMCSC patient origin form the initial PSA. Added to this list is any zip code in which the Medical Center has a high market share presence, any zip code with lower market share is deleted from the PSA definition and becomes part of the secondary service area (SSA). The next range of zip codes comprise the SSA. Geographic proximity is used to create a contiguous area completes the service area determination. MMCSC's PSA is predominantly located in the northern portion of Ocean County. The SSA is comprised of other sections in the central and southern areas of the county. For purposes of this assessment, Ocean County, MMCSC's home county, was selected to best represent the communities served by the Hospital in terms of county level data.

Most of the secondary data in this report is based on county level data. City or zip code level data is provided wherever possible to enhance the understanding of the specific needs of service area residents. Data obtained from the qualitative analyses provide further insight into health issues facing the communities served by the Medical Center in reviewing data sources presented at the county level.

# 3. COMMUNITY HEALTH NEEDS SURVEY

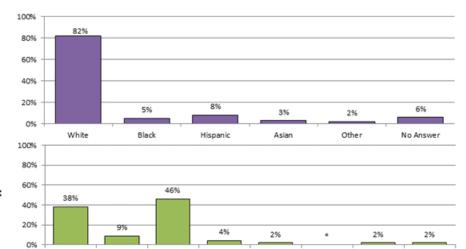
# A. SURVEY RESPONDENTS' PROFILES



# Profile of Respondents in Monmouth Medical Center Southern Campus' (MMCS)

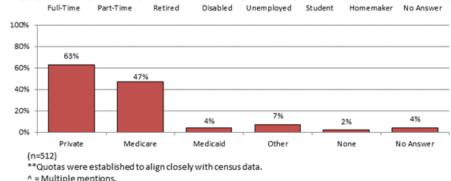
PSA - (continued)





Employment^:

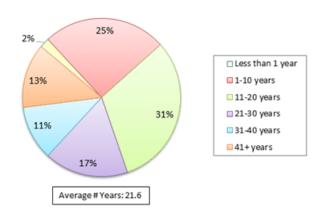
# Health Insurance^:



<sup>^ =</sup> Multiple mentions.

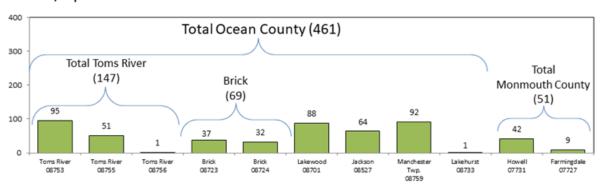
<sup>\* =</sup> Less than 0.5%.

# Length of Time in Area



# Towns/Zips Where Interviews Came From

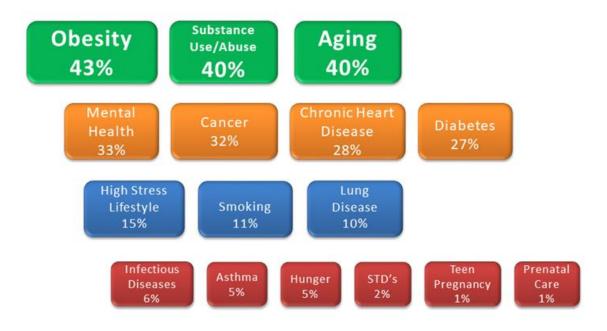
(n=512)



# B. HEALTH-RELATED CONCERNS OF AREA RESIDENTS

# Major Health Concerns Among Respondents in MMCS's PSA Community

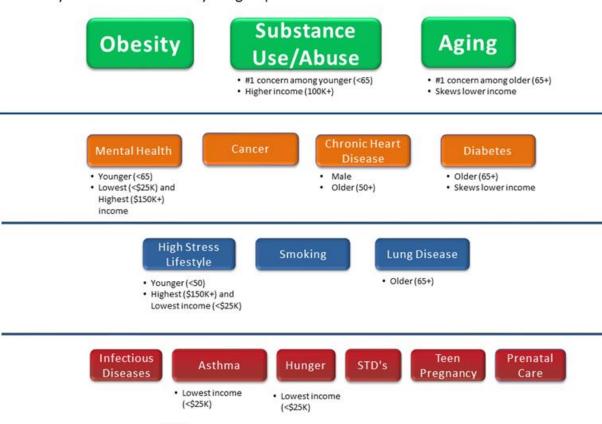
- Obesity, substance use/abuse and concerns about aging are the top health concerns among area residents surveyed.
- · Also of high concern are mental health issues and the chronic diseases of cancer, heart disease and diabetes.



(n=512)

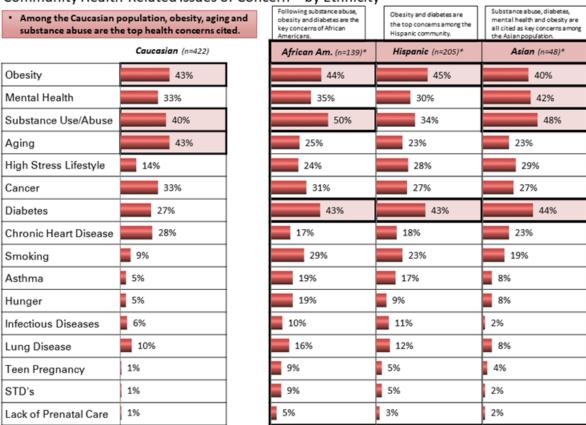
Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community?

# Summary of Health Concerns by Subgroups



Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community?

# Community Health-Related Issues of Concern – by Ethnicity

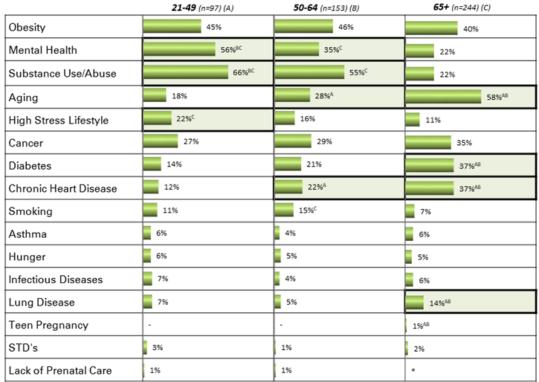


Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community?

<sup>\*</sup>Multi-area group from CMC/MMC/MMCS PSA's. See appendix for list of zip codes.

# Community Health-Related Issues of Concern – by Age

- Mental health and substance abuse are the top concerns to younger residents surveyed, while aging is the #1 concern to older residents surveyed.
- High stress lifestyles are of more concern to younger respondents while chronic illnesses (diabetes, heart disease, lung disease) are of more concern to older residents surveyed.

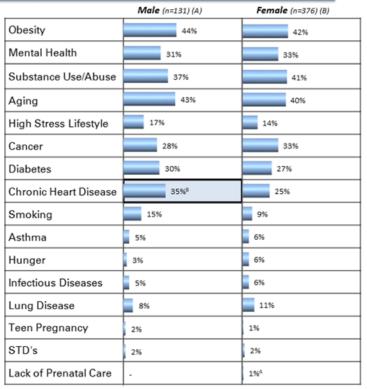


\* = Less than 0.5%.

Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community? (A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

# Community Health-Related Issues of Concern - by Gender

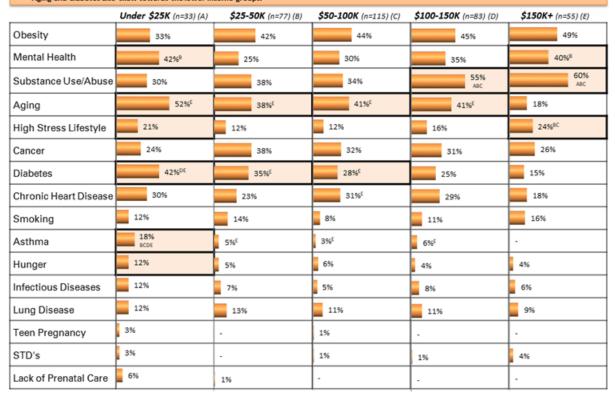
 Males indicate more concern about chronic heart disease versus females, but otherwise, no difference exists regarding health concerns between males and females.



Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community? (A/B) = Significantly greater than indicated cell at the 90% confidence level.

- Community Health-Related Issues of Concern by Income

   Substance abuse/use is cited more often by higher income (\$100K+) respondents, while mental health issues and high stress are cited most often by respondents in both the lowest and highest income groups. Asthma and hunger are of most concern to poverty level (<\$25K) respondents.
  - Aging and diabetes also skew towards the lower income groups.



Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community? (A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

# C. BARRIERS TO ACCESSING HEALTH CARE SERVICES

# Major Barriers to Accessing Health Care in MMCS's PSA

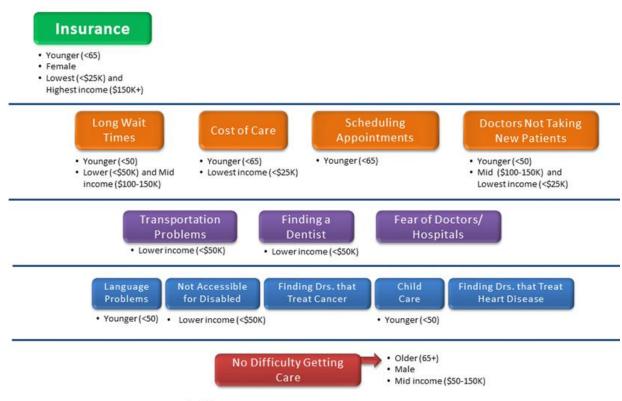
- Insurance is cited as the #1 barrier to accessing health care by area respondents, followed by long wait times, cost of care, scheduling appointments and doctors not taking new patients.
- · Nearly four-of-ten respondents claim they do not experience any difficulty accessing the care they need.



(n=512)

Q.4 - Over the last few years, which, if any, of these issues made it difficult for you, or a household family member, to get medical treatment or care when needed?

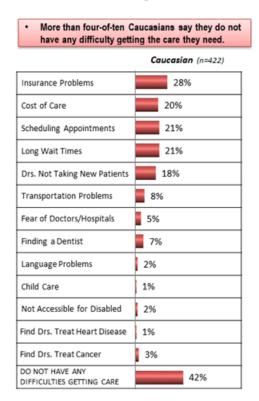
# Summary of Health Care Barriers by Subgroups

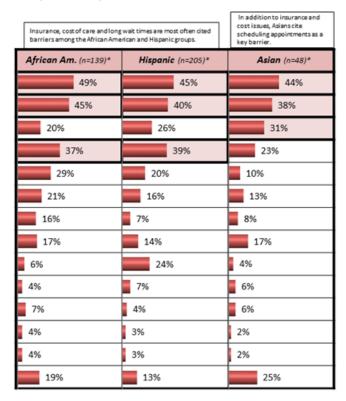


(n=512)

Q.4 - Over the last few years, which, if any, of these issues made it difficult for you, or a household family member, to get medical treatment or care when needed?

# Barriers to Accessing Health Care Services – by Ethnicity

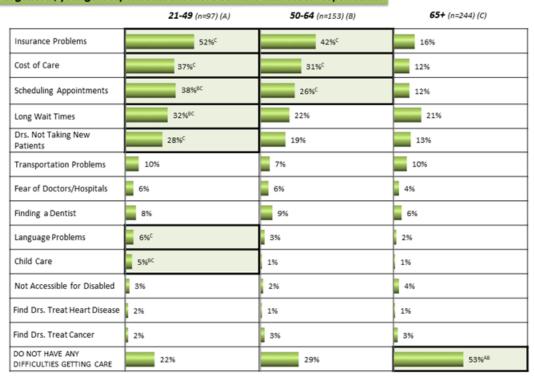




Q.4 - Over the last few years, which, if any, of these issues made it difficult for you, or a household family member, to get medical treatment or care when needed?
\*Multi-area group from CMC/MMC/MMCS PSA's. See appendix for list of zip codes.

# Barriers to Accessing Health Care Services – by Age

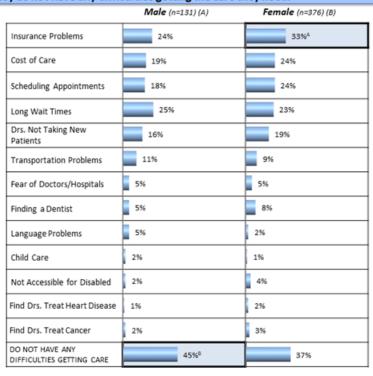
# In general, younger respondents cite more barriers than older respondents.



Q.4 - Over the last few years, which, if any, of these issues made it difficult for you, or a household family member, to get medical treatment or care when needed?
(A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

# Barriers to Accessing Health Care Services - by Gender

• Females say they have more difficulty with insurance problems versus males and males are more likely than females to say they do not have any difficulties getting the care they need.

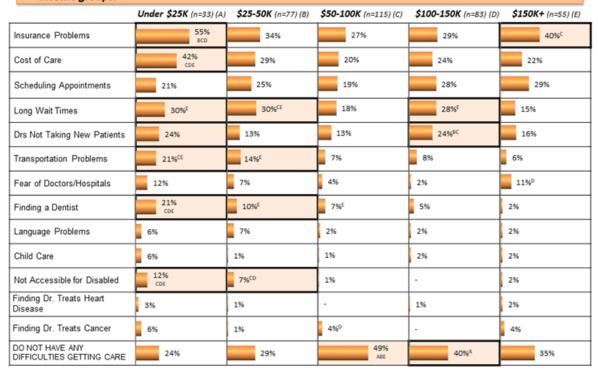


Q.4 - Over the last few years, which, if any, of these issues made it difficult for you, or a household family member, to get medical treatment or care when needed?

(A/B) = Significantly greater than indicated cell at the 90% confidence level.

# Barriers to Accessing Health Care Services - by Income

 In general, lower income groups (<\$50K) encounter more barriers when seeking care versus those in higher income groups.



Q.4 - Over the last few years, which, if any, of these issues made it difficult for you, or a household family member, to get medical treatment or care when needed?

(A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

# D. COMMUNITY STRENGTHS/OPPORTUNITIES

# Community Strengths/Opportunities

- A large majority of residents surveyed feel it is easy to find fresh foods, their community has ample places to socialize, there are safe places to walk/play and it's easy to live a healthy lifestyle.
- Residents surveyed are also mostly positive towards the low level of violence, educational opportunities, feel it is
  a good place to raise a family, are satisfied with the transportation services available for seniors/disabled and feel
  residents can afford basic needs.
- Opportunities for improvement exist in the areas of offering healthy food choices in schools, job opportunities, safe/affordable housing, transportation services to assist residents and improving the level of interpersonal violence.



(n=512) Top 2 Box Agreement

Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely)

# Community Strengths/Opportunities – by Subgroups

# Easy to Find Fresh Fruits/Veggies

Mid income (\$50-150K)

# Places to

- Older(65+)
- Mid income (\$50-150K)

# Safe Outdoor Places to Walk/Play

- Older (65+)
- · Higher income (\$50K+)

# Easy to Live a Healthy Lifestyle

- Older (50+)
- Mid income (\$50-150K)

# Low Level of Violence

# Educational Opportunities

- Older (50+)
- Male

# Good Place to Raise a Family

- Younger (<65)</li>
- Higher income (\$100K+)

# Transportation Services for Disabled/Seniors

- Older (50+)
- Skews lower income

# Affordable Basic Needs

- Older (65+)
- Male
- Higher income (\$50K+)

# Low Interpersonal Violence

- Older(65+)
- Male
- Lowest income (<\$25K)</li>

# Transportation Services to Assist Residents

- Older (65+)
- · Skews lower income

# Ample/Safe Affordable Housing

Male

# Job Opportunities

- Younger (<65)</li>
- Male
- Higher income (\$50K+)

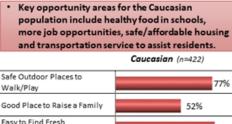
# Schools Offer Healthy Food Choices

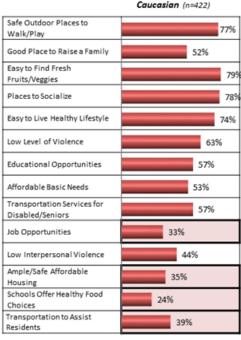
- Younger (<65)</li>
- Higher income (\$100K+)

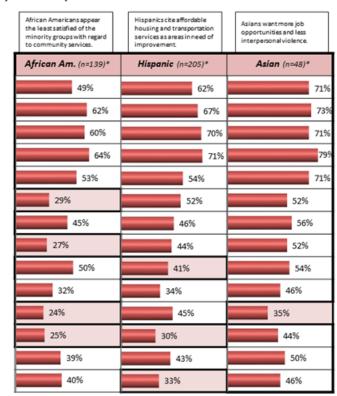
### (n=512) Top 2 Box Agreement

Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely)

# Community Strengths/Opportunities - by Ethnicity





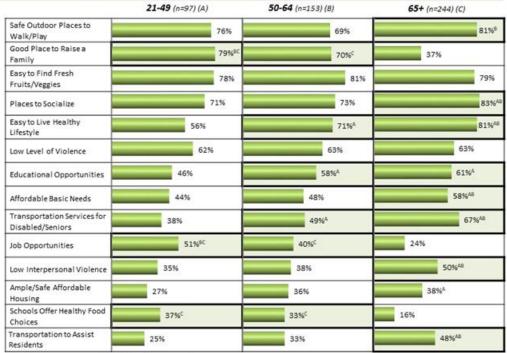


# Top 2 Box Agreement

Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely) \*Multi-area group from CMC/MMC/MMCS PSA's. See appendix for list of zip codes.

# Community Strengths/Opportunities - by Age

Older residents surveyed, particularly those 65+, are more positive towards most community services
versus younger residents, although younger residents (<65) feel there are more job opportunities,
schools offer healthy food choices and the community is a good place to raise a family.</li>

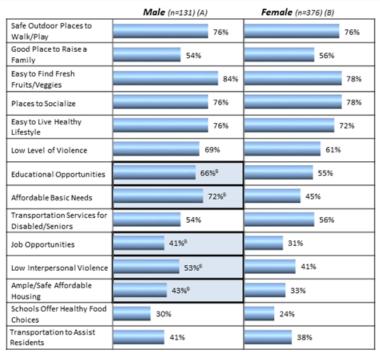


Top 2 Box Agreement

Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely) (A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

## Community Strengths/Opportunities - by Gender

 Males give higher ratings than females with regard to educational and job opportunities, as well as having low interpersonal violence, affordable/safe housing and residents being able to afford basic needs.



#### Top 2 Box Agreement

Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely)

(A/B) = Significantly greater than indicated cell at the 90% confidence level.

## Community Strengths/Opportunities - by Income

 In general, those in higher income brackets (\$50K+) are more positive to their community services versus those in lower income groups, although lower income respondents are more favorable towards transportation services and feel there is a low level of interpersonal violence.



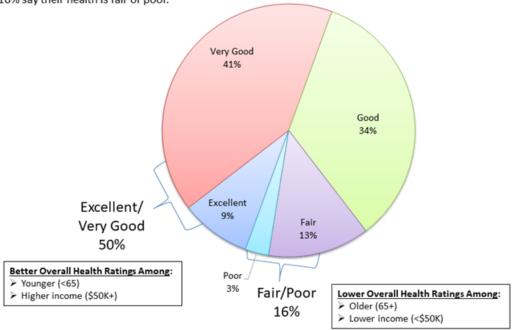
Top 2 Box Agreement

Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely) (A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

#### E. PERSONAL HEALTH HABITS AND PRACTICES

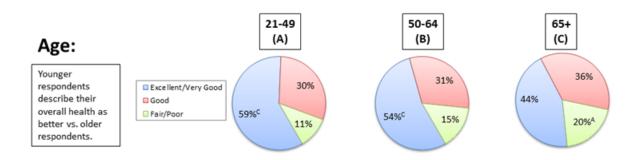
# Self-Description of Overall Health

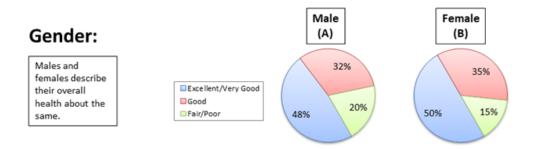
Less than one in ten residents surveyed describe their health as being excellent. In all, one-half of
respondents describe their health as being excellent or very good; one-third describe it as good, while
16% say their health is fair or poor.



(n=512) Q.6 - How would you describe your overall health?

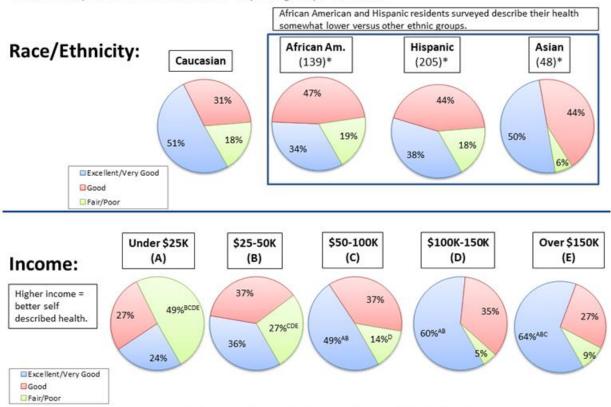
# Self-Description of Overall Health – by Subgroups





Q.6 - How would you describe your overall health? (A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

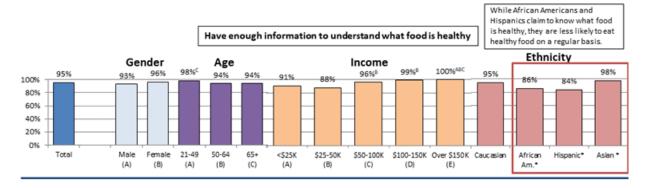
# Self-Description of Overall Health - by Subgroups - (continued)



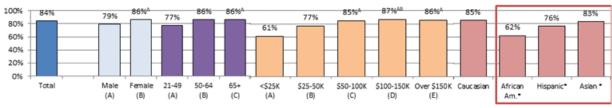
\*Multi-area group from CMC/MMC/MMCS PSA's. See appendix for list of zip codes. Q.6 - How would you describe your overall health? (A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

# Self-Description of Understanding and Eating Healthy

- Almost all residents surveyed feel they understand what food is healthy (95%), with the large majority saying they
  eat healthy food on a regular basis (84%).
- · Older respondents, those with higher incomes and females are more likely to eat healthy foods on a regular basis.







(n=512)

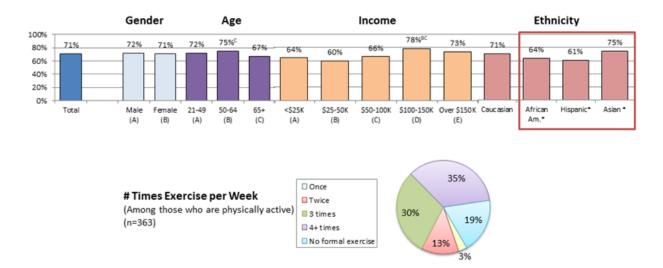
Q.11 - Do you feel that you...

"Multi-area group from CMC/MMC/MMCS PSA's. See appendix for list of zip codes. (A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

# Self-Description of Physical Activity

Seven-of-ten residents surveyed claim to be physically active, with about two-third saying they exercise 3-4
or more times a week.





(n=512)

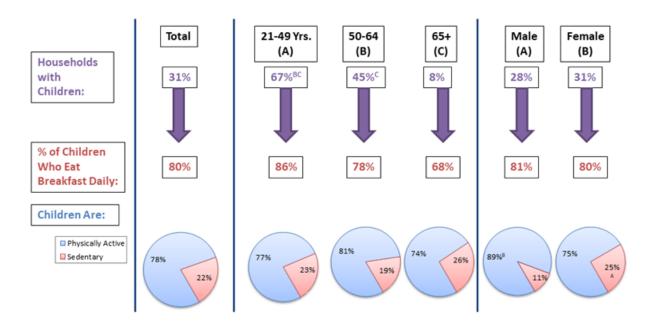
Q.11 - Do you feel that you...

Q.11 - How often do you exercise each week?

"Multi-area group from CMC/MMC/MMCS PSA's. See appendix for list of zip codes. (A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

## Activity Level of Children in Household

· In households with children, the large majority are eating breakfast daily and are physically active.



(n=512)

Q.11a - Do you have any children that live with you?

Q.11b - Do they eat breakfast before the start of the school day?

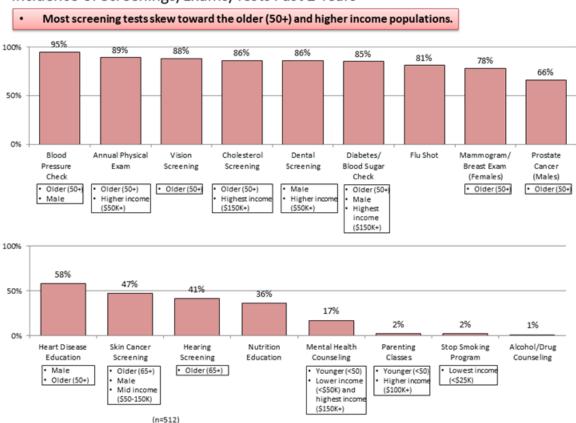
Q.11c - Would you describe your child(ren) as physically active or sedentary during after

school hours and weekends?

(A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

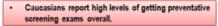
#### F. INCIDENCE OF SCREENING TESTS AND CONDITIONS DIAGNOSED

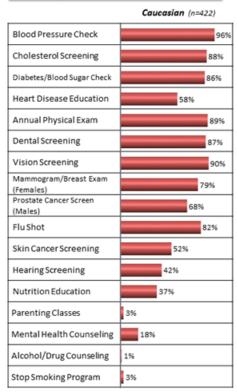
# Incidence of Screenings/Exams/Tests Past 2 Years

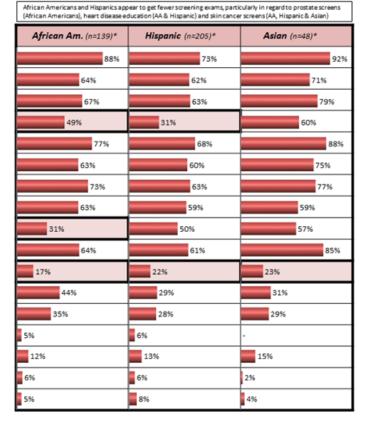


Q.7 - Please indicate if you have had, or participated in, the services that are listed below in the past 2 years.

## Incidence of Screenings/Exams/Tests – by Ethnicity



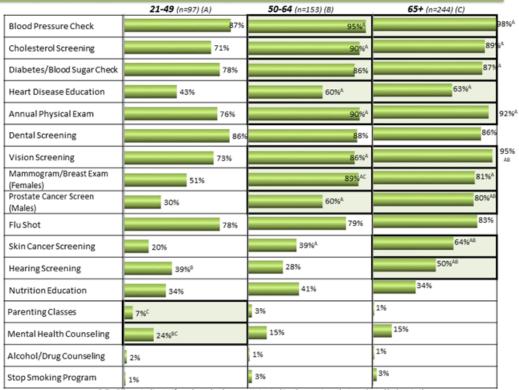




Q.7 - Please indicate if you have had, or participated in, the services that are listed below in the past 2 years. \*Multi-areagroup from CMC/MMC/MMCS PSA's. See append ix for list of zip codes.

## Incidence of Screenings/Exams/Tests - by Age

 Most screening exams skew towards the older population (50+), with the exception of mental health counseling and parenting classes, which skew younger.

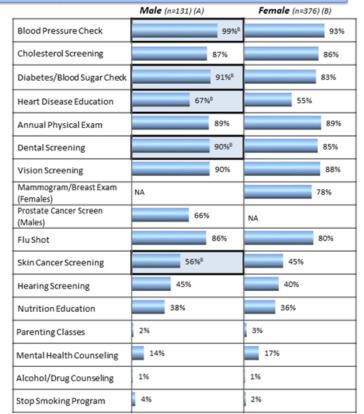


Q.7 - Please indicate if you have had, or participated in, the services that are listed below in the past 2 years.

(A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

## Incidence of Screenings/Exams/Tests - by Gender

 Males tend to get more screening exams than females with regard to blood pressure, diabetes, heart disease education, dental and skin cancer.



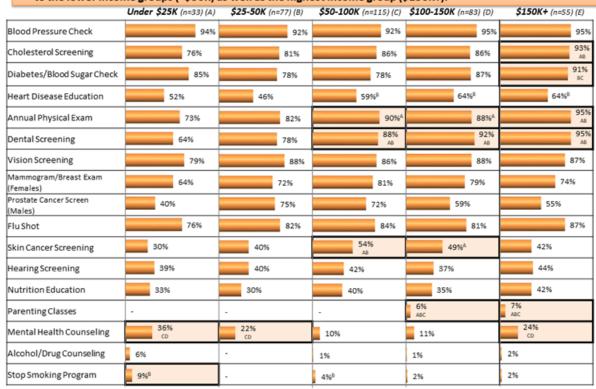
Q.7 - Please indicate if you have had, or participated in, the services that are listed below in the past 2 years.

(A/B) = Significantly greater than indicated cell at the 90% confidence level.

NA = Not applicable.

## Incidence of Screenings/Exams/Tests - by Income

 Higher income residents have more screening tests, with the exception of mental health counseling, which skews to the lower income groups (<\$50K) as well as the highest income group (\$150K+).</li>

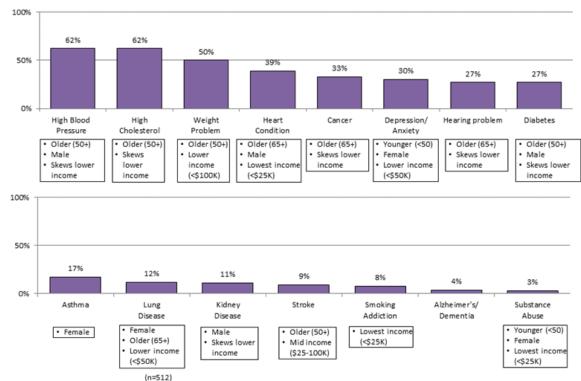


Q.7 - Please indicate if you have had, or participated in, the services that are listed below in the past 2 years.

(A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

## Conditions Diagnosed by Physician (Self or Family Member)

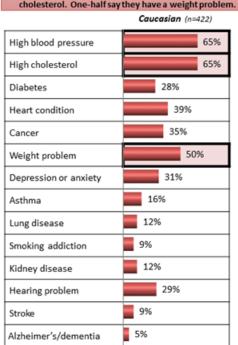
 Older respondents (50+) report being diagnosed with more conditions versus their younger counterparts, although depression/anxiety and substance abuse skew towards the younger population.



Q.8 - Have you, or a household family member, ever been told by a doctor or other health professional that you have had any of the following?

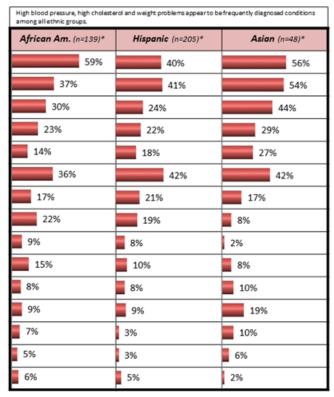
## Conditions Diagnosed by Physician - by Ethnicity

 Two-thirds of the Caucasian population surveyed report being diagnosed with high blood pressure and/or high cholesterol. One-half say they have a weight problem.



3%

Substance use/abuse

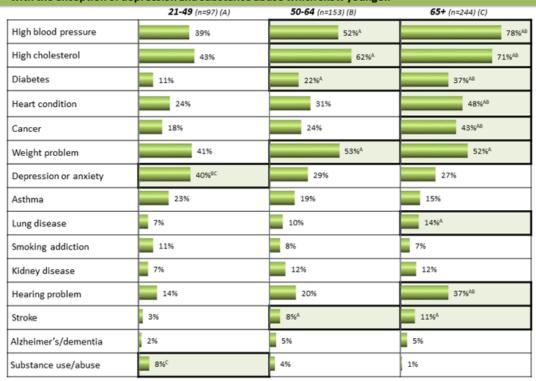


Q.8 - Have you, or a household family member, ever been told by a doctor or other health professional that you have had any of the following?

 $<sup>{}^*</sup>Multi-{}area\,group\,from\,\,CMC/MMC/MMCS\,\,PSA's.\,\,See\,\,appendix\,for\,list\,of\,zip\,codes.$ 

## Conditions Diagnosed by Physician - by Age

· Not surprisingly, older respondents report being diagnosed with more conditions than younger respondents with the exception of depression and substance abuse which skew younger.

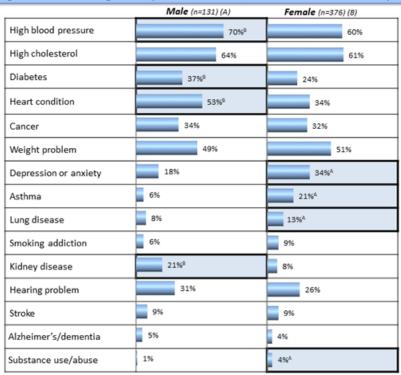


Q.8 - Have you, or a household family member, ever been told by a doctor or other health professional that you have had any of the following?

(A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

## Conditions Diagnosed by Physician – by Gender

• Females report higher diagnosis of depression, asthma, lung disease and substance abuse versus males, while males report a higher incidence of high blood pressure, diabetes, heart conditions and kidney disease.

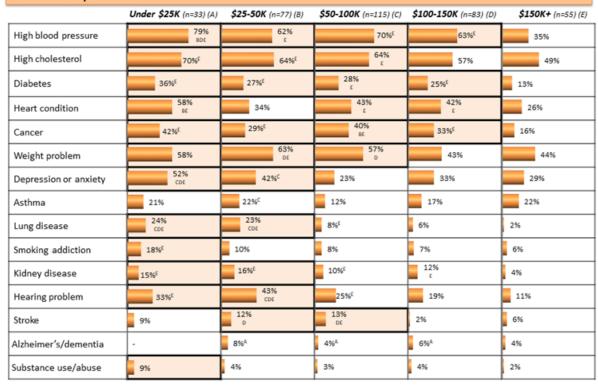


Q.8 - Have you, or a household family member, ever been told by a doctor or other health professional that you have had any of the following?

<sup>(</sup>A/B) = Significantly greater than indicated cell at the 90% confidence level.

## Conditions Diagnosed by Physician - by Income

 In general, residents surveyed in the lower income levels report more conditions diagnosed verses higher income respondents.

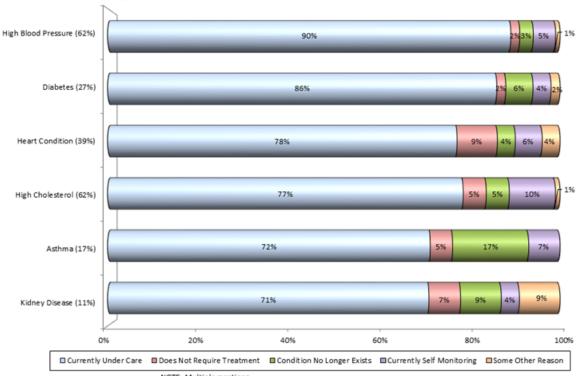


Q.8 - Have you, or a household family member, ever been told by a doctor or other health professional that you have had any of the following?

(A/B/C/D/E) = Significantly greater than indicated cell at the 90% confidence level.

## How Conditions Are Being Managed

 Diagnosed conditions most likely to be under a physician's care include: high blood pressure, diabetes, heart conditions, high cholesterol, asthma and kidney disease.



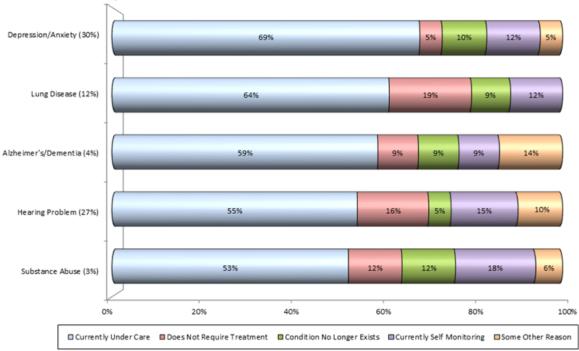
NOTE: Multiple mentions.

Q.9 - Are you/household family member currently under care for this [CONDITION]?

Q.10 - Why are you/household family member not under current care for the [CONDITION]? Would you say it is because...

## How Conditions Are Being Managed - (continued)

Many are also under a physician's care for depression/anxiety, lung disease, Alzheimer's, hearing problems and substance abuse. Some say these conditions do not require treatment, they are self-monitoring or the condition no longer exists.



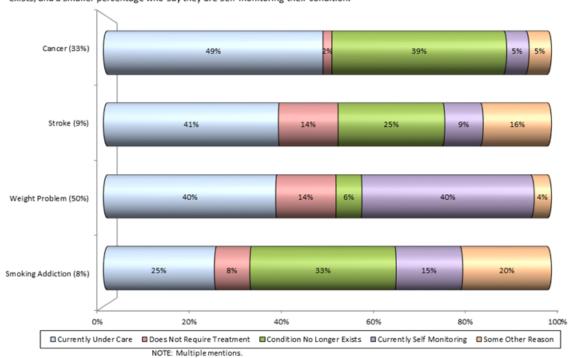
NOTE: Multiple mentions.

Q.9 - Are you/household family member currently under care for this [CONDITION]?

Q.10 - Why are you/household family member not under current care for the

## How Conditions Are Being Managed - (continued)

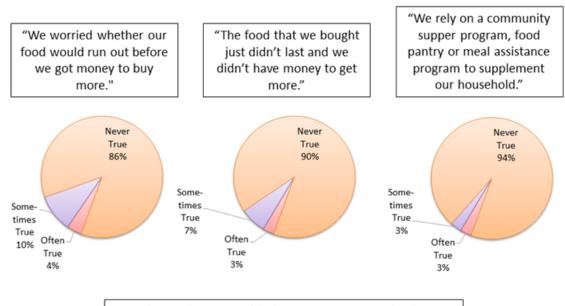
- · For those diagnosed with cancer who are not under a doctor's care say their condition no longer exists.
- For respondents with weight issues, four or ten are under a physician's care, while an additional four of ten say they are selfmonitoring their condition and some say their condition does not require treatment.
- For smoking addiction, only one-fourth say they are under a doctor's care, with a large percentage who say the condition no longer exists, and a smaller percentage who say they are self-monitoring their condition.



Q.9 - Are you/household family member currently under care for this [CONDITION]?
 Q.10 - Why are you/household family member not under current care for the [CONDITION]? Would you say it is because...

#### G. ADDITIONAL DATA

# Statements About Ample Food/Food Assistance Programs



Those who agree with these statements tend to be lower income and younger.

(n=512)

Q.12 - Please read the following statements that people have made about their food situation. For each one, indicate how true the statement was for your household over the last 12 months.

# **Physician Habits**

Older respondents are significantly more likely versus their younger counterparts to visit the same doctor or
group every year or two for a check-up, while younger respondents are more likely to visit the doctor only when
sick or need medical care.

|   |       |                  | Age             |                  | Ethnicity |     |           |        |
|---|-------|------------------|-----------------|------------------|-----------|-----|-----------|--------|
|   | Total | 21-49<br>(A)     | 50-64<br>(B)    | 65+<br>(C)       | Caucasian | AA* | Hispanic* | Asian* |
|   | %     | %                | %               | %                | %         | %   | %         | %      |
| Go to Dr/group every year or two for check-up                     | 79    | 67               | 77              | 86 <sup>AB</sup> | 80        | 69  | 57        | 77     |
|   |       |                  |                 | •                |           |     |           |        |
| Go to Dr/group only when sick/hurt                                | 20    | 31 <sup>c</sup>  | 24 <sup>c</sup> | 13               | 18        | 23  | 35        | 27     |
|   |       | <b>+</b>         |                 |                  |           |     |           |        |
| Only go to urgent care center or ER when need medical care        | 8     | 20 <sup>8C</sup> | 7               | 5                | 6         | 20  | 26        | 10     |
|   |       | $\overline{}$    |                 |                  |           |     |           |        |
| See dr. for monitoring chronic illness monthly/several times year | 3     | 1                | 2               | 5 <sup>A</sup>   | 3         | 1   | -         | -      |

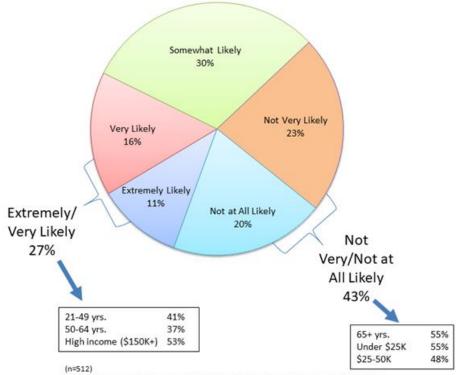
(n=512)

NOTE: Multiple mentions.

"Multi-area group from CMC/MMC/ S PSA's. See appendix for list of zip codes.
Q.13 - When you need medical care, which of the statements below best describes you?
(A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

# Likelihood of Accessing Medical Care Virtually

 Only about one-fourth of respondents indicated a strong likelihood of accessing medical care virtually, highest among younger and higher income respondents.



Q.14 - If you were able to access medical care virtually, for example, through FaceTime or Skype, how likely would you be to use this type of technology?

# Sampling of Additional Comments - (Reference Data File for Complete List)



Q.15 - Use the space below to expand on a topic previously mentioned or an important health-related topic that was not mentioned in this survey.

#### 4. FOCUS GROUP DISCUSSION

#### A. MINORITY POPULATIONS FOCUS GROUP

On July 8, 2019, a focus group was held at Monmouth Medical Center Southern Campus with seven community members representing minority populations in the region. Participants were asked about the health status, needs and barriers to care for minority populations.

#### **MOST PRESSING HEALTH AND MENTAL HEALTH ISSUES**

When asked about the most pressing health or mental health issues facing the community, most mentioned that the minority community did not have a good working knowledge of the resources that were available to them and as a result were using or expecting the Hospital to be the one-stop shop for all their needs. In addition to not knowing who to reach out to for help, minority populations fear they may not be welcomed. This fact is oftentimes a barrier to the receipt of services.

- "You have a lot of people that have health issues like high blood pressure, diabetes and they just need help and counseling to understand what they need to do. There is no one they can reach out to and feel comfortable reaching out."
- "How can we begin to connect people with a resource in the community, so they don't have to worry about going to the hospital . . . but going to someone they trust . . ."

#### MENTAL HEALTH ISSUES

Misconceptions and stigmas around mental health are often barriers to the receipt of mental health services. Other barriers included a lack of understanding about how to access and navigate the system. Participants also talked about the life crises many minority communities faced and how these issues impacted residents' health and mental health.

- "There's a lot of misconceptions about mental health and I think it exists at every social level, but even more so when you have low socioeconomic conditions . . . when there's a lot of poverty."
- "You know the major illnesses facing our community are depression, anxiety and fear. Those are the three major health issues in this community because everything else stems from that. The anxiety of not being able to take my child to a safe school where they will be fed."
- "I've had to dispel a lot of things because there's a lot of fear to request help. They don't want their child labeled in Special Education. They don't want this, they don't want that, and then they suffer alone, and you see parents feeling guilty. A lot of guilty parenting happens because they just don't understand why a child would behave a certain way and what kinds of things are producing these behaviors."
- "They need navigators, they literally need someone to make phone calls because they don't even know how to articulate why they are making an appointment. So, they really need a lot of physical, logistical and emotional support."

#### **BARRIERS ACCESSING SERVICES**

Participants also talked about barriers that residents had in accessing services including transportation and the need for mobile services that could be brought to the community.

• "A lot of places people are referred to are up north. How are they supposed to get there? Taxi rides are expensive."

- "I know they have companies that transport, but a lot of them (community residents) have no idea how to fill out the paperwork to set up the appointment."
- "That's another reason why the emergency rooms are so impacted, because folks have no other place to go."

Others mentioned the fact that there were available resources through sites and mobile vans operated by Ocean Health Initiatives, school-based health services programs, as well as services provided by the Ocean County Department of Health, especially with regard to flu clinics, mobile vans, screenings and annual health fairs. While it was acknowledged that these services were available, it was also mentioned that it was often difficult to get the community to come out to utilize these services.

• "And yes, it's difficult to get the community to come out and to come to these things. You are afraid, you have trust issues, you have areas where people are afraid to come out and do the things they need to, to better themselves. And a lot of time they just need to have someone to help them, give them a little come on, let's go here. It takes a hands-on approach, but it has to be done."

#### **COMMUNITIES NOT BEING SERVED**

Asked if there were consumers not being served, the overwhelming response was about homeless populations and the lack of available services for the homeless of Ocean County. Many stories were offered about the health issues facing these individuals and the lack of resources available to meet their most basic needs for food, shelter and clothing.

- "There's a large population of people that lives on the train tracks in Lakewood, it's like they're in a different world."
- "We had a family call our church line and there were no resources to help them in this community. Every place I called to try to help them was saying we don't' do that. If there's not an infant there is nothing we can do."
- "I've seen or heard that people are put up in a hotel for a few days, but that's the limit. And after that, where do you go?"
- A lot of folks are not going to come out of those woods because of a lack of trust, because what's going to happen to them if they do? (the undocumented)"

## **POTENTIAL SOLUTIONS**

When asked what needs to be done to solve some of the health and mental health problems in the community, most representatives talked about communication and working with each other to share existing resources and developing others. Respondents also suggested reimagining the ED as an information and referral service.

- "So how do we communicate with the agency so we can come together? What would it look like if you reached out to all the churches in the community and we all helped you find not only the financial means to finish the building (church property to be renovated and used for community purposes), but also worked together collectively? How do we apply for grants so that the government and state agencies realize these people are addressing a need not to maintain the so-called 'needy community', but help them get out of that situation?"
- "Even in a position of leadership, we are the minority and it's time that we take those blinders off
  and learn how to work together. I would love that we could connect and find ways to help the
  community thrive in all its assets."
- "So, in what ways can we partner? We need to partner!"

- "Let's see how we can connect from this day forward. Let's see how we can help one another. I
  didn't even know Pastor was over there and I should have, so now I know you are out there and
  I'm going to reach out. It's not about how many members you have or how many I have; it's about
  reaching the community and helping the community get to a better place."
- "Perhaps once a month or a quarter something could be sent to the churches about what's available or what's coming up so we can announce it on Sundays or the days we have Bible Study."
- "So, what would it look like if instead of going to individual churches we have a community-wide
  event? Music of all cultures, food and then tables with all of the resources and then have in
  intervals "bright spots" this organization is here for this, and you have these commercials about
  what each organization can offer."
- "I'm just thinking about it, I feel like the theme is communications, breaking down communication . . . many people, even those who are poor have phones. Apps are the way to go when it comes to communications now. And there's just so much technology out there to bring so many people together . . . I don't know where it would be sponsored from (on-line resource directory) but it has to be a communication platform that is easily and readily accessible to leaders and members. At least leaders could promote it and its ease of use."
- "If we want to think out of the box, why does the emergency department have to be the emergency department? Why not have other tracts for when it's not an emergency? It's a place of trust already and people come here but it's expensive, a burden why not turn that into an opportunity. A person in the ED that would be a liaison to the different resources people need."

#### MEETING CONSUMERS NEEDS AND EXPECTATIONS

There was a great deal of divergence of opinions regarding how to meet the needs and expectations of minority populations. Some felt that this population had few expectations because of their belief that things would not change. Others believed that most were looking for respect or woke each morning with faith and hope that something good would happen. Participants did not believe that minority populations were treated respectfully.

- "You have to treat people kind and nice, not be afraid of folks. You can't be afraid to help someone if they don't look or smell like you. You can't be afraid to help them."
- "I don't think people are treated with respect. Because when people come in, they're not received properly . . . If you're hurting and you want help, you don't need someone to be nasty to you."
- "I think that one of the greatest barriers two of them actually, in our community is the
  misconception that people are poor or are homeless, or lack health because they want to. It's not
  they want to be there, and they don't actually want to be helped. They want to be acknowledged
  as able-bodied human beings that want to strive and thrive."
- "... the people want to know you're there to help them. They want to feel love and trust."

#### SERVICES THAT ARE HARD TO OBTAIN

Participants were most troubled by the lack of shelters for homeless people and families. While it was acknowledged that heating and cooling centers were available for emergencies, there were no services to shelter adults in need of housing. Most participants agreed that basic services for homeless — showers and a bed to sleep in were the most difficult services to find in the community. Other needs mentioned included mental health care needs for children. Community representatives said that getting parents support to help with their child's issues is often frustrating because parents are dealing with their own

crises and are not proactive about educating themselves through workshops. More often helping parents individually through the crisis has worked more effectively but is time-consuming and expensive.

- "Play-based therapy for younger children. We are finding a lot of mental health needs. A lot of social emotional needs."
- "The uninsured are not getting anything. How do we get these kids, who have been victims of domestic violence and severe PTSD issues, services? If I didn't get these kids services, they would be suspended daily because of their aggression."
- "We have no shelters. We'll shelter dogs . . . before we will shelter and house people. I just have an issue with that."

#### **HEALTHY HABITS**

Most participants felt that people were aware of the importance of eating healthy, but their life situations were often not stable enough for them to commit to that type of lifestyle.

- "Many of migrant populations are resourceful and come from agricultural countries where they grow vegetables and they'll have their local gardens, if they are in a stable situation."
- "A lot of teen Moms have to be taught how to shop. What to get. This generation wants quick; anything you can pop in the microwave and be done."

#### B. ORTHODOX JEWISH COMMUNITY FOCUS GROUP

On the afternoon of July 8, 2019, a second focus group made up of individuals representing Orthodox Jewish organizations came together to discuss their health needs, barriers to the receipt of services, and ideas to improve the health of their community. A follow-up interview was conducted on August 1, 2019 to obtain additional insights into these topic areas.

#### **MOST PRESSING ISSUES**

When asked about the most pressing problems faced by the community, most agreed that being one of the largest growing populations in New Jersey and having minimal pediatric services and no obstetrical services was problematic and concerning for them. As described by participants, the lack of obstetrical services at MMCSC meant they had no options locally and had to leave the area to deliver in Long Branch, New Brunswick, Brick or Hackensack (places where most obstetricians they use practice). Participants believed pediatric specialty care services were insufficient to meet the needs of the 30,000 school-aged children living in Lakewood. Participants also felt it would be beneficial for the Hospital, pediatricians and the community to identify what types of minor or intermediate pediatric services could be offered on the Hospital campus in an outpatient setting so that only inpatient or highly specialized issues would need to be transferred to another hospital.

Residents also expressed concern over the lack of information about new programs. For example, participants felt the community had not received enough information about the Hospital's new GEM program. The consensus was that with more and more seniors leaving their homes and moving to Lakewood to be closer to their children, the geriatric program would be well utilized by the community if more people were aware of the service.

• "Number 1 fastest growing community in the world with the highest birth rate and we don't have a hospital in our town for giving birth. The average family has 10-12 kids in this community."

- "Monmouth is 45 minutes away and there are countless stories of people delivering on the road. Ambulances don't want to go there because Jersey Shore is so much closer, but our doctors use Monmouth."
- "I think not having OB impacts emergencies that may be OB-related. You want to bring them somewhere there's an OB Department."
- "We would benefit from having Monmouth services provided here and Kimball services provided at Monmouth."
- "Basically, what happens (in Pediatrics) is when you are very limited, a lot of the in-between staff
  doesn't come here because people are saying if I am going to get definitive care then I'm going to
  the hospital where I can get definitive care."
- "I think that program (GEMS) is something the community should be made more aware of. So that people who are coming here definitely could avail themselves of the geriatric program."

Other services respondents felt were missing or hard to access included not having an intensivist in the Hospital and the lack of orthopedic surgeons in the community. Another mentioned a large pediatric group that was no longer accepting Medicaid Managed Care which was placing a hardship on families who were used to getting pediatric care from this practice.

Respondents felt that Monmouth Medical Center South and Monmouth Medical Center were extremely good at understanding and respecting Orthodox Jewish religious and cultural customs and observances.

#### **MENTAL HEALTH ISSUES**

With regard to mental health, participants believed that mental health issues were heightened as a result of residents waiting until they were in crisis before reaching out for help because of their fear of being hospitalized and losing contact with their primary therapist or psychiatrist.

Participants suggested that having an urgent care type of service for mental health would take care of a lot of these problems and would encourage people to come in before their problems reached crisis proportion. Individuals from the Hospital offered information regarding a DSRP program that was designed specially to deal with these urgent situations. Participants agreed that information about this program needed to be shared with physicians and community stakeholders so that they were better informed about existing community resources.

- "Knowledge is powerful and if there's something going on new in the hospital or in the system, even if its small and only 5, 10, 15 or 20 people would use the service, it's important that we figure out a channel for getting the information out."
- "I think if we can work in a way of really being super communicative with the community, that would be tremendous."
- "There's a community council we discussed, and that's definitely a good idea. Like a community
  council to bring stakeholders together and keep them informed so they could go back and tell their
  communities."
- "I think email lists are something we can certainly work on with the hospital. And anything really large, I think the hospital does and should continue to use press releases in whatever publications the community reads."

## **HEALTHY COMMUNITY AND HEALTH AWARENESS**

When asked for their views with respect to Lakewood being a healthy community, most felt the community was safe, with the exception of the traffic, the driving and congestion, and the lack of bike lanes. Most believed that the infrastructure has not kept up with population growth, but that significant progress was being made. Most felt that residents were aware of the value of maintaining heathy lifestyles.

Representatives were aware of people in need, homeless and in those in crisis, and through various organizations in the community worked to get them necessary services. Social work services to help residents with elderly parents was mentioned as being needed in the community in response to a question regarding members of the community who were not being served.

A Hospital spokesperson responded with information about support groups, and a caregiver program that was available, further highlighting the need for more communication about available resources within the community.

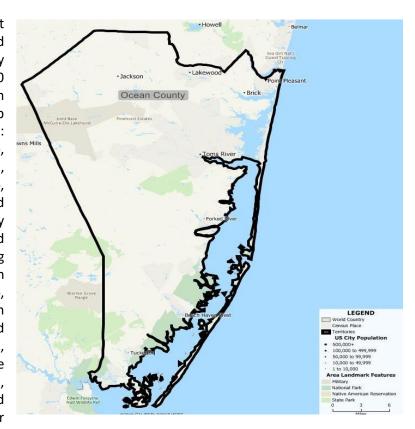
Lastly, respondents were extremely complimentary about the changes that had been instituted at the Hospital to ensure that the Orthodox Jewish community felt that MMCSC cared about fulfilling their needs.

## 5. OCEAN COUNTY/SERVICE AREA HEALTH PROFILE

The Ocean County Health Profile provides a discussion of outcomes and factors in determining health. Ocean County data are compared to local, county, state, and national measures.

#### A. OCEAN COUNTY OVERVIEW

Ocean County is the second largest county in New Jersey. It is located along the Jersey Shore. The county encompasses a land mass of 915.40 square miles, the largest county in New Jersey. The county is made up following municipalities: Barnegat Light, Barnegat Township, Bay Head, Beach Haven, Beachwood, Berkeley Township, Brick Township, Eagleswood, Harvey Cedars, Island Heights, Jackson Township, Lacey Lakewood Township, Lakehurst, Township, Lavallette, Little Egg Harbor Township, Long Beach Township, Manchester Township, Mantoloking, Ocean Gate, Ocean Township, Pine Beach, Plumsted Township, Point Pleasant Beach, Point Pleasant Borough, Seaside Heights, Seaside Park, Ship Bottom, South Toms River, Stafford Township, Surf City, Toms River



Township, and Tuckerton. Much of the County is flat and coastal, with many beaches. Forty miles of Barrier Island form the Barnegat and Little Egg Harbor Bay, offering a wide range of water sports. In addition to being the northeast gateway to New Jersey's Pine Barrens, Ocean County is also home to six state parks.

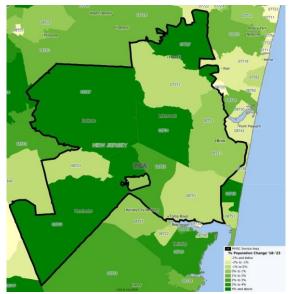
The following is an example of community health disparities identified in the CHNA.

- In 2016, the median household income in Ocean County (\$63,108) was more than \$10,000 below the statewide median of \$73,702.
- The median household income of residents of Howell was \$99,437 in 2016 compared to \$36,980 in Manchester.
- In 2016, 31.5% of Lakewood residents were living in poverty compared to 11.2% county-wide.
- Ocean County's population is much older than the State.
- Ocean County's population is predominantly White (83.9%) compared to 54.4% in New Jersey.
- Ocean County's teen birth rate, 15-17-year-olds, for Hispanics (20.1/1,000) was higher than the rate statewide (15.0/1,000).
- Black residents in Ocean County had the highest age-adjusted mortality rate (AAMR) for heart disease compared to Whites and Hispanics.
- Black residents in Ocean County had higher rates of AAMR for cancer than Whites and Hispanics.
- The drug overdose death rate was higher in Ocean County than the rate statewide and in Monmouth County.
- The percent of Ocean County low birth weight and very low birth weight infants was higher among Blacks than for Whites and Hispanics.

#### B. MMCSC SERVICE AREA

Between 2010 and 2018, the population of the MMCSC Service Area increased by over 3% (3.79%). In 2023, the Service Area population is expected to increase another 2.34% to 415,175.

# Population Change in MMCSC Service Area 2018-2023



\* Source: Claritas Population Estimates 2018, 2023

MMCSC Service Area
Population Distribution & Projected Percent Change 2018-2023

| ACT COLLORS              | New<br>Jersey | Monmouth<br>Medical Center<br>South | Monmouth<br>County | Ocean County | Howell<br>(07731) | Toms River<br>(08753) | Toms River<br>(08755) | Lakewood<br>(08701) | Manchester<br>Township<br>(08759) | Lakehurst<br>(08733) |
|--------------------------|---------------|-------------------------------------|--------------------|--------------|-------------------|-----------------------|-----------------------|---------------------|-----------------------------------|----------------------|
| AGE COHORT               | 1,924,893     | 108,115                             | 122,489            | 146,445      | 7,646             | 13,856                | 5,183                 | 47,599              | 2.775                             | 739                  |
| 6 of Total               | 21.19%        | 26.04%                              | 19.60%             | 23.98%       | 20.4%             | 22.1%                 | 19.8%                 | 43.7%               | 7.6%                              | 27.2%                |
| 6 Change '18-'23         | -1.87%        | 2.82%                               | -6.65%             | 3.95%        | -8.87%            | 2.39%                 | 1.31%                 | 5.41%               | 13.03%                            | -1.73%               |
| 6 Change 18- 23<br>.8-44 | 3,063,151     | 125.224                             | 197,440            | 178.271      | 12.605            | 20.852                | 7.693                 | 34.993              | 4.273                             | 1,038                |
| % of Total               | 33.72%        | 30.16%                              | 31.60%             | 29.20%       | 33.7%             | 33.3%                 | 29.3%                 | 32.1%               | 11.7%                             | 38.3%                |
|                          | -0.71%        | 2.89%                               | 1.43%              | 3.35%        | 1.00%             | 0.65%                 | 7.76%                 | 2.18%               | 9.45%                             | -2.08%               |
| % Change '18-'23         |               |                                     |                    |              |                   |                       |                       |                     |                                   |                      |
| 15-64                    | 2,440,092     | 90,558                              | 180,834            | 135,984      | 11,440            | 16,484                | 6,523                 | 12,945              | 4,814                             | 660                  |
| % of Total               | 26.86%        | 21.81%                              | 28.94%             | 22.27%       | 30.6%             | 26.3%                 | 24.9%                 | 11.9%               | 13.2%                             | 24.3%                |
| % Change '18-'23         | -1.87%        | -6.19%                              | -5.08%             | -7.39%       | -5.91%            | -9.53%                | -8.05%                | 14.15%              | -20.27%                           | -1.35%               |
| 55+                      | 1,656,700     | 91,278                              | 124,099            | 149.888      | 5,737             | 11.418                | 6.839                 | 13,495              | 24.705                            | 275                  |
| % of Total               | 18.24%        | 21.99%                              | 19.86%             | 24.55%       | 15.3%             | 18.2%                 | 26.1%                 | 12.4%               | 67.6%                             | 10.1%                |
| % Change '18-'23         | 15.44%        | 10.92%                              | 14.70%             | 9.52%        | 28.83%            | 11.67%                | 6.00%                 | 6.95%               | 7.93%                             | 16.53%               |
| All Ages                 | 9,084,836     | 415,175                             | 624,862            | 610.588      | 37,428            | 62,610                | 26,238                | 109.032             | 36,567                            | 2,712                |
| % of Total               | 100%          | 100%                                | 100%               | 100.0%       | 100%              | 100%                  | 100%                  | 100%                | 100%                              | 100%                 |
| o or rotar               |               |                                     |                    |              |                   |                       |                       |                     |                                   |                      |
| % Change '18-'23         | 1.3%          | 2.34%                               | 0.05%              | 2.27%        | -0.14%            | -0.14%                | 1.69%                 | 5.49%               | 3.63%                             | -0.18%               |
| emale 15-44              | 1,677,665     | 69,981                              | 109,400            | 99,216       | 7,046             | 11,367                | 4,417                 | 19,659              | 2,411                             | 538                  |
| % of Total               | 18.47%        | 16.86%                              | 17.51%             | 16.25%       | 18.83%            | 18.16%                | 16.83%                | 18.03%              | 6.59%                             | 19.84%               |
| % Change '18-'23         | -1.21%        | 2.75%                               | -0.01%             | 3.37%        | -1.40%            | 0.19%                 | 5.57%                 | 4.29%               | 10.65%                            | -5.45%               |

Source: Claritas Population Estimates 2018, 2023

#### C. SOCIAL DETERMINANTS OF HEALTH

Social determinants of health include socioeconomic and environmental factors which influence health outcomes, disparities in health, equity in health care, and are important tools to assess health at the local level. *Healthy People 2020* provides a framework for assessing social determinants of health across five topic areas: economic stability; education; social and community context; health and health care; and, neighborhood and built environment. While a relatively affluent county, there are residents of Ocean County and MMCSC Service Area that face many socioeconomic challenges that may have consequences for health and health care in the region.<sup>10</sup>

## 1. <u>Socioeconomic Status</u>

Socioeconomic status is the aggregate of several social, economic, and demographic measures. In this analysis, these measures include household Income and poverty, unemployment, education, ethnic and racial makeup, age, and Divinity Health's Health Need Index by service area. According to *Healthy People 2020*, socioeconomic factors contribute to disparities in disease incidence and mortality among racial, ethnic and underserved groups. Studies indicate that income and socioeconomic status (SES) is a better predictor of the likelihood of an individual's or group's access to education, health insurance, and safe and healthy living and working conditions than race or ethnicity. SES also impacts the prevalence of behavioral risk factors (tobacco smoking, physical inactivity, obesity, excessive alcohol use) and rates of preventive screenings (lower SES, fewer screenings).

<sup>&</sup>lt;sup>10</sup> https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

#### Income, Poverty, and Unemployment

Income influences the way people invest in their health and provides options for healthy lifestyle choices. In low income circumstances, preventive care expenses are more often neglected in favor of immediate living expenses. The longer people live in poverty, the more abject their income disadvantage and the more likely they are to suffer from a range of health problems. Circumstances that lead to poverty also may lead to social exclusion, discrimination, racism, stigmatization, and unemployment. Thus, the following measures of income and poverty may be evidence of these problems.

Unemployment puts health at risk, starting when people first feel their jobs are threatened, before they become unemployed. Job insecurity increases mental health issues, particularly anxiety and depression. Populations with higher unemployment rates have collective increased risk of premature death.

Those who are unemployed face greater challenges to health and well-being, including lost income and health insurance. Unemployed individuals are 54% more likely to be in poor or fair health as compared to employed individuals. According to CHR, racial and ethnic minorities and those with less education, often already at-risk for poor health outcomes, are most likely to be unemployed. Labor statistics indicate unemployment rates peaked at the height of the recession in 2010 and began to show some improvement beginning in 2014. Most areas of the State have shown continued improvement.

### **Ocean County**

Ocean County residents have traditionally had lower median household income than residents of the State.

- In 2016, the median household income in Ocean County was \$63,108, more than \$10,000 below the State median of \$73,702
- In 2016, Ocean County had a higher percentage of people living below the federal poverty level than statewide, 11.2% and 10.9% respectively. 11
- Between 2014 and 2016, unemployment throughout New Jersey declined. In 2016, the Ocean County unemployment rate was 4.5%, a decrease of 1.4% from 2014, and lower than the New Jersey unemployment rate of 5.2%.<sup>12</sup>

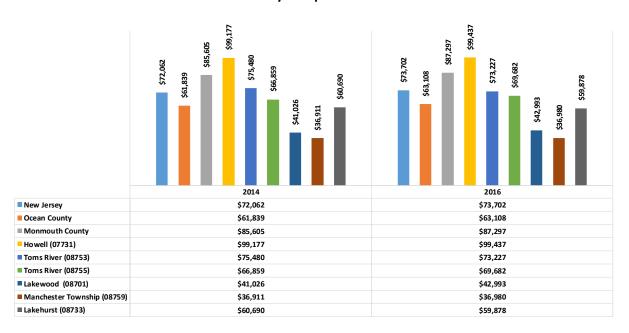
#### MMCSC Service Area

- The 2016 median household income of Howell (\$99,437) and Toms River 08753 (\$73,227) residents was more than the county-wide figure (\$63,108), and higher than most of the other Service Area zip codes.
- In 2016, there were 31.5% of Lakewood residents living in poverty compared to 11.2% countywide.

<sup>11</sup> Ibid.

<sup>12</sup> United States Bureau of Labor Statistics Newark, NJ-PA, Division Economic Summary 2016 http://www.bls.gov/regions/new-york-new-jersey/summary/blssummary\_newark\_div.pdf

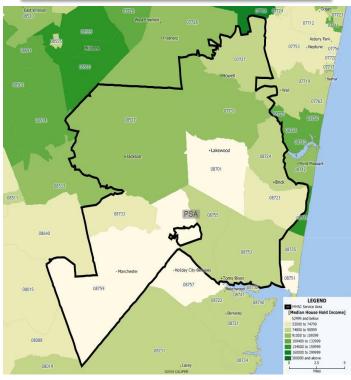
# Median Household Income State and County Comparisons – 2014-2016



Source: United States Census 2016 5 Year ACS Estimates

# Median Household Income, 2018 Ocean County



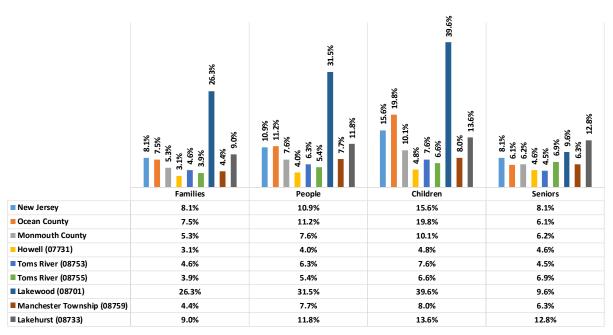


- In 2016, the percent of families living in poverty in Ocean County (7.5%) was lower than the State (8.1%).<sup>13</sup>
  - o In 2016, 31.5% of people and 26.3% of families were living in poverty in Lakewood. The Lakewood percentage of children in poverty was 39.6%.
- In 2016, there was a wide range of percentages of families living in poverty across select MMCSC service area zip codes:<sup>14</sup>

Toms River 08755: 3.9%
Manchester: 4.4%
Lakewood: 26.3%
Lakehurst: 9.0%

• Lakewood's percent of children living in poverty (39.6%) is more than twice the New Jersey percentage (15.6%).

# Income Below Federal Poverty Level State and County Comparisons, 2016



Source: United States Census 2016 5 Year ACS Estimates

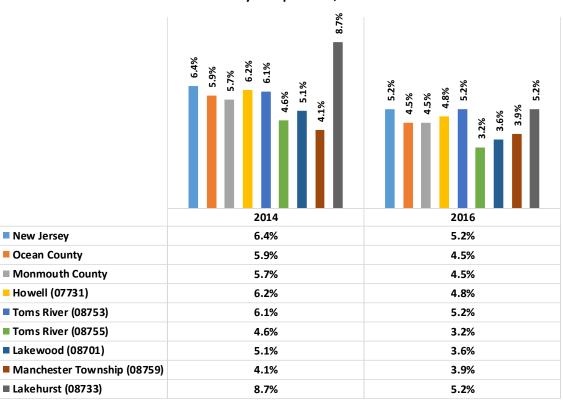
# **Unemployment**

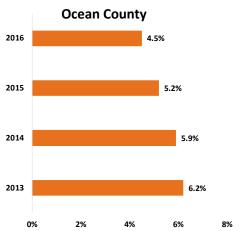
- In 2016, the unemployment rate for Ocean County (4.5%) was below the rate statewide (5.2%) and the same as the Monmouth County rate.
- The Ocean County unemployment rate declined 1.4 percentage points between 2014-2016.
- In 2016, Lakewood unemployment rate was 3.6%, a decrease from 5.1% in 2014, and lower than the Ocean County rate of 4.5%, and the State rate of 5.2%. 15

<sup>13</sup> United States Census Bureau American Community Survey 2014 http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\_14\_5YR\_DP03&prodType=table 14 United States Census Bureau American Community Survey 2014 15 Ibid.

- In 2016, the Howell unemployment rate was 4.8%, a decrease from 6.2% in 2014 but higher than the County rate of 4.5%.
- In 2016, Toms River 08755 had the lowest unemployment rate (3.2%) of the comparative zip codes.

Unemployment State and County Comparisons, 2014-2016





Source: United States Census 2013, 2014, 2016 5 Year ACS Estimates

County Health Rankings & Roadmaps Building a Culture of Health, County by County

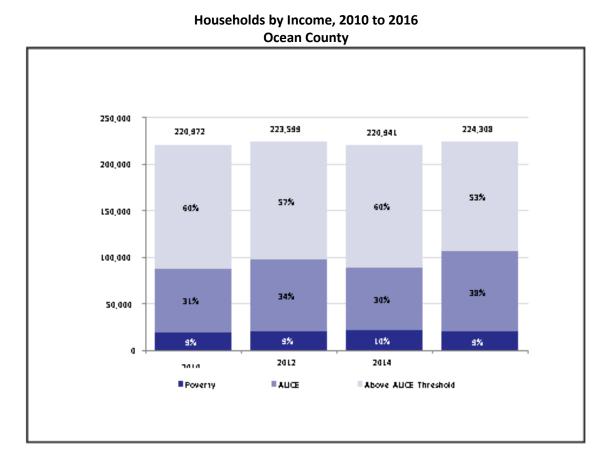
National Benchmark: 3.2% Ocean County 2016: 4.5%

A Robert Wood Johnson Foundation program

### Asset Limited Income Constrained Employed Project

Many believe that the Federal Poverty Level (FPL) understates true poverty and is prejudicial to New Jersey as it fails to adjust for differences in the cost of living across states.

To ascertain the number of households that may be struggling due to the high cost of living in New Jersey we turned to the United Way's ALICE (Asset Limited Income Constrained Employed project)<sup>16</sup> to get a better idea of the number of households that earn more than the Federal Poverty Level but less than the basic cost of living in Ocean County. As shown in the chart below, the Alice Threshold (AT) combined the number of households in poverty and ALICE households equals the population struggling to afford basic needs. In Ocean County, this percentage amounts to 47% (2016).



Sources: 2016 Point-in-Time Data: American Community Survey. ALICE Demographics: American Community Survey; the ALICE Threshold. Budget: U.S. Department of Housing and Urban Development (HUD); U.S. Department of Agriculture (USDA); Bureau of Labor Statistics (BLS); Internal Revenue Service (IRS); State of New Jersey Department of the Treasury; Child Care Aware NJ (CCANJ).

The United Way's analysis shows ALICE households in Ocean County may earn above the Federal poverty level for a single adult, \$11,880, or \$24,300 for a family of four, but less than the household survival budget for Ocean County.

<sup>16</sup> http://www.unitedwaynj.org/ourwork/aliceatnj.php

| Household Survival Budget, Ocean County |              |                                      |  |  |  |
|---|--------------|--------------------------------------|--|--|--|
|   | SINGLE ADULT | 2 ADULTS, 1 INFANT,<br>1 PRESCHOOLER |  |  |  |
| Monthly Costs                           |              |                                      |  |  |  |
| Housing                                 | \$904        | \$1,417                              |  |  |  |
| Child Care                              | \$-          | \$1,625                              |  |  |  |
| Food                                    | \$182        | \$603                                |  |  |  |
| Transportation                          | \$314        | \$627                                |  |  |  |
| Health Care                             | \$196        | \$727                                |  |  |  |
| Technology                              | \$55         | \$75                                 |  |  |  |
| Miscellaneous                           | \$202        | \$597                                |  |  |  |
| Taxes                                   | \$369        | \$891                                |  |  |  |
| Monthly Total                           | \$2,222      | \$6,562                              |  |  |  |
| ANNUAL TOTAL                            | \$26,664     | \$78,744                             |  |  |  |
| Hourly Wage                             | \$13.33      | \$39.37                              |  |  |  |

Sources: **2016 Point-in-Time Data**: American Community Survey. **ALICE Demographics:** American Community Survey; the ALICE Threshold. **Budget:** U.S. Department of Housing and Urban Development (HUD); U.S. Department of Agriculture (USDA); Bureau of Labor Statistics (BLS); Internal Revenue Service (IRS); State of New Jersey Department of the Treasury; Child Care Aware NJ (CCANJ).

There appears to be differences among municipalities in Ocean County in terms of the percentage of households living in poverty or at the ALICE threshold. Sixty-six percent of Lakewood and Seaside Heights residents, and 58% of Manchester residents had incomes at the Federal poverty level or at the ALICE threshold.

| Ocean County, 2016 |          |                      |  |  |  |
|--------------------|----------|----------------------|--|--|--|
| Town               | Total HH | % ALICE &<br>Poverty |  |  |  |
| Barnegat           | 8,411    | 46%                  |  |  |  |
| Barnegat Light     | 264      | 34%                  |  |  |  |
| Bay Head           | 457      | 25%                  |  |  |  |
| Beach Haven        | 530      | 34%                  |  |  |  |
| Beachwood          | 3,726    | 45%                  |  |  |  |
| Berkeley           | 19,978   | 54%                  |  |  |  |
| Brick              | 29,986   | 44%                  |  |  |  |
| Eagleswood         | 560      | 45%                  |  |  |  |
| Harvey Cedars      | 216      | 34%                  |  |  |  |
| Island Heights     | 683      | 36%                  |  |  |  |
| Jackson            | 20,356   | 33%                  |  |  |  |
| Lacey              | 10,872   | 41%                  |  |  |  |
| Lakehurst          | 860      | 54%                  |  |  |  |
| Lakewood           | 23,738   | 66%                  |  |  |  |
| Lavallette         | 996      | 38%                  |  |  |  |
| Little Egg Harbor  | 8,385    | 49%                  |  |  |  |
| Long Beach         | 1,517    | 28%                  |  |  |  |
| Manchester         | 23,008   | 58%                  |  |  |  |
| Mantoloking        | 135      | 15%                  |  |  |  |
| Ocean              | 3,835    | 45%                  |  |  |  |
| Ocean Gate         | 818      | 51%                  |  |  |  |

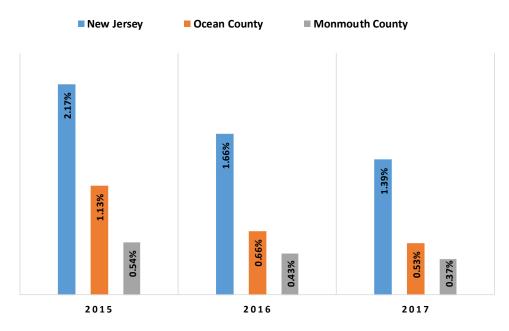
| Ocean County, 2016   |          |                      |  |  |  |
|----------------------|----------|----------------------|--|--|--|
| Town                 | Total HH | % ALICE &<br>Poverty |  |  |  |
| Pine Beach           | 825      | 30%                  |  |  |  |
| Plumsted             | 2,982    | 36%                  |  |  |  |
| Point Pleasant       | 7,274    | 35%                  |  |  |  |
| Point Pleasant Beach | 1,986    | 36%                  |  |  |  |
| Seaside Heights      | 1,124    | 66%                  |  |  |  |
| Seaside Park         | 903      | 42%                  |  |  |  |
| Ship Bottom          | 418      | 35%                  |  |  |  |
| South Toms River     | 1,045    | 53%                  |  |  |  |
| Stafford             | 10,138   | 42%                  |  |  |  |
| Surf City            | 571      | 31%                  |  |  |  |
| Toms River           | 34,609   | 43%                  |  |  |  |
| Tuckerton            | 1,403    | 57%                  |  |  |  |

## **Temporary Assistance Needy Families (TANF)**

In order to qualify for TANF in New Jersey, applicants must comply with all requirements of Work First New Jersey. This includes signing over rights of child support payments, helping to establish paternity of children, cooperating with work requirements and applying for all assistance programs for which a household may be eligible. Additionally, eligible applicants must meet income and resource guidelines.<sup>17</sup>

- As of December 2017, 0.53% of Ocean County children were receiving Work First NJ/TANF benefits, far less than the statewide rate (1.39%); Ocean County ranks in the middle performing quartile in New Jersey.
- As of December 2017, 0.07% of Ocean County adults were receiving Work First NJ/TANF benefits, less than statewide (0.17%).
- Between 2015 and 2017, the percentage of adults and children receiving WFNJ/TANF benefits declined by 58.8% and 53.1%, respectively.

# Temporary Assistance to Needy Families State & County Comparisons Children 2015-2017

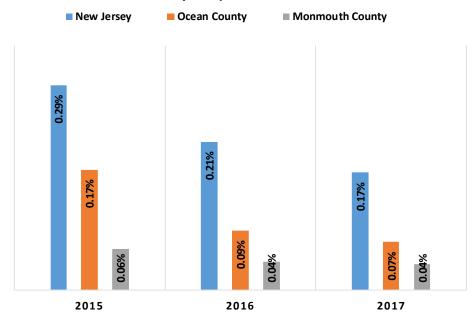


Source: http://www.nj.gov/humanservices/dfd/news/cps\_dec17.pdf

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 $<sup>^{17}\</sup> http://www.tanfprogram.com/new-jersey-tanf-eligibility$ 

# Temporary Assistance to Needy Families State & County Comparisons Adults 2015-2017



Source: http://www.nj.gov/humanservices/dfd/news/cps\_dec17.pdf

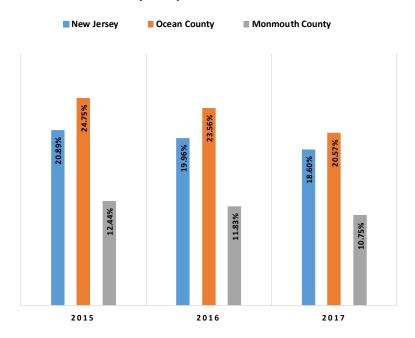
# Supplemental Nutrition Assistance Program (SNAP)

SNAP offers nutrition assistance to millions of eligible, low-income individuals and families. The Food and Nutrition Service works with State agencies, nutrition educators and neighborhood and faith-based organizations to ensure that those eligible for nutrition assistance make informed decisions and access benefits.<sup>18</sup>

- In 2017, more Ocean County children (20.6%) used SNAP benefits compared to 18.6% of children statewide.
- In 2017, 4.6% of Ocean County adults used SNAP benefits compared to 5.8% of adults statewide.
- The percentage of Ocean County children and adults receiving SNAP benefits ranks in the middle performing quartile among all counties.

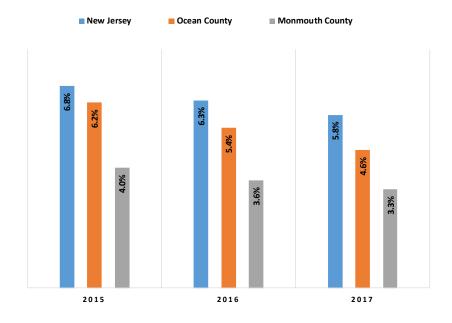
<sup>&</sup>lt;sup>18</sup> http://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program-snap

# Supplemental Nutrition Assistance Program (SNAP) State & County Comparisons Children 2015-2017



Source: http://www.nj.gov/humanservices/dfd/news/cps\_dec17.pdf

# Supplemental Nutrition Assistance Program (SNAP) State & County Comparisons Adults 2015-2017



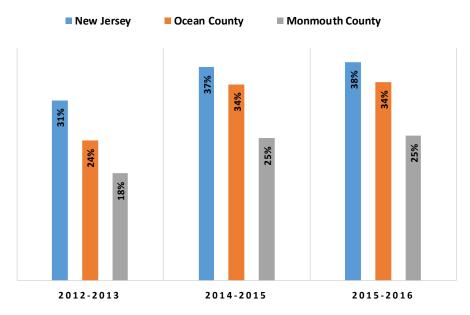
 $Source: http://www.nj.gov/humanservices/dfd/news/cps\_dec17.pdf$ 

### Children Eligible for Free Lunch

Public schools nationwide and across New Jersey have free lunch programs for children living at or near poverty. New Jersey requires public schools serve school lunches meeting at least one-third of recommended dietary allowances. According to the National School Lunch Program, the objective is "to provide a nutritious, well-balanced lunch for children in order to promote sound eating habits, to foster good health and academic achievement and to reinforce the nutrition education taught in the classroom."<sup>19</sup>

- The percentage of children eligible for free lunch increased or remained constant throughout New Jersey, Monmouth, and Ocean Counties between 2012-2013 and 2015-2016.
- Ocean County reported a 10 percentage point increase in students eligible for free lunch from 24% during the 2012-2013 school years to 34% in 2014-2016 school years.
- Ocean County is within the middle performing quartile compared to of all New Jersey counties for free school lunch eligibility, and the middle performing quartile for County Health Rankings.

# Children Eligible for Free Lunch State & County Comparisons 2012-2016



Source: http://www.nj.gov/humanservices/dfd/news/cps dec16.pdf

County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 33.0% Ocean County 2016: 34.0%

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 $<sup>^{19}\,</sup>http://www.nj.gov/agriculture/divisions/fn/childadult/school\_lunch.html$ 

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| WFNJ/TANF (Supplemental Nutritional Assistance Program) Percent of Population         | N.A.                          | N.A.                                   |               |
| WFNJ/TANF-Children Percent of Children  | N.A.                          | N.A.                                   |               |
| SNAP (Supplemental Nutrition Assistance Program) Percent of Population Receiving SNAP | N.A.                          | N.A.                                   |               |
| SNAP-Children Percent of Children Receiving SNAP                                      | N.A.                          | N.A.                                   |               |
| Children Eligible for Free Lunch  | N.A.                          |  |               |

RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

### 2. Education

People with higher levels of educational attainment tend to have lower morbidity rates from acute and chronic diseases, independent of demographic and labor market factors. Life expectancy is increasing in the United States, yet differences have become more pronounced between those with and without a college education. The mechanisms by which education influences health are complex and likely include interrelationships between demographic and family background indicators, effects of poor health in childhood, greater resources associated with higher levels of education, a learned appreciation for the importance of good health behaviors, and one's social networks.<sup>20</sup> The ability to communicate in English is also a key part of educational competence.

The lack of English proficiency can negatively impact one's ability to understand and follow medical directions. Ocean County residents experienced a decrease in the percentage of the population over age 5 with limited English proficiency.

#### Ocean County

- In 2016, 9.1% of Ocean County residents did not graduate from high school, 2.0 percentage points lower than New Jersey at 11.1%.<sup>21</sup> This represents an improvement from 9.8% of County residents and 11.6% statewide that did not graduate from high school as reported in the previous CHNA.
- In 2016, 27.5% of Ocean County residents earned a bachelor's degree or higher.<sup>22</sup> This represents an increase from 26.3% of County residents that earned a bachelor's degree or higher as reported in the previous CHNA.

<sup>20</sup> National Poverty Center Policy Brief #9 Education and Health 2007 http://www.npc.umich.edu/publications/policy briefs/brief9/

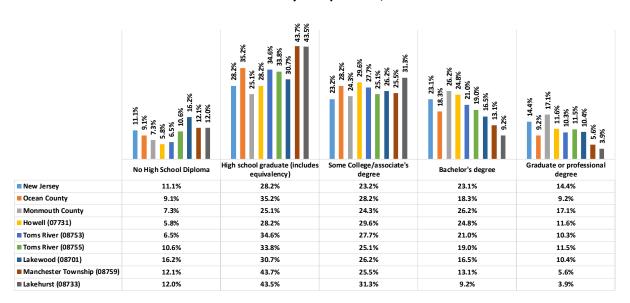
<sup>21</sup> United States Census Bureau American Community Survey 2014

<sup>22</sup> Ibid.

#### MMCSC Service Area

- In 2016, 16.2% of Lakewood residents did not complete high school, higher than the statewide percentage (11.1%).
- In 2016, 36.4% of Howell residents obtained a Bachelor's degree or higher.

# Educational Attainment State & County Comparisons, 2016



Source: United States Census 2016 5 Year ACS Estimates



Baseline: 89.0 % Target: 97.9%

Ocean County 2016: 90.9%

### Limited English Proficiency

The lack of English proficiency can negative impact one's ability to understand and follow medical directions. Ocean County residents experienced a decrease in the percentage of the population over age 5 with limited English proficiency.

- The percentage of Limited English Proficiency (LEP) persons age 5+ in Ocean County (4.5%) was lower than New Jersey (12.2%).
- In 2016, the percentage of Limited English Proficiency (LEP) individuals in Lakewood (12.1%) was lower than New Jersey (12.2%) and higher than the Ocean County rate (4.5%).

# Limited English Proficiency Households (%) State & County Comparisons, 2014-2016



Source: United States Census 2014-2016 ACS 5 Year Estimates; Persons Age 5+ reporting speaking English "less than well".

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Educational Attainment: No High School Diploma<br>Percent of Population (Age 25+) | N.A.                          | N.A.                                   |               |
| Limited English Proficiency Percent of Population (Age 5+)                        | N.A.                          | N.A.                                   |               |
| RED: Poorest Performing Quartile  Yellow: Middle Quartiles                        |                               |  |               |
| Green: Best Performing Quartile   |                               |  |               |

## 3. <u>Demographics</u>

### Age

Age affects how people behave in relation to their health; as people age, the body becomes more prone to disease and health behaviors become more important to good health.

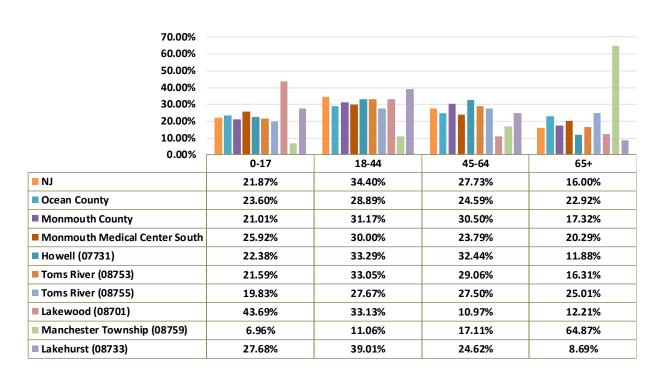
### **Ocean County**

- Ocean County's population distribution is much older than the State.
- In 2018, 22.9% of Ocean County residents were over 65 compared to 16.0% statewide.

#### **MMCSC Service Area**

- In 2018, 7.0% of Manchester Township residents were 0-17, lower than the 23.6% in Ocean County and 21.9% in New Jersey.
- In 2018, 39.0% of Lakehurst residents were 18-44, higher than 28.9% in Ocean County and 34.4% in New Jersey.
- In 2018, 64.9% of Manchester Township residents were 65+, higher than 22.9% in Ocean County and 16.0% in New Jersey.

# Population by Age Cohort State & County Comparisons



Source: Claritas 2018 Population Estimate

#### **Ethnic and Racial Makeup**

Racial and ethnic minorities receive lower quality healthcare than non-minorities, even when access-related factors such as insurance status and income are controlled. Sources of disparities are complex and rooted in historic and contemporary inequities, and involve many participants at several levels, including health systems administrative and bureaucratic processes, utilization managers, healthcare professionals, and patients.<sup>23</sup>

<sup>23</sup> Institute of Medicine, Unequal Treatment: confronting Racial and Ethnic Disparities in Health Care, 2003, http://www.nap.edu/read/10260/chapter/2

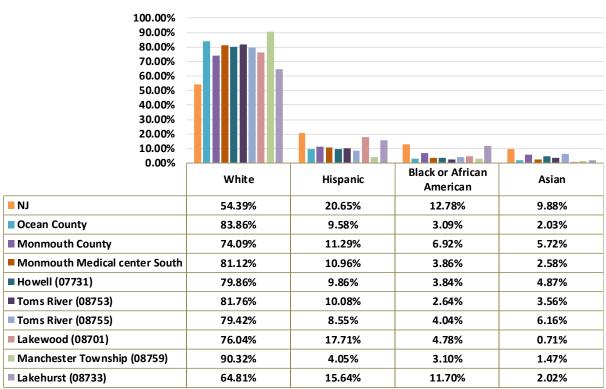
### **Ocean County**

- In 2018, Ocean County had lower percentages of African-American, Hispanic and Asian populations than New Jersey.
  - o 3.1% of the county population was African-American, compared to 12.8% statewide.
  - o 9.6% of the population was Hispanic/Latino compared to 20.7% statewide.
  - O Whites were 83.9% of the county's population compared to 54.4% in New Jersey.

#### MMCSC Select Service Area

- In 2018, 2.6% of Toms River 08753's population was African-American, lower than 12.8% in New Jersey.
- In 2018, 90.3% of Manchester's population was White, higher than 83.9% in Ocean County.
- In 2018, 17.7% of Lakewood's population was Hispanic/Latino, compared to 9.6% in Ocean County and 20.7% in New Jersey.
- In 2018, 6.2% of Toms River 08755's population was Asian, more than the 2.0% in Ocean County.
- Between 2010 and 2018, the Hispanic population in Ocean County grew 19.7%.

# Population by Race/Ethnicity State & County Comparisons



Source: Claritas 2018 Population Estimate

# Population by Race/Ethnicity Ocean County – Trend

|   | Ocean Coun | ty      |             |
|---|------------|---------|-------------|
| RACE / ETHNICITY  | 2010       | 2018    | %<br>Change |
| White<br>(alone)  | 495,534    | 500,683 | 1.0%        |
| Black / African<br>American (alone)                           | 16,583     | 18,473  | 11.4%       |
| Asian<br>(alone)  | 9,924      | 12,111  | 22.0%       |
| Native American /<br>Pacific Islander /<br>Other Race (alone) | 1,104      | 1,176   | 6.5%        |
| Two or More Races<br>(alone)                                  | 5,639      | 7,440   | 31.9%       |
| Hispanic / Latino<br>(of Any Race)                            | 47,783     | 57,180  | 19.7%       |

Source: Claritas 2018 Population Estimate

# 4. <u>Social and Community Context</u>

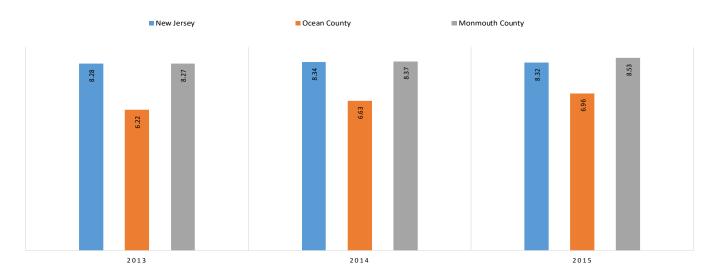
#### Social Associations

Social isolation can negatively impact health outcomes. Having a strong social network is associated with healthy lifestyle choices, positive health status, and reduced morbidity and mortality. Participation in community organizations can enhance social trust and a sense of belonging.<sup>24</sup> Social associations include structured membership organizations such as civic organizations, bowling centers, golf clubs, fitness centers, sports organizations, religious organizations, political organizations, business and professional associations.

- Between 2013 and 2015, Ocean County had lower membership association rates than New Jersey and Monmouth County.
- The membership association rate for Ocean County falls within the worst performing quartile compared to all 21 counties statewide.

<sup>&</sup>lt;sup>24</sup> http://www.countyhealthrankings.org/app/new-jersey/2015/measure/factors/140/description

# Number of Membership Organizations State & County Comparisons, 2013-2015



Source: County Health Rankings, CDC Wonder Mortality Data, 2013 - 2015

County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 22.1 Ocean County 2015: 6.96

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| Indicator                        | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|----------------------------------|-------------------------------|--|---------------|
| Membership Organizations         | N.A.                          |  |               |
| RED: Poorest Performing Quartile |                               |  |               |
| Yellow: Middle Quartiles         |                               |  |               |
| Green: Best Performing Quartile  |                               |  |               |

# 5. <u>Health and Health Care</u>

Access to affordable quality health care is important to physical, social, and mental health. Health insurance helps individuals and families access needed primary care, specialists, and emergency care, but does not ensure access. It is also necessary for providers to offer affordable care, be available to treat patients and be near patients.<sup>25</sup>

<sup>&</sup>lt;sup>25</sup> http://www.countyhealthrankings.org/our-approach/health-factors/access-care

#### Health Insurance

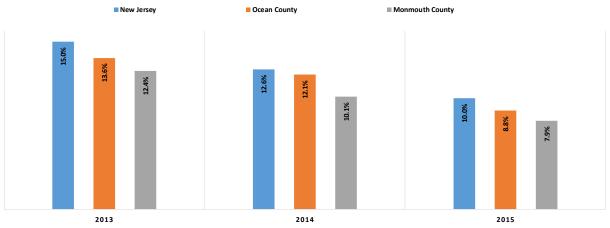
The expansion of Medicaid coverage and the Affordable Care Act's (ACA) coverage provisions, which began taking effect in 2010, helped decrease the nation's uninsured rate by 7.2 percentage points, from 16 percent in 2016. That translates into 20.4 million fewer people who lacked health insurance in 2016 compared to 2010. The uninsured rate is estimated to have increased to 15.5% in the first quarter of 2018, meaning another 4 million lost coverage since 2016 due to changes in health policy and insurance offerings. The uninsured are less likely to have primary care providers than the insured; they also receive less preventive care, dental care, chronic disease management, and behavioral health counseling. Those without insurance are often diagnosed at later, less treatable disease stages than those with insurance and, overall, have worse health outcomes, lower quality of life, and higher mortality rates.

Neighborhoods with low health insurance rates often have fewer providers, hospital beds and emergency resources than areas with higher rates. Even the insured have more difficulty getting care in these areas.

Cost can be a barrier to care even for those who have insurance. Lack of insurance creates barriers to timely access to care for patients and financial burdens to the providers who care for them.

- Since 2013, the non-elderly population without health insurance in Ocean County has trended downward, decreasing from 13.6% in 2013 to 8.8% in 2015.
- From 2013 through 2015, Ocean County had consistently lower rates of non-elderly population without health insurance than statewide.
- In 2015, Ocean County (8.8%) had a higher percentage of uninsured than the ambitious *Healthy People 2020* target of no person without health coverage. Ocean County also had a higher percentage of individuals without insurance than the CHR Benchmark.

# Non-elderly Population Without Health Insurance State & County Comparisons 2013-2015



ource: Healthy People 2020 - CDC Behavioral Risk Factor Surveillance System
County Health Rankings - US Census Bureau's Small Area Health Insurance Estimates (SAHIE)



Baseline: 10.0% Target: 0.0%

Ocean County 2015: 8.8%

County Health
Rankings & Roadmaps
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National Benchmark: 6.0% Ocean County 2015: 8.8%

#### Access to Care

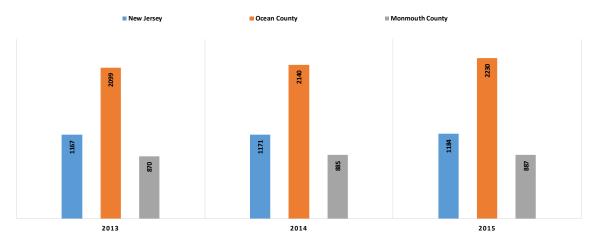
Access to affordable quality health care is important to ensuring physical, social, and mental health. Health insurance assists individuals and families to obtain primary care, specialists, and emergency care, but does not ensure access. Access to care goes beyond just insurance, it is also necessary for providers to offer affordable care, be available to treat patients and be near patients.<sup>26</sup>

# **Primary Care Physicians**

Nationally, many areas lack sufficient providers to meet patient needs; as of June 2014, there are about 7,200 primary care, 5,000 mental health and 5,900 dental federally designated Health Professional Shortage Areas in the US. Having a usual primary care provider is associated with a higher likelihood of appropriate care and better outcomes. In 2017, 88% of Americans had a usual source of care, but those with low incomes are less likely to than those with higher incomes, and the uninsured are twice as likely as the insured to lack a usual care source.<sup>27,28</sup>

- Between 2013 and 2015, the ratio of population to primary care physicians in Ocean County increased from 2,099:1 to 2,230:1.
- In 2015, the Ocean County ratio for primary care providers was worse than the CHR national benchmark (1,030:1).
- Ocean County performs in the worst performing quartile of all New Jersey counties for the ratio of primary care physicians to population.

# **Ratio of Population to Primary Care Physicians** State & County Comparisons 2013 - 2015



Source: County Health Rankings - HRSA Area Resource File

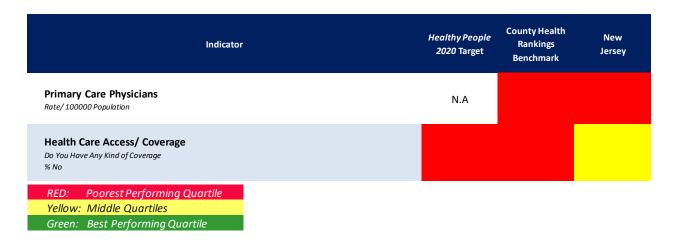
County Health Rankings & Roadmaps A Robert Wood Johnson Foundation program

National Benchmark: 1030:1 Ocean County 2015: 2230:1

<sup>&</sup>lt;sup>26</sup> http://www.countyhealthrankings.org/our-approach/health-factors/access-care

<sup>&</sup>lt;sup>27</sup> http://www.countyhealthrankings.org/our-approach/health-factors/access-care

<sup>&</sup>lt;sup>28</sup> http://www.cdc.gov/fastfactsaccesstohealthcare.htm

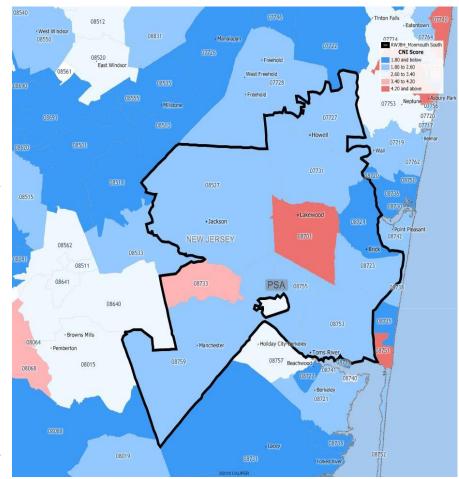


# Community Need Index 29

The Community Need Index (CNI), jointly developed by Dignity Health and Truven Health in 2004, is strongly linked to variations in community healthcare needs and is a strong indicator of a community's demand for services.

Based on a wide array of demographic and economic statistics, the CNI provides a score for every populated ZIP Code in the United States. A score of 1.0 indicates a ZIP Code with the least need and a score of 5.0 represents a ZIP Code with the most need. The CNI is useful as part of a larger community health needs assessment to pinpoint specific areas with greater need than others.

The CNI score is an average of five barrier scores that



measure socio-economic indicators of each community using 2017 source data. The five barriers are:

<sup>&</sup>lt;sup>29</sup> Truven Health Analytics, 2017; Insurance Coverage Estimates, 2017; Claritas, 2017; and Community Need Index, 2017. http://cni.chw-interactive.org/

- 1. Income Barrier
  - Percentage of households below poverty line, with head of household age 65 or older
  - Percentage of families with children under 18 below poverty line
  - Percentage of single female-headed families with children under 18 below poverty line
- 2. Cultural Barrier
  - Percentage of population that is minority (including Hispanic ethnicity)
  - Percentage of population over age 5 that speaks English poorly or not at all
- 3. Education Barrier
  - Percentage of population over 25 without a high school diploma
- 4. Insurance Barrier
  - Percentage of population in the labor force, aged 16 or more, without employment
  - Percentage of population without health insurance
- 5. Housing Barrier
  - Percentage of households renting their home

A comparison of CNI scores and hospital utilization reveals a strong correlation between need and use. Communities with low CNI scores can be expected to have high hospital utilization. There is a causal relationship between CNI scores and preventable hospitalizations and ED visits for manageable conditions. Communities with high CNI scores may have more hospitalization and ED visits that could have been avoided with improved healthy community structures and appropriate outpatient and primary care.

### **Community Needs Index**

|                      | Service Area                  | ZIP Code | ZIP Code<br>Description | CNI Score |
|----------------------|-------------------------------|----------|-------------------------|-----------|
| Highest<br>CNI Score | RWJBH<br>Monmouth             | 08701    | Lakewood                | 4.2       |
| (Highest<br>Need)    | Southern<br>Campus            | 08733    | Lakehurst               | 3.4       |
|                      |                               |          |                         |           |
|                      |                               | 08759    | Manchester              | 2.4       |
|                      |                               | 07731    | Howell                  | 2.2       |
|                      |                               | 08755    | Toms River              | 2.0       |
| Lowest<br>CNI Score  | RWJBH<br>Monmouth<br>Southern | 08527    | Jackson                 | 2.0       |
| (Lowest<br>Need)     | Campus                        | 08753    | Toms River              | 2.0       |
|                      |                               | 08724    | Brick                   | 1.6       |

Source: 2017 Dignity Health, Truven Health Analytics, 2016; Insurance Coverage Estimates, 2016; Claritas, 2016; and Community Need Index, 2016.

Lakewood (4.2) and Lakehurst (3.4) CNI scores indicated the highest need in the Service Area. Conversely, Brick (1.6) and Toms River 08753 (2.0) scores represented the lowest need in the Service Area.

### Timeliness of Service

A key indicator of the timeliness of service is emergency department (ED) utilization for conditions that could have been treated in a primary care setting.

Reasons for accessing the ED instead of a more appropriate, lower acuity level of care include:

- No regular source of primary care
- Lack of health insurance
- Cost
- Transportation
- Office hours
- Citizenship status

### **ED Utilization of Ambulatory Care Conditions**

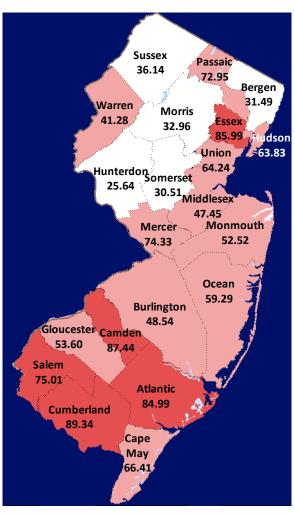
Ambulatory Care Sensitive Conditions (ACSC) are potentially preventable medical conditions that are treated in the ER although more appropriate care should have been provided in a non-emergent outpatient primary care setting. ED utilization rates may be reduced by addressing primary care access issues.

# **ED Utilization for Ambulatory Care Sensitive Conditions**

Ambulatory Care Sensitive Conditions (ACSC) are potentially preventable medical conditions that are treated in the ED although more appropriate care should have been provided in a non-emergent outpatient primary care setting. ED utilization rates may be reduced by addressing primary care access issues. Higher rates of ACSC conditions in Emergency Departments may indicate primary care access issues, poor preventative care among the population and in some instances health barriers related to socio-economic status.

The map shows the total New Jersey ACSC Emergency Department Rate by county. Dark Red shading represents the counties with the 5 highest rates in the State. White Shading represents the counties with the 5 lowest rates in the State. Pink Shading represents counties between the highest and lowest "Top 5s".

• In 2016, Ocean County's ACSC ED visit rate (at 59.29/1,000) was slightly higher than the statewide rate (58.22/1,000).



Ocean County had the 11<sup>th</sup> highest ACSC ED visit rate of the 21 counties in 2016, 59.29/1,000, this
was a 2.83 percentage point decrease from the 2013 rate.

Total ACSC ED Visits/Rate/1,000 Population

| ACSC - ED Rate/1,000 |         | ACSC - ED Rate/1,000 |                |            |         |         |                |
|----------------------|---------|----------------------|----------------|------------|---------|---------|----------------|
| COUNTY               | NJ 2013 | NJ 2016              | Change '13-'16 | COUNTY     | NJ 2013 | NJ 2016 | Change '13-'16 |
| CUMBERLAND           | 82.08   | 89.34                | 7.26           | GLOUCESTER | 53.34   | 53.60   | 0.27           |
| CAMDEN               | 92.53   | 87.44                | (5.09)         | моммоитн   | 52.97   | 52.52   | (0.46)         |
| ESSEX                | 81.43   | 85.99                | 4.56           | BURLINGTON | 53.85   | 48.54   | (5.31)         |
| ATLANTIC             | 85.64   | 84.99                | (0.65)         | MIDDLESEX  | 48.46   | 47.45   | (1.01)         |
| SALEM                | 77.56   | 75.01                | (2.55)         | WARREN     | 36.90   | 41.28   | 4.38           |
| MERCER               | 73.13   | 74.33                | 1.20           | SUSSEX     | 25.76   | 36.14   | 10.38          |
| PASSAIC              | 70.77   | 72.95                | 2.18           | MORRIS     | 30.40   | 32.96   | 2.56           |
| CAPE MAY             | 71.68   | 66.41                | (5.27)         | BERGEN     | 31.74   | 31.49   | (0.25)         |
| UNION                | 61.98   | 64.24                | 2.26           | SOMERSET   | 30.77   | 30.51   | (0.26)         |
| HUDSON               | 58.01   | 63.83                | 5.81           | HUNTERDON  | 23.72   | 26.62   | 2.90           |
| OCEAN                | 62.11   | 59.29                | (2.83)         | STATEWIDE  | 57.56   | 58.22   | 0.65           |

Green represents a decrease between 2013-2016. Yellow represents an increase between 2013-2016.

Source: NJDHSS 2013/2016 UB-04 Data – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

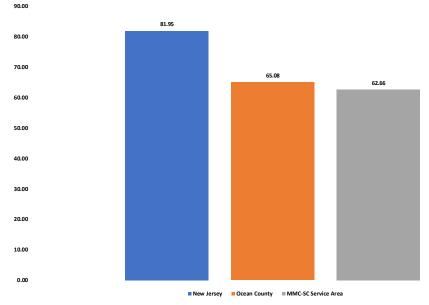
### **Children**

- In 2016, Ocean County's ACSC ED visits for children age 0-17 (65.08/1,000) was lower than the statewide rate (81.95/1,000).
- The 2016 Ocean County ACSC visit rate among children was higher than the rate in the MMCSC Service Area (62.66/1,000).
- The towns with the highest ACSC ED visit rate were Lakehurst (113.31/1,000), Brick (08723 (85.57/1,000), Brick 08724 (84.02/1,000) and Toms River 08753 (82.73/1,000) each of which have rates considerably higher than the MMCSC Service Area.

ACSC ED 2016 – Pediatric (Age 0-17) Rate/1,000 Population

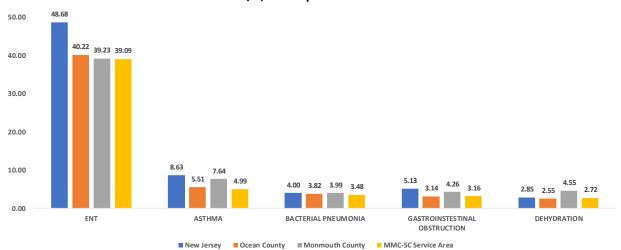
| GEOGRAPHIC AREA     | RATE  | HIGHEST SERVICE AREA RATES   |        |
|---------------------|-------|------------------------------|--------|
| New Jersey          | 81.95 | 08733 Lakehurst              | 113.31 |
| Ocean County        | 65.08 | 08723 Brick                  | 85.57  |
| MMC-SC Service Area | 62.66 | 08724 Brick                  | 84.02  |
|                     |       | 08753 Toms River             | 82.73  |
|                     |       | 08759 Manchester<br>Township | 77.87  |

Total ACSC ED Visits for Children (Age 0-17); Rate/1,000 Population



Source: UB-04 2016 Discharges

ED ACSC Volume: Top 5 by Service Area Zip Codes – Pediatric (Age 0-17), 2016
Rate/1,000 Population



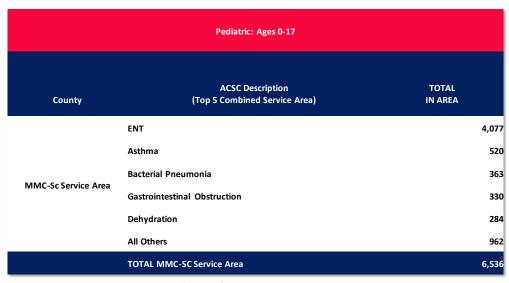
| ED ACSC (2016) Pediatrics (Age 0-17)   |       |       |                     |        |  |
|--|-------|-------|---------------------|--------|--|
| Geographic Area Rate Geographic Area F |       |       |                     |        |  |
| New Jersey                             | 81.95 | 08733 | Lakehurst           | 113.31 |  |
| Ocean County                           | 65.08 | 08723 | Brick               | 85.57  |  |
| MMC-SC Service Area                    | 62.66 | 08724 | Brick               | 84.02  |  |
|  |       | 08753 | Toms River          | 82.73  |  |
|  |       | 08759 | Manchester Township | 77.87  |  |

Source: UB-04 2016 Discharges

60.00

- There was a total of 6,536 ACSC ED visits for children from MMCSC's Service Area in 2016.
- ENT is the most common ACSC that resulted in an ED visit for children, followed by asthma, bacterial pneumonia, gastrointestinal obstruction and dehydration.

### ACSC ED Volume: Top 5 by Service Area – Pediatric (Age 0-17)



Top 5 Based on Total ACSCs in MMCSC Service Area: 2016

### <u>Adults</u>

- The 2016 adult ED ACSC rate for Lakehurst (89.01/1,000) was higher than the New Jersey rate (52.13/1,000).
- In 2016, Lakewood had the lowest adult ED ACSC rate (60.40/1,000) of the 5 zip codes with the highest rate in the Service Area.

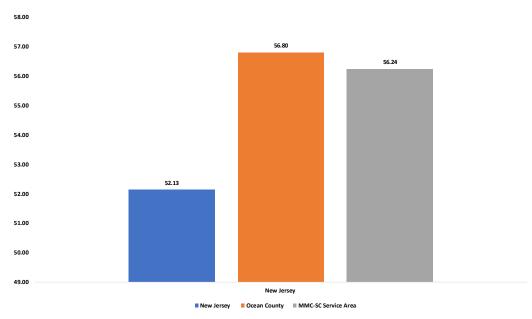
ACSC ED 2016 – Adults (Age 18+) Rate/1,000 Population

| GEOGRAPHIC<br>AREA  | RATE  | Top 5 By Zip Code | RATE  |
|---------------------|-------|-------------------|-------|
| New Jersey          | 52.13 | 08733 Lakehurst   | 89.01 |
| Ocean County        | 56.80 | 08724 Brick       | 73.14 |
| MMC-SC Service Area | 56.24 | 08723 Brick       | 70.56 |
|                     |       | 08755 Toms River  | 61.16 |
|                     |       | 08701 Lakewood    | 60.40 |

Source: UB-04 2016 Discharges

- The 2016 Ocean County's adult ED ACSC rate (56.80/1,000) is higher than the statewide rate (52.13).
- Ocean County adult ED ACSC rate is slightly higher than the MMCSC's Service Area rate (56.24/1,000).

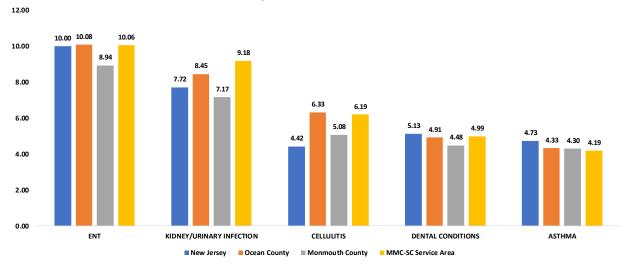
Total ACSC ED Visits for Adults (age 18+): Rate 1,000 Population



Source: UB-04 2016 Discharges

- In 2016, ENT was the leading cause of adult ED ACSC followed by kidney/urinary infection, cellulitis, dental conditions and asthma in the Service Area.
- In 2016, Ocean County adults had ED visit rates for ENT, kidney/urinary infections, and cellulitis
  which were higher than the rates statewide.

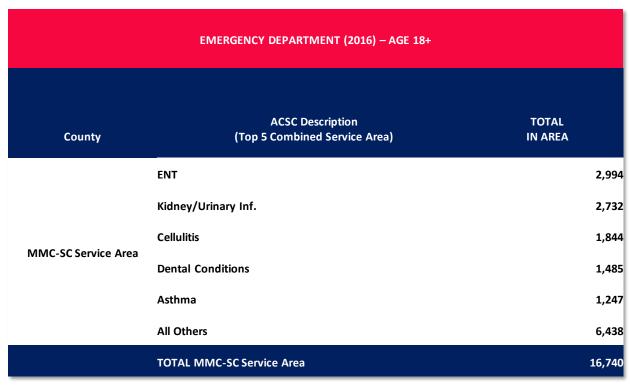
Total ACSC ED Visits for Adults (Age 18+): Rate/1,000 Population Top 5 Conditions (2016)



| ED ACSC (2016) Adults 18+ |       |                 |            |       |
|---------------------------|-------|-----------------|------------|-------|
| Geographic Area           | Rate  | Geographic Area |            | Rate  |
| Ocean County              | 56.80 | 08733           | Lakehurst  | 89.01 |
| New Jersey                | 52.13 | 08724           | Brick      | 73.14 |
| MMC- SC Service Area      | 56.24 | 08723           | Brick      | 70.56 |
|                           |       | 08755           | Toms River | 61.16 |
|                           |       | 08701           | Lakewood   | 60.40 |

Source: UB-04 2016 Discharges

There was a total of 16,740 adult ED ACSC visits in 2016 in the MMCSC Service Area.



Top 5 Based on Total ACSCs in RBMC PA/OB Combined Service Area: 2016

### Inpatient Utilization for Ambulatory Care Sensitive Conditions

Individuals may be admitted to the hospital due to an ACSC; higher rates of ACSC conditions among inpatients indicate primary care access issues, poor preventive care and barriers related to socioeconomic status.

- Ocean County ranks 18/21 counties with 20.19/1,000 ACSC Inpatient admissions in 2016, a (4.60) percentage point decrease from 2013.
- In 2016, Ocean County (20.19/1,000) had 18.4% more ACSC Inpatient admissions than the State (16.99/1,000).

Total Ambulatory Care Sensitive Conditions (ACSCs) Inpatient Admissions, per 1,000 Population 2013-2016

| ACSC - IP Rate/1,000 |         |         | ACSC - IP Rate/1,000 |            |         |         |                |
|----------------------|---------|---------|----------------------|------------|---------|---------|----------------|
| COUNTY               | NJ 2013 | NJ 2016 | Change '13-'16       | COUNTY     | NJ 2013 | NJ 2016 | Change '13-'16 |
| SALEM                | 26.07   | 27.47   | (1.40)               | MONMOUTH   | 19.07   | 17.22   | (-1.85)        |
| CUMBERLAND           | 24.18   | 26.12   | (1.94)               | GLOUCESTER | 19.84   | 15.85   | (-3.99)        |
| CAMDEN               | 22.87   | 22.61   | (-0.26)              | WARREN     | 15.94   | 15.69   |                |
| CAPE MAY             | 20.71   | 22.36   | (1.65)               | MIDDLESEX  | 17.07   |         |                |
| OCEAN                | 24.79   | 20.19   | (-4.60)              | UNION      | 16.18   |         | (-0.97)        |
| ESSEX                | 21.61   | 19.76   | (-1.85)              | SUSSEX     | 15.34   |         |                |
| ATLANTIC             | 23.63   | 19.66   | (-3.97)              |            |         |         |                |
| BURLINGTON           | 18.91   | 18.90   | (-0.01)              | HUNTERDON  | 13.81   |         |                |
| HUDSON               | 20.58   | 17.35   | (-3.23)              | MORRIS     | 15.04   | 13.13   |                |
| PASSAIC              | 20.78   | 17.32   | (-3.46)              | BERGEN     | 15.20   | 12.18   | (-3.02)        |
| MERCER               | 20.17   | 17.23   | (-2.94)              | SOMERSET   | 14.04   | 11.48   | (-2.56)        |
|                      |         |         |                      | STATEWIDE  | 19.13   | 16.99   | (-2.14)        |

Green represents a decrease between 2013-2016. Yellow represents an increase between 2013-2016.

Source: NJDHSS 2013/2016 UB-04 Data – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

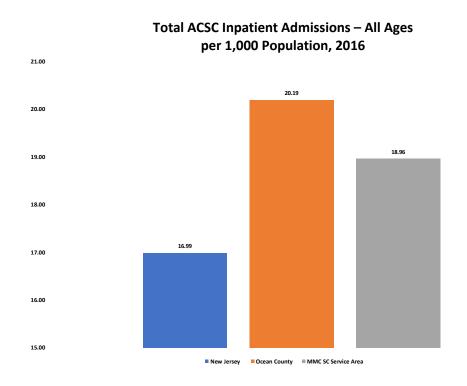
• In 2016, Manchester had the highest inpatient admissions due to ACSC (42.49/1,000) followed by Toms River 08755 (23.92/1,000).

Total ACSC Inpatient Admissions – Rate/1,000 Population All Ages 2016

| GEOGRAPHIC AREA     | RATE  | HIGHEST SERVICE AREA RATES         |  |  |  |
|---------------------|-------|------------------------------------|--|--|--|
| New Jersey          | 16.99 | 08759 Manchester<br>Township 42.49 |  |  |  |
| Ocean County        | 20.19 | 08755 Toms River 23.92             |  |  |  |
| MMC SC Service Area | 18.96 | 08733 Lakehurst 21.65              |  |  |  |
|                     |       | 08724 Brick 18.92                  |  |  |  |
|                     |       | 08723 Brick 18.17                  |  |  |  |

\*Source: UB-04 2016 Discharges

In 2016, MMCSC's Service Area inpatient use rate for ACSC was lower than the Ocean County rate but higher than the State rate.



Source: UB-04 2016 Discharges

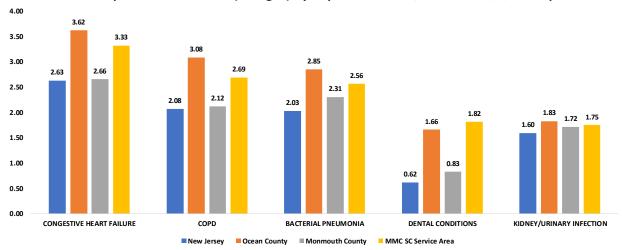
• In 2016, there were a total of 7,623 ACSC admissions from the MMCSC Service Area.

|                      | INPATIENT (2016) – ALL AGES                  |                  |
|----------------------|--|------------------|
| SERVICE<br>AREA      | ACSC Description (Top 5 Conditions Combined) | TOTAL<br>IN AREA |
|                      | Congestive Heart Failure                     | 1,337            |
|                      | COPD   | 1,083            |
| MMC SC Service Area  | Bacterial Pneumonia                          | 1,031            |
| WINC SC Service Area | <b>Dental Conditions</b>                     | 732              |
|                      | Kidney/ Urinary Infection                    | 704              |
|                      | All Others                                   | 2,736            |
|                      | TOTAL MMC SC AREA                            | 7,623            |

Source: UB-04 2016 Discharges

- In 2016, congestive heart failure was the leading cause of inpatient ACSC admissions in the MMCSC Service Area followed by COPD, bacterial pneumonia, kidney/urinary infections, and dental conditions.
- The 2016 Ocean County inpatient ACSC rates the top 5 ACSCs were higher than statewide rates.

Total ACSC Inpatient Admissions (All Ages) by Top 5 Conditions, 2016: Rate/1,000 Population



| IP ACSC (2016) All Ages |       |                             |       |
|-------------------------|-------|-----------------------------|-------|
| Geographic Area         | Rate  | Geographic Area             | Rate  |
| Ocean County            | 20.19 | (08759) Manchester Township | 42.49 |
| New Jersey              | 16.99 | (08755) Toms River          | 23.92 |
| MMC SC Service Area     | 18.96 | (08733) Lakehurst           | 21.65 |
|                         |       | (08724) Brick               | 18.92 |
|                         |       | (08724) Brick               | 18.17 |

Source: UB-04 2016 Discharges

Additional information regarding Ambulatory Care Sensitive Conditions may be found in **Appendix G**: Discharges and Population 18-64 for Ambulatory Care Sensitive Conditions.

### 6. Neighborhood and Built Environment

The neighborhood and built environment contribute to health in a variety of ways. Pollution, crime, and access to healthy food and water are environmental and neighborhood factors that may be hazardous to a community's health.<sup>30</sup>

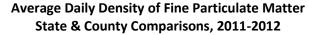
#### **Air Quality**

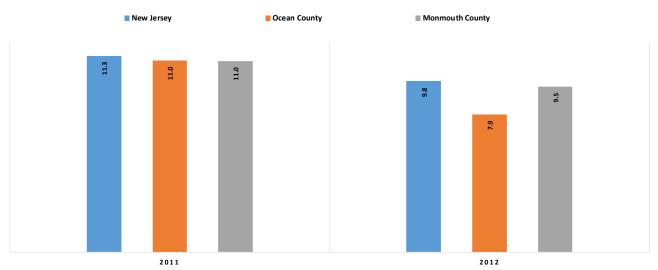
Outdoor air quality has improved since the 1990, but many challenges remain in protecting Americans from air quality problems. Air pollution may make it harder for people with asthma and other respiratory diseases to breathe.<sup>31</sup> County level data masks ZIP Code level analysis that may reveal higher concentrations of air pollution, particularly in industrialized areas of a county.

<sup>&</sup>lt;sup>30</sup> Source: Commission to Build a Healthier America, Robert Wood Johnson Foundation http://www.commissiononhealth.org/PDF/888f4a18-eb90-45be-a2f8-159e84a55a4c/lssue%20Brief%203%20Sept%2008%20-%20Neighborhoods%20and%20Health.pdf

<sup>31</sup> http://www.cdc.gov/air/default.htm

- In 2012, the daily measure of fine particle matter in Ocean County (7.9 PM2.5) is lower than the State rate (9.8 PM2.5). Compared to all 21 counties, Ocean County ranks in the top performing quartile statewide.
- Ocean County experienced a 28.2% reduction in fine particulate matter in between 2011 (11.0 per cubic meter) and 2012 (7.9 per cubic meter).
- In 2012, Ocean County (7.9 PM2.5) average daily measure of fine particles is lower than the CHR national benchmark (10.7 PM2.5), placing it in the in the middle performing quartile.





Source: County Health Rankings - Environmental Public Health Tracking Network



National Benchmark: 6.7 Ocean County 2012: 7.9

A Robert Wood Johnson Foundation program

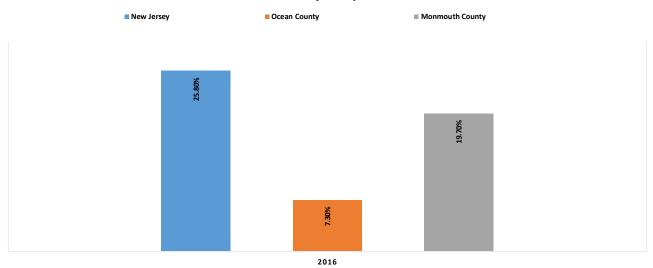
#### Housing Built before 1950

The potential for exposure to lead based paint in housing units built before 1950 is high. A main source of lead exposure is found in household dust with lead-based paint. Children are highly vulnerable to exposure to lead because of its adverse effects on the developing brain and nervous system.<sup>32</sup>

- In 2016, only 7.3% of Ocean County housing units were built before 1950, 71% lower than New Jersey overall at 25.8%.
- Ocean County ranked among the top performing quartiles of all counties in New Jersey, in terms of housing units built before 1950.

<sup>32</sup> Report On the National Survey of Lead-Based Paint in Housing, https://www.epa.gov/sites/production/files/documents/r95-003.pdf

# Housing Built Before 1950 With Possible Lead-Based Paint Hazard State & County Comparisons 2016



Source: https://www26.state.nj.us/doh-shad/indicator/view/pre1950home.percent.html

#### **Lead Hazards**

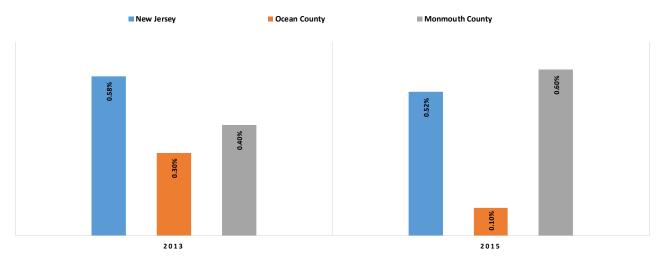
The Centers for Disease Control and Prevention (CDC) defines lead poisoning in children as a blood lead level of 10 micrograms per deciliter ( $\mu g/dL$ ) or above. Young children can be exposed by swallowing lead dust or soil that gets on their hands or objects they put into their mouths such as toys; swallowing leaded paint chips; breathing leaded dust or lead contaminated air and eating food or drinking water that is contaminated with lead.

Very high levels of lead can cause seizures, brain damage, developmental or intellectual disabilities, coma and even death. Exposure to lead, even at low levels, has been associated with decrease hearing, lower intelligence, hyperactivity, attention deficit, and developmental problems.<sup>33</sup> County level analysis cannot reveal individual town disparities in blood lead levels particularly in towns with housing stock built before 1950.

- In 2015, 0.1% of Ocean County children had elevated blood lead levels compared to 0.52% statewide.
- The percent of children with elevated blood lead levels decreased from 0.30% in 2013 to 0.10% in 2015. In 2015, Ocean County ranked among the top performing quartile among counties statewide.

<sup>33</sup> http://www.nj.gov/ health/fhs/newborn/ lead.shtml

# Children with Elevated Blood Levels State & County Comparisons 2013 – 2015



Source: https://www.cdc.gov/nceh/lead/data/state/njdata.htm

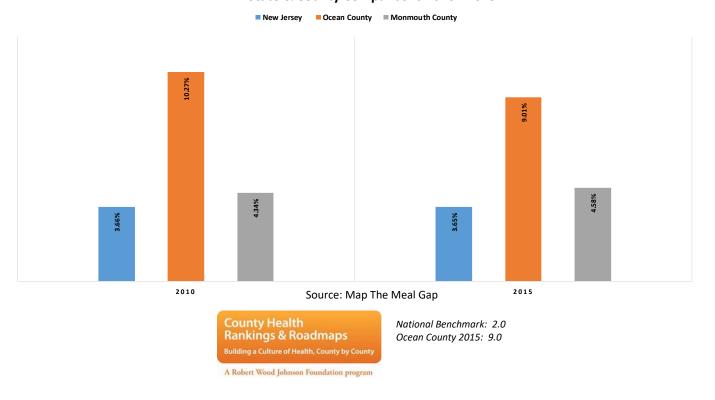
# Access to Healthy Foods

Choices about food and diet are influenced by accessibility and affordability of retailers. Specifically, travel time to shopping, availability of healthy foods and food prices are key to decision making. Low-income families face greater barriers in accessing healthy and affordable food retailers, which in turn negatively affect diet and food security.<sup>34</sup>

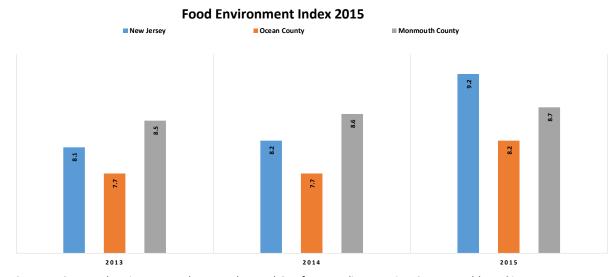
• In 2015, 3.65% of New Jersey and 9.01% of Ocean County residents suffered from limited access to healthy foods.

<sup>34</sup> https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas/

# Limited Access to Healthy Foods State & County Comparisons 2010 - 2015



• In 2015, Ocean County had a rate of 8.2 out of 10 on the food environment index which is an indicator of access to healthy foods compared to 9.2 for New Jersey residents.



Source: USDA Food Environment Atlas, Map the Meal Gap from Feeding America, County Health Rankings

County Health
Rankings & Roadmaps
Building a Culture of Health, County by County
A Robert Wood Johnson Foundation program

National Benchmark: 8.6 Ocean County 2015: 8.2

Community Health Needs Assessment
RWJ Barnabas Health: Monmouth Medical Center Southern Campus

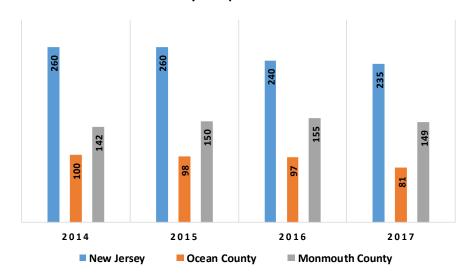
| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Limited Access to Healthy Foods   |                               |  |               |
| Food Environment Index Index of factors that contribute to a healthy food environment       | N.A.                          |  |               |
| Housing Built Before 1950 with Possible Lead-Based Paint Hazard                             | N.A                           | N.A.                                   |               |
| Percent of Children With Elevated Blood Lead Levels Percent of Children                     | N.A.                          | N.A.                                   |               |
| Annual Number of Unhealthy Air Quality Days  Due to Fine Particulate Matter                 | N.A                           |  |               |
| RED: Poorest Performing Quartile  Yellow: Middle Quartiles  Green: Best Performing Quartile |                               |  |               |

### **Injury and Crime Prevention**

Injuries and violence are widespread. Most events resulting in injury, disability or death are predictable and preventable. Individual behaviors, physical environment, access to health services and the social environment affect the risk of unintentional injury and violence. Violent crime, burglaries and motor vehicle crash deaths in Ocean County have seen steady decreases and are lower than rates statewide.

- Between 2014 and 2017, the violent crime rate in Ocean County decreased from 100/100,000 to 81/100,000.
- The violent crime rate for Ocean County places it in the worst performing quartile compared to the County Health Rankings benchmark.

# Violent Crime Rate per 100,000 Population State & County Comparisons 2014-2017



Source: State of New Jersey Department of Law and Public Safety Division of State Police Uniform Crime Reporting Uniform Crime data count; retrieved on 05.10.2019 for the years 2014 ,2015, 2016 and 2017 (current) from URL <a href="https://www.njsp.org/ucr/uniform-crime-reports.shtml">https://www.njsp.org/ucr/uniform-crime-reports.shtml</a>



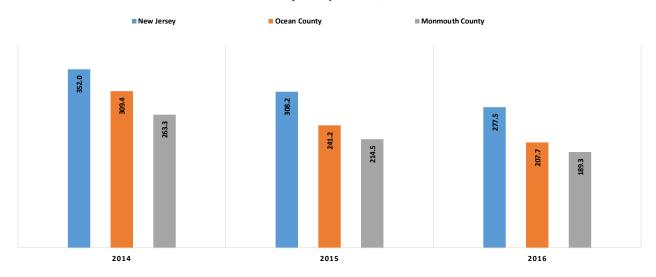
National Benchmark: 62 Ocean County 2017: 81

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# **Burglaries**

- The Ocean County (207.7/100,000) burglary rate was lower than the New Jersey (277.0/100,000) rate but higher than the Monmouth County rate in 2016 (189.3/100,000).
- The Ocean County burglary rate decreased from 309.4/100,000 in 2014 to 207.7/100,000 in 2016.
- Ocean County's burglary rate ranks in the middle performing quartile of New Jersey counties.

Burglary Rate
State & County Comparisons, 2014-2016



Source: http://www.njsp.org/ucr/2016/pdf/2015a sect 7.pdf

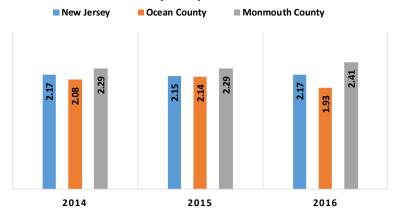
#### **Domestic Violence Arrests**

Domestic violence can negatively impact a victim's health beyond the domestic violence incident. Victims of domestic violence exhibit physical and emotional problems including, but not limited to, chronic pain, depression, anxiety, eating disorders, and post-traumatic stress disorder.<sup>35</sup>

- Statewide domestic violence arrest rates have remained fairly constant.
- In 2016, the Ocean County domestic violence arrest rate (1.93/1,000) was lower than the State (2.17/1,000) and Monmouth County (2.41/1,000).
- Between 2014 and 2016, the rate of domestic violence arrests in Ocean County decreased 7.2%.
- Ocean County is within the middle quartile compared to all New Jersey counties for arrests due to domestic violence.

<sup>35</sup> http://www.stopvaw.org/health\_effects\_of\_domestic\_violence

## Domestic Violence Arrests: Rate per 1,000 State & County Comparisons 2014 - 2016

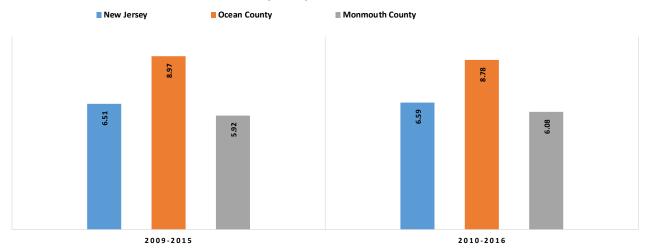


Source: County Health Rankings - The Uniform Crime Reporting (UCR) Program

### **Motor Vehicle Crash Deaths**

- In 2010-2016, Ocean County (8.78/100,000) had more motor vehicle crash deaths than New Jersey (6.59/100,000).
- Deaths due to motor vehicle accidents decreased slightly in Ocean County between 2009-2015 (8.97/100,000) and 2010-2016 (8.78/100,000).
- 2010-2016 Ocean County (8.78/100,000) car accident related deaths occurred 29.2% less often than the *Healthy People 2020* target (12.4/100,000).

## Number of Motor Vehicle Crash Deaths State & County Comparisons, 2009-2016



Source: County Health Rankings, CDC Wonder Mortality Data, 2010 - 2016

Healthy People 2020

Baseline: 13.8 Target: 12.4

Ocean County 2016: 8.78

County Health
Rankings & Roadmaps
Building a Culture of Health, County by County

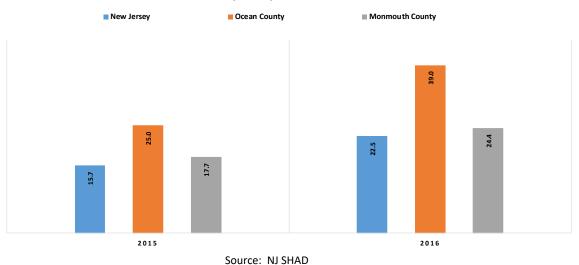
National Benchmark: 9 Ocean County 2016: 8.78

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### Accidental Poisoning and Exposure to Noxious Substances

- In 2016, Ocean County (39.0/100,000) had a higher death rate due to accidental poisoning and exposure to noxious substances than statewide (22.5/100,000).
- Ocean County had more deaths due to accidental poisoning and exposure to noxious substances in 2016 than in 2015.
- Ocean County ranks in the worst performing quartile in New Jersey, and in the worst performing quartile with respect to the *Healthy People 2020* target.

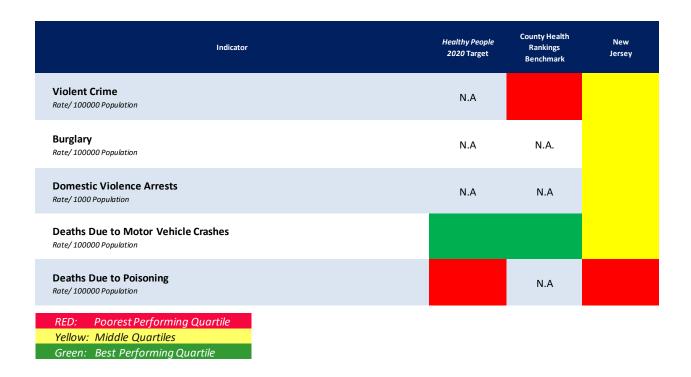
## Deaths Due to Accidental Poisoning and Exposure to Noxious Substances State & County Comparisons 2015-2016



Healthy People 2020

Baseline: 13.2 Target: 13.2

Ocean County 2016: 39.0



### D. HEALTH FACTORS

Health factors represent the influences that impact one's health. These include demographic, social, environmental, economic, and individual behaviors as well as clinical care and access to services. Social determinants were described in Section B preceding Health Factors.

## 1. <u>Clinical Care Measures</u>

### Inpatient and ED Utilization

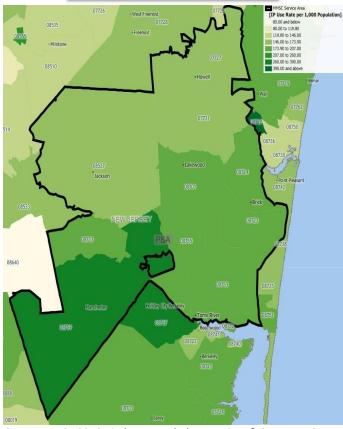
Factors impacting hospital utilization may include policy change, advances in technology, practice patterns and demographics. Many federal and state health care payment reforms, including the Affordable Care Act (ACA), were designed to improve care transitions, coordination of care, enhance ambulatory care and improve access to primary care. The anticipatory result would include improved coordinated care and declines in inpatient and ED utilization.

### <u>Inpatient</u>

- Ocean County's 2016 inpatient utilization rate (199.73/1,000) was higher than the State (160.22/1,000).
- MMCSC's Service Area inpatient rate (189.97/1,000) was lower than the Ocean County rate.
- Manchester had the highest inpatient use rate in the MMCSC Service Area (310.56/1,000), likely
  due to the high concentration of seniors in this area.

## Inpatient Use Rates per 1,000 Population 2016

| GEOGRAPHIC AREA                | RATE   |
|--------------------------------|--------|
| New Jersey                     | 160.22 |
| Ocean County                   | 199.73 |
| MMSC                           | 189.97 |
| TOP 5 BY SERVICE AREA          |        |
| (08559) Manchester<br>Township | 310.56 |
| (08753) Toms River             | 204.56 |
| (08701) Lakewood               | 191.08 |
| (08723) Brick                  | 190.29 |
| (08724) Brick                  | 187.80 |



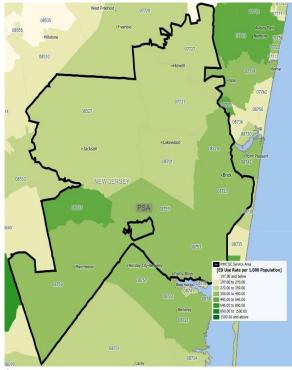
Source: UB-04 2016 Discharges Includes Inpatient & Same Day Stay, Excludes Normal Newborn; Population – Claritas 2016 Estimate

### **Emergency Department**

- Ocean County's 2016 ED visit rate (360.63/1,000) was higher than the State rate (352.20/1,000).
- MMCSC's 2016 Service Area (344.90/1,000) ED use rate was lower than the State and County rates.
- In 2016, Lakehurst's ED visit rate (506.15/1,000) was the highest in the Service Area.

## ED Use Rate per 1,000 Population 2016

| GEOGRAPHIC AREA       | RATE   |
|-----------------------|--------|
| New Jersey            | 352.20 |
| Ocean County          | 360.63 |
| MMSC                  | 344.90 |
| TOP 5 BY SERVICE AREA | RATE   |
| (08733) Lakehurst     | 506.15 |
| (08723) Brick         | 431.07 |
| (08724) Brick         | 427.98 |
| (08755) Toms River    | 389.18 |
| (08759) Manchester    | 381.41 |



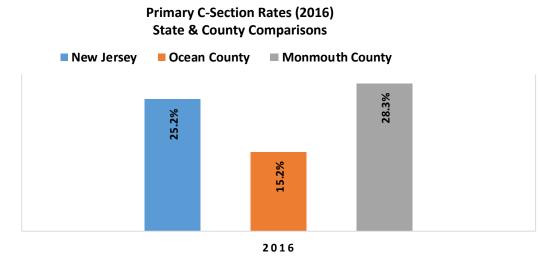
\*Source: UB-04 2016 ED Discharges; Claritas 2016 Estimate

<sup>\*\*</sup> Emergency Room Use Among Adults Aged 18–64: Early Release of Estimates From the National Health Interview Survey, January–June 2011; http://www.cdc.gov/nchs/data/nhis/earlyrelease/emergency\_room\_use\_january-june\_2011.pdf

#### Cesarean Section

A Cesarean Section (C-section) is a major surgical procedure performed because of health problems in the mother, position of the baby, and/or distress in the infant.<sup>36</sup> The U.S. cesarean delivery rate reached a high of 32.9% of all births in 2009, rising 60% from 1996 (20.7%). Recently, the American College of Obstetricians and Gynecologists developed clinical guidelines for reducing the occurrence of non-medically indicated cesarean delivery and labor induction prior to 39 weeks. Efforts to reduce such births include initiatives to improve perinatal care quality, and changes in hospital policy to disallow elective delivery prior to 39 weeks and education of the public.<sup>37</sup>

- Ocean County's 2016 primary C-section rate (15.2%) was lower than the State rate (25.2%).
- The 2016 Ocean County primary C-section rate (15.2%) was lower than Monmouth County (28.3%).
- In 2016, the Ocean County primary C-section rate was in the best performing quartile of New Jersey counties, and the best quartile for the *Healthy People 2020* target.
- County-wide, women with a primary C-section trended downward from 2013 through 2016, decreasing from 17.3% in 2013, to 15.2% in 2016.



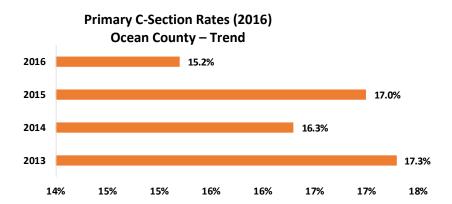
Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database http://www4.state.nj.us/dhss-shad/query/result/birth/BirthBirthCnty/Count.html

<sup>\*</sup>Primary C-Section: Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females

<sup>\*\*</sup>Repeat C-Section: Single >=37 Week Low Risk Births Delivered By C-Section With Prior Cesarean/Live Births To Low Risk Females With A Prior Cesarean

<sup>&</sup>lt;sup>36</sup> http://www.nlm.nih.gov/medlineplus/cesareansection.html

<sup>37</sup> http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63\_01.pdf



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database http://www4.state.nj.us/dhss-shad/query/result/birth/BirthBirthCnty/Count.html

<sup>\*\*</sup>Repeat C-Section: Single >=37 Week Low Risk Births Delivered By C-Section With Prior Cesarean/Live Births To Low Risk Females With A Prior Cesarean



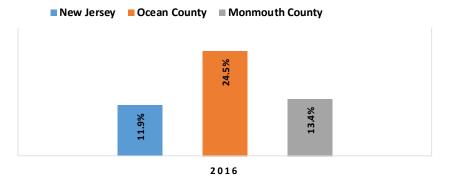
Baseline: 26.5% Target: 23.9%

Ocean County 2016: 15.2%

### Vaginal Birth After C-Section (VBAC)

- Ocean County's 2016 VBAC rate (24.5%) was higher than the State rate (11.9%). Ocean County ranks in the best performing quartile of all 21 New Jersey counties.
- County-wide women with a VBAC fluctuated between 2013 and 2016, with an overall increase from 23.8% in 2013 to 24.5% in 2016.

# Vaginal Birth After Cesarean Section (VBAC) Rates (2016) State & County Comparisons

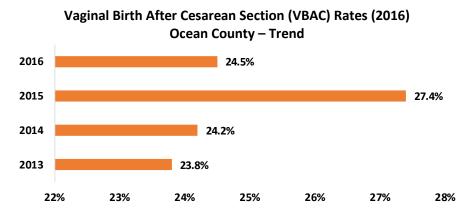


Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database http://www4.state.nj.us/dhss-shad/query/result/birth/BirthCnty/Count.html

<sup>\*</sup>Primary C-Section: Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females

<sup>\*</sup>Primary C-Section: Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females

<sup>\*\*</sup>Repeat C-Section: Single >=37 Week Low Risk Births Delivered By C-Section With Prior Cesarean/Live Births To Low Risk Females With A Prior Cesarean



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database http://www4.state.nj.us/dhss-shad/query/result/birth/BirthBirthCnty/Count.html

<sup>\*\*</sup>Repeat C-Section: Single >=37 Week Low Risk Births Delivered By C-Section With Prior Cesarean/Live Births To Low Risk Females With A Prior Cesarean

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Primary C-Section Rate Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females |                               | N.A.                                   |               |
| VBAC Rate   | N.A                           | N.A.                                   |               |

RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

## 2. <u>Health Behaviors</u>

## Maternal / Fetal Health

### Prenatal Care

The medical care a woman receives during pregnancy monitors her health and the developing fetus. Low-risk pregnancies should visit a prenatal provider every four or six weeks through 28 weeks, then every two or three weeks from weeks 28-36, and finally every week in the ninth month until delivery. A high-risk pregnancy requires additional visits.<sup>38</sup> Pregnant women who do not receive adequate prenatal care risk undetected complications and an increased possibility of adverse outcomes.

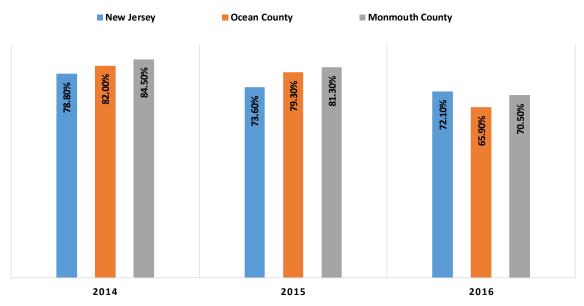
<sup>\*</sup>Primary C-Section: Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females

<sup>38</sup> http://www.plannedparenthood.org/health-info/pregnancy/prenatal-care

Early and regular prenatal care is a strategy to improve health outcomes for mothers and infants. Two significant benefits are improved birth weight and decreased preterm delivery. Infants born to mothers who receive no prenatal care have an infant mortality rate five times higher than mothers who receive appropriate prenatal care in the first trimester of pregnancy. Enrollment in care during the first trimester of pregnancy reflects timely initiation of prenatal care.<sup>39</sup>

- In 2016, only 65.9% of Ocean County women entered prenatal care in the first trimester compared to 72.1% in New Jersey. As compared to other New Jersey counties, Ocean County ranks in the worst performing quartile.
- Ocean County women enrolled in first trimester prenatal care declined from 82.0% in 2008 to 65.9% in 2016.

# Percentage of Live Births with First Trimester Prenatal Care State & County Comparisons 2014-2016

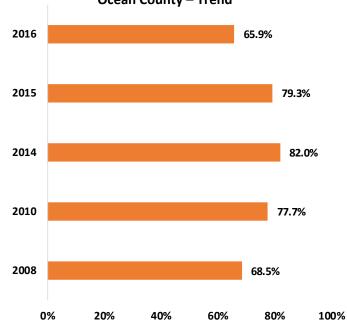


Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database Note: Percentages are based on Total Number of Live Births for County and State

Community Health Needs Assessment RWJ Barnabas Health: Monmouth Medical Center Southern Campus

<sup>&</sup>lt;sup>39</sup> http://www.hrsa.gov/quality/toolbox/measures/prenatalfirsttrimester/index.html

# Percentage of Live Births with First Trimester Prenatal Care Ocean County – Trend



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database Note: Percentages are based on Total Number of Live Births for County and State

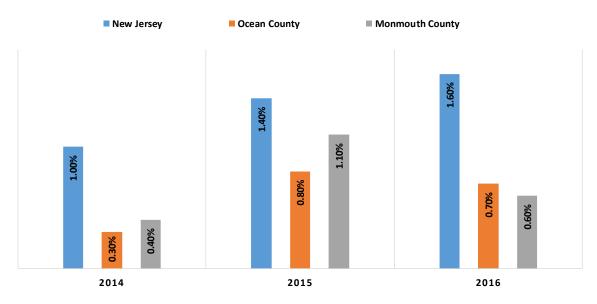


Baseline: 70.8% Target: 77.9%

Ocean County 2016: 65.9%

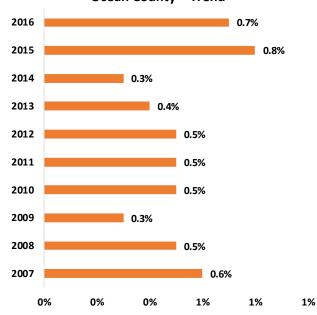
- The percent of Ocean County women without prenatal care ranged from a low of 0.3% in 2009 and 2014 to a high of 0.8% in 2015.
- The 2016 Ocean County rate for no prenatal care (0.7%) was less than double the State rate of 1.6% and performed in the top quartile for New Jersey.

## Percentage of Live Births with No Prenatal Care State & County Comparisons 2014-2016



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database Note: Percentages are based on Total Number of Live Births for County and State

## Percentage of Live Births with No Prenatal Care, 2014-2016 Ocean County – Trend



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database Note: Percentages are based on Total Number of Live Births for County and State



RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

## **High Risk Sexual Behaviors**

#### Teen Pregnancy

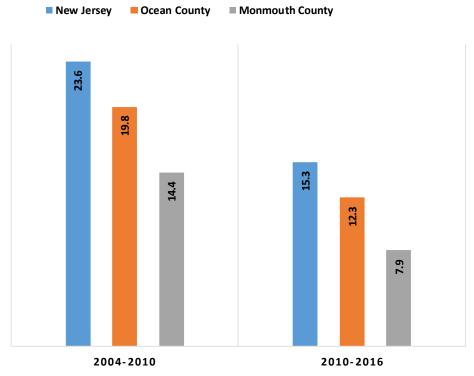
In 2016, there were 20.3 births/1,000 American adolescent females aged 15-19 years; approximately 209,809 babies were born to teens, with nearly eighty-nine percent of these births occurring outside of marriage. The national teen birth rate has trended downward over the past 20 years. In 1991, the U.S. teen birth rate was 61.8 births/1,000 adolescent females. However, the U.S. teen birth rate remains higher than that of many other developed countries, including Canada and the United Kingdom. Pregnant teens are less likely than older women to receive recommended prenatal care and are more likely to have preterm or low birth weight babies. Teen mothers are often at increased risk for STIs and repeat pregnancies,

 $<sup>^{40}\,</sup>http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/trends.html$ 

are less likely than their peers to complete high school and more likely to live below the poverty level and rely on public assistance. Risky sexual behaviors can have high economic costs for communities and individuals.<sup>41</sup>

- The 2010-2016 Ocean County (12.3/1,000) birth rate among teens aged 15-19 was lower than the State rate (15.3/1,000) and in the best performing quartile for the County Health Ranking benchmark.
- The birth rate among Ocean County teens aged 15-17 decreased from 7.0/1,000 in 2007-2011 to 4.1/1,000 in 2012-2016 and was in the middle quartile statewide.
- For both age cohorts, 15-17 and 15-19, the percent of Ocean County teen births is consistently lower than statewide rates.

Teen Births Age 15-19, Rate 1,000 Female Population State & County Comparisons



Source: NJDOH Center for Health Statistics State Health Assessment Data

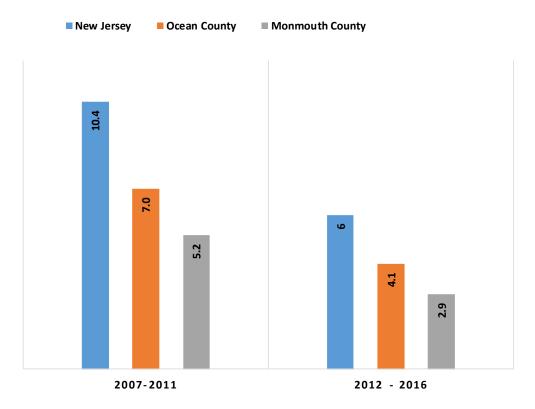
County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 15 Ocean County 2016: 12.3

A Robert Wood Johnson Foundation program

<sup>&</sup>lt;sup>41</sup> http://www.countyhealthrankings.org/our-approach/health-factors/sexual-activity

# Teen Births Age 15-17, Rate 1,000 Female Population State & County Comparisons



Source: NJDOH Center for Health Statistics State Health Assessment Data



Baseline: 40.2 Target: 36.2

Ocean County 2016: 11.4

In a 2016 CDC Teen Pregnancy Statistics data brief, *State Disparities in Teenage Birth Rates in the United States*, based upon 2014 data, New Jersey is one of 10 states with the lowest teen birth rates (<20/1,000) compared to National figures (41.5/1,000). However, the New Jersey rate shows tremendous variability when examined by town.

• The Lakehurst 2016 birth rate to teens aged 15-19 (12.10/1,000) was higher than the Ocean County rate (7.77/1,000).

Teen Birth Rates 2016 - Deliveries Among 15-19 Year Old's

| GEOGRAPHIC AREA     | RATE  |
|---------------------|-------|
| New Jersey          | 11.54 |
| Ocean County        | 7.77  |
| MMSC                | 7.68  |
| TOP 5 BY ZIP CODE   |       |
| Lakehurst (08733)   | 12.10 |
| Lakewood (08701)    | 10.69 |
| Farmingdale (07727) | 8.50  |
| Toms River (08753)  | 7.87  |
| Brick (08723)       | 7.19  |

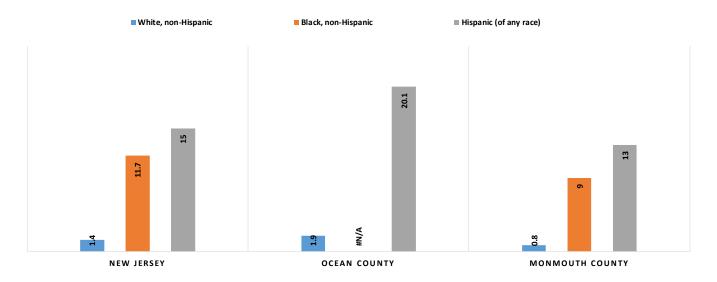
<sup>\*</sup>Source: UB-04 2016 Discharges – All Deliveries to Mothers Age 15-19; Claritas Population Estimate

### Teen Births by Mother's Race/Ethnicity (Age 15-17)

- The 2012-2016 Ocean County teen birth rate for Whites and Hispanics was higher relative to New Jersey and Monmouth County.
- The rate among Ocean County teens, 15-17, was highest among Hispanics (20.1/1,000).

<sup>\*\*</sup> NCHS Data Brief http://www.cdc.gov/nchs/data/databriefs/db46.pdf

## Teen Births by Mother's Race/Ethnicity, Aged 15-17 State & County Comparisons, 2012-2016



Source: Age 15-17- NJDOH Center for Health Statistics State Health Assessment Data

### Sexually Transmitted Infection

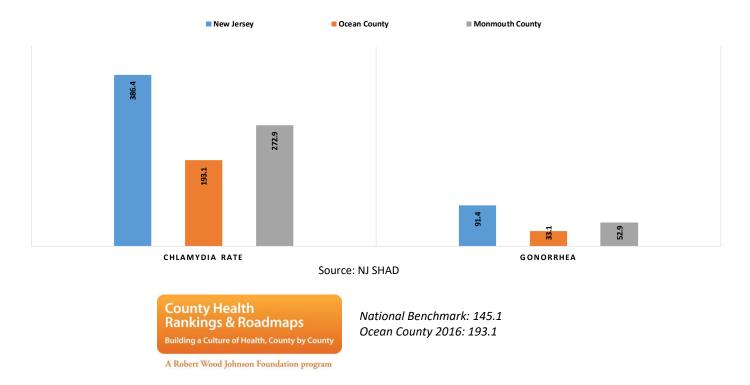
Sexually transmitted infections (STI) are caused by bacteria, parasites and viruses contracted through relations with an infected individual. There are more than 20 types of STIs, including Chlamydia, Gonorrhea, Genital herpes, HIV/AIDS, HPV, Syphilis and Trichomoniasis. Most STIs affect both men and women, but in many cases health problems may be more severe for women. If pregnant, a STI can cause serious health complications for the baby.<sup>42</sup>

- Chlamydia is the most prevalent STI. In 2016, Ocean County (193.1/1,000) was lower than the New Jersey rate (386.4/1,000) and the Monmouth County rate (272.4/1,000) and performed in the top quartile statewide.
- The rate of chlamydia in Ocean County (193.1/1,000) was higher than the CHR national benchmark (145.1/1,000) and performed in the bottom quartile.
- In 2016, Ocean County (33.1/100,000) had a far lower gonorrhea rate than the State (91.4/100,000).
- Ocean County ranks in the top quartile of New Jersey counties with regard to chlamydia and gonorrhea infection rates.

-

<sup>&</sup>lt;sup>42</sup> http://www.nlm.nih.gov/medlineplus/sexuallytransmitteddiseases.html

## Sexually Transmitted Diseases: Rate / 100,000 Population Chlamydia and Gonorrhea Rates State & County Comparisons 2016

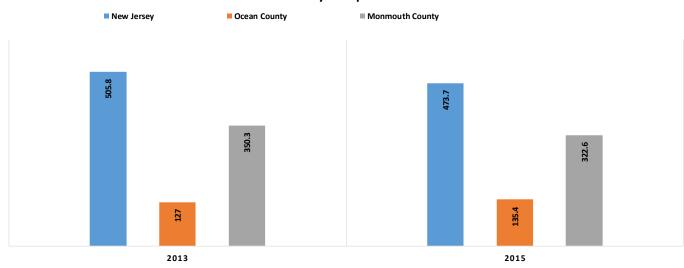


## HIV/AIDS

Human immunodeficiency virus (HIV) is spread mainly by having sex with someone infected with HIV or sharing needles with someone positive. Approximately 50,000 new HIV infections occur in the United States each year.

- County-wide HIV/AIDS prevalence rates increased between 2013 (127.0/100,000) and 2015 (135.4/100,000).
- In 2015, HIV/AIDS prevalence rate in Ocean County (135.4/100,000) was lower than the New Jersey rate (473.7/100,000) and the Monmouth County rate. Ocean County is in the top quartile statewide.
- The prevalence rate was higher than the CHR benchmark of 49/100,000 and was in the bottom quartile.

## HIV Prevalence Rates 2013-2015 State & County Comparisons



Source: National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention, County Health Rankings

County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 49 Ocean County 2015: 135.4

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| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| STDs: Chlamydia Rate per 100,000 Population               | N.A.                          |  |               |
| STDs: Gonorrhea Rate per 100,000 Population               | N.A.                          | N.A.                                   |               |
| Teen Births Ages 15-19 Rate per 100,000 Female Population | N.A.                          |  |               |
| Teen Births Ages 15-17 Rate per 100,000 Female Population |                               | N.A.                                   |               |
| HIV: Rates Rate per 100,000 Population                    | N.A                           |  |               |

RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

#### **Individual Behavior**

A CDC report indicates that people can live longer if they practice one or more healthy lifestyle behaviors including: eating a healthy diet, not smoking, regular exercise and limiting alcohol consumption. People who engage in all of these behaviors are 66 percent less likely to die early from cancer, 65 percent less likely to die early from cardiovascular disease and 57 percent less likely to die early from other causes compared to those who do not engage in any of these behaviors.<sup>43</sup>

#### Tobacco Use

Tobacco use is the leading cause of preventable death in the United States. Smoking leads to disease and disability, and harms nearly every organ in the body, and causes cancer, heart disease, stroke, diabetes, and lung diseases such as emphysema, bronchitis, and chronic airway obstruction. Exposure to secondhand smoke can lead to lung cancer and heart disease. Each year, smoking kills approximately 480,000 Americans, including 41,000 from secondhand smoke. On average, smokers die 10 years earlier than nonsmokers.

About 15% of U.S. adults smoke. Each day, nearly 3,200 youth smoke their first cigarette, and 2,100 people transition from occasional to daily smokers. Smokeless tobacco also leads to various cancers, gum and teeth problems, and nicotine addiction. Almost 6% of young adults use smokeless tobacco and half of new users are younger than  $18.^{44}$ ,  $^{45}$ 

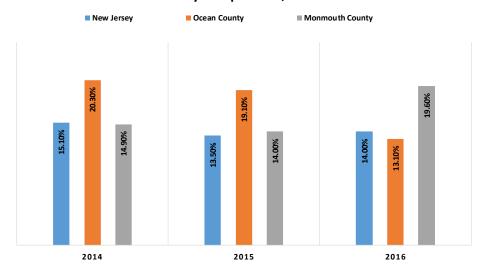
- Between 2012 and 2016, smoking rates decreased in Ocean County with from 20.3% in 2014 to 13.1% in 2016.
- In 2016, the percent of smokers in Ocean County (13.1%) was lower than New Jersey (14.0%) and Monmouth County (19.6%). Ocean County performs in the middle quartile statewide among all counties and the *Healthy People 2020* target, and in the best quartile with respect to the County Health Rankings benchmark.

<sup>43</sup> http://www.cdc.gov/features/livelonger/

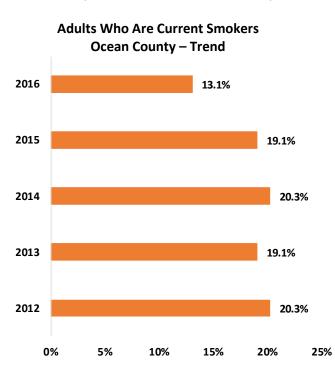
<sup>44</sup> http://www.countyhealthrankings.org/our-approach/health-factors/tobacco-use

<sup>&</sup>lt;sup>45</sup> http://www.cdc.gov/tobacco/data\_statistics/fact\_sheets/index.htm

# Adults Who Are Current Smokers State & County Comparisons, 2014-2016



Source: CDC New Jersey Behavioral Risk Factor Surveillance System (NJBRFS)



Source: CDC New Jersey Behavioral Risk Factor Surveillance System (NJBRFS)



Baseline: 20.6% Target: 12.0%

Ocean County 2016: 13.1%

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National Benchmark: 14.0% Ocean County 2016: 13.1%

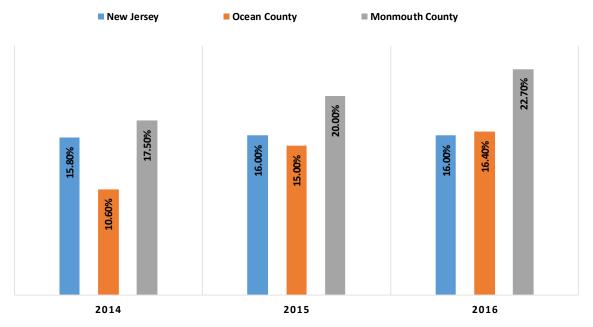
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#### Alcohol Use

Although moderate alcohol use is associated with reduced risk of heart disease and diabetes, excessive consumption is the third leading cause of preventable death nationally. Excessive consumption considers both the amount and the frequency of drinking. Short-term, excessive drinking is linked to alcohol poisoning, intimate partner violence, risky sexual behaviors, failure to fulfill responsibilities and motor vehicle crashes. Over time, excessive alcohol consumption is a risk factor for hypertension, acute myocardial infarction, fetal alcohol syndrome, liver disease and certain cancers.<sup>46</sup>

- Binge drinkers, those men that consume more than 5 drinks and women that consume more than 4 drinks in one occasion, increased from 10.6% in 2014, to 16.4% in 2016.
- In 2016, 16.4% of Ocean County residents were binge drinkers compared to 16% statewide and 22.7% in Monmouth County.
- Statewide, Ocean County performs in the middle performing quartile for New Jersey counties, and the worst performing quartile for the County Health Rankings benchmark.

# Adults Reporting Binge Drinking State & County Comparisons, 2014-2016



Source: CDC New Jersey Behavioral Risk Factor Surveillance System

Question: During the past 30 days how many days per week or per month did you have at least one drink of any alcoholic beverage? If response is not 0 then ask: Considering all types of alcoholic beverages how many times during the past 30 days did you have 5(for males)/4(for females) or more drinks on an occasion?

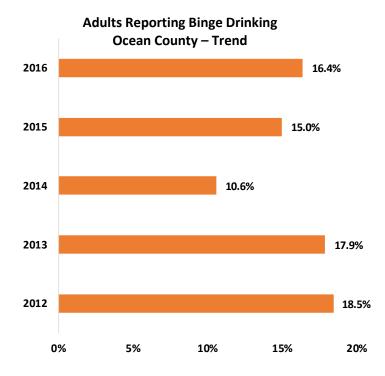
<sup>&</sup>quot;Binge Drinking" is defined when someone has at least 5(for males)/4(for females) or more drinks on an occasion a month.



National Benchmark: 13.0% Ocean County 2016: 16.4%

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 $<sup>^{\</sup>rm 46}~{\rm http://www.countyhealthrankings.org/our-approach/health-factors/alcohol-drug-use}$ 



Source: CDC New Jersey Behavioral Risk Factor Surveillance System

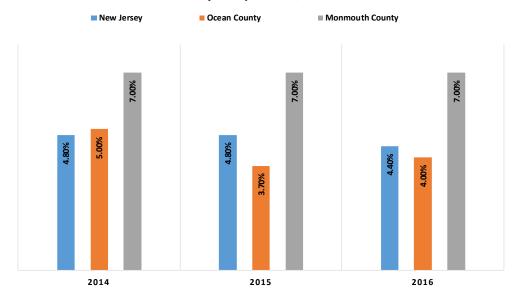
Question: During the past 30 days how many days per week or per month did you have at least one drink of any alcoholic beverage? If response is not 0 then ask: Considering all types of alcoholic beverages how many times during the past 30 days did you have 5(for males)/4(for females) or more drinks on an occasion?

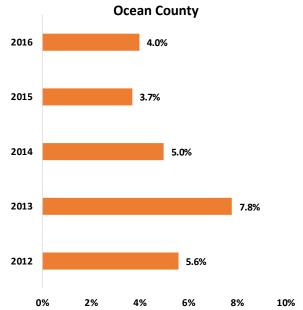
"Binge Drinking" is defined when someone has at least 5(for males)/4(for females) or more drinks on an occasion a month.

Heavy drinking is defined when someone has at least 60 drinks a month (for males) and 30 (for females).

- County-wide, residents who were heavy drinkers decreased slightly from 5.0% in 2012 to 4.0% in 2016.
- In 2016, Ocean County had the lowest percent of residents reporting heavy drinking, relative to residents of the State and Monmouth County.
- Ocean County ranked in the middle performing quartile among the 21 counties in New Jersey.

# Adults Reporting Heavy Drinking State & County Comparisons, 2014-2016





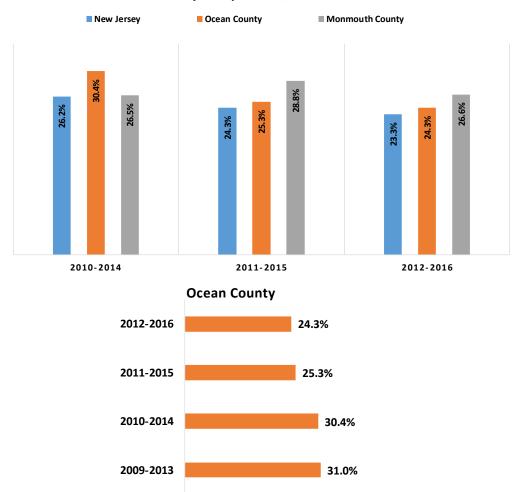
Source: CDC New Jersey Behavioral Risk Factor Surveillance System

Question: During the past 30 days how many days per week or per month did you have at least one drink of any alcoholic beverage? If response is not 0 then ask: Considering all types of alcoholic beverages how many drinks have you had during the past 30 days?

"Heavy Drinking" is defined when someone has at least 60(for males)/30(for females) or more drinks a month.

- Alcohol impaired driving deaths in Ocean County decreased between 2010-2014 and 2012-2016 from 30.4% to 24.3%.
- The rate of alcohol impaired driving deaths in Ocean County was historically higher than New Jersey.

# Alcohol-Impaired Driving Deaths State & County Comparisons, 2010-2016



Source: NJDOH New Jersey Fatality Analysis Health Reporting System County Health Rankings

10%

20%



2008-2012

0%

National Benchmark: 13.0% Ocean County 2016: 24.3%

29.6%

40%

30%

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| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark |
|---|-------------------------------|--|
| ccessive Drinking<br>inge Drinkers                        | N.A.                          |  |
| ccessive Drinking<br>eavy Drinkers                        | N.A.                          | N.A.                                   |
| cohol Impaired Driving Deaths                             | N.A.                          |  |
| obacco Use<br>dults Who Are Current Smokers               |                               |  |
| RED: Poorest Performing Quartile Yellow: Middle Quartiles |                               |  |
| een: Best Performing Quartile                             |                               |  |

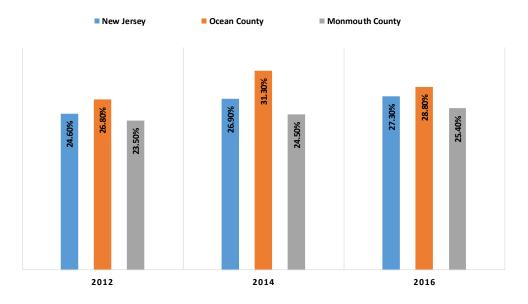
## **Obesity**

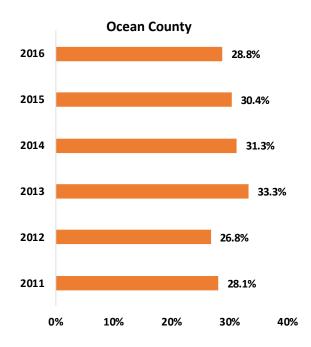
Healthy food is a key component to good health; insufficient nutrition hinders growth and development. As of 2016, 41 million Americans struggled with hunger in the U.S. A household that is food insecure has limited or uncertain access to enough food to support a healthy life. Obesity among food insecure people, as well as low income individuals, occurs in part because they are often subject to the same challenges as other Americans (more sedentary lifestyles, increased portion size) and because they face unique challenges in adopting and maintaining healthy behaviors, including limited resources and lack of access to affordable healthy food, cycles of food deprivation and overeating, high levels of stress and anxiety, fewer opportunities for physical activity, greater exposure to marketing of obesity promoting products, and limited access to health care.47

- The percent of Ocean County residents with a Body Mass Index (BMI) >=30 trended upward from 26.8% in 2012, to 28.8% in 2016.
- In 2016, Ocean County (28.8%) had a higher rate of obesity than Monmouth County (25.4%) and the State (27.3%).
- In 2016, a lower percent of Ocean County residents (28.8%) are obese than the Healthy People 2020 target (30.6%)
- In 2016, Ocean County residents with a BMI>=30 ranked in the middle performing quartile in New Jersey and with regard to the County Health Rankings.
- In 2016, Ocean County ranked in the best performing quartile with regard to the Healthy People 2020 target.

<sup>47</sup> http://www.frac.org

# Reported BMI>=30 State & County Comparisons, 2012-2016





Source: CDC Behavioral Risk Factor Surveillance System



Baseline: 33.9% Target: 30.5%

Ocean County 2016: 28.8%

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National Benchmark: 26.0% Ocean County 2016: 28.8%

- In 2016, Manchester Township residents had a higher rate of patients hospitalized with a diagnosis of obesity (36.35/1,000) as compared to Ocean County (18.30/1,000).
- In 2016, patients hospitalized from Lakewood had the lowest rate of obesity.

### Disease Incidence: Obesity, Rate per 1,000 Population



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges For MS-DRGs In the Range 682-685

#### Exercise

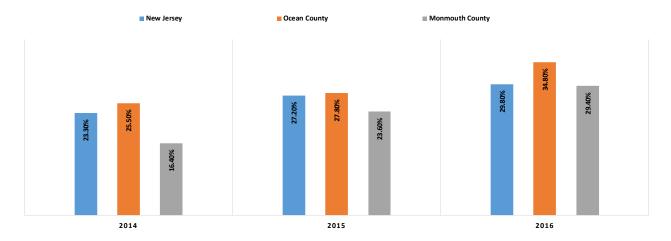
Inadequate physical activity contributes to increased risk of coronary heart disease, diabetes and some cancers. Nationally, half of adults and nearly three-quarters of high school students do not meet the CDC's recommended physical activity levels.<sup>48</sup>

- Within Ocean County, the percent of individuals reporting no leisure time physical activity trended upward from 25.5% in 2014, to 34.8% in 2016.
- From 2014 to 2016, Ocean County had a higher percentage of residents reporting no leisure time physical activity than the State and Monmouth County.
- Compared to all counties statewide, Ocean County performs in the bottom quartile.
- Ocean County performs in the lowest quartile compared to the County Health Rankings benchmark.
- Ocean County performs in the middle quartile with regard to the Healthy People 2020 target.

-

<sup>&</sup>lt;sup>48</sup> http://www.county healthrankings.org/our-approach/health-factors/diet-and-exercise

# Percent of Adults Age 20+ Reporting No Leisure-Time Physical Activity State and County Comparison 2014-2016



Source: CDC Behavioral Risk Factor Surveillance System



Baseline: 36.2% Target: 32.6%

Ocean County 2016: 34.8%

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National Benchmark: 20.0% Ocean County 2016: 34.8%

| 2020 Target | Rankings<br>Benchmark | Jersey    |
|-------------|-----------------------|-----------|
|             |                       |           |
|             |                       |           |
|             |                       |           |
|             |                       | Benchmark |

### **Health Screenings**

Screening tests can detect disease and conditions in early stages, when they may be easier to treat.

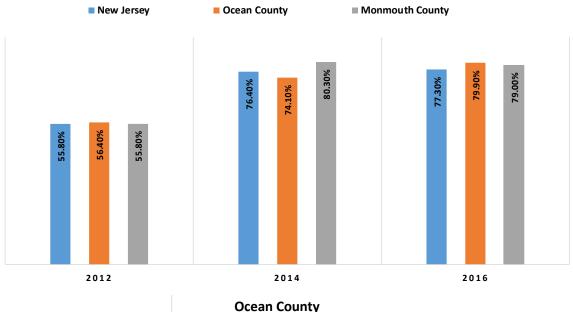
### **Cancer Screening**

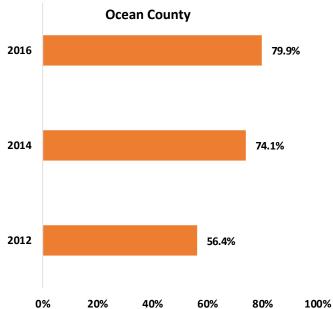
## **Breast Cancer (mammography)**

According to the American Cancer Association, women ages 40 to 44 should have the choice to start annual breast cancer screening with mammograms (x-rays of the breast) if they wish to do so. Women age 45 to 54 should get mammograms every year. Women 55 and older should switch to mammograms every 2 years, or can continue yearly screening. Screening should continue as long as a woman is in good health and is expected to live 10 more years or longer. Women should also know how their breasts normally look and feel and report any breast changes to a health care provider right away. Some women – because of their family history, a genetic tendency, or certain other factors – should be screened with MRIs along with mammograms. The number of women who fall into this category is very small.

- In 2016, 79.9% of Ocean County women over age 40 had a mammography within the past two years, up 23.5 percentage points since 2012. Compared to all counties statewide, Ocean County performs in the top quartile.
- In 2016, Ocean County performed in the top quartile in terms of the County Health Ranking benchmark and in the middle quartile for the *Healthy People 2020* target.

## Women Age 50+ Who Had a Mammogram Within Past 2 Years State & County Comparisons, 2012-2016





Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



Baseline: 69.8% Target: 81.1%

Ocean County 2016: 79.9%

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National Benchmark: 71.0% Ocean County 2016: 79.9%

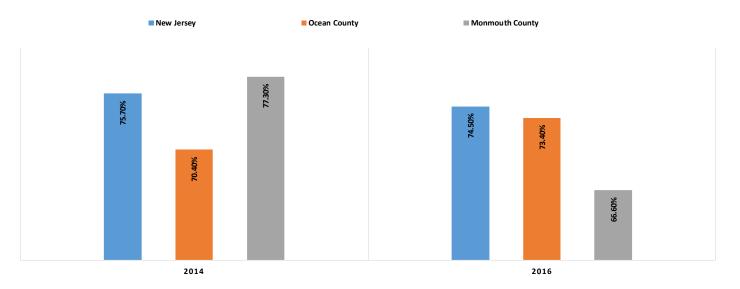
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### Cervical Cancer (pap smear)

According to the American Cancer Association, cervical cancer testing should start at age 21. Women between the ages of 21 and 29 should have a Pap test done every 3 years. Women between the ages of 30 and 65 should have a Pap test plus an HPV test (called "co-testing") done every 5 years. Women over age 65 who have regular cervical cancer testing in the past 10 years with normal results should not be tested for cervical cancer. Women with a history of a serious cervical pre-cancer should continue to be tested for at least 20 years after that diagnosis, even if testing goes past age 65. Some women – because of their health history (HIV infection, organ transplant, DES exposure, etc.) – may need a different screening schedule for cervical cancer.

- In 2016, 73.4% of Ocean County women over age 18 had a pap smear within the past three years as compared to 74.5% of New Jersey women 18+.
- More Ocean County women over age 18 had a pap test within 3 years than in comparative Monmouth County (66.6%).
- Compared to the State overall, Ocean County performs in the middle performing quartile and in the top quartile with respect to the *Healthy People 2020* target.
- Between 2014 and 2016, Ocean County women who had a pap test within the past three years increased 3 percentage points from 70.4% to 73.4%.

## Women How Had Received a Pap Test State & County Comparisons, 2014-2016



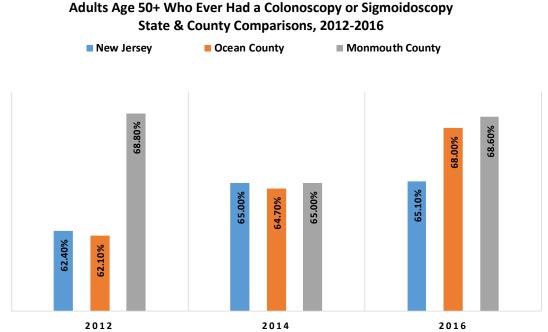
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



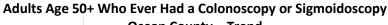
### Colon-rectal Cancer (sigmoidoscopy or colonoscopy)

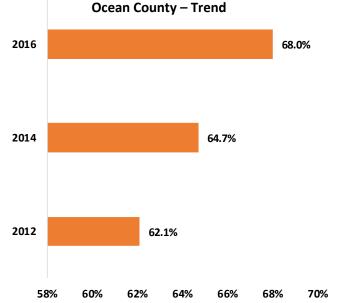
According to the American Cancer Association, starting at age 50, both men and women should follow one of these testing plans: colonoscopy every 10 years, CT colonography (virtual colonoscopy) every 5 years, flexible sigmoidoscopy every 5 years, or double-contrast barium enema every 5 years.

- In 2016, a greater percentage of Ocean County adults over age 50 (68.0%) participated in colon-rectal screening than in 2012 (62.1%). Compared to all New Jersey counties, Ocean County performs in the middle performing quartile.
- In 2016, the percent of Ocean County residents screened for colon cancer was 2.9 percentage points higher than the State, and 0.6 percentage points lower than Monmouth County.
- In 2016, fewer Ocean County adults (68.0%) over age 50 had a colonoscopy/sigmoidoscopy than the *Healthy People 2020* target of 70.5% of adults (50+) ever having colon-rectal screening in 2016.



Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)





Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

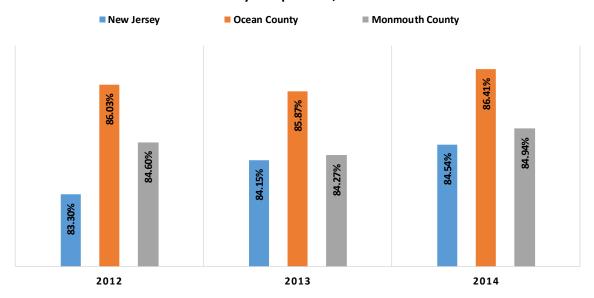


## <u>Diabetes</u>

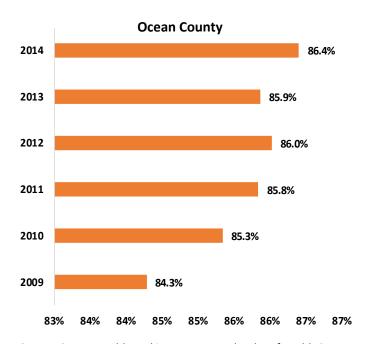
There are several ways to diagnose diabetes including A1C, Fasting Plasma Glucose (FPG), Oral Glucose Tolerance Test (OGTT) and Random (Casual) Plasma Glucose Test. Diabetes screenings are an effective means of diagnosing and managing illness.

- In 2014, almost 86.4% of Ocean County diabetic Medicare enrollees received HbA1c screening, higher than the State and surrounding counties. As compared to all New Jersey counties, Ocean County performs in the top performing quartile.
- The percent of Ocean County diabetic Medicare enrollees receiving HbA1c screening has trended upward since 2009.
- In 2014, fewer Ocean County diabetic Medicare enrollees (86.4%) were screened than the CHR national benchmark (91%). Ocean County ranked in the middle quartile of the CHR benchmark.

# Diabetic Medicare Enrollees That Received Screening State & County Comparisons, 2012-2014



Source: County Health Rankings - Dartmouth Atlas of Health Care



Source: County Health Rankings – Dartmouth Atlas of Health Care



| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Mammograms Women Age 50+ Who Have NOT Had a Mammogram Within Past Two Years                 |                               |  |               |
| Sigmoidoscopy/ Colonoscopy  Adults Age 50+ Who Have Ever Had a Sigmoidoscopy or Colonoscopy |                               | N.A.                                   |               |
| HbA1c Screening % Diabetic Medicare Enrollees Receiving Screening                           | N.A.                          |  |               |
| Pap Test Women Who Have Had a PAP Test Within Past Three Years                              |                               | N.A.                                   |               |
| RED: Poorest Performing Quartile  Yellow: Middle Quartiles  Green: Best Performing Quartile |                               |  |               |

#### **Immunizations**

It is better to prevent disease than to treat it after it occurs; vaccines prevent disease and save millions of lives. Vaccines introduce the antigens that cause diseases. Immunity, the body's means to preventing disease, recognizes germs and produces antibodies to fight them. Even after many years, the immune system continues to produce antibodies to thwart disease from recurring. Through vaccination we can develop immunity without suffering from disease.<sup>49</sup>

### Childhood Immunizations: DPT, polio, MMR & Hib (aged 19-35 months)

Young children are readily susceptible to disease and the consequences can be serious or life-threatening. Childhood immunizations minimize impact of vaccine preventable diseases. Combined 4 vaccine series (4:3:1:3) refers to 4 or more doses of DTP/DT, 3 or more doses of poliovirus vaccine, 1 or more doses of MCV and 3 or more doses of Hib.<sup>50</sup> Conflicting information in the news and on the internet about children's immunizations may cause vaccine hesitancy among select parents. Health care providers have been encouraged to use interventions to overcome vaccine non-compliance, including parental counseling, increasing access to vaccinations, offering combination vaccines, public education, and reminder recall strategies.

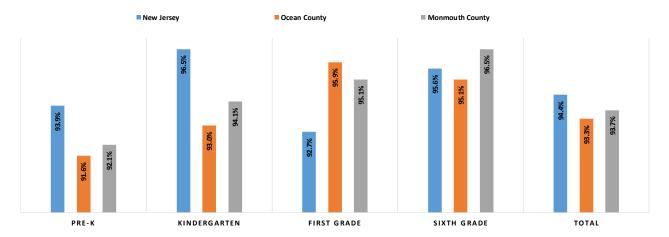
Childhood immunization is an evidenced-based strategy, which is known to reduce the incidence, prevalence and mortality of many communicable diseases in many Western Countries including the U.S.

- In 2016, 95.9% of first grade students in Ocean County had received all required immunizations compared to 92.7% statewide.
- 93.3% of all Ocean County students received all required immunizations, slightly less than the statewide percentage (94.4%).
- Ocean County is in the bottom quartile statewide.

<sup>49</sup> http://www.cdc.gov/vaccines/vac-gen/howvpd.htm#why

<sup>&</sup>lt;sup>50</sup> http://www.cdc.gov/vaccines/imz-managers/coverage/nis/child/tech-notes.html)

## Childhood Immunization: Percent of Children Meeting All Immunization Requirements State and County Comparisons, 2016



Source: NJDOH Annual Immunization Status Report http://www.nj.gov/health/cd/documents/status\_report/2016/all\_schools\_vac.pdf Data are the most current County-Level figures available.

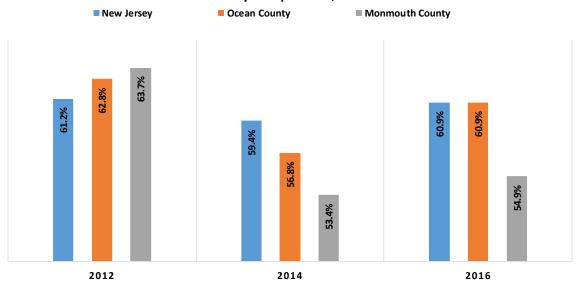
### Adult Flu

Immunizations are not just for children. As we age, the immune system weakens putting us at higher risk for certain diseases. Greater than 60 percent of seasonal flu-related hospitalizations occur in people 65 and older. The single best way to protect against the flu is an annual vaccination.<sup>51</sup>

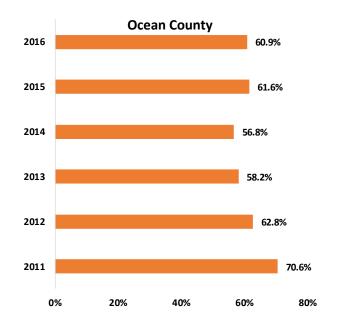
- Ocean County had the same percent of adults receiving flu shots as residents of New Jersey.
- Between 2012 and 2016, the percentage of Ocean County adults who had a flu shot fluctuated with an overall decrease of nearly 2 percentage points.
- The percent of 2016 Ocean County adults who received the flu shot in the past year (60.9%) was lower than the *Healthy People 2020* target of 90.0%.
- Ocean County performs in the worst performing Healthy People 2020 quartile.
- As compared to all counties statewide, Ocean County performs in the middle performing quartile.

<sup>51</sup> http://www.cdc.gov/vaccines/adults/rec-vac/index.html)

# Adults Age 65+ Who Had a Flu Shot in the Past Year State & County Comparisons, 2012-2016



Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



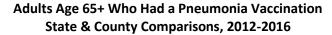
Baseline: 66.6% Target: 90.0%

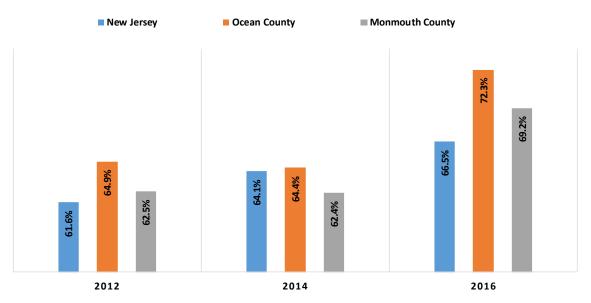
Ocean County 2016: 60.9%

## Adult Pneumonia

The pneumococcal vaccine protects us against some of the 90 types of pneumococcal bacteria. Pneumococcal vaccine is recommended for all adults 65 years or older.<sup>52</sup>

- The percent of Ocean County adults age 65+ who had a pneumonia vaccine fluctuated from 2012 through 2016, with an overall increase from 64.9% in 2014 to 72.3% in 2016.
- In 2016, the percent of Ocean County (72.3%) adults that have had a pneumonia vaccine is higher than statewide (66.5%) and less than the *Healthy People 2020* target (90.0%). As compared to all counties statewide, Ocean County performs in the middle quartile. Ocean County performs in the middle quartile in the *Healthy People 2020* target as well.



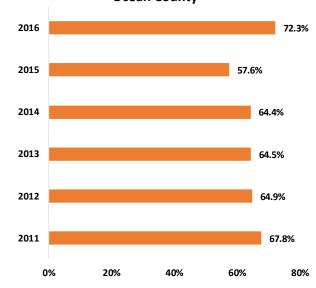


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

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<sup>52</sup> http://www.cdc.gov/pneumococcal/about/prevention.html

Adults Age 65+ Who Had a Pneumonia Vaccination Ocean County

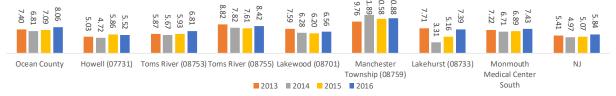


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



- MMCSC Service Area residents who used a hospital service had a higher rate of pneumonia (7.43/1,000) than residents of the State (5.84/1,000).
- In 2016, Manchester Township residents who used a hospital service had the highest rate of pneumonia (10.88/1,000), and Howell at 5.52/1,000 was the lowest of the comparison geographies.

## Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population: Pneumonia



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census Definition: Inpatient, Same Day Stay and ED Discharges – For MS-DRGs 177, 178, 179, 193, 194, 195

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Flu Shot<br>Adults Age 65+ Who Have NOT Had a Flu Shot in the Past Year<br>%No              |                               | N.A                                    |               |
| Pneumonia Vaccination  Adults Age 65+ Who Have NOT Ever Had a Pneumonia Vaccination  %Never |                               | N.A.                                   |               |
| Children Meeting All Immunization Requirements  | N.A.                          | N.A.                                   |               |
| RED: Poorest Performing Quartile  |                               |  |               |

RED: Poorest Performing Quartile

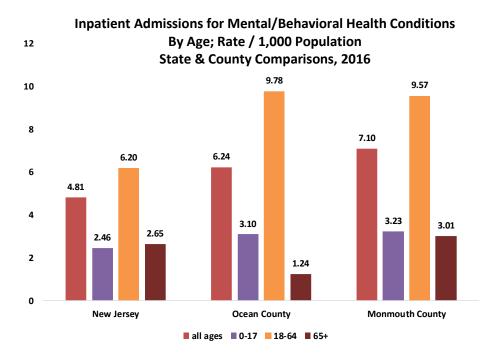
Yellow: Middle Quartiles

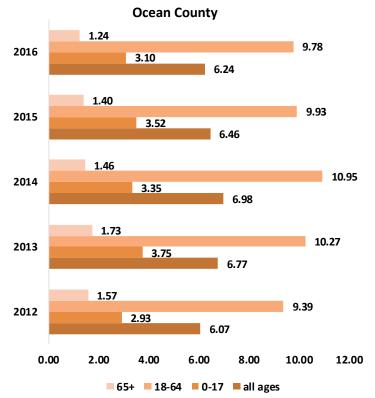
Green: Best Performing Quartile

# 4. <u>Behavioral Health Utilization</u>

## Mental Health

- In 2016, Ocean County (6.24/1,000) had a higher rate of residents with an inpatient hospitalization for a mental health condition among all age cohorts than the State.
- Within Ocean County, by age cohort in 2016, adults 18-64 (9.78/1,000) had the highest rate of mental/behavioral health inpatient hospital admissions compared to older adults 65+ (1.24/1,000) and children (3.10/1,000).
- Ocean County had a slightly higher rate of inpatient hospitalizations for mental/behavioral health conditions in 2016 (6.24/1,000) than in 2012 (6.07/1,000).

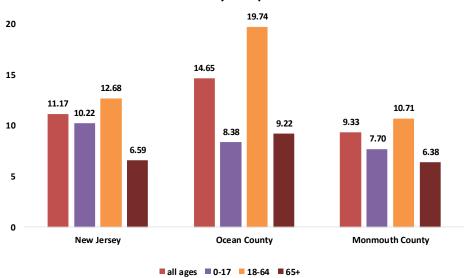


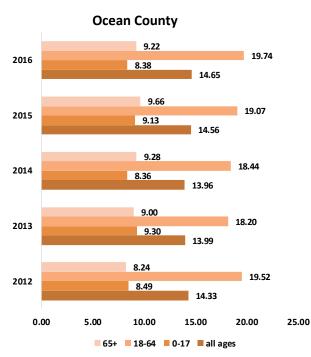


Source: NJDHSS 2012 - 2016 UB-04 Data MDC 19 – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

- In 2016, Ocean County (14.65/1,000) had a higher ED visit rate for mental health conditions than the State (11.17/1,000) and Monmouth County (9.33/1,000).
- In 2016, Ocean County adults 18-64 (19.74/1,000) had the highest rate of ED visits compared to children (8.38/1,000) and older adults 65+ (9.22/1,000).
- Ocean County's ED visits rate for mental/behavioral health conditions increased slightly between 2012 (14.33/1,000) and 2016 (14.65/1,000).

ED Visits for Mental/Behavioral Health Conditions (2016): By Age; Rate / 1,000 Population State & County Comparisons 2016

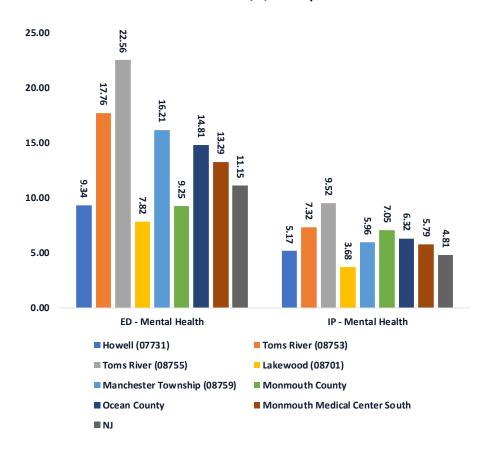




Source: NJDHSS 2012- 2016 UB-04 Data MDC 19 – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

- In 2016, inpatient hospitalizations for mental/behavioral health for MMCSC's Service Area (5.79/1,000) exceeded the New Jersey rate (4.81/1,000) but was lower than the Ocean County rate (6.32/1,000).
- In 2016, the emergency department rate for mental/behavioral health in Toms River (22.56/1,000) was greater than Ocean County (14.81/1,000) and greater than New Jersey (11.15/1,000).
- In 2016, the emergency department rate for mental health in Lakewood was lower than the New Jersey rate (11.15/1,000) and the Ocean County rate (14.81/1,000).

## Mental Health Use Rate /1,000 Population: 2016



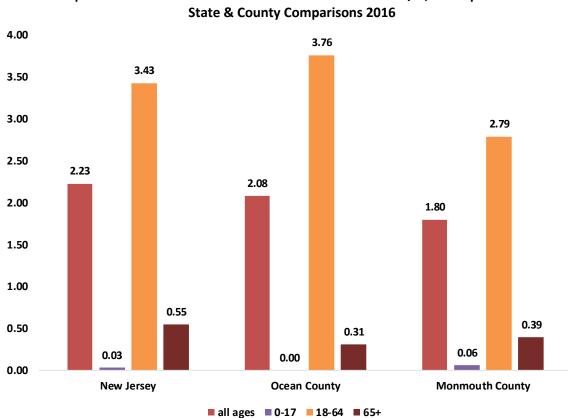
<sup>\*</sup>Source: UB-04 2016 Discharges; Claritas Population Estimate

<sup>\*\*</sup> Mental Health Defined As MDC 19

#### Substance Abuse

Substance abuse has a major impact on individuals, families and communities. In 2005, an estimated 22 million Americans struggled with a drug or alcohol problem. Almost 95 percent of people with substance use problems are considered unaware of their problem. These estimates highlight the importance of increasing prevention efforts and improving access to treatment for substance abuse and co-occurring disorders.53

- In 2016, Ocean County had a higher use rate for residents with an inpatient admission for substance abuse than Monmouth County among all age cohorts.
- Inpatient use rates by age cohort in Ocean County trended upward among all ages between 2012-2016.

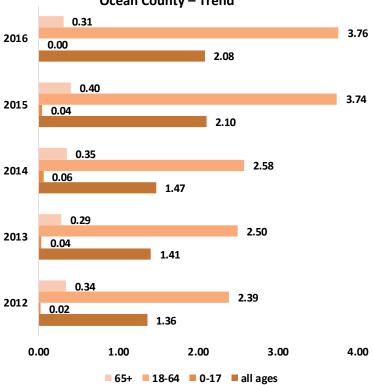


Inpatient Substance Abuse Treatment Admissions: Rate / 1,000 Population

Source: NJDHSS 2012 - 2016 UB-04 Data MDC 20 - NJ Residents; Population: United States Census American Community Survey 5yr Estimate

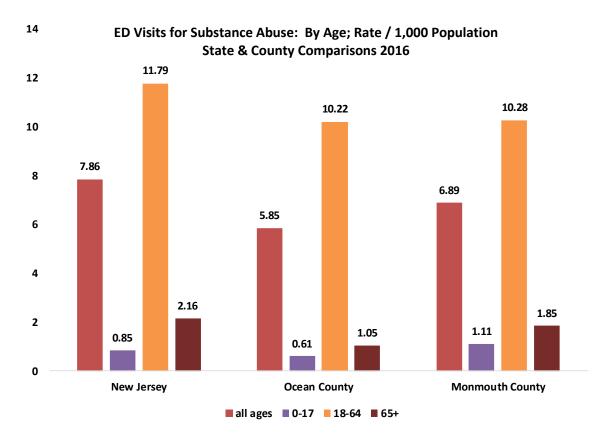
<sup>&</sup>lt;sup>53</sup> http://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse

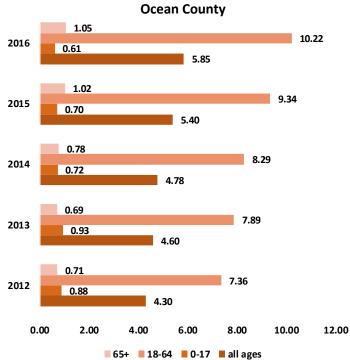
Inpatient Substance Abuse Treatment Admissions: Rate / 1,000 Population
Ocean County – Trend



Source: NJDHSS 2012 - 2016 UB-04 Data MDC 20 – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

- In 2016, Ocean County (5.85/1,000) had a lower ED visit rate for substance abuse than the State (7.86/1,000) and Monmouth County (6.89/1,000).
- Between 2012 and 2016, ED visit rate for substance abuse in Ocean County increased from 4.30/1,000 to 5.85/1,000.

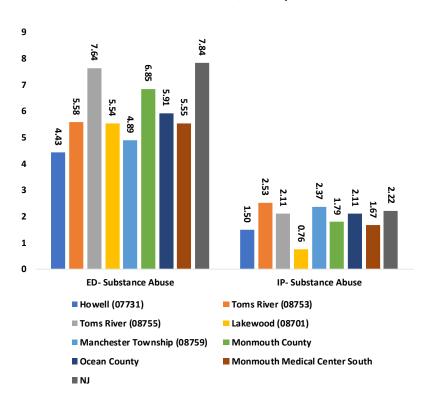




 $Source: NJDHSS\ 2012\ -\ 2016\ UB-04\ Data\ MDC\ 20-NJ\ Residents; Population: United\ States\ Census\ American\ Community\ Survey\ 5yr\ Estimate$ 

- Inpatient hospitalization to general hospitals for substance abuse in the MMCSC Service Area (1.67/1,000) was lower than the County rate (2.11/1,000), and the State rate (2.22/1,000).
- The Toms River 08753 rate (2.53/1,000) for inpatient hospitalization for substance abuse was higher than Ocean County (2.11/1,000).
- In 2016, emergency department visits for substance abuse in MMCSC's Service Area (5.55/1,000) was lower than the Ocean County rate (5.91/1,000) and lower than the New Jersey rate (7.84/1,000).
- In 2016, emergency department utilization rates for substance abuse in Toms River 08755 (7.64/1,000) was higher than the Ocean County rate (5.91/1,000).

## Substance Abuse Use Rate 1,000 Population: 2016

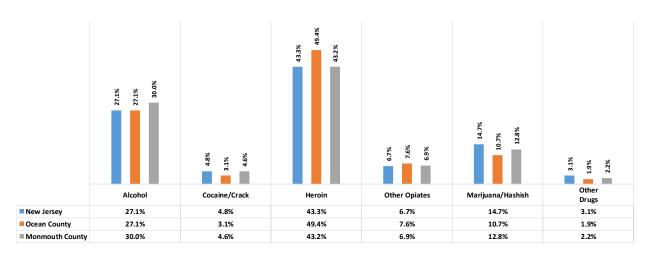


<sup>\*</sup>Source: UB-04 2016 Discharges; Claritas Population Estimate

<sup>\*\*</sup> Substance Abuse Defined As MDC 20

• In 2016, heroin was the leading reason for admission to a drug treatment center followed by alcohol for Ocean County residents.



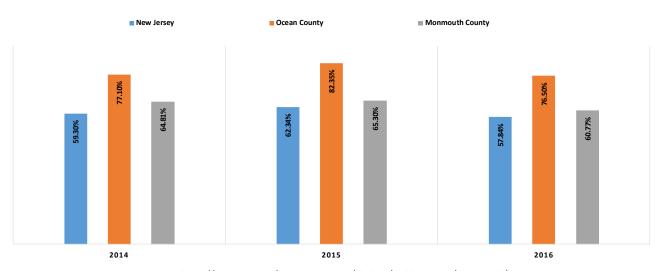


Source: http://www.nj.gov/humanservices/dmhas/publications/statistical/ Substance%20Abuse%20Overview/2016/statewide.pdf

Between 2014 and 2016, the number of drugs dispensed went down across the State, as well as in Ocean County.

• In 2016, the number of drugs dispensed reached more than 75% of the Ocean County population.

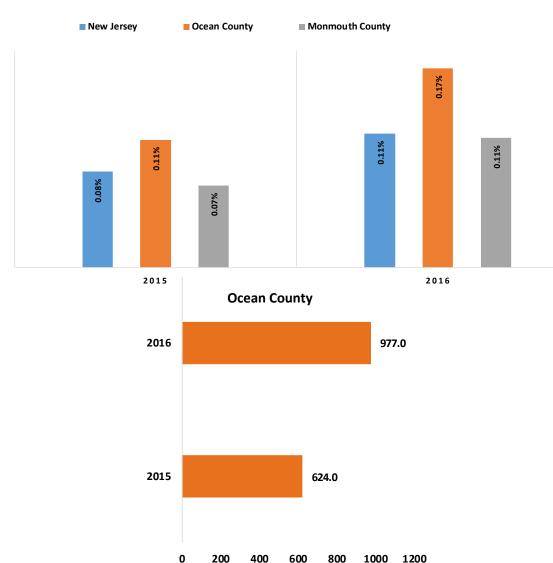
Opioid Dispensing
State & County Comparisons 2016



Source: http://www.nj.gov/humanservices/dmhas/publications/statistical/ Substance%20Abuse%20Overview/2016/statewide.pdf Naloxone is a FDA approved medication to prevent overdose by opiods such as herion, morphine and oxycodone. It blocks opiod receptor sites reversing the toxic effects of overdose.

 Between 2015 and 2016, the number of Naloxone administrations increased statewide; and in Monmouth and Ocean Counties. In Ocean County, Naloxone administrations increased from 624 administrations to 977.





Source: http://www.nj.gov/humanservices/dmhas/publications/statistical/ Substance%20Abuse%20Overview/2016/statewide.pdf

| Indicator   | Healthy People 2020<br>Target | County Health<br>Rankings Benchmark | New<br>Jersey |
|---|-------------------------------|-------------------------------------|---------------|
| Treatment Admissions for Alcohol Percentage of Total Treatment Admissions                   | N.A                           | N.A.                                |               |
| Treatment Admissions for Heroin Percentage of Total Treatment Admissions                    | N.A                           | N.A                                 |               |
| Treatment Admissions for Cocaine Percentage of Total Treatment Admissions                   | N.A.                          | N.A                                 |               |
| Treatment Admissions for Marijuana Percentage of Total Treatment Admissions                 | N.A                           | N.A.                                |               |
| Treatment Admissions for Other Drugs Percentage of Total Treatment Admissions               | N.A                           | N.A                                 |               |
| Treatment Admissions for Opiates Percentage of Total Treatment Admissions                   | N.A                           | N.A                                 |               |
| Total Opioid Dispensations Rate/ 100000 Population  | N.A                           | N.A                                 |               |
| Total Substance Abuse Treatment Admissions Rate/ 100000 Population                          | N.A                           | N.A                                 |               |
| Total Naloxone Administrations Rate/ 100000 Population                                      | N.A                           | N.A                                 |               |
| RED: Poorest Performing Quartile  Yellow: Middle Quartiles  Green: Best Performing Quartile |                               |                                     |               |

## E. HEALTH OUTCOMES

Disease-specific mortality, health status and morbidity are among the outcomes presented. Indicators of general health and mental health measures are also discussed in this section.

## 1. <u>Mortality - Leading Cause of Death</u>

According to the CDC, mortality statistics are one of few data sets comparable for small geographic areas, available for long time periods and appropriate as a primary source for public health planning.

- Between 2013 and 2016, Ocean County age-adjusted mortality rates (AAMR) improved (decreased) for influenza and pneumonia (-24.4%), stroke (-16.6%), nephritis (-7.8%), septicemia (-2.0%), chronic lower respiratory disease (-3.9%), and cancer (-0.2%).
- Between 2013 and 2016, four of the top 10 leading causes of death for Ocean County increased including: diseases of the heart (1.6%), unintentional injuries (49.7%), diabetes (0.7%), and Alzheimer's disease (11.2%).

Top 10 Causes of Death in Ocean County
Age-Adjusted Rate/100,000 Population 2008-2016

| CAUSE  | 2008  | 2013  | 2016  | %<br>Change<br>'13-'16 |
|--|-------|-------|-------|------------------------|
| Diseases of heart  | 206.8 | 196.7 | 199.9 | 1.6%                   |
| Cancer (malignant neoplasms)                                 | 192.7 | 162.9 | 162.6 | -0.2%                  |
| Unintentional injuries                                       | 27.9  | 43.3  | 64.8  | 49.7%                  |
| Chronic lower respiratory diseases (CLRD)                    | 36.6  | 36.0  | 34.6  | -3.9%                  |
| Stroke (cerebrovascular diseases)                            | 31.8  | 31.3  | 26.1  | -16.6%                 |
| Alzheimer's disease  | 21.8  | 19.7  | 21.9  | 11.2%                  |
| Septicemia   | 18.0  | 15.1  | 14.8  | -2.0%                  |
| Nephritis, nephrotic syndrome and nephrosis (kidney disease) | 19.6  | 15.4  | 14.2  | -7.8%                  |
| Diabetes mellitus  | 16.9  | 14.1  | 14.2  | 0.7%                   |
| Influenza and pneumonia                                      | 11.4  | 12.7  | 9.6   | -24.4%                 |

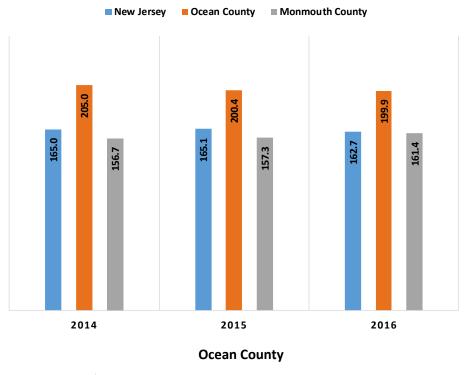
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

# Heart Disease (1)

Heart disease includes several conditions, most commonly, coronary artery disease, angina, heart failure and arrhythmias. Nationally, statewide and in Ocean County, heart disease remains the leading cause of death. Responsible for 1 in every 4 deaths, approximately 610,000 people die of heart disease in the United States each year.

- The County AAMR for heart disease deaths decreased between 2014 (205.0/100,000) and 2016 (199.9/100,000).
- The 2016 Ocean County mortality rate due to heart disease (199.9/100,000) was higher than the statewide (162.7/100,000) rate.
- In 2016, across the County, Blacks (253.8/100,000) had the highest heart disease mortality rate as compared to Whites (204.7/100,000) and Hispanics (70.1/100,000).

# Deaths Due to Diseases of the Heart: Age-Adjusted Rate/100,000 Population State & County Comparisons 2014-2016



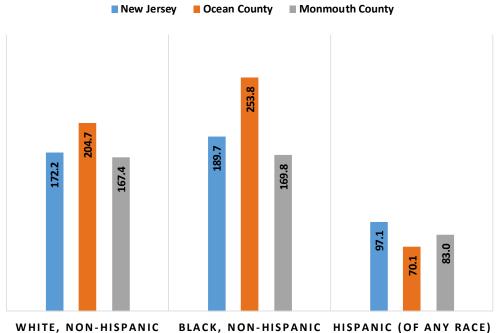
#### 2016 199.9 2015 200.4 2014 205.0 2013 196.7 2012 203.5 2011 202.8 2010 208.0 2009 **218.8** 2008 206.8 2007 209.4 190 200 220 180 210

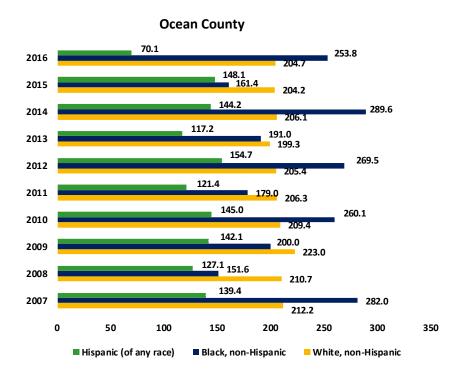
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.



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# Deaths Due to Diseases of the Heart by Race/Ethnicity, 2016 Ocean County Age-Adjusted Rate/100,000 Population



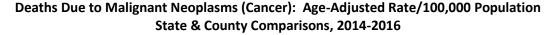


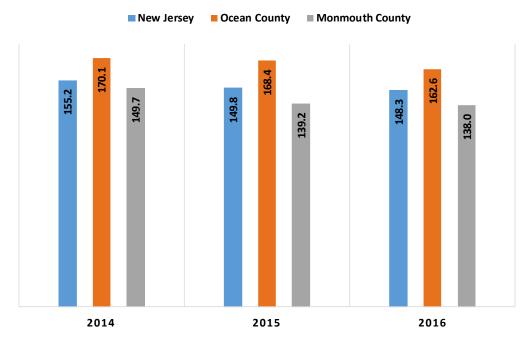
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

### Cancer (2)

Although there are many types of cancer, all originate from abnormal cells with untreated disease.<sup>54</sup> Approximately half of American men and one-third of women will develop some form of cancer throughout their lifetimes. Cancer risk may be reduced by basic lifestyle modifications including limiting or avoiding tobacco, sun protection, being physically active and eating healthy foods. Early detection greatly improves positive outcomes. Cancer is the second leading cause of death in the United States, New Jersey and Ocean County.<sup>55</sup>

- The 2016 County mortality rate (162.6/100,000) was higher than New Jersey (148.3/100,000) and ranks in the middle quartile statewide.
- The 2016 Ocean County cancer AAMR (162.6/100,000) performed slightly worse than the *Healthy People 2020* target of 161.4/100,000.



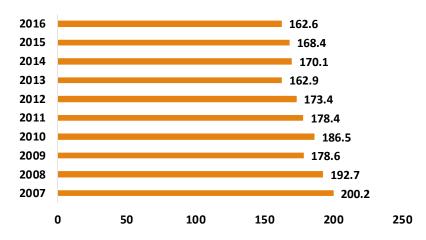


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

<sup>54</sup> http://www.cancer.org/cancer/cancerbasics/what-is-cancer

<sup>55</sup> http://www.cancer.org/cancer/cancerbasics/questions-people-ask-about-cancer

Deaths Due to Malignant Neoplasms (Cancer): Age-Adjusted Rate/100,000 Population
Ocean County – Trend



Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

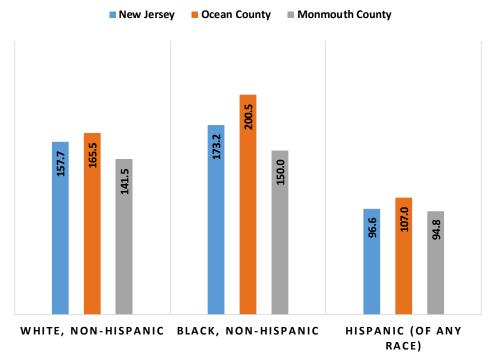


**Baseline: 179.3 Target: 161.4** 

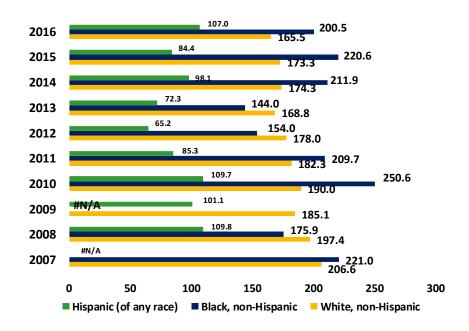
Ocean County 2016: 162.6

- In 2016, the mortality rate for malignant neoplasm deaths among Whites in Ocean County was markedly higher than for Hispanics.
- The mortality rate for cancer among Whites in Ocean County has been lower than for Blacks since 2014.

# Deaths Due to Malignant Neoplasms (Cancer): By Race/Ethnicity State & County Comparisons, 2014-2016



#### **Ocean County**

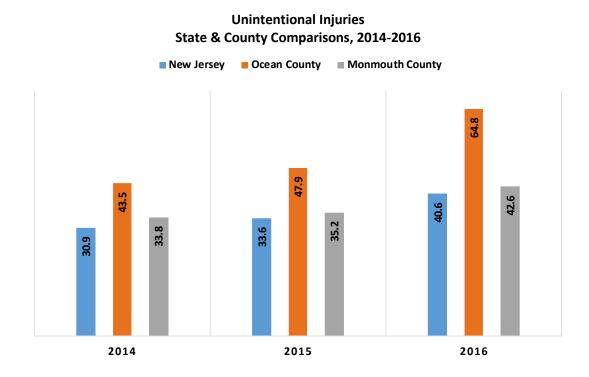


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

# **Unintentional Injuries (3)**

The majority of unintentional injuries are preventable and predictable. Deaths due to unintentional injury often occur as a result of motor vehicle accidents, falls, firearms, drownings, suffocations, bites, stings, sports/recreational activities, natural disasters, fires, burns and poisonings. Public Health prevention strategies including minimum age drinking requirements, seatbelt and helmet laws, smoke alarms, exercise programs and other safety awareness campaigns reduce unintentional injury and death.<sup>56</sup>

- The unintentional injury death rate increased from 43.5/100,000 in 2014, to 64.8/100,000 in 2016.
   Ocean County ranked in the bottom performing quartile among New Jersey counties and with respect to the *Healthy People 2020* target.
- The 2016 Ocean County unintentional injury AAMR (64.8/100,000) was higher than the State (40.6/100,000) and Monmouth County (42.6/100,000).

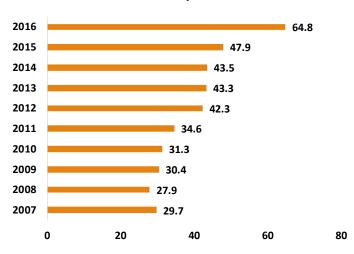


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

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 $<sup>^{56}\,</sup>http://www.cdph.ca.gov/programs/ohir/Pages/UnInjury2010Background.aspx$ 

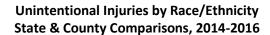
Unintentional Injuries Ocean County – Trend

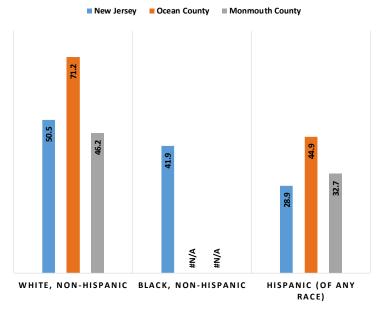


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.



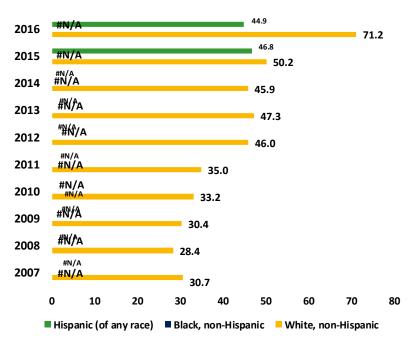
• The 2016 unintentional injury death rate for Whites (71.2/100,000) was higher than the rate for Hispanics (44.9/100,000).





Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

# **Unintentional Injuries by Race/Ethnicity**



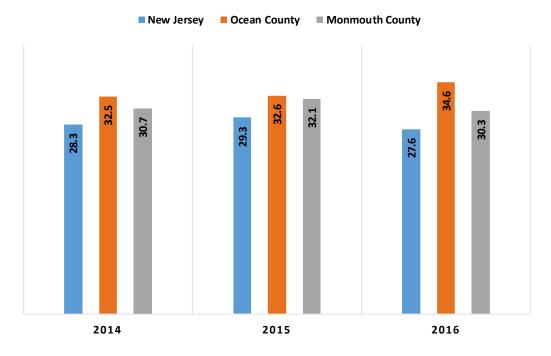
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

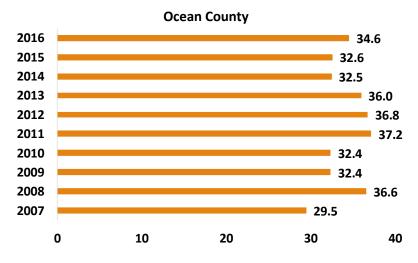
# **Chronic Lower Respiratory Disease (4)**

Chronic Lower Respiratory Diseases (CLRD) is the fourth leading cause of death in Ocean County. CLRD includes chronic bronchitis, emphysema, and asthma, all characterized by shortness of breath caused by airway obstruction. The obstruction is irreversible in chronic bronchitis and emphysema and reversible in asthma.

- In 2016, the county-wide AAMR due to chronic lower respiratory disease in Ocean County was higher than the statewide rate and the rate in Monmouth County.
- Since 2007, the AAMR for chronic lower respiratory disease has increased from 29.5/100,000 to 34.6/100,000 in 2016.

# Deaths Due to Chronic Lower Respiratory Disease State & County Comparisons, 2014-2016





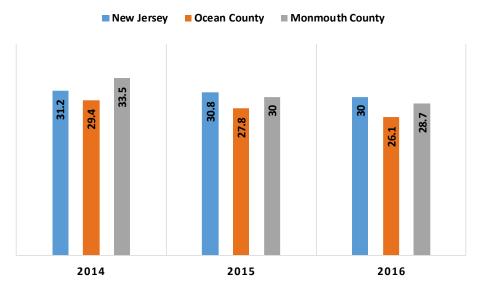
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

# Stroke (Cerebrovascular Diseases) (5)

A stroke occurs when a clot blocks blood supply to the brain or if a blood vessel within the brain bursts.

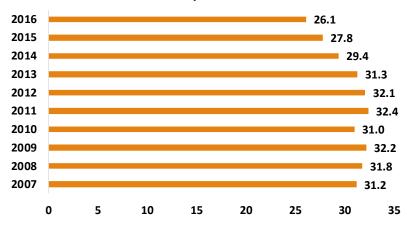
- The Ocean County stroke AAMR decreased from 2014 (29.4/100,000), to 2016 (26.1/100,000). In 2016, the County AAMR was lower than the *Healthy People 2020* target (34.8/100,000).
- The 2016 Ocean County stroke AAMR (26.1/100,000) was lower than the State (30.0/100,000) and Monmouth County (28.7/100,000) and ranks in the top quartile statewide.
- Over the last 10 years, the stroke mortality rate ranged from a high of 32.4/100,000 in 2011, to a low of 26.1/100,000 in 2016.





Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Deaths Due to Stroke: Age-Adjusted Rate/100,000 Population
Ocean County – Trend

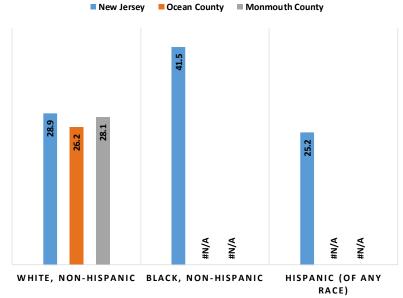


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.



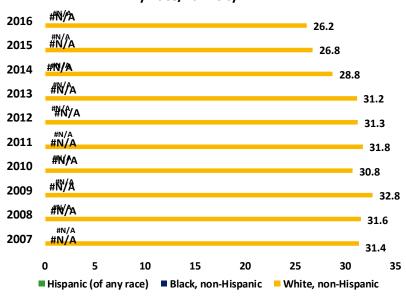
• By race/ethnicity in 2016, Blacks (41.5/100,000) in New Jersey had the highest death rate due to stroke statewide compared to Whites (28.9/100,000) and Hispanics (25.2/100,000).

Deaths Due to Stroke: Age-Adjusted Rate/100,000 Population
By Race/Ethnicity
State & County Comparisons, 2014-2016



Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

# Deaths Due to Stroke: Age-Adjusted Rate/100,000 Population By Race/Ethnicity



Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

| Indicator  | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|--|-------------------------------|--|---------------|
| Deaths Due to Diseases of The Heart  Age-Adjusted Rate/100000 Population                                   |                               | N.A.                                   |               |
| Deaths Due to Diseases of The Heart (Black, Non-Hispanic)  Age-Adjusted Rate/100000 Population             | N.A.                          | N.A.                                   |               |
| Deaths Due to Malignant Neoplasms (Cancer)  Age-Adjusted Rate/100000 Population                            |                               | N.A.                                   |               |
| Deaths Due to Malignant Neoplasms (Cancer) (Black, Non-Hispanic)  Age-Adjusted Rate/100000 Population      | N.A.                          | N.A.                                   |               |
| Deaths Due to Cerebrovascular Disease (Stroke)  Age-Adjusted Rate/100000 Population                        |                               | N.A.                                   |               |
| Deaths Due to Cerebrovascular Disease (Stroke) (Whites, Non-Hispanic)  Age-Adjusted Rate/100000 Population | N.A                           | N.A.                                   |               |
| Deaths Due to Unintentional Injuries  Age-Adjusted Rate/100000 Population                                  |                               | N.A.                                   |               |
| Deaths Due to Unintentional Injuries (Whites, Non-Hispanic)  Age-Adjusted Rate/100000 Population           | N.A.                          | N.A.                                   |               |
| Deaths Due to Chronic Lower Respiratory Deaths  Age-Adjusted Rate/100000 Population                        | N.A.                          | N.A                                    |               |
|  |                               |  |               |

RED: Poorest Performing Quartile

Yellow: Middle Quartiles

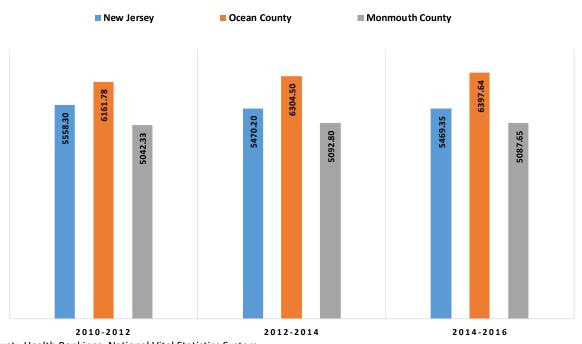
Green: Best Performing Quartile

## 2. Premature Deaths

An alternate method to reviewing crude or age-adjusted death rates as a measure of premature mortality is assessing Years of Potential Life Lost (YPLL). YPLL calculate the number of years of potential life lost for each death occurring before a predetermined end point, in this case, age 75 per 100,000 population. Premature deaths are reviewed to highlight potentially preventable adverse outcomes.

- The Ocean County YPLL rate increased from 6,161.78/100,000 for the period 2010-2012, to 6,397.64/100,000 for the period from 2014-2016. The 2014-2016 Ocean County YPLL rate (6,397.64/100,000) was higher than the statewide rate (5,469.35/100,000) and ranks in the middle performing statewide quartile.
- The 2014-2016 Ocean County YPLL rate (6,397.64/100,000) ranked in the middle quartile in terms of the County Health Ranking benchmark (5,300/100,000).

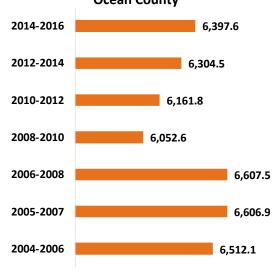
Premature Death: Years of Potential Life Lost Before Age 75: Age-Adjusted Rate/100,000 Population State & County Comparisons, 2010-2016



Source: County Health Rankings; National Vital Statistics System

Note: Every death occurring before the age of 75 contributes to the total number of years of potential life lost

# Premature Death: Years of Potential Life Lost Before Age 75: Age-Adjusted Rate/100,000 Population Ocean County



5600 5800 6000 6200 6400 6600 6800

Source: County Health Rankings; National Vital Statistics System

Note: Every death occurring before the age of 75 contributes to the total number of years of potential life lost

County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 5300.00 Ocean County 2014-2016: 6,397.64

A Robert Wood Johnson Foundation program

| Indicator  | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|--|-------------------------------|--|---------------|
| Premature Death: Years of Potential Life Lost Before Age 75  Age-Adjusted Rate/100000 Population | N.A.                          |  |               |
| RED: Poorest Performing Quartile   |                               |  |               |
| Yellow: Middle Quartiles   |                               |  |               |
| Green: Best Performing Quartile  |                               |  |               |

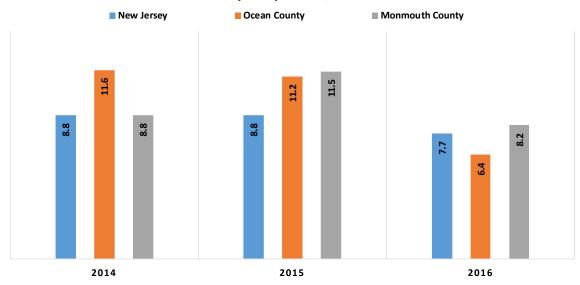
## 3. <u>Behavioral Health-Related Deaths</u>

Mental health is a state of well-being in which an individual realizes his or her own abilities, copes with normal life stresses, works productively, and is able to contribute to his or her community. Mental illness is diagnosable mental disorders or health conditions characterized by alterations in thinking, mood, or behavior (or some combination thereof) associated with distress and/or impaired functioning. Depression, the most common type of mental illness, is associated with higher rates of chronic disease, increased health care utilization, and impaired functioning. However, rates of mental illness treatment remain low, and often the treatment received is inadequate.

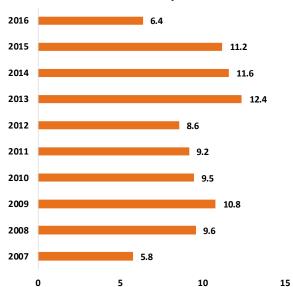
- Statewide deaths due to suicide decreased from 2014 (8.8/100,000) to 2016 (7.7/100,000), or 12.5%, while Ocean County's suicide rate declined from 11.6/100,000 to 6.4/100,000 for the same period.
- Ocean County's 2016 suicide rate was lower than the rate statewide and the rate for Monmouth County, and ranked in the middle quartile for all New Jersey counties.
- The 2016 Ocean County suicide rate (6.4/100,000) was lower than the *Healthy People 2020* target (10.2/100,000) and ranked in the top performing quartile.

# Deaths Due to Suicide: Age-Adjusted Rate/100,000 Population

# State & County Comparisons, 2014-2016



# **Ocean County**



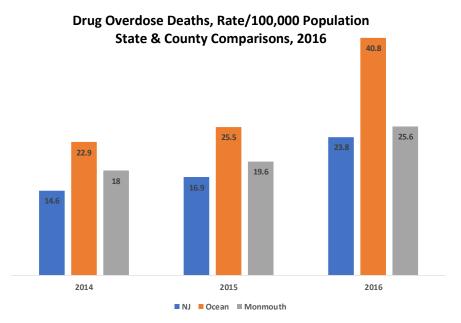
Source: NJDOH Center for Health Statistics; NJ State Health Assessment Data

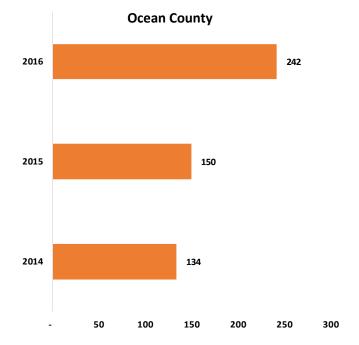


Baseline: 11.3 Target: 10.2

Ocean County 2016: 6.4

- Between 2014 and 2016, the rate of drug overdose deaths in Ocean County increased from 22.9/100,000 to 40.8/100,000.
- Drug overdose deaths in Ocean County increased from 134 to 242.





Source: http://www.nj.gov/humanservices/dmhas/publications/statistical/Substance%20Abuse%20Overview/2016/statewide.pdf



National Benchmark: 10 Ocean County 2016: 25.0

A Robert Wood Johnson Foundation program

| Indicator  | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|--|-------------------------------|--|---------------|
| <b>Deaths Due to Suicide</b> <i>Age-Adjusted Rate/100,000 Population</i> |                               | N.A.                                   |               |
| Drug overdose deaths   | N.A.                          |  |               |
|  |                               |  |               |

RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

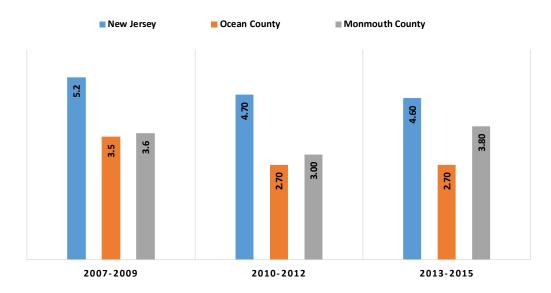
## 4. <u>Infant Mortality</u>

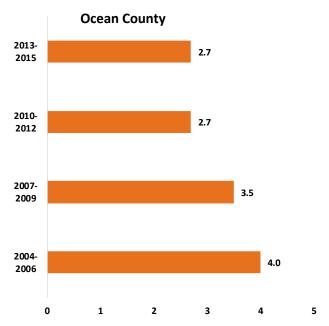
Infant mortality, the death of a baby prior to his or her first birthday, is traditionally used as an indicator of the health and well-being of a nation. Infant mortality is calculated as the number of infant deaths under age 1 per 1,000 live births. Great disparities exist in infant mortality by age, race, and ethnicity. Most frequent causes are serious birth defect, preterm birth / low birth weight, Sudden Infant Death Syndrome (SIDS), maternal complications of pregnancy, and injury.<sup>57</sup>

- The overall infant mortality rate declined statewide from the period 2007-2009 (5.2/100,000) to 2013-2015 (4.6/100,000).
- The Ocean County infant mortality rate declined from 3.5/100,000 to 2.7/100,000 between 2013 and 2015.
- Ocean County ranks in the top performing quartile among New Jersey counties for overall infant mortality in 2013-2015 and is in the best performing quartile for the *Healthy People 2020* target and the County Health Ranking benchmark.

<sup>&</sup>lt;sup>57</sup> http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

# Infant Mortality Rate: Rate of Infant (Under 1 Year) Deaths/1,000 Live Births State & County Comparisons, 2007-2015





Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2015 is most recent year available.



Baseline: 6.7 Target: 6.0

Ocean County 2013-2015: 2.7

County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 4.0 Ocean County 2015: 2.7

A Robert Wood Johnson Foundation program

# 5. Low and Very Low Birth Weight Infants

Birth weight is the most important factor affecting neonatal mortality and a significant determinant of post neonatal mortality. Low birth weight infants (less than 2,500 grams) are at an increased risk for health problems ranging from neurodevelopmental disabilities to respiratory disorders.<sup>58</sup> Racial disparities in low birth weight babies persist; nationally, non-Hispanic Black infants continue to die at nearly twice the rate of non-Hispanic Whites.

#### Low Birth Weight

- In 2016, Ocean County had a lower percentage of low birth weight babies (6.4%) than the State (8.1%) and Monmouth County (7.4%).
- The 2016 percent of Ocean County low birth weight babies was lower than the *Healthy People* 2020 target of 7.8%.
- The percentage of Ocean County low birthweight babies was higher among Blacks (20.1%) than for Whites (5.8%) and Hispanics (6.4%) in 2016.

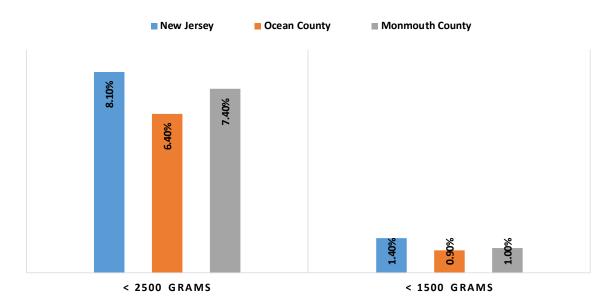
Very low birth weight babies (less than 1,500 grams) are at greater risk of adverse outcomes than low birth weight babies.

### Very Low Birth Weight

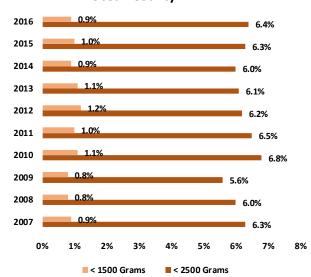
- In 2016, 0.9% of Ocean County babies were very low birth weight as compared to 1.4% statewide.
- The 2016 percent of very low birth weight babies in Ocean County was lower than the rate in Monmouth County (1.0%).
- By race, between 2011 and 2016, the percent of low birth weight babies decreased among Whites from 1.0% to 0.7%, increased from 3.1% to 3.9% for Blacks, and increased from 1.3% to 1.5% for Hispanics.

<sup>&</sup>lt;sup>58</sup> http://www.cdc.gov/PEDNSS/how\_to/interpret\_data/case\_studies/low\_birthweight/what.htm

# Birth Weight: Percent of Live Births with Low and Very Low Birth Weight State & County Comparisons, 2016



## **Ocean County**



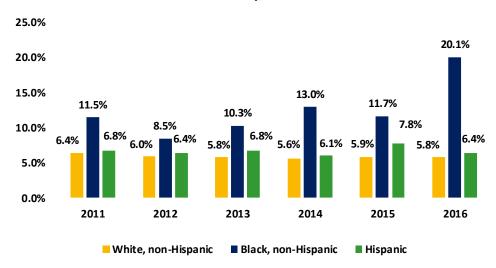
Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database Note: Percentages are based on the total number of live births for the County and State



# <2500/<1500

Baseline: 8.20% / 1.50% Target: 7.80% / 1.40% Ocean County 2016: 6.40% / 0.90%

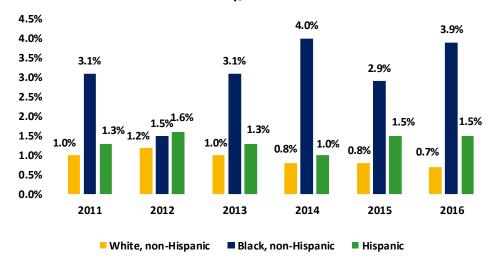
# Low Birth Weight by Mother's Race/Ethnicity: Percent of Live Births with Low Birth Weight Ocean County, 2011-2016



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database

Note: \*Percentages are based on the total number of Low or Very Low Birth Weight Births / Live births for the County and State

Very Low Birth Weight by Mother's Race/Ethnicity: Percent of Live Births with Very Low Birth Weight
Ocean County, 2011-2016



Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database

Note: \*Percentages are based on the total number of Low or Very Low Birth Weight Births / Live births for the County and State

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Infant Mortality Rate Rate of Infant (Under 1 Year) Deaths/1000 Live Births                 |                               |  |               |
| Low Birthweight (<2500 Grams) Percentage of Live Births                                     |                               | N.A.                                   |               |
| Low Birthweight (<2500 Grams) (Black Non-Hispanic) Percentage of Live Births                | N.A.                          | N.A.                                   |               |
| Very Low Birthweight (<1500 Grams) Percentage of Live Births                                |                               | N.A.                                   |               |
| Very Low Birthweight (<1500 Grams) (Black Non-Hispanic) Percentage of Live Births           | N.A.                          | N.A.                                   |               |
| RED: Poorest Performing Quartile  Yellow: Middle Quartiles  Green: Best Performing Quartile |                               |  |               |

#### 6. Health Status and Behavioral Health Status

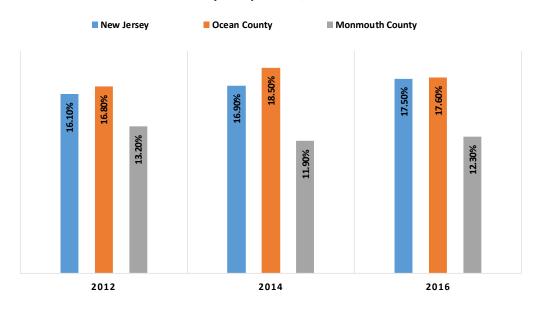
Health status and behavioral health status are broad multidimensional concepts including self-report measures of physical and mental health.

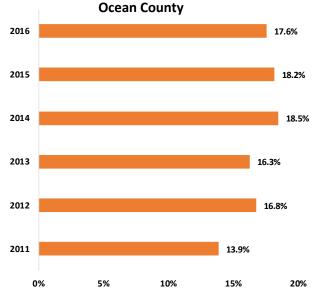
Behavioral Risk Factor Surveillance System (BRFSS), the nation's premier system of health-related telephone surveys, collects data about U.S. residents regarding health-related risk behaviors, chronic health conditions and use of preventive services. In 1984, the survey began collecting data in 15 states and is currently conducted in all states including Washington D.C. and three United States territories. The most recent data available are for the year 2016.

#### **General Health Status**

- Between 2012 and 2016, BRFSS data reported an increase in the percent of Ocean County residents who indicate their health as "poor or fair," from 16.8% to 17.6%.
- In 2016, 17.5% of New Jersey respondents report that their health is "fair or poor," slightly lower than the rate among Ocean County residents.
- As compared to all New Jersey counties, Ocean County residents with "fair or poor" health rank in the middle performing quartile.
- As compared to the County Health Ranking, Ocean County residents report with "fair or poor" health rank in the bottom quartile.

# Percent of Respondents Reporting Their Health as "Fair or Poor" State & County Comparisons, 2012-2016





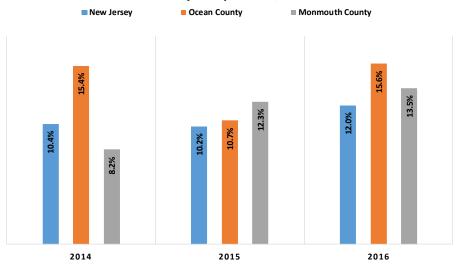
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

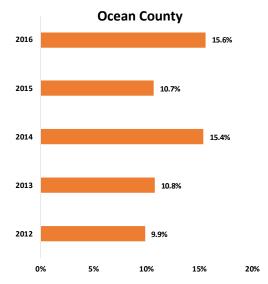
County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 12% Ocean County 2016: 17.6%

- NJBRFSS reports that the number of Ocean County adults with 14 or more physically unhealthy
  days (in the last 30 days) increased 5.7 percentage points between 2012 (9.9%) and 2016 (15.6%).
- Ocean County residents with 14+/30 days of poor physical health rank in the poorest performing quartile in New Jersey and compared to the County Health Ranking benchmark.

# Percent Reporting 14 or More of the Past 30 Days Physical Health Not Good: Age-Adjusted State & County Comparisons, 2014-2016





Source: New Jersey Behavioral Risk Factor Survey

Note: The physical health measure is based on response to the question: "Now thinking about your physical health which includes physical illness and injury for how many days during the past 30 days was your physical health not good?"



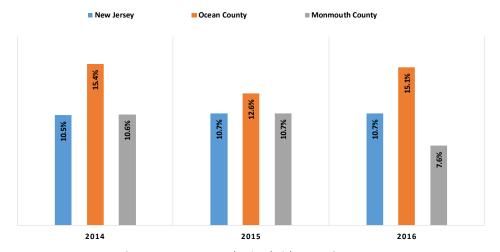
National Benchmark: 3.0% Ocean County 2016: 15.6%

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| Reported "Fair" or "Poor" Health Percent of Respondents                                     | N.A.                          |  |               |
| Physically Unhealthy Days Reported in the Past 30 Days Average Age-Adjusted Number          | N.A.                          |  |               |
| RED: Poorest Performing Quartile  Yellow: Middle Quartiles  Green: Best Performing Quartile |                               |  |               |

#### **Behavioral Health Status**

- County-wide, adults who report 14 or more of the past 30 days with "not good" mental health status decreased slightly from 15.4% in 2012, to 15.1% in 2016. The 2016 Ocean County report of 14+/30 days with "not good" mental health was higher than New Jersey at 10.7%.
- As compared to all New Jersey counties, Ocean County residents with 14+/30 days of poor physical health ranks in the worst performing quartile.
- As compared to County Health Ranking Ocean County ranks in the bottom quartile.

# Frequent Mental Distress Percent Reporting 14 or More of the Past 30 Days Mental Health Not Good State & County Comparisons, 2014-2016



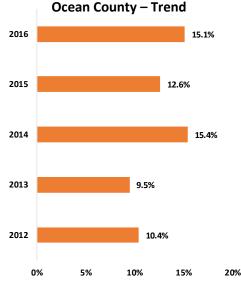
Source: New Jersey Behavioral Risk Factor Survey

Note: The physical health measure is based on response to the question: "Now thinking about your physical health which includes physical illness and injury for how many days during the past 30 days was your physical health not good?"

County Health Rankings & Roadmaps Building a Culture of Health, County by County

National Benchmark: 3.1% Ocean County 2016: 15.1%

Frequent Mental Distress
Percent Reporting 14 or More of the Past 30 Days Mental Health Not Good

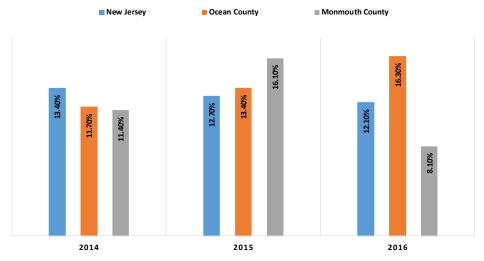


Source: New Jersey Behavioral Risk Factor Survey

Note: The physical health measure is based on response to the question: "Now thinking about your physical health which includes physical illness and injury for how many days during the past 30 days was your physical health not good?"

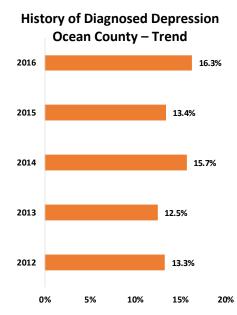
- Between 2012 and 2016, the percent of Ocean County residents reporting a history of depression increased from 11.7% to 16.3%.
- The Ocean County rate for history of depression was higher than the statewide rate (12.1%) and ranked in the worst performing quartile among New Jersey counties.

# History of Diagnosed Depression State & County Comparisons 2014-2016



Source: New Jersey Behavioral Risk Factor Survey

Note: The frequent mental distress health measure is based on response to the question: "Now thinking about your mental health which includes stress depression and problems with emotions for how many days during the past 30 days was your mental health not good?"



Source: New Jersey Behavioral Risk Factor Survey

Note: The frequent mental distress health measure is based on response to the question: "Now thinking about your mental health which includes stress depression and problems with emotions for how many days during the past 30 days was your mental health not good?"

| Indicator   |                | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|----------------|-------------------------------|--|---------------|
| Mentally Unhealthy Days Reported in th<br>Average Age-Adjusted Number | e Past 30 Days | N.A.                          |  |               |
| History of Diagnosed Depression                                       |                | N.A.                          | N.A.                                   |               |
| RED: Poorest Performing Quartile<br>Yellow: Middle Quartiles          |                |                               |  |               |
|   |                |                               |  |               |

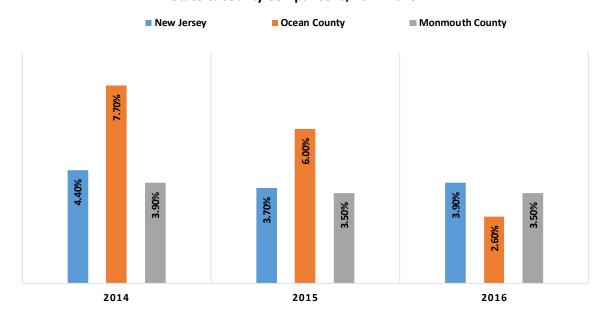
# 7. Morbidity

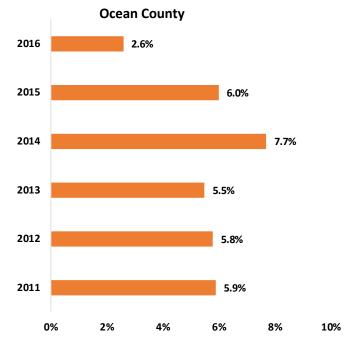
Morbidity, the rate of disease incidence, is a measure of quality of life and how healthy a population is in terms of being disease free.

#### **Heart Disease**

- According to BRFSS, the percent of Ocean County residents told they have angina or coronary heart disease decreased from 7.7% in 2014, to 2.6% in 2016. In 2016, BRFSS indicates 3.9% of New Jersey respondents have angina or coronary heart disease.
- As compared to New Jersey, Ocean County residents reporting angina or coronary heart disease ranks in the top performing quartile.

# Cardiovascular Disease (Percent "Yes") Were You Ever Told You Had Angina or Coronary Heart Disease? State & County Comparisons, 2014-2016

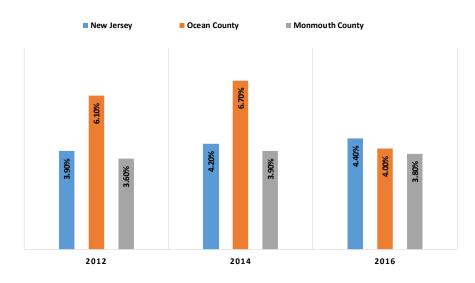


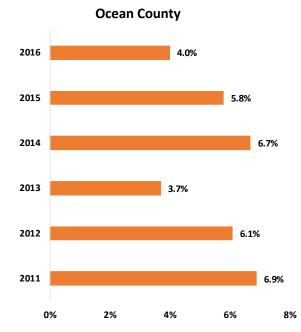


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

- According to BRFSS, the percent of Ocean County residents told they have had a heart attack declined 2.9 percentage points from 6.1% in 2011 to 4.0% in 2016. In 2016, BRFSS indicated 4.0% of New Jersey respondents were told they had a heart attack.
- Ocean County ranks in the middle performing quartile compared to all 21 New Jersey counties for residents who had a heart attack.

Cardiovascular Disease (Percent "Yes")
Were You Ever Told You Had a Heart Attack? (Myocardial Infarction)



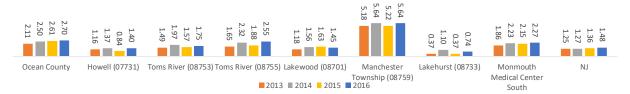


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

#### Heart Disease Hospital Use Rates for County, MMCSC Service Area, and Selected Towns

- In 2016, the rate of Ocean County residents using a hospital service with a heart attack diagnosis was higher than those in the State and in the MMCSC Service Area.
- Manchester Township had the highest rate of patients hospitalized with a diagnosis of heart attacks at 5.64/1,000 and Lakehurst residents reported the lowest rate of heart attack at 0.74/1,000.

#### Heart Attack: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges for MS-DRGs 280-285

- In 2016, the rate of patients hospitalized with a diagnosis of heart failure in Ocean County was higher than MMCSC's Service Area.
- In 2016, Manchester Township residents exhibited the highest rate of patients hospitalized with a diagnosis of heart failure/CHF at 15.40/1,000 and Howell residents had the lowest rate at 2.61/1,000.

#### Heart Failure/CHF: Acute Care IP; Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016

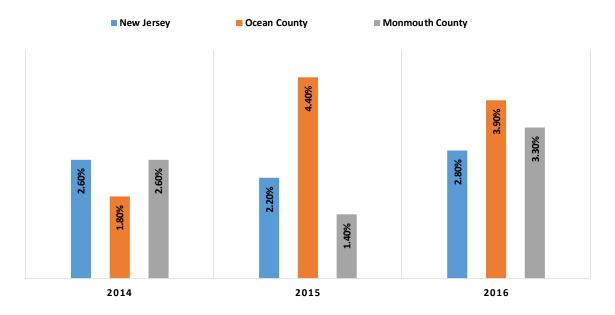


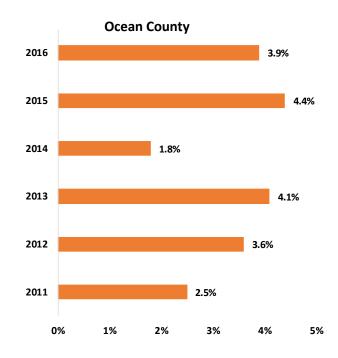
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges for MS-DRGs 291-293

#### Stroke

- In 2016, BRFSS reported 3.9% of Ocean County respondents indicated they had a stroke.
- In 2016, Ocean County (3.9%) reported a higher rate of strokes than the State (2.8%) and Monmouth County residents (3.3%).
- Ocean County ranks in the bottom quartile of New Jersey counties for percentage of the population that had a stroke.

# Cardiovascular Disease (Percent "Yes"): Have You Ever Been Told You Had a Stroke? State & County Comparisons, 2014-2016





Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

# Stroke Hospital Use Rates for County, MMCSC Service Area, and Selected Towns

- From 2013 through 2016, Ocean County had a higher rate of patients using a hospital service with stroke/TIA diagnosis compared to the MMCSC Service Area.
- In 2016, Manchester Township (10.45/1,000) had a higher rate for patients hospitalized for stroke/TIA diagnosis than the State, County or MMCSC Service Area.

#### Stroke/TIA: Acute Care IP; Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



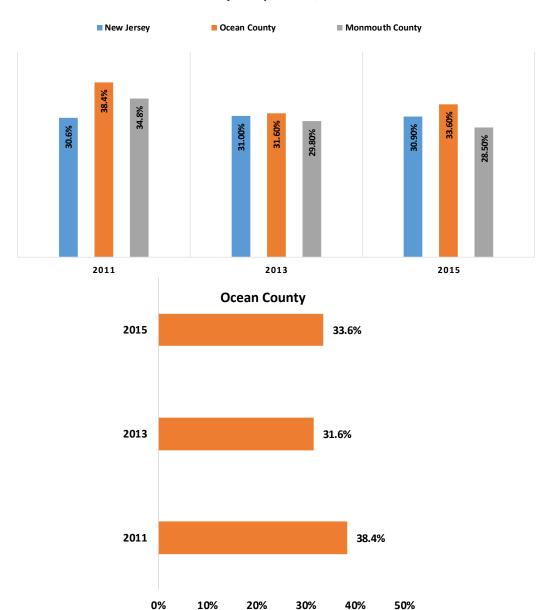
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges for MS-DRGs 061-069

#### Hypertension and High Cholesterol

According to the American Heart Association, risk factors associated with developing cardiovascular disease include: high blood pressure, high cholesterol, cigarette smoking, physical inactivity, poor diet, overweight and obesity and Diabetes.

- In 2015, BRFSS reported 33.6% of Ocean County adults were told that they suffered from hypertension, more than New Jersey adults (30.9%), and adults in Monmouth County (28.5%).
- Between 2011 and 2015, Ocean County adults who were told they had high blood pressure decreased 4.8 percentage points.
- In 2015, Ocean County (33.6%) was higher than the *Healthy People 2020* target (26.9%) for adults with high blood pressure.

# Adults Who Have Been Told They Have Hypertension State & County Comparisons, 2011-2015



Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



# Hypertension Hospital Use Rates for County, MMCSC Service Area, and Selected Towns

- Manchester Township had a higher rate of patients using a hospital service with a diagnosis of hypertension for each year from 2013 through 2016 than the MMCSC Service Area.
- In 2016, MMCSC's Service Area (161.97/1,000) had a lower rate of patients using a hospital service with a hypertension diagnosis than Ocean County (175.31/1,000).

# Hypertension: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016

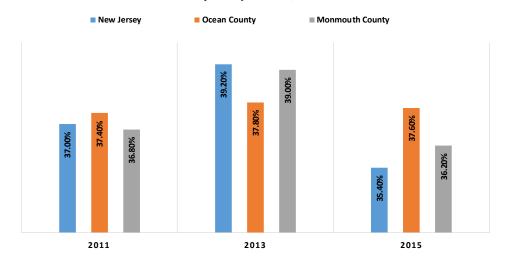


Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes in Range 401-405.99 (Appearing Anywhere In First 13 DX Codes On Patient Record)

#### Cholesterol

- In the 2015 BRFSS, 37.6% of Ocean County adults who had their cholesterol checked were told it was high, higher than New Jersey adults (35.4%) and adults in Monmouth County (36.2%).
- The percent of Ocean County adults reporting high cholesterol remained fairly consistent between 2011 and 2015.
- The 2015 Ocean County percent of adults who had their cholesterol checked and were told it was
  high was nearly three times the *Healthy People 2020* target of 13.5%. Ocean County is in the
  lowest performing quartile with respect to the *Healthy People 2020* target.

# Adults Who Have Had Their Cholesterol Checked and Told It Was High State & County Comparisons, 2011-2015



# 

Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



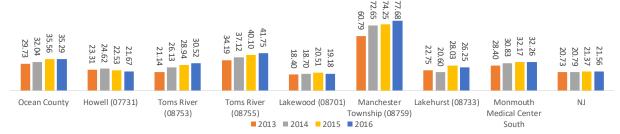
Baseline: 15.0 % Target: 13.5%

Ocean County 2015: 37.6%

### High Cholesterol Hospital Use Rates for County, MMCSC Service Area, and Selected Towns

- The rate of patients using a hospital service with a diagnosis of high cholesterol was higher in MMCSC's Service Area than the State.
- In 2016, the rate of patients using a hospital service with a diagnosis of high cholesterol was highest in Manchester Township in comparison to the other geographies.

#### High Cholesterol: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016

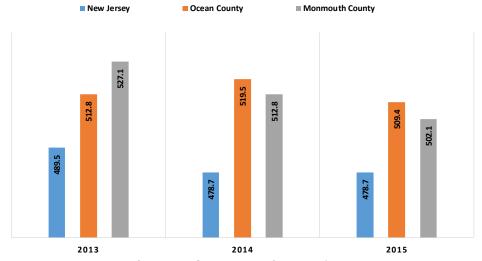


Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes 272.0 or 272.2 (Appearing Anywhere In First 13 DX Codes On Patient Record)

#### Cancer

- Incidence of overall invasive cancer in Ocean County decreased from 799.5/100,000 in 2007, to 509.4/100,000 in 2015.
- In 2015, the overall incidence of cancer in Ocean County was higher than the State and Monmouth County.

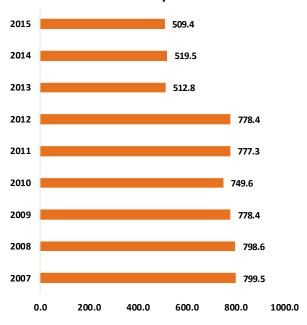
# Overall Invasive Cancer Incidence: Age-Adjusted Rate / 100,000 Population State & County Comparisons, 2013-2015



Source: NJDOH New Jersey Cancer Registry

 $Note: The \ Rate \ / \ 100,000 \ for \ Prostate \ Cancer \ is \ based \ on \ Males \ and \ the \ Rate \ / \ 100000 \ for \ Breast \ Cancer \ is \ based \ on \ Females$ 

# Overall Invasive Cancer Incidence: Age-Adjusted Rate / 100,000 Population Ocean County – Trend



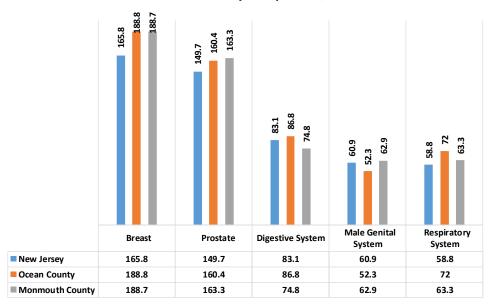
Source: NJDOH New Jersey Cancer Registry

Note: The Rate / 100,000 for Prostate Cancer is based on Males and the Rate / 100000 for Breast Cancer is based on Females

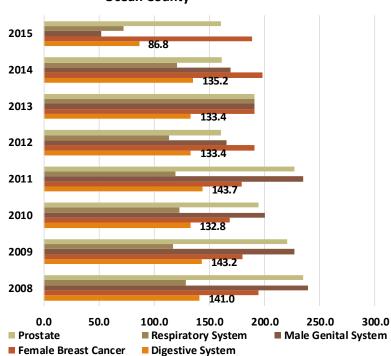
# Incidence by Site

- In Ocean County, breast (188.8/100,000) and prostate (160.4/100,000) cancers had the highest incidence rates among the top five cancers, followed by digestive system (86.8/100,000), respiratory system (72.0/100,000) and male genital system (52.3/100,000).
- In 2015, only male genital system cancer incidence rates in Ocean County were lower than New Jersey.
- Prostate and digestive system cancer incidence for Ocean County performs in the middle quartile in comparison to all 21 New Jersey counties.
- Male genital system cancer performs in the top quartile and breast and respiratory cancers perform in the worst performing quartile.

# Invasive Cancer Incidence by Site: Age-Adjusted Rate / 100,000 Population State & County Comparison, 2015



### **Ocean County**



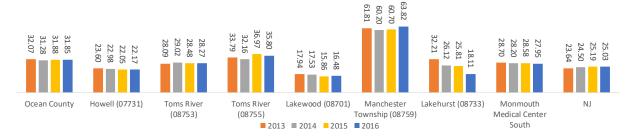
Source: NJDOH New Jersey Cancer Registry

 $Note: The \ Rate \ / \ 100000 \ for \ Prostate \ Cancer \ is \ based \ on \ Males \ and \ the \ Rate \ / \ 100000 \ for \ Breast \ Cancer \ is \ based \ on \ Females$ 

#### Cancer Hospital Use Rates for County, MMCSC Service Area, and Selected Towns

- The 2016 rate of patients using a hospital service with a cancer diagnosis per 1,000 population was highest in Manchester Township compared to the other geographies.
- In 2016, the rate for patients discharged with a cancer diagnosis/1,000 population was higher in the County (31.85/1,000) than in the MMCSC Service Area (27.95/1,000).

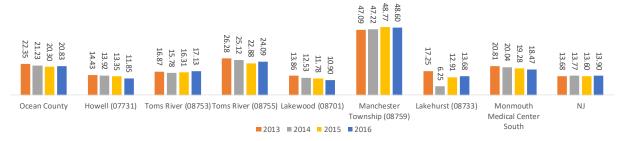
#### Cancer: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census Definition: Inpatient, Same Day Stay and ED Discharges – New Solution's Inc. Oncology Product Line (includes History of Cancer)

- The 2016 rate of residents using a hospital service that had a history of cancer diagnosis was highest in Manchester Township (48.60/1,000) in terms of the comparison areas.
- In 2016, the rate of patients hospitalized with a history of cancer diagnosis/1,000 population was lowest in Lakewood (10.90/1,000).

# History of Cancer: Acute Care Inpatient, Same Day and ED Discharges; Rate / 1,000 Population



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census

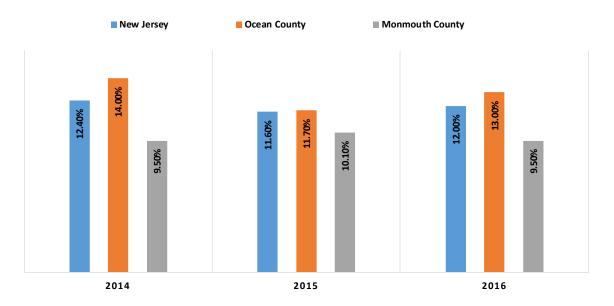
Definition: Inpatient, Same Day Stay and ED Discharges – New Solution's Inc. Oncology Product Line (History of Cancer Only)

#### **Asthma**

Asthma, a chronic lung disease often with childhood onset, inflames and narrows airways and causes recurring periods of wheezing, chest tightness, shortness of breath and coughing.<sup>59</sup> The exact cause of asthma is unknown; however, researchers believe genetic and environmental factors are involved. Factors may include: atopy, parents with asthma, certain respiratory infections during childhood and contact with some airborne allergens or exposure to some viral infections in infancy or in early childhood when the immune system is developing.<sup>60</sup>

- According to the 2016 BRFSS survey, 13.0% of Ocean County adults reported ever being told they
  have asthma.
- The percent of Ocean County residents with asthma (13.0%) is higher than the State (12.0%), and Monmouth County (9.5%). Compared to all 21 New Jersey counties, Ocean County was in the middle quartile.

Asthma (Percent "Yes"): Adults Who Have Ever Been Told They Have Asthma State & County Comparisons, 2014-2016

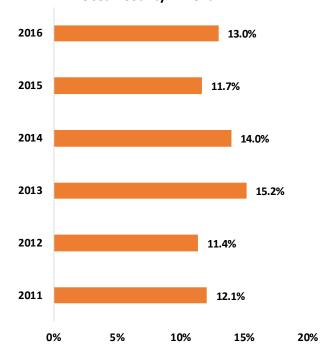


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

<sup>59</sup> http://www.nhlbi.nih.gov/health/health-topics/topics/asthma

<sup>60</sup> ibid

Asthma (Percent "Yes"): Adults Who Have Ever Been Told They Have Asthma
Ocean County – Trend

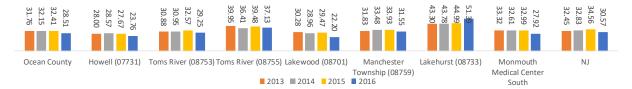


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

# Asthma Hospital Use Rates for County, MMCSC Service Area, and Selected Towns

- Rates of residents using a hospital service with a diagnosis of asthma were highest in Lakehurst in 2016 (51.39/1,000) of the comparative geographies.
- In 2016, the rate of MMCSC Service Area residents (27.92/1,000) using a hospital service with a diagnosis of asthma was lower in Lakewood (22.20/1,000) then the Ocean County rate (28.51/1,000).

Asthma: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



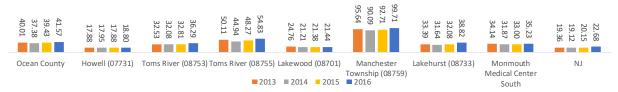
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes In the Range 493-493.9 (Appearing Anywhere In First 13 DX Codes On Patient Record)

#### **COPD** (excluding Asthma)

Chronic Obstructive Pulmonary Disease (COPD) is a group of diseases that cause airflow blockage and breathing-related problems including emphysema, chronic bronchitis. In the United States, tobacco smoke is a key factor in the development and progression of COPD, although exposure to air pollutants in the home and workplace, genetic factors, and respiratory infections also play roles.

- Rates of residents hospitalized with a diagnosis of COPD were higher in Manchester Township (99.71/1,000) in 2016 than in the MMCSC Service Area (35.23/1,000).
- In 2016, the rate of hospitalization for patients with a diagnosis of COPD was lowest in Howell (18.80/1,000) compared to the other Ocean County comparison areas.

# COPD (excluding Asthma): Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes In the Ranges 490-492 & 494-496 (Appearing Anywhere In First 13 DX Codes On Patient Record)

#### **Diabetes**

Diabetes is indicated by high levels of blood glucose as a result of problems in insulin production, effectiveness, or a combination of both. The three most common types of diabetes are Type 1, Type 2 and Gestational. Individuals with diabetes may develop serious health complications including heart disease, stroke, kidney failure, blindness, amputation and premature death.

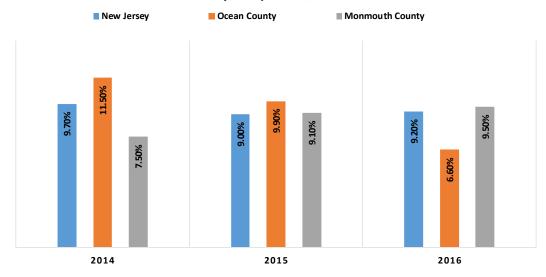
Type 1 develops when insulin producing cells located in the pancreas are destroyed. There is no known way to prevent Type 1 diabetes. In order to survive, Type 1 diabetics must have insulin delivered by injection or pump. Type 2 primarily onsets with insulin resistance disorder in which cells within the muscles, liver, and fat tissue are unable to properly use insulin. Higher risk for developing Type 2 diabetes is associated with older age, obesity, family history of diabetes, history of gestational diabetes, impaired glucose metabolism, physical inactivity, and race/ethnicity. African Americans, Hispanics/Latinos, American Indians, some Asians, and Native Hawaiians or other Pacific Islanders are at particularly high risk for Type 2. Gestational diabetes is a form of glucose intolerance diagnosed during the second or third trimester of pregnancy. The risk factors for gestational diabetes are similar to those for type 2 diabetes.<sup>61</sup>

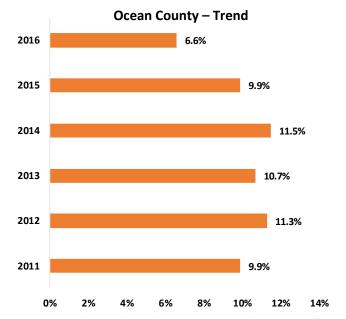
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<sup>61</sup> http://www.cdc.gov/diabetes/pdfs/data/2014-report-generalinformation.pdf

- Diabetes is decreasing among Ocean County residents. Between 2014 (11.5%) and 2016 (6.6%), the rate decreased by 4.9 percentage points.
- In 2016, Ocean County had a lower percentage of patients reporting diabetes than the State and Monmouth County. Ocean County is in the top performing quartile for diabetes as compared to all 21 counties statewide.

# Diabetes (Percent "Yes"): Have You Ever Been Told by a Doctor That You Have Diabetes? State & County Comparison, 2014-2016





Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)



National Benchmark: 8.0% Ocean County 2016: 7.2%

- High rates of residents using a hospital service with a diabetes diagnosis were observed in Manchester Township (131.00/1,000) and Toms River 08755 (75.55/1,000).
- In 2016, the rate of patients using a hospital service with diabetes diagnosis was lower in the MMCSC Service Area (57.44/1,000) than in the County (60.69/1,000).

#### Diabetes: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population 2013-2016

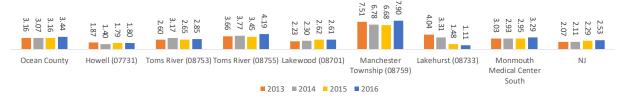


Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes In The Range 249.00-250.03 (Appearing Anywhere In First 13 DX Codes On Patient Record)

Diabetes is a contributing factor to renal failure. More than 35% of U.S. adults with diabetes have chronic kidney disease. High blood sugar and high blood pressure increase the risk that chronic kidney disease will eventually lead to kidney failure. 62

• In 2016, the rate of Ocean County residents using a hospital service with diagnosis of renal failure (3.44/1,000) was higher than the State and the MMCSC Service Area.

## Renal Failure: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges For MS-DRGs In the Range 682-685

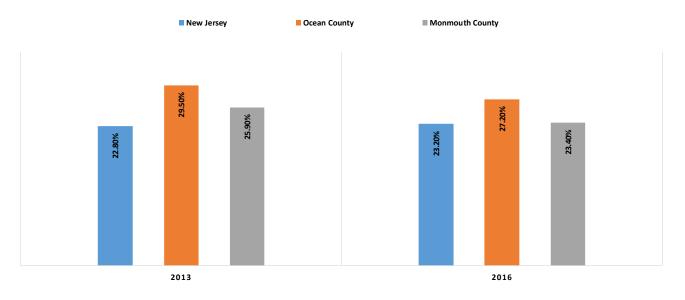
<sup>62</sup> http://www.cdc.gov/Features/WorldKidneyDay

#### **Arthritis**

Arthritis affects more than 1 in 5 adults and is the nation's most common cause of disability. Arthritis describes more than 100 rheumatic diseases and conditions that affect joints, the tissues which surround the joint and other connective tissue. The pattern, severity and location of symptoms vary depending on the specific form of the disease. Typically, rheumatic conditions are characterized by pain and stiffness in and around one or more joints. The symptoms can develop gradually or suddenly.<sup>63</sup>

- Between 2013 and 2016, the percentage of Ocean County residents reporting arthritis decreased from 29.5% to 27.2%.
- The percentage of Ocean County residents reporting arthritis was higher than the State (23.2%) and Monmouth County (23.4%). As compared to 21 counties statewide, Ocean County ranks in the bottom quartile.

Arthritis (Percent "Yes"): Adults Who Have Ever Been Told They Have Arthritis State and County Comparison 2013-2016



Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

<sup>63</sup> http://www.cdc.gov/arthritis/basics.htm

| Indicator  | HealthyPeople<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|--|------------------------------|--|---------------|
| Overall Cancer Incidence  Age-Adjusted Rate per 100,000Population              | N.A                          | N.A.                                   |               |
| Prostate Cancer Incidence Age-Adjusted Rate per 100,000Population              | N.A.                         | N.A.                                   |               |
| Breast Cancer Incidence Age-Adjusted Rate per 100,000 Population               | N.A.                         | N.A.                                   |               |
| Respiratory System Cancer Incidence  Age-Adjusted Rate per 100,000 Population  | N.A.                         | N.A.                                   |               |
| Digestive System Cancer Incidence  Age-Adjusted Rate per 100,000 Population    | N.A.                         | N.A.                                   |               |
| Male Genital System Cancer Incidence  Age-Adjusted Rate per 100,000 Population | N.A.                         | N.A.                                   |               |

| RED:    | Poorest Performing Quartile |
|---------|-----------------------------|
| Yellow: | Middle Quartiles            |
| Green:  | Best Performing Quartile    |

| Indicator   | Healthy People<br>2020 Target | County Health<br>Rankings<br>Benchmark | New<br>Jersey |
|---|-------------------------------|--|---------------|
| CARDIOVASCULAR DISEASE Were You Ever Told You Had Angina or Coronary Heart Disease? % Yes | N.A.                          | N.A.                                   |               |
| CARDIOVASCULAR DISEASE  Were You Ever Told You Had a Heart Attack?  % Yes                 | N.A.                          | N.A.                                   |               |
| STROKE Were You Ever Told You Had a Stroke? % Yes   | N.A.                          | N.A.                                   |               |
| Hypertension Awareness<br>Adults Who Have Been Told They Have High Blood Pressure         |                               | N.A.                                   |               |
| Cholesterol Awareness Adults Who Have Had Their Cholesterol Checked and Told it Was High  |                               | N.A.                                   |               |
| ASTHMA Adults Who Have Ever Been Told They Have Asthma % Yes                              | N.A                           | N.A.                                   |               |
| DIABETES Have You Ever Been Told by a Doctor That You Have Diabetes % Yes                 | N.A.                          |  |               |
| ARTHRITIS  Adults Who Have Ever Been Told They Have Arthritis  % Yes                      | N.A.                          | N.A.                                   |               |

RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

#### 6. ASSETS AND GAPS ANALYSIS

The Assets and Gaps Analysis summarizes and highlights each component of the CHNA. Assets highlight Ocean County's or Monmouth Medical Center's Southern Campus Service Area, indicating improvements over time in comparison to other counties and the State or in comparison to other races and genders. Gaps focus on disparities in Ocean County's or in Monmouth Medical Center's Southern Campus Service Area that have negative trends in comparison to other counties and the State or in comparison to other races or genders.

#### A. HEALTH DISPARITIES

#### **Economic Status**

#### <u>ASSETS</u>

- The median household income for Howell residents was higher than New Jersey and Ocean County at \$99,437, compared to \$73,702 and \$63,108 respectively.
- The percent of people living in poverty in Howell was 4.0% for individuals and 3.1% for families in 2016, the lowest in all towns in MMCSC Service Area.
- In 2016, the percent of unemployment in Ocean County (4.5%) was lower than New Jersey (5.2%).
- Between 2015 and 2017, the percentage of adults and children receiving TANF/WFNJ benefits declined by more than 50%.
- In 2016, 9.1% of Ocean County residents didn't complete high school, 2% lower than New Jersey.

### <u>GAPS</u>

- The median household income for Manchester Township (\$36,950) is about half the income of New Jersey (\$73,702) residents.
- Ocean County's 2016 income is \$10,594 lower than New Jersey.
- In 2016, Ocean County had a higher percentage of people and children living in poverty than New Jersey's poverty rates.
- The percent of people living in poverty in Lakewood was 31.5% for individuals and 26.3% for families in 2016, which are the highest levels of poverty in all the towns in the MMCSC Service Area.

#### Health and Health Care

#### ASSETS

- Since 2013, the non-elderly population without health insurance in Ocean County has trended downward, decreasing from 13.6% in 2013 to 8.8% in 2015.
- In 2016, Ocean County's ACSC ED visits for children age 0-17 (65.08/1,000) was lower than the statewide rate (81.95/1,000).
- In 2016, MMCSC's Service Area inpatient use rate for ACSC was lower than the Ocean County rate.

### **GAPS**

- In 2015, Ocean County (8.8%) was higher than the ambitious *Healthy People 2020* target of no person without health coverage. Ocean County also had a higher percentage of individuals without insurance than the CHR Benchmark.
- Between 2013 and 2015, the ratio of population to primary care physicians in Ocean County increased from 2,099:1 to 2,230:1.
- Ocean County performs in the worst performing quartile of all New Jersey counties for the ratio of primary care physicians to population.
- The 2016 Ocean County's adult ED ACSC rate (56.80/1,000) is higher than the statewide rate (52.13).

#### Neighborhood and Built Environment

#### **ASSETS**

- Ocean County experienced a 28.2% reduction in fine particulate matter in between 2011 and 2012.
- In 2016, only 7.3% of Ocean County housing units were built before 1950, 71% lower than New Jersey overall at 25.8%.
- In 2015, 0.1% of Ocean County children had elevated blood lead levels compared to 0.52% statewide
- Between 2010 and 2015, the percent of Ocean County residents with limited access to healthy foods declined from 10.27% to 9.01%.

#### GAPS

- The violent crime rate for Ocean County places it in the worst performing quartile compared to the County Health Rankings benchmark.
- In 2010-2016, Ocean County (8.78/100,000) had more motor vehicle crash deaths than New Jersey (6.59/100,000).
- In 2016, Ocean County (39.0/100,000) had a higher death rate due to accidental poisoning and exposure to noxious substances than statewide (22.5/100,000).

#### B. HEALTH FACTORS

### **Clinical Care Measures**

#### <u>ASSETS</u>

- MMCSC's Service Area inpatient rate (189.97/1,000) was lower than the Ocean County rate.
- MMCSC's 2016 Service Area (344.90/1,000) ED use rate was lower than the State and County rates.
- Ocean County's primary c-section rate was 10 points lower than the State.
- County-wide, women with a VBAC fluctuated between 2013 and 2016, with an overall increase from 23.8% in 2013 to 24.5% in 2016.

### **GAPS**

- Ocean County's 2016 inpatient utilization rate (199.73/1,000) was higher than the State (160.22/1,000) rate.
- Ocean County's 2016 ED visit rate (360.63/1,000) was higher than the State rate (352.20/1,000).

#### **Health Behaviors**

#### **ASSETS**

- The birth rate among Ocean County teens aged 15-17 decreased from 7.0/1,000 in 2007-2011, to 4.1/1,000 in 2012-2016 and was in the middle quartile statewide.
- In 2016, Ocean County (33.1/100,000) had a far lower gonorrhea rate than the State (91.4/100,000).
- The 2016 Ocean County rate for no prenatal care was far less than the statewide rate (0.7%) compared to 1.6%, respectively.

### **GAPS**

- In 2016, only 65.9% of Ocean County women entered prenatal care in the first trimester compared to 72.1% in New Jersey. As compared to other New Jersey counties, Ocean County ranks in the worst performing quartile.
- The 2012-2016 Ocean County teen birth rate for Whites and Hispanics was higher relative to New Jersey and Monmouth County.
- The rate of chlamydia in Ocean County (193.1/1,000) was higher than the CHR national benchmark (145.1/1,000).
- Ocean County's HIV/AIDS prevalence rates increased between 2013 (127.0/100,000) and 2015 (135.4/100,000).

### **Individual Behaviors**

# <u>ASSETS</u>

- In 2016, the percent of smokers in Ocean County (13.1%) was lower than New Jersey (14.0%) and Monmouth County (19.6%).
- In 2016, Ocean County had the lowest percent of residents reporting heavy drinking, relative to residents of the State and Monmouth County.
- Alcohol impaired driving deaths in Ocean County decreased between 2010-2014 and 2012-2016 from 30.4% to 24.3%.

### **GAPS**

- Binge drinkers, those men that consume more than 5 drinks and women that consume more than 4 drinks in one occasion in Ocean County, increased from 10.6% in 2014, to 16.4% in 2016.
- The percent of Ocean County residents with a Body Mass Index (BMI) >=30 trended upward from 26.8% in 2012, to 28.8% in 2016.
- Within Ocean County, the percent of individuals reporting no leisure time physical activity trended upward from 25.5% in 2014, to 34.8% in 2016.

#### **Health Screenings and Immunizations**

### **ASSETS**

- In 2016, 79.9% of Ocean County women over age 40 had a mammography within the past two years, up 23.5 percentage points since 2012. Compared to all counties statewide, Ocean County performs in the top quartile.
- More Ocean County women (73.40%) over age 18 had a pap test within 3 years than in comparative Monmouth County (66.6%).
- In 2016, a greater percentage of Ocean County adults over age 50 (68.0%) participated in colon-rectal screening than in 2012 (62.1%).
- In 2016, 95.9% of first grade students in Ocean County had received all required immunizations compared to 92.7% statewide

#### GAPS

- The percent of 2016 Ocean County adults who received the flu shot in the past year (60.9%) was lower than the *Healthy People 2020* target of 90.0%.
- In 2016, the percent of Ocean County (72.3%) adults that have had a pneumonia vaccine is higher than statewide (66.5%) but less than the *Healthy People 2020* target (90.0%).
- In 2014, fewer Ocean County diabetic Medicare enrollees (86.4%) were screened than the CHR national benchmark (91%).

## **Behavioral Health Utilization**

## **ASSETS**

• In 2016, Ocean County (5.85/1,000) had a lower ED visit rate for substance abuse than the State (7.86/1,000) and Monmouth County (6.89/1,000).

#### GAPS

- In 2016, Ocean County (6.24/1,000) had a higher rate of residents with an inpatient hospitalization for a mental health condition among all age cohorts than the State.
- In 2016, Ocean County (14.65/1,000) had a higher ED visit rate for mental health conditions than the State (11.17/1,000) and Monmouth County (9.33/1,000).

- Inpatient use rates by age cohort in Ocean County trended upward among all the age cohort groups.
- In Ocean County, Naloxone administrations increased from 624 administrations to 977.

#### C. HEALTH OUTCOMES

#### **Mortality**

#### <u>ASSETS</u>

- Between 2013 and 2016, Ocean County age-adjusted mortality rates (AAMR) improved (decreased) for cancer (-0.2%), stroke (-16.6%), septicemia (-2.0%), nephritis (-7.8%), chronic lower respiratory disease (-3.9%), and influenza and pneumonia (-24.4%).
- The 2016 Ocean County stroke AAMR (26.1/100,000) was lower than the State (30/100,000) and Monmouth County (28.7/100,000).
- The Ocean County infant mortality rate declined from 3.5/100,000 to 2.7/100,000 between 2013 and 2015.

#### **GAPS**

- Between 2013 and 2016, five of the top 10 leading causes of death for Ocean County increased including: diseases of the heart (1.6%), unintentional injuries (49.7%), diabetes (0.7%), and Alzheimer's disease (11.2%).
- The 2016 Ocean County mortality rate due to heart disease (199.9/100,000) was higher than statewide (162.7/100,000).
- The 2016 Ocean County cancer AAMR (162.6/100,000) was higher than the State rate (148.3/100,000).
- In 2016, the mortality rate for malignant neoplasm deaths among Whites in Ocean County (165.5/100,000) was higher than for Hispanics (107.0/100,000).
- The 2016 Ocean County unintentional injury AAMR (64.8/100,000) was higher than the State (40.6/100,000) and Monmouth County (42.6/100,000).
- Since 2007, the AAMR for chronic lower respiratory disease has increased from 29.5/100,000 to 34.6/100,000 in 2016.
- The Ocean County YPLL increased from 6,161.8/100,000 for the period 2010-2012, to 6,397.6/100,000 for the period from 2014-2016. The Ocean County YPLL (6,397.6/100,000) was higher than the statewide rate (5,469.35/100,000).
- Drug overdose deaths in Ocean County increased from 134 to 242.

# **Maternal and Child Health**

### **ASSETS**

- The Ocean County infant mortality rate declined from 3.5/100,000 to 2.7/100,000 between 2013-2015.
- In 2016, Ocean County had a lower percentage of low birth weight babies (6.4%) than the State (8.1%) and Monmouth County (7.4%).

In 2016, 0.9% of Ocean County babies were very low birth weight as compared to 1.4% statewide.

#### GAPS

- The percentage of Ocean County low birthweight babies was higher among Blacks (20.1%) than for Whites (5.8%) and Hispanics (6.4%) in 2016.
- By race, between 2011 and 2016, the percent of low birth weight babies decreased among Whites from 1.0% to 0.7%, increased from 3.1% to 3.9% for Blacks, and increased from 1.3% to 1.5% for Hispanics.

#### Health Status and Behavioral Health Status

#### GAPS

- Between 2012 and 2016, BRFSS data reported an increase in the percent of Ocean County residents who indicate their health as "poor or fair," from 16.8% to 17.6%.
- NJBRFSS reports that the number of Ocean County adults with 14 or more physically unhealthy days (in the last 30 days) increased 5.7 percentage points between 2012 (9.9%) and 2016 (15.6%).
- County-wide, adults who report 14 or more of the past 30 days with "not good" mental health status decreased slightly from 15.4% in 2012, to 15.1% in 2016. The 2016 Ocean County report of 14+/30 days with "not good" mental health was higher than New Jersey at 10.7% and the National Benchmark (3.1%).
- Between 2012 and 2016, the percent of Ocean County residents reporting a history of depression increased from 11.7% to 16.3%. The Ocean County rate for history of depression was higher than the statewide rate (12.1%).

# **Morbidity**

#### <u>ASSETS</u>

- The percent of Ocean County residents told they have angina or coronary heart disease decreased from 7.7% in 2014, to 2.6% in 2016.
- The percent of Ocean County residents told they have had a heart attack declined 2.9 percentage points from 6.1% in 2011 to 4.0% in 2016.
- Incidence of overall invasive cancer in Ocean County decreased from 799.5/100,000 in 2007, to 509.4/100,000 in 2015.
- Diabetes is decreasing among Ocean County residents. Between 2014 (11.5%) and 2016 (6.6%), the rate decreased by 4.9 percentage points. In 2016, Ocean County had a lower percentage of patients reporting diabetes than the State (9.2%) and Monmouth County (9.5%).

### **GAPS**

- In 2016, the rate of Ocean County residents using a hospital service with a heart attack diagnosis was higher than those in the State and in the MMCSC Service Area.
- In 2016, the rate of patients hospitalized with a diagnosis of heart failure in Ocean County was higher than MMCSC's Service Area.
- In 2016, Ocean County (3.9%) reported a higher rate of strokes than the State (2.8%) and Monmouth County residents (3.3%).

- In 2015, Ocean County (33.6%) was higher than the *Healthy People 2020* target (26.9%) for adults with high blood pressure.
- In 2015, 37.6% of Ocean County adults who had their cholesterol checked were told it was high, higher than New Jersey adults (35.4%) and adults in Monmouth County (36.2%). It was nearly three times the *Healthy People 2020* target of 13.5%
- In Ocean County, breast (188.8/100,000), prostate (160.4/100,000), digestive system (86.8/100,000), and respiratory system (72.0/100,000) cancers had higher incidence rates than the State.
- The percent of Ocean County residents with asthma (13.0%) is higher than the State (12.0%), and Monmouth County (9.5%).
- The percentage of Ocean County residents reporting arthritis (27.2%) was higher than the State (23.2%) and Monmouth County (23.4%).

**APPENDICES** 

# **Community Health Needs Assessment**













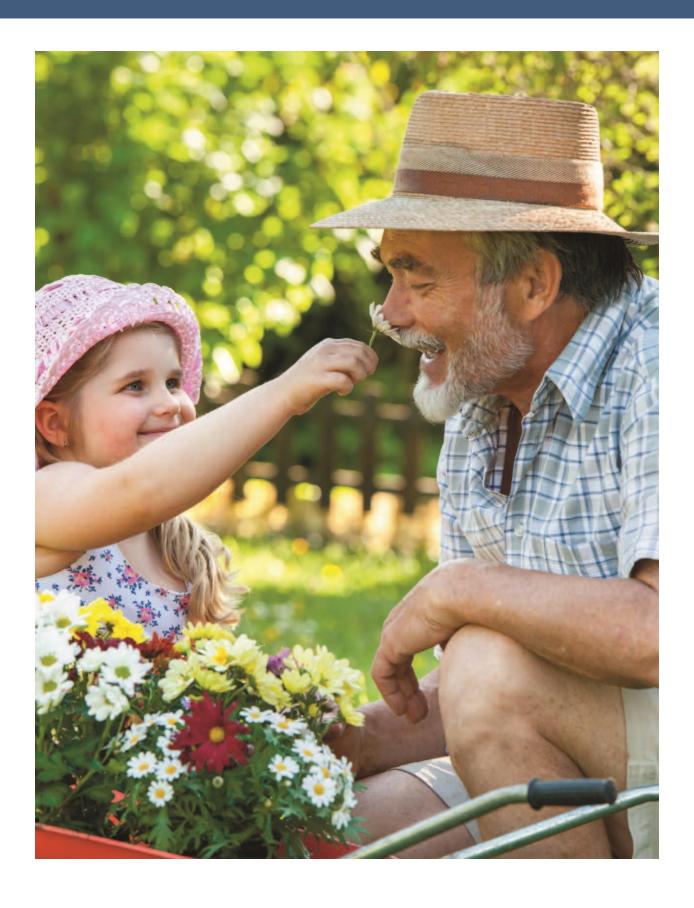






Monmouth Medical Center Southern Campus

RW Barnabas
HEALTH
Let's be healthy together.



# Introduction



In 2016, Monmouth Medical Center Southern Campus (MMCSC) conducted and adopted its Community Health Needs Assessment (CHNA) which consisted of a community health needs survey of residents in our service area, a detailed review of secondary source data and a survey of local health officials and community agencies. The Plan can be accessed at www.rwjbh.org/monmouth-medical-center-southern-campus/about/community-health-needs-assessment/

Through the CHNA process, health need priorities were chosen based on the Medical Center's capacity, resources,

competencies, and the needs specific to the populations it serves. The Implementation Plan addresses the manner in which MMCSC will address each priority need and the expected outcome for the evaluation of its efforts. The implementation plan which follows is based on the four selected priority areas\*:

- Access to Care
- Care Transitions
- Chronic Diseases
- · Health of Older Adults

MMCSC participates in the Ocean County Health Advisory Group which is made up of key stakeholders in the county (government, civic, community-based organizations and healthcare providers) who are focused on improving the health of community members. MMCSC will continue to work with the Ocean County Health Advisory Group, other providers and community organizations to improve the health and welfare of our communities.

\*The four focus areas do not represent the full extent of the Medical Center's community benefit activities or its support of the community's health needs. Other needs identified through the CHNA may be better addressed by other agencies/organizations or deferred to another timeframe.

MONMOUTH MEDICAL CENTER, SOUTHERN CAMPUS 1 COMMUNITY HEALTH NEEDS ASSESSMENT 1 1

#### Goal #1: Enhance Access to Care for Service Area Residents

#### **Key CHNA Findings:**

- More than 60% of Hispanic consumer respondents were extremely concerned with "not having a doctor who takes their insurance" or "not enough doctors who will take patients with Medicaid". MMCSC's payer mix has higher proportions of Medicaid & self-pay/charity care than Ocean County & New Jersey.
- An increasing elderly population, within primary service area challenged in care navigation and transportation.
- Of the 19 health concerns identified, 59% were concerned with cancer; the importance of free/low cost preventative services such as mammograms was cited by more than 70% of respondents, and 30% were concerned with serious mental illness. ER Discharges for Mental Diseases & Disorders in Ocean County increased between 2010 and 2014.

### Strategy/Initiative 1.1

Promote Monmouth Medical Center, Southern Campus Cancer Services/Programs within service area (Lakewood) to increase access for area residents.

#### Indicator/Metric

 Increase screening imaging services by 20% by 2017 (mammogram) for Lakewood residents.

### Tracking/Outcome

2016 Year End: 925 2017 Year End: 1076

### Strategy/Initiative 1.2

Improve access to medical care services for the serious mentally ill through the Integrated Health Home. (Project dependent on DSRIP funding).

#### Indicator/Metric

• Increase the number of actively engaged patients by 15% by 2017/2018

#### Tracking/Outcome

2016 Year End: 158 2017 Year End: 150



### Strategy/Initiative 1.3

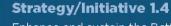
Improve access to care through navigation process.

#### Indicator/Metric

 Number of patients assigned to primary care MDs since navigation initiative started in July 2016

#### Tracking/Outcome

1,715 PCP appointments made in 2017



Enhance and sustain the Better Health Program to promote healthy aging.

#### Indicator/Metric

- Number enrolled in Better Health Program
- Number of educational programs
- Number of program attendees

### Tracking/Outcome

2016 Year End: 1,326 enrolled members; 31 educational programs;

1,347 attendees

2017 Year End: 1,972 enrolled members; 70 educational

programs; 1,443 attendees

## Strategy/Initiative 1.5

Continue to collaborate with both FQHCs (Ocean Health Initiatives and CHEMED) to enhance care coordination and access to care for medically indigent patients.

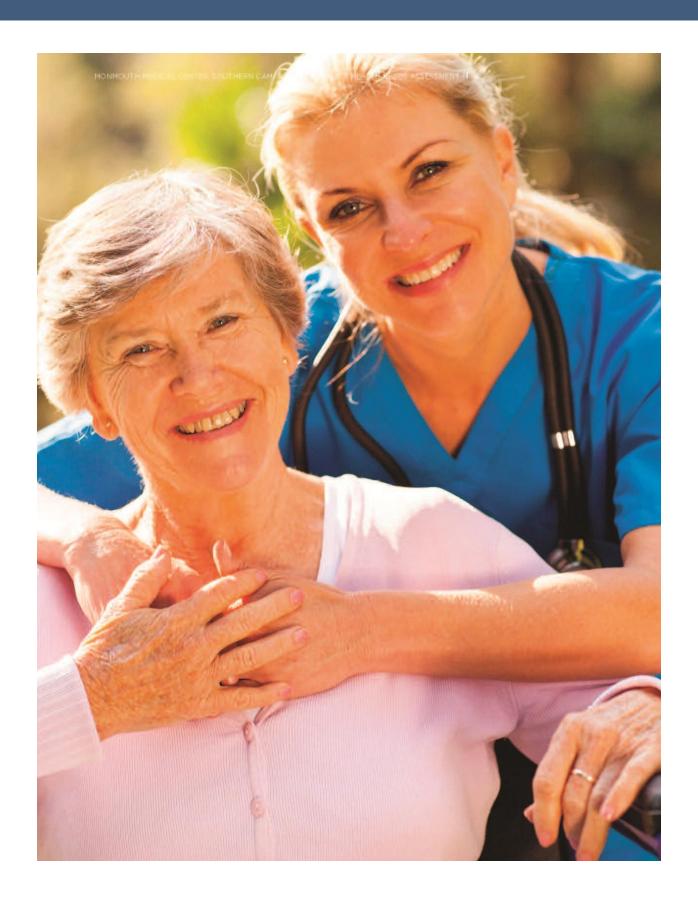
#### Indicator/Metric

- Number of cases referred to OHI
- Number of cases referred to CHEMED

### Tracking/Outcome

2016 Year End: (July - December) 257 OHI, 56 CHEMED 2017 Year End: 543 OHI, 63 CHEMED

IONMOUTH MEDICAL CENTER, SOUTHERN CAMPUS  $\parallel 1$  COMMUNITY HEALTH NEEDS ASSESSMENT  $\parallel 1$ 



# **Goal #2: Expand Efforts in Care Transitions for Patients With Chronic Diseases**

#### **Key CHNA Findings:**

 In the third year of the Medicare hospital readmissions reduction program, New Jersey ranked 50 of 50 States. Ninety-seven percent of N.J. hospitals were penalized for readmissions from October 2014 to September 2015.

### Strategy/Initiative 2.1

Reduce readmissions within 30 days post discharge from acute care.

#### Indicator/Metric

• Decrease readmission rate for the following diagnosis by 2017

2016 Goal 2017 Goal
CHF 17.8 CHF 19.90
Pneumonia 13.96 Pneumonia 15.40
COPD 16.3 COPD 18.40
AMI 13.17 AMI 15.31

#### Tracking/Outcome

2015 Baseline; 2016 and 2017 Year End:

|      | 2015  | 2016  | 2017  |
|------|-------|-------|-------|
| CHF  | 18.75 | 21.83 | 14.50 |
| PNA  | 16.09 | 18.12 | 11.72 |
| COPD | 9.78  | 7.69  | 10.99 |
| AMI  | 25.0  | 28.57 | 16.67 |

## Strategy/Initiative 2.2

Expand Transitions in Care program to include personalized follow-up calls for "moderate risk" patients.

#### Indicator/Metric

• Improve compliance rate targets for patient call backs of the 7-10 LACE score (moderate risk patients) to 85% target for 2017

#### Tracking/Outcome

2016 Year End: 75% 2017 Year End: 100%





# Goal #3: Enhance Awareness, Support Self-Management and Early Diagnosis of Chronic Diseases

#### **Key CHNA Findings:**

- Chronic diseases (i.e. heart disease, diabetes, cancer) are responsible for 70% of all deaths in the United States. Treating people with chronic diseases account for 86% of all healthcare costs in the U.S.
- Heart disease is the leading cause of death in Ocean County, N.J. and in the U.S.; cancer mortality and incidence rates among Ocean County residents are higher than the state.
- Between 2009 and 2012, the percentage of Ocean County residents told they have Diabetes increased from 10% to 11.5%. Diabetes is the fifth leading cause of death in Ocean County.

#### Strategy/Initiative 3.1

Improve participation and outcomes for patients taking part in the Outpatient Diabetic Self Management Program.

#### Indicator/Metric

- 80% of participants will achieve within a 6-month period
  - A1c reduction of 1% or >
  - Weight reduction of 3.5% or >
  - Participation in 10 hours of comprehensive diabetic management education
- Continue to provide patient consult

#### Tracking/Outcome

2016 Year End: A1c - 65%; Weight reduction - 55%; 10-hr-participation - 70%; 290 patient consults

2017 Year End: A1c - 62.75%; Weight reduction - 56.25%; 10-hr-participation - 83.3%; 402 patient consults

## Strategy/Initiative 3.2

Continue to provide community health screenings, education, counseling and exercise programs.

#### Indicator/Metric

• Number of screenings; Number of participants

#### Tracking/Outcome

2016 Year End: 540 screenings; 8,736 participants 2017 Year End: 606 screenings; 6,913 participants

# Goal #4: Develop Programs and Services to Support the Healthcare Needs of Older Adults

#### **Key CHNA Findings:**

- Older adults are the fastest growing age group in Ocean County. Elderly patients make up about 20% of total ER patients at MMCSC.
- In 2014, approximately 60% of Manchester residents (MMCSC's service area) were 65+, the highest in MMCSC's service area, nearly triple 21.5% in Ocean County and nearly quadruple 14.1% in New Jersey.
- Older adults are at higher risk for developing chronic illnesses and related disabilities, including arthritis, heart disease and dementia.

### Strategy/Initiative 4.1

Develop and implement the Geriatric Institute as a convenient, one-stop location for all provisions of care and education to older adults, across the continuum.

#### Indicator/Metric

Measure hospital utilization of 65 and older: ER; Inpatient-ACE (opened in October, 2015);
 Outpatient (opened October 2016)

#### Tracking/Outcome

Baseline for ER: 2016 Year End: (August - December) 6,648

2017 Year End: 6,703 Admissions to ACE: 2016 Year End: 1,906 2017 Year End: 1,949

## Strategy/Initiative 4.2

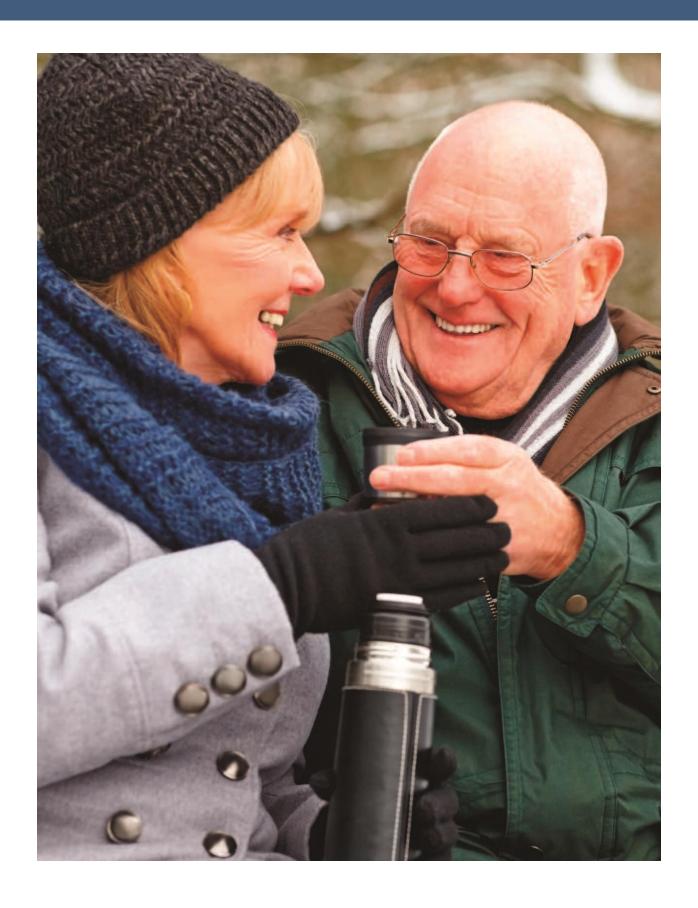
Identify and work with organizations to promote healthy lifestyle behaviors for 55+ communities.

#### Indicator/Metric

- Number of communities reached; outreach programs conducted
- Number of attendees

## Tracking/Outcome

|                      | 2016 (August - December) | 2017  |
|----------------------|--------------------------|-------|
| Communities reached: | 47                       | 53    |
| Programs conducted:  | 246                      | 238   |
| Number of attendees: | 6,919                    | 4,719 |



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Southern Campus

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## **APPENDIX B: SECONDARY DATA SOURCES**

| Source   |  |
|--|--|
| Advocates for Children of New Jersey   | http://acnj.org                                |
| Agency for Healthcare Research and Quality   | http://www.ahrq.gov                            |
| Alcohol Retail Density and Demographic Predictors of Health Disparities: A Geographic Analysis | http://www.ncbi.nlm.nih.gov/                   |
| American Cancer Society Guidelines for Early Detection of Cancer                               | http://www.cancer.org                          |
| American Nutrition Association   | http://americannutritionassociation.org        |
| Annals of Family Medicine, Inc.  | http://www.annfammed.org                       |
| Asthma and Allergy Foundation of America   | www.aafa.org                                   |
| BRFSS and Youth BRFSS  | www.cdc.gov                                    |
| Bruno and Ridgway Community Health Assessment Study  |  |
| Bureau of Labor Statistics   | http://data.bls.gov                            |
| CDC  | http://www.cdc.gov                             |
| CDC Community Health Indicators Service  | http://wwwn.cdc.gov/CommunityHealth            |
| CDC Division of Nutrition, Physical Activity, and Obesity                                      | http://www.cdc.gov/obesity                     |
| CDC National Center for Environmental Health   | http://www.cdc.gov/nceh                        |
| CDC National Center for Health Statistics  | http://www.cdc.gov/nchs/fastats/               |
| CDC National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention                      | https://www.cdc.gov/std                        |
| CDC NCIRD  | http://www.cdc.gov/vaccines                    |
| CDC Preventing Chronic Disease   | http://www.cdc.gov/pcd                         |
| CDC WONDER   | http://wonder.cdc.gov                          |
| Centers for Medicare and Medicaid Services (CMS)   | https://www.cms.gov                            |
| Child Trends   | http://www.childtrends.org                     |
| County Health Rankings   | http://www.countyhealthrankings.org            |
| Department of Numbers  | http://www.deptofnumbers.com                   |
| Do Something   | https://www.dosomething.org                    |
| Enroll America   | https://www.enrollamerica.org                  |
| Free Clinic Directory  | http://freeclinicdirectory.org                 |
| Gallup   | http://www.gallup.com                          |
| Health Care Decision Analyst   | New Solutions, Inc.                            |
| Healthgrades   | https://www.healthgrades.com                   |
| Health Grove   | http://www.healthgrove.com                     |
| Health Indicators Warehouse (BRFSS)  | www.healthindicators.gov                       |
| Health Resources and Services Administration Data Warehouse                                    | https://datawarehouse.hrsa.gov                 |
| Healthy People 2020  | https://www.healthypeople.gov                  |
| Home Facts   | http://www.homefacts.com                       |
| Institute of Medicine  | http://www.nap.edu                             |
| Kaiser Family Foundation   | http://kff.org                                 |
| Kaiser Health News   | http://khn.org                                 |
| Kids Count   | http://www.datacenter.kidscount.org            |
| March of Dimes   | http://www.marchofdimes.org                    |
| NJ Department Human Services, Division of Addiction Services,                                  | http://www.state.nj.us/humanservices/dmhas/hom |
| New Jersey Drug and Alcohol Abuse Treatment  | e/   |
| NJ Department of Health and Senior Services, Center for Health                                 | http://www.nj.gov/health/chs/                  |
| National Association for Convenience and Fuel Retailing  | http://www.nacsonline.com                      |
| National Center for Biotechnology Information  | http://www.ncbi.nlm.nih.gov                    |
| National Center for Health Statistics CDC  | http://www.cdc.gov/nchs/data                   |
| National Center for HIV/AIDS, Viral Hepatitis, STD, and TB Prevention;                         | http://www.cdc.gov/hiv                         |
| Division of HIV/AIDS Prevention  | Tittp://www.cuc.gov/Titv                       |
| National Highway Traffic Safety Administration   | http://www-nrd.nhtsa.dot.gov                   |
| National Institute for Mental Illness  | http://www.nami.org                            |
| National Institute of Diabetes, Digestive & Kidney Diseases                                    | http://www.niddk.nih.gov                       |
| National Institutes of Health Medline Plus Health Screening                                    | https://www.nlm.nih.gov/medlineplus            |
| National Poverty Center University of Michigan   | http://www.npc.umich.edu                       |

| Source   |  |
|--|--|
| Neighborhood Scout   | http://www.neighborhoodscout.com/nj/crime/     |
| New Jersey Council of Teaching Hospitals   | http://njcth.org                               |
| New Jersey Death Certificate Database, Office of Vital Statistics and Registr          | <b>y</b> http://www.nj.gov/health/vital/       |
| New Jersey State Health Assessment Data Complete Indicator Profile of Ris              | k<br>https://www.26 state ni us/doh-shad       |
| ractor for childhood Ecad Exposure. Fre 1930 Housing                                   |  |
| NIH Medline Plus   | https://www.nlm.nih.gov/medlineplus            |
| NJ Department of Education   | http://www.state.nj.us/education               |
| NJ DOH Family Health   | http://www.nj.gov/health/fhs                   |
| NJ DOH, Division of Communicable Disease Services                                      | http://www.nj.gov/health/cd/                   |
| NJ DOH, New Jersey Cancer Registry   | http://www.cancer-rates.info/nj/               |
| NJ DOH Division of HIV, STD, and TB Services   | http://www.nj.gov/health/hivstdtb/             |
| NJ Department of Labor and Workforce Development                                       | http://lwd.dol.state.nj.us/labor               |
| NJ Department of Law and Public Safety, Uniform Crime Reporting Unit, US               | http://www.njsp.org/ucr/crime-reports.shtml    |
| Census Bureau, American Community Survey   |  |
| NJ State Police Uniform Crime Reporting Unit   | http://www.njcedv.org                          |
| NJ Substance Abuse Monitoring System   | https://njsams.rutgers.edu/njsams              |
| NJ.Com   | http://www.nj.com                              |
| NJ State Health Assessment Data (SHAD)   | https://www26.state.nj.us/doh-                 |
|  | shad/home/Welcome.html                         |
| Pro Publica  | https://propublica.org                         |
| Rutgers Center for Health Policy   | http://www.cshp.rutgers.edu                    |
| Substance Abuse and Mental Health Services Administration                              | http://www.samhsa.gov                          |
| The Annie E. Casey Foundation Kids Count Data Center Children Receiving TANF (Welfare) | http://www.datacenter.kidscount.org            |
| United States Department of Agriculture Economic Research Service                      | http://www.ers.usda.gov                        |
| United States Department of Health and Human Services                                  | http://www.hhs.gov/healthcare                  |
| United States Department of Health and Human Services, Agency for                      | _http://www.ahrq.gov                           |
| Healthcare Research and Quality Understanding Quality Measurement 201                  | 6  |
| United Way   | http://www.unitedwaynj.org/ourwork/alicenj.php |
| University of Nevada   | https://www.unce.unr.edu                       |
| US Department of Education   | http://www.ed.gov                              |
| US Department of Health and Human Services, Maternal and                               | http://mchb.hrsa.gov                           |
| Child Health Bureau  |  |
| US DHHS Administration for Children and Families                                       | http://www.acf.hhs.gov                         |
| Washington Post  | https://www.washingtonpost.com                 |
| World Health Organization  | http://www.who.int                             |

# APPENDIX C1: CANCER INCIDENCE RATE REPORT: CANCER PATIENT ORIGIN OCEAN COUNTY 2017

Over eighty-seven percent of MMCSC's cancer inpatients, and over 72.2% of the hospital's cancer outpatients originated from the hospital's Primary Service Area. In total, 93.7% of inpatients and 93.5% of outpatients served in the hospital's cancer programs resided in Ocean County. Lakewood (08701) and Jackson (08527) represent the largest segment of MMCSC's inpatient cancer patients. Lakewood (08701) and Manchester (08759) represent the largest segments of MMCSC's outpatient cancer patients. The health factors and outcomes explored in this CHNA bear relevance to the oncology services and its review of specific cancer needs for the community.

| CANCER PATIENT ORIGIN    | 2017 MMC-S IP<br>PATIENTS | %      | 2017 MMC-S OP<br>PATIENTS | %      |
|--------------------------|---------------------------|--------|---------------------------|--------|
| Ocean County             | 370                       | 93.7%  | 501                       | 93.5%  |
| Primary Service Area     | 347                       | 87.8%  | 387                       | 72.2%  |
| Secondary Service Area   | 0                         | 0.0%   | 0                         | 0.0%   |
| Out of Service Area (NJ) | 44                        | 11.1%  | 144                       | 26.9%  |
| Out of State             | 4                         | 1.0%   | 5                         | 0.9%   |
| TOTAL                    | 395                       | 100.0% | 536                       | 100.0% |
| Lakewood (08701)         | 181                       | 45.8%  | 106                       | 19.8%  |
| Jackson (08527)          | 44                        | 11.1%  |                           |        |
| Manchester (08759)       |                           |        | 86                        | 16.0%  |

Source; Decision Support; IP volume includes cases with ICD10 principal or secondary codes C00 thru D49.9 (Neoplasms); OP volume includes cases with ICD10 principal or secondary codes Z51.0 or Z51.11 (Chemo and Radiation Therapy).

APPENDIX C2: CANCER INCIDENCE RATE REPORT: OCEAN COUNTY 2011-2015

| INCIDENCE RATE REPORT FOR OCEAN COUNTY 2011-2015 |  |                            |                 |                        |  |
|--|--|----------------------------|-----------------|------------------------|--|
| Cancer Site                                      | Age-Adjusted<br>Incidence Rate -<br>cases per<br>100,000 | Average<br>Annual<br>Count | Recent<br>Trend | Recent 5-Year<br>Trend |  |
| All Cancer Sites                                 | 515.9  | 4370                       | falling         | -0.7                   |  |
| Bladder  | 24.4   | 230                        | falling         | -3.5                   |  |
| Brain & ONS                                      | 7.7  | 54                         | stable          | 0.4                    |  |
| Breast   | 130.8  | 567                        | falling         | -0.6                   |  |
| Cervix   | 8.7  | 28                         | falling         | -2.1                   |  |
| Colon & Rectum                                   | 45.5   | 406                        | falling         | -3                     |  |
| Esophagus  | 5.7  | 51                         | stable          | 5.5                    |  |
| Kidney & Renal Pelvis                            | 17.7   | 144                        | rising          | 1.7                    |  |
| Leukemia   | 16   | 132                        | stable          | 0.3                    |  |
| Liver & Bile Duct                                | 8.1  | 71                         | rising          | 4.3                    |  |
| Lung & Bronchus                                  | 70.3   | 647                        | falling         | -1.6                   |  |
| Melanoma of the Skin                             | 34.3   | 277                        | rising          | 3.7                    |  |
| Non-Hodgkin Lymphoma                             | 22.6   | 195                        | stable          | 0.6                    |  |
| Oral Cavity & Pharynx                            | 11.8   | 100                        | stable          | 0.2                    |  |
| Ovary  | 12.6   | 57                         | falling         | -1.8                   |  |
| Pancreas   | 15.2   | 140                        | rising          | 1.1                    |  |
| Prostate   | 125.8  | 506                        | falling         | -2.9                   |  |
| Stomach  | 7.6  | 68                         | falling         | -1.6                   |  |
| Thyroid  | 23.1   | 142                        | stable          | -2.8                   |  |
| Uterus (Corpus & Uterus, NOS)                    | 31.7   | 144                        | stable          | 0.3                    |  |

The Source for C, and the following tables C3, C4, C5 and C6 is:

Source: <a href="https://statecancerprofiles.cancer.gov">https://statecancerprofiles.cancer.gov</a>

# APPENDIX C3: CANCER INCIDENCE DETAILED RATE REPORT: OCEAN COUNTY 2011-2015 SELECT CANCER SITES: RISING INCIDENCE RATE

|  |  | Kidney &<br>Renal Pelvis | Liver & Bile<br>Duct | Melanoma of the Skin | Pancreas   |
|--|--|--------------------------|----------------------|----------------------|------------|
| INCIDENCE RATE REPORT FOR              | Age-Adjusted Incidence<br>Rate - cases per 100,000 | 17.7                     | 8.1                  | 34.3                 | 15.2       |
| OCEAN COUNTY                           | Average Annual Count                               | 144                      | 71                   | 277                  | 140        |
| 2011-2015 All                          | Recent Trend                                       | rising                   | rising               | rising               | rising     |
| Races (includes<br>Hispanic), All Ages | Recent 5-Year Trend in Incidence Rates             | 1.7                      | 4.3                  | 3.7                  | 1.1        |
|  | Age-Adjusted Incidence<br>Rate - cases per 100,000 | 17.8                     | 8                    | 35.1                 | 15.2       |
| White Non-                             | Average Annual Count                               | 134                      | 65                   | 260                  | 130        |
| Hispanic, All Ages                     | Recent Trend                                       | rising                   | rising               | stable               | rising     |
|  | Recent 5-Year Trend in Incidence Rates             | 1.7                      | 4.4                  | 0.7                  | 1.1        |
|  | Age-Adjusted Incidence<br>Rate - cases per 100,000 | *                        | *                    | *                    | *          |
| Black (includes                        | Average Annual Count                               | 3 or fewer               | 3 or fewer           | 3 or fewer           | 3 or fewer |
| Hispanic), All Ages                    | Recent Trend                                       | *                        | *                    | *                    | *          |
|  | Recent 5-Year Trend in Incidence Rates             | *                        | *                    | *                    | *          |
| Asian an Davidia                       | Age-Adjusted Incidence<br>Rate - cases per 100,000 | *                        | *                    | *                    | *          |
| Asian or Pacific Islander (includes    | Average Annual Count                               | 3 or fewer               | 3 or fewer           | 3 or fewer           | 3 or fewer |
| Hispanic), All Ages                    | Recent Trend                                       | *                        | *                    | *                    | *          |
| Thepathey, Thirtiges                   | Recent 5-Year Trend in Incidence Rates             | *                        | *                    | *                    | *          |
|  | Age-Adjusted Incidence<br>Rate - cases per 100,000 | 18.7                     | 9.2                  | 9.9                  | 17.1       |
| Hispanic (any race),                   | Average Annual Count                               | 6                        | 3                    | 3                    | 5          |
| All Ages                               | Recent Trend                                       | *                        | *                    | *                    | *          |
|  | Recent 5-Year Trend in<br>Incidence Rates          | *                        | *                    | *                    | *          |
|  | Age-Adjusted Incidence<br>Rate - cases per 100,000 | 24.4                     | 12.9                 | 44.1                 | 17.1       |
| MALES                                  | Average Annual Count                               | 89                       | 50                   | 166                  | 66         |
| IVIALLS                                | Recent Trend                                       | rising                   | rising               | rising               | stable     |
|  | Recent 5-Year Trend in Incidence Rates             | 1.4                      | 4.3                  | 3.9                  | 0.7        |
|  | Age-Adjusted Incidence<br>Rate - cases per 100,000 | 12.2                     | 4.2                  | 27.3                 | 13.8       |
| FENANTEC                               | Average Annual Count                               | 55                       | 21                   | 112                  | 73         |
| FEMALES                                | Recent Trend                                       | rising                   | rising               | rising               | rising     |
|  | Recent 5-Year Trend in Incidence Rates             | 2                        | 3.9                  | 3.5                  | 1.4        |

<sup>\*</sup> Data has been suppressed to ensure confidentiality and stability of rate estimates. Counts are suppressed if fewer than 16 records were reported in a specific area-sex-race category. If an average count of 3 is shown, the total number of cases for the time period is 16 or more which exceeds suppression threshold (but is rounded to 3).

#### APPENDIX C4: CANCER MORTALITY RATE REPORT: OCEAN COUNTY 2011-2015

| MORTALITY RATE REPORT FOR OCEAN COUNTY 2011-2015 |                                    |   |                            |              |                        |
|--|------------------------------------|---|----------------------------|--------------|------------------------|
| Cancer Site                                      | Met Healthy<br>People<br>Objective | Age-Adjusted<br>Death Rate - cases<br>per 100,000 | Average<br>Annual<br>Count | Recent Trend | Recent 5-Year<br>Trend |
| All Cancer Sites                                 | No                                 | 169   | 1589                       | falling      | -1.4                   |
| Bladder  | ***                                | 5.7   | 56                         | stable       | 0.2                    |
| Brain & ONS                                      | ***                                | 4.4   | 35                         | stable       | -0.1                   |
| Breast   | No                                 | 21.4  | 108                        | falling      | -2.4                   |
| Cervix   | Yes                                | 2   | 8                          | stable       | -1.7                   |
| Colon & Rectum                                   | No                                 | 15.5  | 150                        | falling      | -2.5                   |
| Esophagus  | ***                                | 4.2   | 39                         | stable       | 0.1                    |
| Kidney & Renal Pelvis                            | ***                                | 3.2   | 30                         | stable       | -1                     |
| Leukemia   | ***                                | 6.8   | 63                         | falling      | -1.2                   |
| Liver & Bile Duct                                | ***                                | 6.1   | 56                         | rising       | 2.8                    |
| Lung & Bronchus                                  | No                                 | 45.9  | 434                        | falling      | -3.3                   |
| Melanoma of the Skin                             | No                                 | 2.8   | 26                         | stable       | -0.5                   |
| Non-Hodgkin Lymphoma                             | ***                                | 5.7   | 57                         | stable       | -1.2                   |
| Oral Cavity & Pharynx                            | Yes                                | 1.8   | 17                         | falling      | -1.7                   |
| Ovary  | ***                                | 7.1   | 37                         | falling      | -2.1                   |
| Pancreas   | ***                                | 12.4  | 119                        | stable       | 0.5                    |
| Prostate   | Yes                                | 17  | 71                         | falling      | -3.6                   |
| Stomach  | ***                                | 2.8   | 27                         | falling      | -4.2                   |
| Thyroid  | ***                                | 0.5   | 4                          | *            | *                      |
| Uterus (Corpus & Uterus,<br>NOS)                 | ***                                | 5.3   | 28                         | rising       | 1.5                    |

<sup>\*\*\*</sup> No Healthy People 2020 Objective for this cancer.

<sup>\*</sup> Data has been suppressed to ensure confidentiality and stability of rate estimates. Counts are suppressed if fewer than 16 records were reported in a specific area-sex-race category. If an average count of 3 is shown, the total number of cases for the time period is 16 or more which exceeds suppression threshold (but is rounded to 3).

# APPENDIX C5: CANCER MORTALITY DETAILED RATE REPORT FOR RISING RATES: MONMOUTH COUNTY 2011-2015

|                                  |   | Liver &<br>Bile Duct | Uterus<br>(Corpus &<br>Uterus, NOS) |
|----------------------------------|---|----------------------|-------------------------------------|
| MORTALITY RATE                   | Met Healthy People Objective                | ***                  | ***                                 |
| REPORT FOR OCEAN                 | Age-Adjusted Death Rate - cases per 100,000 | 6.1                  | 5.3                                 |
| COUNTY 2011-2015 All             | Average Annual Count                        | 56                   | 28                                  |
| Races (includes                  | Recent Trend                                | rising               | rising                              |
| Hispanic), All Ages              | Recent 5-Year Trend in Death Rates          | 2.8                  | 1.5                                 |
|                                  | Met Healthy People Objective                | ***                  | ***                                 |
| AA/laita Nian Ilianania          | Age-Adjusted Death Rate - cases per 100,000 | 6.4                  | 5.5                                 |
| White Non-Hispanic, All Ages     | Average Annual Count                        | 55                   | 27                                  |
| All Ages                         | Recent Trend                                | rising               | rising                              |
|                                  | Recent 5-Year Trend in Death Rates          | 3.2                  | 1.7                                 |
|                                  | Met Healthy People Objective                | *                    | *                                   |
| Black (includes                  | Age-Adjusted Death Rate - cases per 100,000 | *                    | *                                   |
| Hispanic), All Ages              | Average Annual Count                        | 3 or fewer           | 3 or fewer                          |
| 1113641116), 711171863           | Recent Trend                                | *                    | *                                   |
|                                  | Recent 5-Year Trend in Death Rates          | *                    | *                                   |
|                                  | Met Healthy People Objective                | *                    | *                                   |
| Asian or Pacific                 | Age-Adjusted Death Rate - cases per 100,000 | *                    | *                                   |
| Islander (includes               | Average Annual Count                        | 3 or fewer           | 3 or fewer                          |
| Hispanic), All Ages              | Recent Trend                                | *                    | *                                   |
|                                  | Recent 5-Year Trend in Death Rates          | *                    | *                                   |
|                                  | Met Healthy People Objective                | *                    | *                                   |
| Hispania (any rasa) All          | Age-Adjusted Death Rate - cases per 100,000 | *                    | *                                   |
| Hispanic (any race), All<br>Ages | Average Annual Count                        | 3 or fewer           | 3 or fewer                          |
| 7.663                            | Recent Trend                                | *                    | *                                   |
|                                  | Recent 5-Year Trend in Death Rates          | *                    | *                                   |
|                                  | Met Healthy People Objective                | ***                  | n/a                                 |
|                                  | Age-Adjusted Death Rate - cases per 100,000 | 9.6                  | n/a                                 |
| MALES                            | Average Annual Count                        | 38                   | n/a                                 |
|                                  | Recent Trend                                | rising               | n/a                                 |
|                                  | Recent 5-Year Trend in Death Rates          | 3                    | n/a                                 |
|                                  | Met Healthy People Objective                | ***                  | ***                                 |
|                                  | Age-Adjusted Death Rate - cases per 100,000 | 3.3                  | 5.3                                 |
| FEMALES                          | Average Annual Count                        | 18                   | 23                                  |
|                                  | Recent Trend                                | rising               | stable                              |
|                                  | Recent 5-Year Trend in Death Rates          | 2.1                  | 0.5                                 |

<sup>\*</sup> Data has been suppressed to ensure confidentiality and stability of rate estimates. Counts are suppressed if fewer than 16 records were reported in a specific area-sex-race category. If an average count of 3 is shown, the total number of cases for the time period is 16 or more which exceeds suppression threshold (but is rounded to 3).

## APPENDIX C6: CANCER INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015

| INCIDENCE R   | INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015         |                         |                 |  |  |
|---|---|-------------------------|-----------------|--|--|
| County  | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |
| ALL SITES: All Races (includes Hispanic),<br>Both Sexes, All Ages |   |                         |                 |  |  |
| US (SEER+NPCR)  | 441.2   | 1,580,653               | falling         | -1.4   |  |
| New Jersey  | 477.5   | 49,332                  | falling         | -0.9   |  |
| Atlantic County   | 490.9   | 1,646                   | falling         | -0.6   |  |
| Bergen County   | 462   | 5,311                   | falling         | -1.1   |  |
| Burlington County   | 521.7   | 2,845                   | stable          | -1   |  |
| Camden County   | 513.9   | 2,982                   | stable          | -1.4   |  |
| Cape May County   | 557.2   | 864                     | stable          | -0.1   |  |
| Cumberland County   | 502.9   | 862                     | stable          | 0.1  |  |
| Essex County  | 452.1   | 3,717                   | falling         | -1.2   |  |
| Gloucester County   | 529.7   | 1,753                   | stable          | -1.7   |  |
| Hudson County   | 391.1   | 2,429                   | falling         | -1.5   |  |
| Hunterdon County  | 481.7   | 762                     | stable          | -0.2   |  |
| Mercer County   | 498.1   | 2,058                   | falling         | -0.4   |  |
| Middlesex County  | 455.8   | 4,118                   | falling         | -1   |  |
| Monmouth County   | 511.5   | 3,950                   | falling         | -1.6   |  |
| Morris County   | 470.4   | 2,848                   | falling         | -1.7   |  |
| Ocean County  | 515.9   | 4,370                   | falling         | -0.7   |  |
| Passaic County  | 441.4   | 2,378                   | falling         | -0.9   |  |
| Salem County  | 534.1   | 443                     | stable          | 0.1  |  |
| Somerset County   | 461.1   | 1,761                   | falling         | -1.4   |  |
| Sussex County   | 489.7   | 863                     | falling         | -0.5   |  |
| Union County  | 451.9   | 2,692                   | falling         | -1.2   |  |
| Warren County   | 497.8   | 665                     | falling         | -0.5   |  |
| Bladder: All Races (includes Hispanic), Both Sexes, All Ages      |   |                         |                 |  |  |
| US (SEER+NPCR)  | 20.3  | 72,640                  | falling         | -1.7   |  |
| New Jersey  | 23.6  | 2,449                   | falling         | -1.5   |  |
| Atlantic County   | 27.9  | 94                      | stable          | 0.2  |  |
| Bergen County   | 23  | 272                     | falling         | -0.8   |  |
| Burlington County   | 26.7  | 147                     | stable          | 0  |  |
| Camden County   | 25.3  | 146                     | stable          | 0  |  |
| Cape May County   | 35  | 58                      | rising          | 1.3  |  |
| Cumberland County   | 26.4  | 45                      | stable          | 1  |  |
| Essex County  | 19.1  | 153                     | stable          | -0.4   |  |
| Gloucester County   | 28.4  | 91                      | rising          | 0.7  |  |
| Hudson County   | 17.5  | 102                     | falling         | -1.5   |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                    |   |                         |                 |  |
|--|---|-------------------------|-----------------|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |
| Hunterdon County   | 28.2  | 44                      | rising          | 1.4  |
| Mercer County  | 22.1  | 91                      | stable          | -0.5   |
| Middlesex County   | 23.1  | 205                     | stable          | -0.3   |
| Monmouth County  | 25.8  | 202                     | stable          | -0.2   |
| Morris County  | 24.3  | 149                     | stable          | -0.3   |
| Ocean County   | 24.4  | 230                     | falling         | -3.5   |
| Passaic County   | 21.2  | 113                     | stable          | -0.6   |
| Salem County   | 29.5  | 25                      | stable          | 0.3  |
| Somerset County  | 21.3  | 81                      | stable          | 0.3  |
| Sussex County  | 26.6  | 45                      | stable          | -0.3   |
| Union County   | 20.1  | 119                     | falling         | -3.7   |
| Warren County  | 27.6  | 37                      | stable          | -0.6   |
| Brain & ONS: All Races (includes Hispanic), Both Sexes, All Ages |   |                         |                 |  |
| US (SEER+NPCR)   | 6.5   | 22,226                  | falling         | -0.9   |
| New Jersey   | 6.9   | 669                     | falling         | -0.3   |
| Atlantic County  | 7.3   | 22                      | stable          | 0.3  |
| Bergen County  | 7.7   | 81                      | stable          | -0.4   |
| Burlington County  | 7.2   | 36                      | stable          | 0.5  |
| Camden County  | 7.2   | 39                      | stable          | 0  |
| Cape May County  | 7.1   | 9                       | stable          | 0  |
| Cumberland County  | 7.1   | 12                      | stable          | -0.8   |
| Essex County   | 5.1   | 42                      | falling         | -1.4   |
| Gloucester County  | 7.3   | 23                      | stable          | -0.3   |
| Hudson County  | 5.7   | 37                      | falling         | -1.2   |
| Hunterdon County   | 7.8   | 10                      | stable          | -0.5   |
| Mercer County  | 7.1   | 27                      | stable          | -0.5   |
| Middlesex County   | 6.3   | 55                      | falling         | -1   |
| Monmouth County  | 7.3   | 54                      | stable          | 0.5  |
| Morris County  | 7.9   | 43                      | stable          | 0.1  |
| Ocean County   | 7.7   | 54                      | stable          | 0.4  |
| Passaic County   | 6.7   | 35                      | falling         | -0.9   |
| Salem County(7)  | 7.3   | 5                       | *               | *  |
| Somerset County  | 6.1   | 22                      | stable          | -0.5   |
| Sussex County  | 7.7   | 12                      | stable          | -0.5   |
| Union County   | 6.2   | 36                      | falling         | -1   |
| Warren County  | 10.4  | 13                      | stable          | 1.6  |
| Breast: All Races (includes Hispanic), Both<br>Sexes, All Ages   |   |                         |                 |  |
| US (SEER+NPCR)   | 124.7   | 234,445                 | stable          | 0.2  |

| INCIDENCE R.   | INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015         |                         |                 |  |  |
|--|---|-------------------------|-----------------|--|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |
| New Jersey   | 133.4   | 7,357                   | rising          | 0.4  |  |
| Atlantic County  | 132.5   | 236                     | stable          | -0.1   |  |
| Bergen County  | 135.5   | 822                     | falling         | -0.6   |  |
| Burlington County  | 139.6   | 405                     | stable          | -0.1   |  |
| Camden County  | 140.1   | 440                     | stable          | 0.4  |  |
| Cape May County  | 129.9   | 100                     | falling         | -0.7   |  |
| Cumberland County  | 113.9   | 101                     | falling         | -0.8   |  |
| Essex County   | 133.5   | 610                     | rising          | 5.7  |  |
| Gloucester County  | 142.6   | 257                     | stable          | 0  |  |
| Hudson County  | 104.4   | 356                     | falling         | -0.5   |  |
| Hunterdon County   | 155.1   | 133                     | stable          | -0.1   |  |
| Mercer County  | 140   | 309                     | stable          | -0.4   |  |
| Middlesex County   | 129.2   | 625                     | falling         | -0.5   |  |
| Monmouth County  | 144.1   | 594                     | stable          | -0.1   |  |
| Morris County  | 144.4   | 465                     | stable          | -0.3   |  |
| Ocean County   | 130.8   | 567                     | falling         | -0.6   |  |
| Passaic County   | 117   | 344                     | falling         | -0.5   |  |
| Salem County   | 126.1   | 55                      | stable          | -0.5   |  |
| Somerset County  | 140.4   | 290                     | stable          | 0.4  |  |
| Sussex County  | 134.3   | 125                     | stable          | -0.2   |  |
| Union County   | 133.4   | 433                     | falling         | -0.4   |  |
| Warren County  | 127.7   | 91                      | stable          | -0.3   |  |
| Cervix: All Races (includes Hispanic), Both<br>Sexes, All Ages |   |                         |                 |  |  |
| US (SEER+NPCR)   | 7.5   | 12,529                  | stable          | 0.2  |  |
| New Jersey   | 7.6   | 380                     | falling         | -2.6   |  |
| Atlantic County  | 9.8   | 15                      | falling         | -3.6   |  |
| Bergen County  | 6.7   | 36                      | falling         | -2   |  |
| Burlington County  | 6.1   | 15                      | stable          | -9.4   |  |
| Camden County  | 7.8   | 22                      | falling         | -2.4   |  |
| Cape May County  | 10.2  | 5                       | stable          | -0.4   |  |
| Cumberland County  | 12  | 9                       | falling         | -3.8   |  |
| Essex County   | 9.5   | 42                      | falling         | -3.7   |  |
| Gloucester County  | 6.9   | 11                      | falling         | -2.5   |  |
| Hudson County  | 10.1  | 35                      | falling         | -2.7   |  |
| Hunterdon County   | 5.3   | 4                       | falling         | -2.3   |  |
| Mercer County  | 5.5   | 11                      | falling         | -3.3   |  |
| Middlesex County   | 6.1   | 28                      | falling         | -2.3   |  |
| Monmouth County  | 6.9   | 26                      | falling         | -2.6   |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                          |   |                         |                 |  |  |  |  |
|--|---|-------------------------|-----------------|--|--|--|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Morris County  | 5.9   | 18                      | falling         | -2.2   |  |  |  |
| Ocean County   | 8.7   | 28                      | falling         | -2.1   |  |  |  |
| Passaic County   | 7.9   | 21                      | falling         | -2.2   |  |  |  |
| Salem County(7)  | *   | 3 or fewer              | *               | *  |  |  |  |
| Somerset County  | 8.3   | 15                      | stable          | -1.3   |  |  |  |
| Sussex County  | 5.8   | 5                       | falling         | -3.1   |  |  |  |
| Union County   | 8.5   | 26                      | falling         | -1.9   |  |  |  |
| Warren County  | 7.8   | 5                       | falling         | -3.1   |  |  |  |
| Colon & Rectum: All Races (includes<br>Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)   | 39.2  | 139,950                 | falling         | -1.7   |  |  |  |
| New Jersey   | 41.9  | 4,346                   | falling         | -1.6   |  |  |  |
| Atlantic County  | 42.1  | 143                     | falling         | -2.7   |  |  |  |
| Bergen County  | 38.3  | 447                     | stable          | 0.4  |  |  |  |
| Burlington County  | 46.8  | 256                     | falling         | -2.1   |  |  |  |
| Camden County  | 45.5  | 263                     | falling         | -2.9   |  |  |  |
| Cape May County  | 46.2  | 72                      | falling         | -2.8   |  |  |  |
| Cumberland County  | 49.3  | 84                      | falling         | -1.4   |  |  |  |
| Essex County   | 43.3  | 355                     | stable          | 0.4  |  |  |  |
| Gloucester County  | 44.1  | 144                     | falling         | -2.2   |  |  |  |
| Hudson County  | 41.4  | 254                     | falling         | -2.5   |  |  |  |
| Hunterdon County   | 41  | 65                      | falling         | -2.8   |  |  |  |
| Mercer County  | 39.5  | 164                     | falling         | -4.4   |  |  |  |
| Middlesex County   | 41.6  | 375                     | falling         | -2.5   |  |  |  |
| Monmouth County  | 41.9  | 326                     | falling         | -3.7   |  |  |  |
| Morris County  | 36.5  | 224                     | falling         | -3   |  |  |  |
| Ocean County   | 45.5  | 406                     | falling         | -3   |  |  |  |
| Passaic County   | 40  | 215                     | falling         | -3.6   |  |  |  |
| Salem County   | 47.4  | 40                      | falling         | -2.1   |  |  |  |
| Somerset County  | 35.9  | 139                     | falling         | -2.4   |  |  |  |
| Sussex County  | 42.5  | 71                      | falling         | -2.9   |  |  |  |
| Union County   | 40.4  | 241                     | falling         | -2.5   |  |  |  |
| Warren County  | 46.3  | 62                      | falling         | -2.9   |  |  |  |
| Esophagus: All Races (includes Hispanic),<br>Both Sexes, All Ages      |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)   | 4.6   | 16,795                  | falling         | -0.9   |  |  |  |
| New Jersey   | 4.4   | 465                     | falling         | -1   |  |  |  |
| Atlantic County  | 4.4   | 15                      | falling         | -2.5   |  |  |  |
| Bergen County  | 3.3   | 39                      | falling         | -1.8   |  |  |  |
| Burlington County  | 5.3   | 30                      | stable          | -0.1   |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015 |   |                         |                 |  |  |  |  |
|---|---|-------------------------|-----------------|--|--|--|--|
| County  | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Camden County                                 | 5.2   | 31                      | stable          | -1   |  |  |  |
| Cape May County                               | 5.5   | 8                       | stable          | -0.8   |  |  |  |
| Cumberland County                             | 5.6   | 10                      | stable          | 0.6  |  |  |  |
| Essex County                                  | 3.9   | 32                      | falling         | -3.1   |  |  |  |
| Gloucester County                             | 6.3   | 22                      | stable          | 1.1  |  |  |  |
| Hudson County                                 | 3   | 18                      | falling         | -2.9   |  |  |  |
| Hunterdon County                              | 4.6   | 8                       | stable          | -0.4   |  |  |  |
| Mercer County                                 | 4.7   | 19                      | stable          | -1.3   |  |  |  |
| Middlesex County                              | 4   | 37                      | falling         | -1.1   |  |  |  |
| Monmouth County                               | 4.6   | 36                      | stable          | -0.4   |  |  |  |
| Morris County                                 | 4.6   | 29                      | stable          | 0.3  |  |  |  |
| Ocean County                                  | 5.7   | 51                      | stable          | 5.5  |  |  |  |
| Passaic County                                | 4.4   | 24                      | stable          | -1.1   |  |  |  |
| Salem County                                  | 5.4   | 5                       | stable          | -2   |  |  |  |
| Somerset County                               | 3.2   | 12                      | falling         | -1.6   |  |  |  |
| Sussex County                                 | 5.5   | 10                      | stable          | 0.2  |  |  |  |
| Union County                                  | 3.6   | 22                      | falling         | -1.7   |  |  |  |
| Warren County                                 | 5.8   | 8                       | stable          | 1.4  |  |  |  |
| Kidney & Renal Pelvis.: All Races (includes   |   |                         |                 |  |  |  |  |
| Hispanic), Both Sexes, All Ages               |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)                                | 16.4  | 58,599                  | rising          | 0.8  |  |  |  |
| New Jersey                                    | 16  | 1,655                   | stable          | 0.2  |  |  |  |
| Atlantic County                               | 17.2  | 58                      | rising          | 1.4  |  |  |  |
| Bergen County                                 | 16.1  | 186                     | rising          | 1  |  |  |  |
| Burlington County                             | 19.9  | 108                     | rising          | 2.6  |  |  |  |
| Camden County                                 | 19.5  | 112                     | rising          | 2  |  |  |  |
| Cape May County                               | 18.1  | 29                      | rising          | 1.9  |  |  |  |
| Cumberland County                             | 22.6  | 38                      | rising          | 4.2  |  |  |  |
| Essex County                                  | 13  | 108                     | rising          | 0.8  |  |  |  |
| Gloucester County                             | 19.2  | 65                      | rising          | 2  |  |  |  |
| Hudson County                                 | 12.4  | 79                      | stable          | 0.7  |  |  |  |
| Hunterdon County                              | 13.4  | 22                      | rising          | 1.6  |  |  |  |
| Mercer County                                 | 16.2  | 68                      | rising<br>      | 2.1  |  |  |  |
| Middlesex County                              | 14.8  | 135                     | rising<br>      | 0.9  |  |  |  |
| Monmouth County                               | 16.7  | 131                     | rising          | 1.3  |  |  |  |
| Morris County                                 | 13.7  | 83                      | stable          | 0.9  |  |  |  |
| Ocean County                                  | 17.7  | 144                     | rising          | 1.7  |  |  |  |
| Passaic County                                | 15.9  | 85                      | rising          | 1.6  |  |  |  |
| Salem County                                  | 18.1  | 15                      | stable          | 1  |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                             |   |                         |                 |  |  |  |  |
|---|---|-------------------------|-----------------|--|--|--|--|
| County  | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Somerset County   | 13.8  | 54                      | rising          | 1.7  |  |  |  |
| Sussex County   | 14.1  | 27                      | stable          | 0.1  |  |  |  |
| Union County  | 15.1  | 90                      | rising          | 1  |  |  |  |
| Warren County   | 16.3  | 21                      | rising          | 1  |  |  |  |
| Leukemia: All Races (includes Hispanic),<br>Both Sexes, All Ages          |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)  | 13.6  | 47,270                  | falling         | -1.6   |  |  |  |
| New Jersey  | 15.2  | 1,523                   | rising          | 0.6  |  |  |  |
| Atlantic County   | 14.5  | 47                      | stable          | 0.5  |  |  |  |
| Bergen County   | 16.1  | 182                     | rising          | 0.8  |  |  |  |
| Burlington County   | 15.3  | 80                      | rising          | 1.2  |  |  |  |
| Camden County   | 15.2  | 86                      | rising          | 0.9  |  |  |  |
| Cape May County   | 15.9  | 24                      | rising          | 1.2  |  |  |  |
| Cumberland County   | 15.3  | 26                      | rising          | 2  |  |  |  |
| Essex County  | 13.1  | 104                     | stable          | -0.3   |  |  |  |
| Gloucester County   | 17.3  | 55                      | rising          | 1.6  |  |  |  |
| Hudson County   | 12.1  | 73                      | falling         | -0.7   |  |  |  |
| Hunterdon County  | 13.2  | 20                      | stable          | -0.8   |  |  |  |
| Mercer County   | 15.8 65   |                         | stable          | 0.6  |  |  |  |
| Middlesex County  | 15  | 133                     | rising          | 0.6  |  |  |  |
| Monmouth County   | 15.7  | 118                     |                 | 1.1  |  |  |  |
| Morris County   | 16  | 94                      | stable          | 0.6  |  |  |  |
| Ocean County  | 16  | 132                     | stable          | 0.3  |  |  |  |
| Passaic County  | 15.1  | 78                      | stable          | 0.1  |  |  |  |
| Salem County  | 12.9  | 10                      | stable          | 0.8  |  |  |  |
| Somerset County   | 15.3  | 56                      | stable          | 0.6  |  |  |  |
| Sussex County   | 16.5  | 28                      | stable          | 1  |  |  |  |
| Union County  | 16  | 92                      | rising          | 1.2  |  |  |  |
| Warren County   | 15.6  | 20                      | stable          | 0.1  |  |  |  |
| Liver & Bile Duct: All Races (includes<br>Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)  | 8.1   | 30,492                  | rising          | 2.2  |  |  |  |
| New Jersey  | 7.5   | 808                     | rising          | 2.2  |  |  |  |
| Atlantic County   | 8.2   | 30                      | rising          | 2.9  |  |  |  |
| Bergen County   | 6.8   | 81                      | rising          | 1.6  |  |  |  |
| Burlington County   | 7.4   | 42                      | rising          | 3.2  |  |  |  |
| Camden County   | 9.1   | 55                      | rising          | 3.8  |  |  |  |
| Cape May County   | 8.8   | 15                      | rising          | 5.4  |  |  |  |
| Cumberland County   | 10.7  | 19                      | rising          | 6.8  |  |  |  |
| Essex County  | 7.7   | 67                      | rising          | 1.8  |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                           |   |                         |                   |  |  |  |  |
|---|---|-------------------------|-------------------|--|--|--|--|
| County  | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend   | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Gloucester County   | 8.6   | 30                      | rising            | 4  |  |  |  |
| Hudson County   | 7.8   | 49                      | rising            | 2.2  |  |  |  |
| Hunterdon County(7)   | 5.8   | 10                      | *                 | *  |  |  |  |
| Mercer County   | 8.4   | 36                      | rising            | 4.1  |  |  |  |
| Middlesex County  | 7.4   | 68                      | rising            | 3  |  |  |  |
| Monmouth County   | 6.8   | 56                      | rising            | 1.9  |  |  |  |
| Morris County   | 5.7   | 36                      | rising            | 1.3  |  |  |  |
| Ocean County  | 8.1   | 71                      | rising            | 4.3  |  |  |  |
| Passaic County  | 8.2   | 46                      | rising            | 2.9  |  |  |  |
| Salem County  | 10.9  | 9                       | rising            | 4.6  |  |  |  |
| Somerset County   | 6.6   | 27                      | rising            | 3.2  |  |  |  |
| Sussex County   | 7.2   | 13                      | rising            | 1.9  |  |  |  |
| Union County  | 6   | 37                      | rising            | 2.4  |  |  |  |
| Warren County   | 7.4   | 10                      | stable            | 1  |  |  |  |
| Lung & Bronchus: All Races (includes<br>Hispanic), Both Sexes, All Ages |   |                         |                   |  |  |  |  |
| US (SEER+NPCR)  | 60.2  | 217,545                 | falling           | -2.1   |  |  |  |
| New Jersey  | 57.3  | 5,940                   | falling           | -2.2   |  |  |  |
| Atlantic County   | 68.2 232  |                         | falling           | -2.8   |  |  |  |
| Bergen County   |   | 50.9 596                |                   | -1.3   |  |  |  |
| Burlington County   |   | 63.1 344                |                   | -0.9   |  |  |  |
| Camden County   | 71.4  | 71.4 415                |                   | -0.6   |  |  |  |
| Cape May County   | 79.3  | 131                     | falling<br>stable | -0.2   |  |  |  |
| Cumberland County   | 70.9  | 122                     | falling           | -2.7   |  |  |  |
| Essex County  | 48.7  | 392                     | falling           | -2.4   |  |  |  |
| Gloucester County   | 76  | 249                     | falling           | -0.5   |  |  |  |
| Hudson County   | 46.3  | 274                     | falling           | -2   |  |  |  |
| Hunterdon County  | 52.1  | 80                      | falling           | -1.5   |  |  |  |
| Mercer County   | 58.9  | 242                     | falling           | -1   |  |  |  |
| Middlesex County  | 52.3  | 466                     | falling           | -1.6   |  |  |  |
| Monmouth County   | 61.6  | 478                     | falling           | -2.5   |  |  |  |
| Morris County   | 48  | 291                     | falling           | -1.5   |  |  |  |
| Ocean County  | 70.3  | 647                     | falling           | -1.6   |  |  |  |
| Passaic County  | 49.6  | 266                     | stable            | -5.7   |  |  |  |
| Salem County  | 76.5  | 66                      | stable            | -0.6   |  |  |  |
| Somerset County   | 47.1  | 177                     | falling           | -1.2   |  |  |  |
| Sussex County   | 62.4  | 109                     | falling           | -1.1   |  |  |  |
| Union County  | 47.5  | 275                     | falling           | -1.6   |  |  |  |
| Warren County   | 63.4  | 87                      | falling           | -1   |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                                |   |                         |                 |  |  |  |  |  |
|--|---|-------------------------|-----------------|--|--|--|--|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |  |
| Melanoma of the Skin: All Races (includes<br>Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |  |
| US (SEER+NPCR)   | 21.3  | 74,467                  | rising          | 2.1  |  |  |  |  |
| New Jersey   | 22.1  | 2,251                   | stable          | 0.2  |  |  |  |  |
| Atlantic County  | 25.5  | 85                      | stable          | -1.5   |  |  |  |  |
| Bergen County  | 17.8  | 203                     | falling         | -2.3   |  |  |  |  |
| Burlington County  | 26.6  | 145                     | stable          | 0.8  |  |  |  |  |
| Camden County  | 20.7  | 120                     | stable          | -0.3   |  |  |  |  |
| Cape May County  | 45  | 68                      | rising          | 3.9  |  |  |  |  |
| Cumberland County  | 16.2  | 28                      | rising          | 1.9  |  |  |  |  |
| Essex County   | 13.1  | 106                     | stable          | 0.8  |  |  |  |  |
| Gloucester County  | 26.9  | 86                      | stable          | 0.1  |  |  |  |  |
| Hudson County  | 7.9   | 50                      | stable          | -0.6   |  |  |  |  |
| Hunterdon County   | 39.1  | 61                      | rising          | 5  |  |  |  |  |
| Mercer County  | 23.4  | 95                      | stable          | -8.1   |  |  |  |  |
| Middlesex County   | 17.9  | 161                     | rising          | 1.8  |  |  |  |  |
| Monmouth County  | 31.6  | 237                     | rising          | 2  |  |  |  |  |
| Morris County  | 26.5  | 159                     | stable          | -0.4   |  |  |  |  |
| Ocean County   | 34.3  | 277                     | rising          | 3.7  |  |  |  |  |
| Passaic County   | 14  | 74                      | rising          | 1.8  |  |  |  |  |
| Salem County   | 36.8  | 36.8 28                 |                 | 5.3  |  |  |  |  |
| Somerset County  | 24.1 91   |                         | stable          | -1.2   |  |  |  |  |
| Sussex County  | 28.7  | 49                      | rising          | 2.7  |  |  |  |  |
| Union County   | 15.3  | 91                      | rising          | 1.1  |  |  |  |  |
| Warren County  | 26  | 33                      | rising          | 1.7  |  |  |  |  |
| Non-Hodgkin Lymphoma: All Races (includes Hispanic), Both Sexes, All Ages    |   |                         |                 |  |  |  |  |  |
| US (SEER+NPCR)   | 18.9  | 66,509                  | falling         | -1   |  |  |  |  |
| New Jersey   | 21.6  | 2,188                   | stable          | -0.2   |  |  |  |  |
| Atlantic County  | 20.9  | 67                      | stable          | -0.3   |  |  |  |  |
| Bergen County  | 22.4  | 255                     | stable          | -0.1   |  |  |  |  |
| Burlington County  | 21.8  | 116                     | rising          | 0.6  |  |  |  |  |
| Camden County  | 19.8  | 114                     | stable          | 0.1  |  |  |  |  |
| Cape May County  | 20.2  | 31                      | stable          | -0.2   |  |  |  |  |
| Cumberland County  | 21.7  | 37                      | stable          | 0.4  |  |  |  |  |
| Essex County   | 19.4  | 157                     | stable          | 0  |  |  |  |  |
| Gloucester County  | 22.2  | 71                      | stable          | 0.7  |  |  |  |  |
| Hudson County  | 17.7  | 110                     | stable          | -0.4   |  |  |  |  |
| Hunterdon County   | 23.4  | 36                      | stable          | 0.6  |  |  |  |  |
| Mercer County  | 21.7  | 88                      | stable          | 0.4  |  |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                                 |   |                         |                 |  |  |  |  |
|---|---|-------------------------|-----------------|--|--|--|--|
| County  | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Middlesex County  | 22.4  | 199                     | rising          | 0.6  |  |  |  |
| Monmouth County   | 23.4  | 177                     | stable          | -0.6   |  |  |  |
| Morris County   | 22.7  | 134                     | stable          | -0.7   |  |  |  |
| Ocean County  | 22.6  | 195                     | stable          | 0.6  |  |  |  |
| Passaic County  | 19.5  | 101                     | stable          | 0.4  |  |  |  |
| Salem County  | 20.7  | 17                      | stable          | 0.6  |  |  |  |
| Somerset County   | 21  | 80                      | stable          | 0.8  |  |  |  |
| Sussex County   | 22.2  | 38                      | stable          | 0.3  |  |  |  |
| Union County  | 22.4  | 134                     | stable          | -0.3   |  |  |  |
| Warren County   | 23.2  | 30                      | stable          | 0.6  |  |  |  |
| Oral Cavity & Pharynx: All Races (includes<br>Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)  | 11.6  | 42,585                  | stable          | 0.4  |  |  |  |
| New Jersey  | 10.6  | 1,118                   | stable          | 0.6  |  |  |  |
| Atlantic County   | 14.1  | 49                      | stable          | 0.3  |  |  |  |
| Bergen County   | 9.4   | 109                     | stable          | 0.1  |  |  |  |
| Burlington County   | 11.4  | 63                      | stable          | 0  |  |  |  |
| Camden County   | 11.6  | 69                      | stable          | 0.4  |  |  |  |
| Cape May County   | 13  | 20                      | stable          | 0.4  |  |  |  |
| Cumberland County   | 13.1  | 23                      | stable          | 0.6  |  |  |  |
| Essex County  | 8.9   | 75                      | falling         | -2.1   |  |  |  |
| Gloucester County   | 11.1  | 39                      | stable          | 0.8  |  |  |  |
| Hudson County   | 7.9   | 50                      | falling         | -2.4   |  |  |  |
| Hunterdon County  | 9.4   | 17                      | stable          | 0.6  |  |  |  |
| Mercer County   | 9.3   | 40                      | falling         | -1.6   |  |  |  |
| Middlesex County  | 10.4  | 95                      | stable          | 0.1  |  |  |  |
| Monmouth County   | 11.9  | 96                      | stable          | 0.2  |  |  |  |
| Morris County   | 10.5  | 66                      | stable          | 0.3  |  |  |  |
| Ocean County  | 11.8  | 100                     | stable          | 0.2  |  |  |  |
| Passaic County  | 9.9   | 55                      | falling         | -1.1   |  |  |  |
| Salem County  | 14  | 11                      | stable          | 1.5  |  |  |  |
| Somerset County   | 10.1  | 41                      | rising          | 1  |  |  |  |
| Sussex County   | 13.3  | 24                      | stable          | 0.5  |  |  |  |
| Union County  | 9.5   | 59                      | stable          | -0.3   |  |  |  |
| Warren County   | 11.3  | 16                      | stable          | 0.5  |  |  |  |
| Ovary: All Races (includes Hispanic), Both<br>Sexes, All Ages                 |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)  | 11.3  | 21,476                  | falling         | -1.6   |  |  |  |
| New Jersey  | 12.3  | 692                     | falling         | -1.9   |  |  |  |
| Atlantic County   | 11.5  | 20                      | falling         | -1.7   |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                    |   |                         |                 |  |  |  |  |
|--|---|-------------------------|-----------------|--|--|--|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Bergen County  | 12.1  | 75                      | falling         | -2.5   |  |  |  |
| Burlington County  | 14.1  | 42                      | falling         | -1.2   |  |  |  |
| Camden County  | 13  | 41                      | falling         | -1.4   |  |  |  |
| Cape May County  | 15.2  | 12                      | stable          | -0.8   |  |  |  |
| Cumberland County  | 8.4   | 8                       | falling         | -2.5   |  |  |  |
| Essex County   | 12.2  | 56                      | falling         | -2   |  |  |  |
| Gloucester County  | 13.3  | 25                      | stable          | -1.2   |  |  |  |
| Hudson County  | 11.4  | 39                      | falling         | -2   |  |  |  |
| Hunterdon County   | 11  | 10                      | falling         | -3.1   |  |  |  |
| Mercer County  | 14.3  | 32                      | stable          | -0.6   |  |  |  |
| Middlesex County   | 11.8  | 57                      | falling         | -2   |  |  |  |
| Monmouth County  | 12.3  | 53                      | falling         | -1.9   |  |  |  |
| Morris County  | 12.1  | 40                      | falling         | -1.9   |  |  |  |
| Ocean County   | 12.6  | 57                      | falling         | -1.8   |  |  |  |
| Passaic County   | 12.1  | 36                      | falling         | -1.9   |  |  |  |
| Salem County   | 13.6  | 6                       | stable          | 0  |  |  |  |
| Somerset County  | 12.3 26   |                         | falling         | -1.1   |  |  |  |
| Sussex County  | 13.8  | 13                      | stable          | -1.4   |  |  |  |
| Union County   | 10.7  | 36                      | falling         | -2.6   |  |  |  |
| Warren County  | 12.6  | 9                       | stable          | -1.2   |  |  |  |
| Pancreas: All Races (includes Hispanic),<br>Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)   | 12.6  | 45,703                  | rising          | 0.6  |  |  |  |
| New Jersey   | 14  | 1,465                   | rising          | 1.2  |  |  |  |
| Atlantic County  | 13.3  | 45                      | stable          | -0.2   |  |  |  |
| Bergen County  | 13.8  | 164                     | stable          | 0.2  |  |  |  |
| Burlington County  | 15.7  | 87                      | rising          | 3  |  |  |  |
| Camden County  | 13.6  | 79                      | stable          | 0.6  |  |  |  |
| Cape May County  | 13.9  | 23                      | stable          | 0.9  |  |  |  |
| Cumberland County  | 14.5  | 25                      | rising          | 1.6  |  |  |  |
| Essex County   | 14.6  | 117                     | stable          | 0  |  |  |  |
| Gloucester County  | 13.8  | 46                      | rising          | 1.6  |  |  |  |
| Hudson County  | 13.1  | 78                      | rising          | 3.8  |  |  |  |
| Hunterdon County   | 15.1  | 24                      | rising          | 1.4  |  |  |  |
| Mercer County  | 17.1  | 70                      | rising          | 2.4  |  |  |  |
| Middlesex County   | 13.3  | 120                     | stable          | 0.2  |  |  |  |
| Monmouth County  | 14.2  | 113                     | stable          | 0.5  |  |  |  |
| Morris County  | 13.4  | 83                      | rising          | 1.5  |  |  |  |
| Ocean County   | 15.2  | 140                     | rising          | 1.1  |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                 |   |                         |                 |  |  |  |  |
|---|---|-------------------------|-----------------|--|--|--|--|
| County  | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Passaic County  | 13.2  | 72                      | stable          | 0.4  |  |  |  |
| Salem County  | 12.6  | 11                      | stable          | 1.3  |  |  |  |
| Somerset County   | 12.9  | 49                      | rising          | 1.3  |  |  |  |
| Sussex County   | 13.1  | 22                      | stable          | 0.2  |  |  |  |
| Union County  | 12.9  | 77                      | stable          | 0  |  |  |  |
| Warren County   | 15  | 21                      | rising          | 1.5  |  |  |  |
| Prostate: All Races (includes Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)  | 109   | 190,639                 | falling         | -7.3   |  |  |  |
| New Jersey  | 134.7   | 6,575                   | falling         | -6   |  |  |  |
| Atlantic County   | 120.7   | 199                     | falling         | -3   |  |  |  |
| Bergen County   | 131.1   | 714                     | falling         | -4   |  |  |  |
| Burlington County   | 147.8   | 390                     | falling         | -6.3   |  |  |  |
| Camden County   | 141.7   | 385                     | stable          | -0.7   |  |  |  |
| Cape May County   | 161.5   | 126                     | falling         | -1.5   |  |  |  |
| Cumberland County   | 127.2   | 103                     | falling         | -1.2   |  |  |  |
| Essex County  | 158.8   | 580                     | falling         | -4.8   |  |  |  |
| Gloucester County   | 136.8   | 219                     | falling         | -7.5   |  |  |  |
| Hudson County   | 111.8   | 297                     | falling         | -4.4   |  |  |  |
| Hunterdon County  | 103   | 83                      | falling         | -2.1   |  |  |  |
| Mercer County   | 147   | 285                     | falling         | -1.7   |  |  |  |
| Middlesex County  | 127.3   | 542                     | falling         | -3.4   |  |  |  |
| Monmouth County   | 144.9   | 544                     | falling         | -1.8   |  |  |  |
| Morris County   | 135.5   | 397                     | falling         | -7.8   |  |  |  |
| Ocean County  | 125.8   | 506                     | falling         | -2.9   |  |  |  |
| Passaic County  | 137.1   | 342                     | falling         | -1.4   |  |  |  |
| Salem County  | 138.9   | 57                      | stable          | -1   |  |  |  |
| Somerset County   | 125.2   | 228                     | falling         | -2.3   |  |  |  |
| Sussex County   | 122.5   | 115                     | falling         | -6.8   |  |  |  |
| Union County  | 138.4   | 378                     | falling         | -6   |  |  |  |
| Warren County   | 125.2   | 84                      | falling         | -8.3   |  |  |  |
| Stomach: All Races (includes Hispanic), Both Sexes, All Ages  |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)  | 6.6   | 23,501                  | falling         | -1.2   |  |  |  |
| New Jersey  | 8   | 827                     | falling         | -1.6   |  |  |  |
| Atlantic County   | 7.5   | 25                      | falling         | -1.5   |  |  |  |
| Bergen County   | 9.1   | 107                     | falling         | -1.1   |  |  |  |
| Burlington County   | 6.4   | 36                      | falling         | -1.6   |  |  |  |
| Camden County   | 8.9   | 51                      | stable          | -0.5   |  |  |  |
| Cape May County   | 5.8   | 9                       | stable          | -0.4   |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                |   |                         |                 |  |  |  |  |
|--|---|-------------------------|-----------------|--|--|--|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Cumberland County  | 7.4   | 12                      | falling         | -1.7   |  |  |  |
| Essex County   | 9.3   | 75                      | falling         | -2   |  |  |  |
| Gloucester County  | 6.7   | 22                      | falling         | -1.5   |  |  |  |
| Hudson County  | 10  | 61                      | falling         | -0.9   |  |  |  |
| Hunterdon County   | 5   | 8                       | falling         | -3.4   |  |  |  |
| Mercer County  | 8.2   | 33                      | falling         | -2.2   |  |  |  |
| Middlesex County   | 7.4   | 67                      | falling         | -1.8   |  |  |  |
| Monmouth County  | 6.1   | 49                      | falling         | -2.3   |  |  |  |
| Morris County  | 7.1   | 43                      | falling         | -1.2   |  |  |  |
| Ocean County   | 7.6   | 68                      | falling         | -1.6   |  |  |  |
| Passaic County   | 9.8   | 53                      | stable          | -0.8   |  |  |  |
| Salem County   | 6.6   | 5                       | stable          | -1.3   |  |  |  |
| Somerset County  | 6.9   | 26                      | falling         | -1.7   |  |  |  |
| Sussex County  | 6.8   | 11                      | falling         | -2.5   |  |  |  |
| Union County   | 9.4   | 55                      | falling         | -1.5   |  |  |  |
| Warren County  | 6.8   | 9                       | falling         | -2.6   |  |  |  |
| Thyroid: All Races (includes Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)   | 14.5  | 47,777                  | stable          | 0.6  |  |  |  |
| New Jersey   | 19.2  | 1,833                   | stable          | 0.8  |  |  |  |
| Atlantic County  | 14.9  | 44                      | stable          | -2.3   |  |  |  |
| Bergen County  | 19.6  | 19.6 201                |                 | -2.1   |  |  |  |
| Burlington County  | 21.4  | 105                     | stable          | 2.1  |  |  |  |
| Camden County  | 22.2  | 119                     | rising          | 3.2  |  |  |  |
| Cape May County  | 16.9  | 18                      | rising          | 6  |  |  |  |
| Cumberland County  | 17.2  | 28                      | stable          | -7.2   |  |  |  |
| Essex County   | 12.6  | 103                     | rising          | 5.1  |  |  |  |
| Gloucester County  | 21.7  | 67                      | rising          | 4.9  |  |  |  |
| Hudson County  | 14.8  | 105                     | stable          | -0.3   |  |  |  |
| Hunterdon County   | 16.5  | 23                      | rising          | 4.5  |  |  |  |
| Mercer County  | 24.1  | 96                      | rising          | 7.2  |  |  |  |
| Middlesex County   | 19.1  | 167                     | rising          | 5.8  |  |  |  |
| Monmouth County  | 24.4  | 166                     | stable          | 0.2  |  |  |  |
| Morris County  | 20.6  | 111                     | stable          | -1.9   |  |  |  |
| Ocean County   | 23.1  | 142                     | stable          | -2.8   |  |  |  |
| Passaic County   | 17  | 87                      | rising          | 6.7  |  |  |  |
| Salem County   | 19.2  | 13                      | rising          | 7.3  |  |  |  |
| Somerset County  | 22.6  | 83                      | stable          | -4.5   |  |  |  |
| Sussex County  | 17.1  | 28                      | rising          | 6.6  |  |  |  |

| INCIDENCE RATE REPORT: ALL COUNTIES 2011-2015                                      |   |                         |                 |  |  |  |  |
|--|---|-------------------------|-----------------|--|--|--|--|
| County   | Age-Adjusted<br>Incidence Rate -<br>cases per 100,000 | Average<br>Annual Count | Recent<br>Trend | Recent 5-<br>Year Trend in<br>Incidence<br>Rates |  |  |  |
| Union County   | 18.1  | 105                     | stable          | -7.1   |  |  |  |
| Warren County  | 17.3  | 21                      | rising          | 4.9  |  |  |  |
| Uterus (Corpus & Uterus, NOS): All Races (includes Hispanic), Both Sexes, All Ages |   |                         |                 |  |  |  |  |
| US (SEER+NPCR)   | 26.2  | 51,560                  | rising          | 1.2  |  |  |  |
| New Jersey   | 31.3  | 1,822                   | rising          | 0.7  |  |  |  |
| Atlantic County  | 30.5  | 57                      | stable          | 0.6  |  |  |  |
| Bergen County  | 29.8  | 193                     | stable          | 0.4  |  |  |  |
| Burlington County  | 33.4  | 102                     | rising          | 1.1  |  |  |  |
| Camden County  | 34.3  | 113                     | stable          | -0.8   |  |  |  |
| Cape May County  | 32.5  | 28                      | rising          | 1.3  |  |  |  |
| Cumberland County  | 36.1  | 34                      | stable          | 1  |  |  |  |
| Essex County   | 31.8  | 151                     | rising          | 1.3  |  |  |  |
| Gloucester County  | 33.1  | 62                      | rising          | 1.1  |  |  |  |
| Hudson County  | 23.9  | 84                      | stable          | 0  |  |  |  |
| Hunterdon County   | 32.7  | 30                      | stable          | -0.2   |  |  |  |
| Mercer County  | 34.5  | 79                      | rising          | 0.8  |  |  |  |
| Middlesex County   | 31.7  | 161                     | rising          | 0.8  |  |  |  |
| Monmouth County  | 30  | 131                     | stable          | -5   |  |  |  |
| Morris County  | 32.9  | 111                     | stable          | 0.5  |  |  |  |
| Ocean County   | 31.7  | 144                     | stable          | 0.3  |  |  |  |
| Passaic County   | 26.8  | 82                      | stable          | 0.3  |  |  |  |
| Salem County   | 37.4  | 17                      | stable          | 1.2  |  |  |  |
| Somerset County  | 33.7  | 73                      | stable          | 0.8  |  |  |  |
| Sussex County  | 35.5  | 35                      | stable          | -0.1   |  |  |  |
| Union County   | 32.2  | 107                     | stable          | 0.4  |  |  |  |
| Warren County  | 35.9  | 27                      | stable          | -0.5   |  |  |  |

#### APPENDIX C7: MMC SOUTHERN CAMPUS - TUMOR REGISTRY SUMMARY

In 2016, MMCSC's tumor registry data showed that 9.0% and 21.1% of overall cases were Stage 3 and Stage 4 respectively. The following primary sites were made up of more than 25% of Stage 4 cases: Oral Cavity and Pharynx (60.0%), Digestive System (42.9%), and Respiratory System (50.0%).

Compared to 2015, there was a decrease of 10 cases (-3.2%) in 2016. The two biggest decreases in overall cases occurred in Lymphoma (-9, -47.4%), followed by Digestive System (-3, -5.6%). Please note that case volume counts smaller than 10 are suppressed. Staging percentages are calculated on analytic cases only.

|                                 |      | th analytic<br>analytic) |                   | 2015             |                                    |                   | 2016             |                                    |                             | 2015 -  | - 2016   |  |
|---------------------------------|------|--------------------------|-------------------|------------------|------------------------------------|-------------------|------------------|------------------------------------|-----------------------------|---|--|--|
|                                 | 2015 | 2016                     | %<br>Stage<br>III | %<br>Stage<br>IV | Total<br>%<br>Stage<br>III &<br>IV | %<br>Stage<br>III | %<br>Stage<br>IV | Total<br>%<br>Stage<br>III &<br>IV | Change<br>in Case<br>Volume | Change<br>in %<br>points<br>for<br>Stage<br>III | Change<br>in %<br>points<br>for<br>Stage<br>IV | Change<br>in %<br>points<br>for<br>Stage<br>III & IV |
| ORAL CAVITY & PHARYNX           |      |                          | 50.0%             | 0.0%             | 50.0%                              | 0.0%              | 60.0%            | 60.0%                              | 4                           | (50.0)  | 60.0   | 10.0   |
| DIGESTIVE SYSTEM                | 54   | 51                       | 4.2%              | 50.0%            | 54.2%                              | 7.1%              | 42.9%            | 50.0%                              | (3)                         | 3.0   | (7.1)  | (4.2)  |
| RESPIRATORY SYSTEM              | 53   | 54                       | 22.6%             | 48.4%            | 71.0%                              | 8.8%              | 50.0%            | 58.8%                              | 1                           | (13.8)  | 1.6  | (12.1)   |
| BONES AND JOINT                 |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | (1)                         | 0.0   | 0.0  | 0.0  |
| SOFT TISSUE                     |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 0                           | 0.0   | 0.0  | 0.0  |
| SKIN EXCLUDING BASAL & SQUAMOUS |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | (1)                         | 0.0   | 0.0  | 0.0  |
| BASAL & SQUAMOUS<br>SKIN        |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 0                           | 0.0   | 0.0  | 0.0  |
| BREAST                          | 38   | 40                       | 41.2%             | 0.0%             | 41.2%                              | 44.4%             | 5.6%             | 50.0%                              | 2                           | 3.3   | 5.6  | 8.8  |
| FEMALE GENITAL<br>SYSTEM        | 11   | 11                       | 25.0%             | 25.0%            | 50.0%                              | 25.0%             | 0.0%             | 25.0%                              | 0                           | 0.0   | (25.0)   | (25.0)   |
| MALE GENITAL<br>SYSTEM          | 18   | 23                       | 0.0%              | 25.0%            | 25.0%                              | 0.0%              | 7.7%             | 7.7%                               | 5                           | 0.0   | (17.3)   | (17.3)   |
| EYE & ORBIT                     |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 1                           | 0.0   | 0.0  | 0.0  |
| URINARY SYSTEM                  | 26   | 24                       | 7.1%              | 0.0%             | 7.1%                               | 0.0%              | 0.0%             | 0.0%                               | (2)                         | (7.1)   | 0.0  | (7.1)  |
| BRAIN & OTHER<br>NERVOUS SYSTEM | 15   | 14                       | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | (1)                         | 0.0   | 0.0  | 0.0  |
| ENDOCRINE SYSTEM                | 14   | 12                       | 0.0%              | 10.0%            | 10.0%                              | 0.0%              | 0.0%             | 0.0%                               | (2)                         | 0.0   | (10.0)   | (10.0)   |
| LYMPHOMA                        | 19   | 10                       | 0.0%              | 33.3%            | 33.3%                              | 20.0%             | 20.0%            | 40.0%                              | (9)                         | 20.0  | (13.3)   | 6.7  |
| MYELOMA                         |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | (2)                         | 0.0   | 0.0  | 0.0  |
| LEUKEMIA                        | 15   | 20                       | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 5                           | 0.0   | 0.0  | 0.0  |
| MESOTHELIOMA                    |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 0                           | 0.0   | 0.0  | 0.0  |
| KAPOSI SARCOMA                  |      |                          | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 0                           | 0.0   | 0.0  | 0.0  |
| MISCELLANEOUS                   | -    | 19                       | 0.0%              | 0.0%             | 0.0%                               | 0.0%              | 0.0%             | 0.0%                               | 19                          | 0.0   | 0.0  | 0.0  |
| Total                           | 311  | 301                      | 12.2%             | 23.6%            | 35.8%                              | 9.0%              | 21.1%            | 30.1%                              | (10)                        | (3.1)   | (2.6)  | (5.7)  |

## **APPENDIX D: RESOURCE INVENTORY**

| Provider Type            | Provider Name  | Street Address                            | Town                    | Zip<br>Code | Phone          |
|--------------------------|--|---|-------------------------|-------------|----------------|
| Ambulatory Care Facility | Advanced Medical Imaging Of Toms River               | 1430 Hooper<br>Avenue                     | Toms River              | 08753       | (732) 349-2867 |
| Ambulatory Care          | Advanced Spine Care and Physical Rehabilitation, LLC | 728 Bennetts<br>Mills Rd, Suite 1         | Jackson                 | 08527       | (732)-415-1401 |
| Ambulatory Care          | Aims Diagnostic Imaging<br>Services Of New Jersey    | 1113 Beacon<br>Avenue                     | Manahawkin              | 08050       | (609) 978-6302 |
| Ambulatory Care          | Aims Diagnostic Imaging<br>Services Of NJ, LLC       | 1109 Beacon<br>Avenue                     | Manahawkin              | 08050       | (609) 978-6301 |
| Ambulatory Care          | Ami Atlanticare                                      | 517 Route 72<br>West                      | Manahawkin              | 08050       | (609)-568-9149 |
| Ambulatory Care          | Atlantic Medical Imaging                             | 455 Jack Martin<br>Boulevard              | Brick                   | 08724       | (732) 840-6500 |
| Ambulatory Care          | Atlantic Medical Imaging                             | 864 Route 37<br>West, West Hills<br>Plaza | Toms River              | 08755       | (732) 240-2772 |
| Ambulatory Care          | Family Planning Center Of Ocean County               | 290 River Avenue                          | Lakewood                | 08701       | (732) 364-9696 |
| Ambulatory Care          | FMC-John J DePalma Renal<br>Center                   | 1 Plaza Drive                             | Toms River              | 08757       | (732)-505-0637 |
| Ambulatory Care          | Garden State Medical<br>Center, LLC                  | 1314 Hooper<br>Avenue - Bldg B            | Toms River              | 08753       | (732) 849-0077 |
| Ambulatory Care          | Garden State Radiation Oncology                      | 512 Lakehurst<br>Road                     | Toms River              | 08755       | (732) 240-0053 |
| Ambulatory Care          | Health Village Imaging                               | 27 S Cooks Bridge<br>Road                 | Jackson                 | 08527       | (732)-497-1200 |
| Ambulatory Care          | Health Village Imaging                               | 1301 Route 72<br>West                     | Manahawkin              | 08050       | (609) 660-9729 |
| Ambulatory Care          | Jersey Advanced Mri And<br>Diagnostic Center Ii      | 1 Kathleen Drive                          | Jackson                 | 08527       | (732) 901-6820 |
| Ambulatory Care          | Lacey Diagnostic Imaging                             | 833 Lacey Road,<br>Units #2 And #3        | Forked River            | 08731       | (609) 242-2334 |
| Ambulatory Care          | Lakewood Dialysis Services,<br>LLC                   | 1328 River<br>Avenue, Suite 16            | Lakewood                | 08701       | (732)-730-2222 |
| Ambulatory Care          | Meridian-Fresenius Dialysis<br>At Brick              | 1640 Route 88,<br>Suite 102               | Brick                   | 08724       | (732)-206-8200 |
| Ambulatory Care          | Meridian Imaging                                     | 27 S Cooks Bridge<br>Road                 | Jackson                 | 08527       | (732) 497-1200 |
| Ambulatory Care          | New Jersey Radiology<br>Associates                   | 1322 Route 72                             | Manahawkin              | 08050       | (609) 978-7900 |
| Ambulatory Care          | NJN Of Toms River-East                               | 21 Stockton Drive                         | Toms River              | 08755       | (732) 286-6333 |
| Ambulatory Care          | North Dover Open MRI LLC                             | 1215 Route 70                             | Lakewood                | 08701       | (732) 370-9902 |
| Ambulatory Care          | Ocean Health Initiatives                             | 1610 Route 88,<br>Suite 102               | Brick                   | 08723       | (732)363-6655  |
| Ambulatory Care          | Ocean Health Initiatives                             | 101 2Nd Street                            | Lakewood                | 08701       | (732) 363-6655 |
| Ambulatory Care          | Ocean Health Initiatives                             | 798 Route 539,<br>Building 3              | Little Egg<br>Harbor Tw | 08087       | (732) 363-6655 |
| Ambulatory Care          | Ocean Health Initiatives                             | 333 Haywood<br>Road                       | Manahawkin              | 08050       | (732)-363-6655 |
| Ambulatory Care          | Ocean Orthopedic<br>Associates, Pa                   | 530 Lakehurst<br>Road                     | Toms River              | 08755       | (732) 349-8454 |

| Provider Type             | Provider Name                                 | Street Address  | Town                    | Zip<br>Code | Phone          |
|---------------------------|---|---|-------------------------|-------------|----------------|
| Ambulatory Care           | OHI-Manchester Township<br>New Access Point   | 686 State Route<br>70   | Manchester<br>Township  | 08733       | (732) 363-6655 |
| Ambulatory Care           | Open MRI Of Central Jersey                    | 226 Route 37<br>West, Suite 5                                     | Toms River              | 08755       | (732) 349-1620 |
| Ambulatory Care           | Our Birthing Center                           | 326 3rd Street,<br>#2B  | Lakewood                | 08701       | (732)-370-5627 |
| Ambulatory Care           | Physicians Dialysis Brick                     | 150 Brick<br>Boulevard  | Brick                   | 08723       | (732)-477-2247 |
| Ambulatory Care           | Saint Barnabas Specialty<br>Center            | 780 Route 37<br>West  | Toms River              | 08755       | (973) 322-9878 |
| Ambulatory Care           | Shore Heart Group, P.C.                       | 115 East Bay Ave  | Manahawkin              | 08050       | (609)-971-3300 |
| Ambulatory Care           | Shore Imaging                                 | 1166 River<br>Avenue  | Lakewood                | 08701       | (732) 364-9565 |
| Ambulatory Care           | Shore Imaging, PC                             | 1100 Route 70<br>West   | Whiting                 | 08759       | (732) 364-9565 |
| Ambulatory Care           | Shore Open MRI                                | 1255 Route 70   | Lakewood                | 08701       | (732) 942-2300 |
| Ambulatory Care           | Shore Point Radiation<br>Oncology Center      | 900 Route 70<br>East  | Lakewood                | 08701       | (732) 901-7333 |
| Ambulatory Care           | Sleep Health LLC                              | 483 River Avenue  | Lakewood                | 08701       | (732) 364-3530 |
| Ambulatory Care           | Toms River X-Ray/Ct/MRI<br>Center             | 154 Highway 37<br>West  | Toms River              | 08755       | (732) 244-0777 |
| Ambulatory Care           | University Radiology Group,<br>Pc             | iversity Radiology Group, 3822 River Road Point 08742<br>Pleasant |                         |             | (732) 892-1200 |
| Ambulatory Care Satellite | OHI At Clifton Avenue Grade<br>School         | 625 Clifton<br>Avenue   | Lakewood                | 08701       | (732) 363-6655 |
| Ambulatory Care Satellite | OHI Mobile Dental Van                         | 101 2Nd Street  | Lakewood                | 08701       | (732) 363-6655 |
| Ambulatory Surgical       | Atlanticare Surgery Center-<br>Ocean County   | 798 Route 539,<br>Building A, Suite<br>1                          | Little Egg<br>Harbor Tw | 08087       | (609) 296-1122 |
| Ambulatory Surgical       | Coastal Endoscopy Center<br>LLC               | 175 Gunning<br>River Road Bldg A<br>Unit 4                        | Barnegat                | 08005       | (609)-698-0700 |
| Ambulatory Surgical       | Jackson Surgery Center                        | 27 South Cooks<br>Bridge Road,<br>Suite L2                        | Jackson                 | 08527       | (972) 763-3893 |
| Ambulatory Surgical       | Jackson Township Dialysis                     | 260 North County<br>Line Rd, Suite 120                            | Jackson                 | 08527       | (732)-364-2055 |
| Ambulatory Surgical       | Jasper Ambulatory Surgical,<br>LLC            | 74 Brick<br>Boulevard,<br>Building 3, Suite<br>121                | Brick                   | 08723       | (732) 262-0700 |
| Ambulatory Surgical       | Lakewood Surgery Center,<br>LLC               | 1215 Route 70   | Lakewood                | 08701       | (732) 719-1800 |
| Ambulatory Surgical       | Manchester Surgery Center                     | 1100 Route 70   | Whiting                 | 08759       | (732) 716-8116 |
| Ambulatory Surgical       | Ocean Endosurgery Center                      | 129 Route 37<br>West, Suite 1                                     | Toms River              | 08755       | (732) 797-3960 |
| Ambulatory Surgical       | Physicians' Surgicenter, LLC                  | 1 Plaza Drive,<br>Units 2-4                                       | Toms River              | 08757       | (732) 818-0059 |
| Ambulatory Surgical       | Seashore Surgical Institute,<br>LLC           | 495 Jack Martin<br>Boulevard                                      | Brick                   | 08724       | (732) 836-9800 |
| Ambulatory Surgical       | Shore Outpatient Surgicenter, LLC             | 360 Route 70  | Lakewood                | 08701       | (732) 942-9835 |
| Ambulatory Surgical       | Shore Spine and Physical Rehabilitation, P.C. | 1104 Arnold Ave   | Point<br>Pleasant       | 08742       | (732)-714-0070 |

| Provider Type        | Provider Name   | Street Address   | Town                 | Zip<br>Code | Phone          |
|----------------------|---|--|----------------------|-------------|----------------|
| Ambulatory Surgical  | Shore Surgical Pavilion LLC   | 475 Route 70   | Lakewood             | 08701       | (732) 730-3939 |
| Ambulatory Surgical  | Southern Ocean County   | 1301 Route 72,   | Manahawkin           | 08050       | (609)-597-0483 |
|                      | Dialysis Center   | Suite 110  |                      |             |                |
| Ambulatory Surgical  | Toms River Surgery Center,<br>LLC   | 1430 Hooper<br>Avenue                                    | Toms River           | 08753       | (732) 240-2277 |
| Ambulatory Surgical  | University Radiology, P.C.  | 833 Lacey Road,<br>Units #2 And #3                       | Forked River         | 08731       | (609)-242-2334 |
| Behavioral Health    | Brighter Days School Self-<br>Help Center                                     | 268 Bennetts<br>Mills Road                               | Jackson              | 08527       | (732) 534-9960 |
| Behavioral Health    | Journey To Wellness - Self<br>Help Center                                     | 226 Route 37<br>West, Unit 14                            | Toms River           | 08755       | (732) 914-1546 |
| Behavioral Health    | Mental Health Assoc Of<br>Ocean Cty - Systems<br>Advocacy                     | 226 Route 37<br>West, Unit 14                            | Toms River           | 08755       | (732) 914-1546 |
| Behavioral Health    | Ocean Mental Health Services Inc, Program Of Assertive Comm. Treatment (Pact) | 1057 Route 9   | Bayville             | 08721       | (732) 606-9478 |
| Behavioral Health    | Ocean Mental Health<br>Services, Inc. Partial Care -<br>Project Recovery      | 160 Route 9  | Bayville             | 08721       | (732) 349-5550 |
| Behavioral Health    | Preferred Behavioral Health<br>Of NJ - Dare - Partial Care                    | 700 Airport Road   | Lakewood             | 08701       | (732) 367-4700 |
| Behavioral Health    | Preferred Behavioral Health Of NJ - Partial Care - Interact & Prime Time      | 725 Airport Road   | Lakewood             | 08701       | (732) 367-8859 |
| Behavioral Health    | Preferred Behavioral Health<br>Services - Learn Of The<br>Jersey Shore        | 725 Airport Road,<br>Suite 7G                            | Lakewood             | 08701       | (732) 276-1510 |
| Behavioral Health    | Triple C Housing, Inc<br>Supportive Housing                                   | 1 Distribution<br>Way                                    | Monmouth<br>Junction | 08852       | (609) 655-3950 |
| Behavioral Health-OP | Agape Counseling Services   | 815 Route 9  | Lanoka<br>Harbor     | 08734       | (609) 242-0086 |
| Behavioral Health-OP | Community Health Law<br>Project - Systems Advocacy                            | 44 Washington<br>Street, Suite 101                       | Toms River           | 08753       | (732) 380-1012 |
| Behavioral Health-OP | Life Excel, Inc   | 35 Beaverson<br>Blvd - Bldg 1                            | Brick                | 08723       | (732) 920-7933 |
| Behavioral Health-OP | Lighthouse At Ocean County  | 400 N Main<br>Street, Bldg 1<br>Suite 2                  | Manahawkin           | 08050       | (609) 489-0789 |
| Behavioral Health-OP | Monmouth Medical Center -<br>Deaf Enhanced Screening<br>Center                | Southern Campus<br>(Barnabas Health)<br>600 River Avenue | Lakewood             | 08701       | (732) 886-4474 |
| Behavioral Health-OP | Monmouth Medical Center<br>(PESS)- Primary Screening<br>Center For Ocean      | Southern Campus<br>(Barnabas Health)<br>600 River Avenue | Lakewood             | 08701       | (732) 886-4474 |
| Behavioral Health-OP | Ocean County Human<br>Services - County Mental<br>Health Board                | 1027 Hooper<br>Avenue - Bldg 2                           | Toms River           | 08754       | (732) 506-5374 |
| Behavioral Health-OP | Ocean County Mental Health<br>Services, Inc                                   | 687 Route 9  | Bayville             | 08721       | (732) 269-4849 |
| Behavioral Health-OP | Ocean Medical Services, Inc.  | 2001 Route 37<br>East                                    | Toms River           | 08753       | (732) 288-9322 |

| Provider Type        | Provider Name  | Street Address                           | Town           | Zip<br>Code | Phone          |
|----------------------|--|--|----------------|-------------|----------------|
| Behavioral Health-OP | Ocean Mental Health<br>Services Early Intervention<br>Support Services         | 1376 Route 9                             | Toms River     | 08754       | (732) 240-3760 |
| Behavioral Health-OP | Ocean Mental Health Services - Involuntary Outpatient Commitment               | 687 Route 9                              | Bayville       | 08721       | (732) 269-4849 |
| Behavioral Health-OP | Ocean Mental Health<br>Services Project Recovery                               | 160 Route 9                              | Bayville       | 08721       | (732) 349-5550 |
| Behavioral Health-OP | Ocean Mental Health<br>Services, Inc   | 81 Nautilus Drive                        | Manahawkin     | 08755       | (609) 597-5327 |
| Behavioral Health-OP | Ocean Mental Health<br>Services, Inc - Homeless<br>Services (Path)             | 687 Route 9                              | Bayville       | 08721       | (732) 269-4849 |
| Behavioral Health-OP | Ocean Mental Health Services, Inc - Program Of Assertive Comm Treatment (PACT) | 122 Lien Street                          | Toms River     | 08753       | (732) 349-0515 |
| Behavioral Health-OP | Ocean Mental Health<br>Services, Inc. Partial Care -<br>Project Anchor         | 687 Route 9                              | Bayville       | 08721       | (732) 269-4849 |
| Behavioral Health-OP | Ocean Mental Health<br>Services, Inc Crisis<br>Diversion                       | 687 Route 9                              | Bayville       | 08721       | (732) 269-4849 |
| Behavioral Health-OP | Ocean Mental Health<br>Services, Inc Intensive<br>Family Support Services      | 160 Route 9                              | Bayville       | 08721       | (732) 349-3535 |
| Behavioral Health-OP | Preferred Behavioral Health<br>Access Center                                   | 700 Airport Road                         | Lakewood 08701 |             | (732) 367-1602 |
| Behavioral Health-OP | Preferred Behavioral Health (Lakewood)   | 999 Airport Road                         | Lakewood       | 08701       | (732) 458-1700 |
| Behavioral Health-OP | Preferred Behavioral Health<br>Of NJ   | 725 Airport Road                         | Lakewood       | 08701       | (732) 276-1510 |
| Behavioral Health-OP | Preferred Behavioral Health Of NJ ntegrated Case Mgt Services                  | 591 Lakehurst<br>Road                    | Toms River     | 08755       | (732) 323-3664 |
| Behavioral Health-OP | Preferred Behavioral Health<br>Of NJ - Justice Involved<br>Services            | 591 Lakehurst<br>Road                    | Toms River     | 08755       | (732) 323-3664 |
| Behavioral Health-OP | Preferred Behavioral Health<br>Of NJ - Supportive<br>Employment Services       | 725 Airport Road                         | Lakewood       | 08701       | (732) 367-5439 |
| Behavioral Health-OP | Preferred Behavioral Health<br>Of NJ - Supportive Housing                      | 725 Airport Road                         | Lakewood       | 08701       | (732) 367-2665 |
| Behavioral Health-OP | Preferred Behavioral Health<br>Of NJ -Homeless Services<br>(Path)              | 725 Airport Road                         | Lakewood       | 08701       | (732) 367-2665 |
| Behavioral Health-OP | Preferred Behavioral Health Of NJ  | 700 Airport Road                         | Lakewood       | 08701       | (732) 367-4700 |
| Behavioral Health-OP | Seashore Family Services Of<br>NJ  | 35 Beaverson<br>Blvd - Bldg 6 Suite<br>A | Brick          | 08723       | (732) 920-2700 |
| Behavioral Health-OP | Seashore Family Services Of NJ   | 226 Main Street                          | Toms River     | 08753       | (732) 244-1600 |
| Behavioral Health-OP | St Barnabas Behavioral<br>Health Center  | 1691 Route 9                             | Toms River     | 08753       | (732) 914-1688 |

| Provider Type                      | Provider Name  | Street Address                              | Town            | Zip<br>Code | Phone          |
|------------------------------------|--|---|-----------------|-------------|----------------|
| Behavioral Health-OP               | St Barnabas Behavioral<br>Health Center - Deaf<br>Enhanced STFC  | 1691 Route 9                                | Toms River      | 08753       | (732) 914-1688 |
| Behavioral Health-OP               | The Center At Advanced<br>Behavioral Care Services, LLC  | 5 Airport Road                              | Lakewood        | 08701       | (732) 961-9666 |
| Behavioral Health-OP-Res.          | Ocean Mental Health<br>Services, Inc. Supportive<br>Housing  | 160 Route 9                                 | Bayville        | 08721       | (732) 281-1658 |
| Behavioral Health-OP-Res.          | Preferred Behavioral Health<br>(Barnegat)  | Barnegat<br>Commons Suite<br>C-1            | Barnegat        | 08805       | (609) 660-0197 |
| Behavioral Health-OP-Res.          | Preferred Behavioral Health (Toms River)   | 1191 Lakewood<br>Road                       | Toms River      | 08755       | (732) 458-1700 |
| Behavioral Health-OP-Res.          | RHD - Ocean Supportive<br>Housing  | 317 Brick<br>Boulevard                      | Brick           | 08723       | (732) 920-5000 |
| Behavioral Health-OP-Res.          | RHD - Ocean/Monmouth<br>Supportive Housing   | 2040 Sixth<br>Avenue - Suite C              | Neptune<br>City | 07753       | (732) 361-5845 |
| Behavioral Health-Res.             | Jersey Shore University Medical Ctr - Short Term Care Facility   | 1945 Corlies<br>Avenue                      | Neptune         | 07754       | (732) 776-4361 |
| Behavioral Health-Res.             | Monmouth Med Ctr<br>Southern Campus (Barnabas<br>Health) Short Term Care   | 1691 Route 9                                | Toms River      | 08753       | (732) 914-3836 |
| Behavioral Health-Res.             | Ocean Mental Health<br>Services, Inc.  | 160 Route 9                                 | Bayville        | 08721       | (732) 349-5550 |
| Behavioral Health-Res.             | Resource For Human Development - Residential Intensive Support Team (RIST)   | 850 West Main<br>Street                     | Barnegat        | 08005       | (609) 698-8300 |
| Behavioral Health-Res.             | Resource For Human Development - Residential Intensive Support Team (RIST)   | 317 Brick<br>Boulevard, Suite<br>200        | Brick           | 08723       | (732) 920-5000 |
| Behavioral Health-Res.             | Resource For Human Development (Coastal Wellness) - Residential Intensive Support Team (RIST) Ocean/Monmouth Program | 2040 Sixth<br>Avenue - Suite C              | Neptune<br>City | 07753       | (732) 361-5845 |
| Clinical Care-Dental               | Center For Health Education,<br>Medicine & Dentistry<br>(Chemed)   | 1771 Madison<br>Avenue                      | Lakewood        | 08701       | (732) 364-2144 |
| Clinical Care-Dental               | Ocean Health Initiatives   | 101 Second<br>Street                        | Lakewood        | 08701       | (732) 363-6655 |
| Clinical Care-Dental               | Ocean Health Initiatives   | 301 Lakehurst<br>Road                       | Toms River      | 08753       | (732) 552-0377 |
| Communicable Disease-Tb<br>Testing | Long Beach Island Health<br>Department   | 2119 Long Beach<br>Boulevard - 1St<br>Floor | Ship Bottom     | 08008       | (609) 492-1212 |
| Communicable Disease-Tb<br>Testing | Ocean County Health<br>Department  | 175 Sunset<br>Avenue P.O. Box<br>2191       | Toms River      | 08754       | (732) 341-9700 |
| Comprehensive<br>Rehabilitation    | HealthSouth Rehabilitation<br>Hospital Of Toms River   | 14 Hospital Drive                           | Toms River      | 08755       | (800) 765-4772 |

| Provider Type                         | Provider Name  | Street Address  | Town       | Zip<br>Code | Phone          |
|---------------------------------------|--|---|------------|-------------|----------------|
| Comprehensive<br>Rehabilitation       | Shore Rehabilitation<br>Institute                      | 425 Jack Martin<br>Boulevard,<br>Second Floor,<br>East Wing | Brick      | 08724       | (732) 836-4530 |
| End Stage Renal Dialysis              | Bricktown Dialysis Center                              | 525 Jack Martin<br>Boulevard, Suite<br>200-201              | Brick      | 08724       | (732) 836-9669 |
| End Stage Renal Dialysis              | Fresenius Medical Care<br>Lakewood                     | 1328 River<br>Avenue, Suite 16                              | Lakewood   | 08701       | (732) 730-2222 |
| End Stage Renal Dialysis              | Fresenius Medical Care<br>Toms River                   | 970 Hooper<br>Avenue  | Toms River | 08753       | (732) 286-6502 |
| End Stage Renal Dialysis              | Fresenius Medical Center<br>John J DePalma             | 1 Plaza Drive   | Toms River | 08757       | (732) 505-0637 |
| End Stage Renal Dialysis              | Meridian-Fresenius Dialysis<br>At Brick                | 1640 Route 88,<br>Suite 102                                 | Brick      | 08724       | (732) 206-8200 |
| End Stage Renal Dialysis              | Ocean County Dialysis<br>Center                        | 635 Bay Avenue  | Toms River | 08753       | (732) 341-2730 |
| End Stage Renal Dialysis              | RCG Whiting  | 430 Pinewald-<br>Keswick Road,<br>Route 530                 | Whiting    | 08759       | (732) 350-8405 |
| End Stage Renal Dialysis              | Renal Center Of Brick                                  | 150 Brick<br>Boulevard                                      | Brick      | 08723       | (732) 477-2247 |
| End Stage Renal Dialysis              | Southern Ocean County<br>Dialysis Clinic               | 1301 Route 72,<br>Suite 110                                 | Manahawkin | 08050       | (609) 597-0483 |
| Federally Qualified Health<br>Centers | Center For Health Education,<br>Medicine And Dentistry | 1771 Madison<br>Avenue Route 9                              | Lakewood   | 08701       | (732) 364-2144 |
| Federally Qualified Health<br>Centers | Ocean Health Initiatives                               | 855 Somerset<br>Avenue                                      | Lakewood   | 08701       | (732) 363-6655 |
| Federally Qualified Health<br>Centers | Ocean Health Initiatives                               | 333 Haywood<br>Road   | Manahawkin | 08050       | (609) 489-0110 |
| Federally Qualified Health<br>Centers | Ocean Health Initiatives Inc                           | 301 Lakehurst<br>Road                                       | Toms River | 08755       | (732) 363-6655 |
| General Acute Care<br>Hospital        | Community Medical Center                               | 99 Rt 37 West   | Toms River | 08755       | (732) 557-8000 |
| General Acute Care<br>Hospital        | Monmouth Medical Center-<br>Southern Campus            | 600 River Ave   | Lakewood   | 08701       | (732) 363-1900 |
| General Acute Care<br>Hospital        | Ocean Medical Center                                   | 425 Jack Martin<br>Blvd                                     | Brick      | 08724       | (732) 840-2200 |
| General Acute Care<br>Hospital        | Southern Ocean Medical<br>Center                       | 1140 Rt 72 W  | Manahawkin | 08050       | (609) 597-6011 |
| Home Health Agency                    | Bayada Home Health Care,<br>Inc                        | 401 Lacey Road  | Whiting    | 08759       | (732) 350-2355 |
| Home Health Agency                    | Hackensack Meridian Health at Home Ocean County        | 1759 Route 88,<br>Suite 100                                 | Brick      | 08724       | (732)-206-8100 |
| Home Health Agency                    | Meridian Home Care-Ocean<br>County                     | Laurelton Plaza,<br>1759 State<br>Highway 88, Suite<br>100  | Brick      | 08724       | (732) 206-8100 |
| Home Health Agency                    | VNA Of Central Jersey Home<br>Care & Hospice           | 1443 Hooper<br>Avenue                                       | Toms River | 08755       | (732) 818-6800 |
| Hospice                               | Bayada Hospice   | 96 East Water<br>Street                                     | Toms River | 08753       | (609)-387-6410 |
| Hospice                               | CareSense Health                                       | 1935 Swathmore<br>Avenue                                    | Lakewood   | 08701       | (888) 444-8157 |

| Provider Type                     | Provider Name  | Street Address                             | Town              | Zip<br>Code | Phone          |
|-----------------------------------|--|--|-------------------|-------------|----------------|
| Hospice                           | Compassionate Care Hospice<br>Of Marlton, LLC        | 1130 Hooper<br>Avenue, Suite<br>200        | Toms River        | 08753       | (732) 244-6380 |
| Hospice                           | Hackensack Meridian Health<br>Hospice                | 80 Nautilus Drive                          | Manahawkin        | 08050       | (609)-489-0252 |
| Hospice                           | Holisticare Hospice Of New<br>Jersey                 | 1144 Hooper<br>Avenue - Suite<br>208       | Toms River        | 08753       | (732) 731-8100 |
| Hospice                           | Holy Redeemer Hospice -<br>New Jersey, Shore         | 1228 Route 37<br>West                      | Toms River        | 08755       | (732) 240-2449 |
| Hospice                           | Meridian Hospice                                     | 80 Nautilus Drive                          | Manahawkin        | 08050       | (609) 489-0252 |
| Hospice                           | New Jersey Cuidado Casro<br>Hospice                  | 74 Brick Blvd-<br>Bldg 4, Ste 120          | Brick             | 08723       | (732) 477-0516 |
| Hospice                           | Ocean Hospice, LLC                                   | A-108 Commons<br>Way                       | Toms River        | 08755       | (732)-505-0080 |
| Hospice                           | VNA Of Central Jersey Home<br>Care & Hospice         | 1433 Hooper<br>Avenue                      | Toms River        | 08755       | (732) 818-6800 |
| Hospice Care Branch               | Compassionate Care Hospice<br>Of Marlton LLC         | 1130 Hooper<br>Avenue, Suite<br>200        | Toms River        | 08753       | (732) 244-6380 |
| Hospice Care Branch               | Holy Redeemer Hospice-NJ,<br>Shore                   | 1228 Route 37<br>West                      | Toms River        | 08755       | (732) 240-2449 |
| Hospice Care Branch               | Meridian Hospice                                     | 80 Nautilus Drive                          | Manahawkin        | 08050       | (609) 489-0252 |
| Hospice Care Branch               | New Jersey Cuidado Casero<br>Hospice                 | 74 Brick Blvd -<br>Bldg 4, Ste 120         | Brick             | 08723       | (732) 477-0516 |
| Hospice Care Program              | CareSense Health                                     | 1935 Swarthmore<br>Avenue                  | Lakewood          | 08701       | (888) 444-8157 |
| Hospice Care Program              | Holisticare Hospice Of New<br>Jersey                 | 1144 Hooper<br>Avenue, Suite<br>208        | Toms River        | 08753       | (732) 731-8100 |
| Hospice Care Program              | VNA Of Central Jersey Home<br>Care & Hospice         | 1433 Hooper<br>Avenue                      | Toms River        | 08755       | (732) 818-6800 |
| Hosp-Based, Off-Site Amb.<br>Care | Children's Specialized<br>Hospital                   | 94 Stevens Road                            | Toms River        | 08755       | (732) 797-3800 |
| Hosp-Based, Off-Site Amb.<br>Care | CMC Radiology Center At<br>Whiting                   | 65 Lacey Road                              | Manchester        | 08759       | (732) 557-8000 |
| Hosp-Based, Off-Site Amb.<br>Care | Community Medical Center<br>Sleep Center-Manahawkin  | 647 Mill Creek<br>Road, Suites 4,5,7       | Manahawkin        | 08050       | (732) 557-8000 |
| Hosp-Based, Off-Site Amb.<br>Care | CSH Outpatient Center-Toms<br>River                  | 94 Stevens Road                            | Toms River        | 08755       | (908) 233-3272 |
| Hosp-Based, Off-Site Amb.<br>Care | Meridian Cancer Care                                 | 27 South Cooks<br>Bridge Road,<br>Suite M7 | Jackson           | 08527       | (732) 840-3321 |
| Hosp-Based, Off-Site Amb.<br>Care | Meridian Rehab Outpatient<br>Therapy At Manahawkin   | 56 Nautilus Drive                          | Manahawkin        | 08050       | (609) 978-3110 |
| Hosp-Based, Off-Site Amb.<br>Care | Meridian Rehab Outpatient<br>Therapy Center At Brick | 150 Allaire Road                           | Brick             | 08724       | (732) 836-4368 |
| Hosp-Based, Off-Site Amb.<br>Care | Ocean Care Center                                    | 1517 Richmond<br>Avenue, Route 35<br>South | Point<br>Pleasant | 08742       | (732) 295-6377 |
| Hosp-Based, Off-Site Amb.<br>Care | Ocean Medical Center<br>Family Health Center         | 1608 State Route<br>88, Suite 207          | Brick             | 08724       | (732) 840-3322 |
| Hosp-Based, Off-Site Amb.<br>Care | SleepCare Center of Ocean<br>Medical Center          | 1610 Route 88,<br>Second Floor             | Brick             | 08724       | (732)-836-4295 |

| Provider Type                       | Provider Name                                      | Street Address                | Town        | Zip<br>Code | Phone          |
|-------------------------------------|--|-------------------------------|-------------|-------------|----------------|
| Hosp-Based, Off-Site Amb.<br>Care   | SOMC's Center For Sleep<br>Disorders               | 2446 Church<br>Road, Suite 3A | Toms River  | 08753       | (609) 978-8900 |
| Hosp-Based, Off-Site Amb.<br>Care   | Southern Ocean Medical<br>Center Clinic            | 53 Nautilus Drive             | Manahawkin  | 08050       | (609) 978-8900 |
| Hosp-Based, Off-Site Amb.<br>Care   | Southern Ocean Medical<br>Center Sleep Center      | 53 Nautilus Drive             | Manahawkin  | 08050       | (609) 978-8900 |
| Hospitals - Cancer Center           | Community Medical Center                           | 99 Route 37 West              | Toms River  | 08755       | (732) 557-8000 |
| Hospitals - Cancer Center           | Monmouth Medical Center -<br>Southern Campus       | 600 River Avenue              | Lakewood    | 08701       | (732) 363-1900 |
| Hospitals - Cancer Center           | Ocean Medical Center                               | 425 Jack Martin<br>Boulevard  | Brick       | 08724       | (732) 840-2200 |
| Hospitals - Cancer Center           | Southern Ocean Medical<br>Center                   | 1140 Rte 72 West              | Manahawkin  | 08050       | (609) 597-6011 |
| Inpatient Rehab & Long<br>Term Care | Arbors Care Center                                 | 1750 Route 37<br>West         | Toms River  | 08757       | (732) 914-0090 |
| Inpatient Rehab & Long<br>Term Care | AristaCare At Manchester                           | 1770 Tobias<br>Avenue         | Manchester  | 08759       | (732) 657-1800 |
| Inpatient Rehab & Long<br>Term Care | AristaCare At Whiting                              | 23 Schoolhouse<br>Road        | Whiting     | 08759       | (732) 849-4300 |
| Inpatient Rehab & Long<br>Term Care | Atlantic Coast Rehabilitation & Health Care        | 485 River Road                | Lakewood    | 08701       | (732) 364-7100 |
| Inpatient Rehab & Long<br>Term Care | Barnegat Rehabilitation and<br>Nursing Center      | 859 West Bay<br>Avenue        | Barnegat    | 08005       | (609) 698-1400 |
| Inpatient Rehab & Long<br>Term Care | Bartley Healthcare Nursing & Rehabilitation        | 175 Bartley Road              | Jackson     | 08527       | (732) 370-4700 |
| Inpatient Rehab & Long<br>Term Care | Bey Lea Village Care Center                        | 1351 Old<br>Freehold Road     | Toms River  | 08753       | (732) 240-0090 |
| Inpatient Rehab & Long<br>Term Care | Care One At Jackson                                | 11 History Lane               | Jackson     | 08527       | (732) 367-6600 |
| Inpatient Rehab & Long<br>Term Care | Children's Specialized<br>Hospital                 | 94 Stevens Road               | Toms River  | 08755       | (732) 797-3800 |
| Inpatient Rehab & Long<br>Term Care | Claremont Center                                   | 1515 Hulse Road               | Pt Pleasant | 08742       | (732) 295-9300 |
| Inpatient Rehab & Long<br>Term Care | Community Medical Center TCU                       | 99 Route 37 West              | Toms River  | 08755       | (732) 557-8000 |
| Inpatient Rehab & Long<br>Term Care | Concord Healthcare &<br>Rehabilitation Center      | 963 Ocean<br>Avenue           | Lakewood    | 08701       | (732) 367-7444 |
| Inpatient Rehab & Long<br>Term Care | Crestwood Manor                                    | 50 Lacey Road                 | Whiting     | 08759       | (732) 849-4900 |
| Inpatient Rehab & Long<br>Term Care | Crystal Lake Healthcare &<br>Rehabilitation Center | 395 Lakeside<br>Boulevard     | Bayville    | 08721       | (732) 269-0500 |
| Inpatient Rehab & Long<br>Term Care | Fountain View Care Center                          | 527 River Avenue              | Lakewood    | 08701       | (732) 905-0700 |
| Inpatient Rehab & Long Term Care    | Green Acres Manor                                  | 1931 Lakewood<br>Road         | Toms River  | 08755       | (732) 286-2323 |
| Inpatient Rehab & Long Term Care    | Hamilton Place At The Pines<br>At Whiting          | 507 Route 530                 | Whiting     | 08759       | (732) 849-0400 |
| Inpatient Rehab & Long Term Care    | Hampton Ridge Healthcare<br>& Rehabilitation       | 95 Stevens Road               | Toms River  | 08755       | (732) 286-5005 |
| Inpatient Rehab & Long Term Care    | Harrogate  | 400 Locust Street             | Lakewood    | 08701       | (732) 905-7070 |
| Inpatient Rehab & Long<br>Term Care | Holiday Care Center                                | 4 Plaza Drive                 | Toms River  | 08757       | (732) 204-0900 |

| Provider Type                       | Provider Name  | Street Address                                    | Town                     | Zip<br>Code | Phone          |
|-------------------------------------|--|---|--------------------------|-------------|----------------|
| Inpatient Rehab & Long<br>Term Care | Laurelton Village Care<br>Center                       | 475 Jack Martin<br>Boulevard                      | Brick                    | 08724       | (732) 458-6600 |
| Inpatient Rehab & Long<br>Term Care | Leisure Chateau<br>Rehabilitation                      | 962 River Avenue                                  | Lakewood                 | 08701       | (732) 370-8600 |
| Inpatient Rehab & Long<br>Term Care | Leisure Park Health Center                             | 1400 Route 70                                     | Lakewood                 | 08701       | (732) 370-0444 |
| Inpatient Rehab & Long<br>Term Care | Manahawkin Convalescent<br>Center                      | 1211 Route 72<br>West                             | Manahawkin               | 08050       | (609) 597-8500 |
| Inpatient Rehab & Long<br>Term Care | Meridian Nursing & Rehabilitation At Brick             | 415 Jack Martin<br>Boulevard                      | Brick                    | 08724       | (732) 206-8000 |
| Inpatient Rehab & Long<br>Term Care | Monmouth Medical Center -<br>Southern Campus           | 600 River Avenue                                  | Lakewood                 | 08701       | (732) 363-1900 |
| Inpatient Rehab & Long<br>Term Care | Mystic Meadows Rehab & Nursing Center                  | 151 Ninth<br>Avenue                               | Little Egg<br>Harbor Twp | 08087       | (609) 294-3200 |
| Inpatient Rehab & Long<br>Term Care | Ocean Medical Center                                   | 425 Jack Martin<br>Boulevard                      | Brick                    | 08724       | (732) 840-2200 |
| Inpatient Rehab & Long<br>Term Care | Rose Garden Nursing & Rehab Center                     | 1579 Old<br>Freehold Road                         | Toms River               | 08753       | (732) 505-4477 |
| Inpatient Rehab & Long<br>Term Care | Seacrest Village                                       | 1001 Center<br>Street                             | Little Egg<br>Harbor Twp | 08087       | (609) 296-9292 |
| Inpatient Rehab & Long<br>Term Care | Shore Meadows<br>Rehabilitation & Nursing<br>Center    | 231 Warner<br>Street                              | Toms River               | 08757       | (732) 942-0800 |
| Inpatient Rehab & Long<br>Term Care | Shorrock Gardens Care<br>Center Inc                    | 75 Old Toms<br>River Road                         | Brick                    | 08723       | (732) 451-1000 |
| Inpatient Rehab & Long<br>Term Care | Southern Ocean Center                                  | 1361 Route 72<br>West                             | Manahawkin               | 08050       | (609) 978-0600 |
| Inpatient Rehab & Long<br>Term Care | Southern Ocean Medical<br>Center                       | 1140 Route 72<br>West                             | Manahawkin               | 08050       | (609) 978-8900 |
| Inpatient Rehab & Long<br>Term Care | Southern Ocean Medical<br>Center                       | 1140 Route 72<br>West                             | Manahawkin               | 08050       | (609) 597-6011 |
| Inpatient Rehab & Long<br>Term Care | Tallwood's Care Center                                 | 18 Butler<br>Boulevard                            | Bayville                 | 08721       | (732) 237-2220 |
| Inpatient Rehab & Long<br>Term Care | Whiting Health Care Center                             | 3000 Hilltop Road                                 | Whiting                  | 08759       | (732) 849-4400 |
| Inpatient Rehab & Long<br>Term Care | Willow Springs Rehab &<br>Health Care Center           | 1049 Burnt<br>Tavern Road                         | Brick                    | 08724       | (732) 840-3700 |
| Mammography Centers                 | Advanced Medical Imaging<br>Of Toms River              | 1430 Hooper<br>Avenue - Suite<br>102              | Toms River               | 08753       | (732) 349-2867 |
| Mammography Centers                 | Aims Diagnostic Imaging                                | 1109 Beacon<br>Avenue                             | Manahawkin               | 08050       | (609) 978-6301 |
| Mammography Centers                 | CMC Radiology At Whiting                               | 65 Lacey Road                                     | Whiting                  | 08755       | (732) 557-8145 |
| Mammography Centers                 | Community Medical Center                               | 99 Hwy 37 West                                    | Toms River               | 08755       | (732) 557-3363 |
| Mammography Centers                 | Community Medical Center -<br>Nexus Building           | 368 Lakehurst<br>Road - Nexux<br>Bldg - 1St Floor | Toms River               | 08755       | (732) 557-3363 |
| Mammography Centers                 | Ella Health Of Toms River<br>MSO, LLC                  | 222 Oak Avenue -<br>Suite 1                       | Toms River               | 08753       | (848) 221-8209 |
| Mammography Centers                 | Garden State Medical Center LLC, Dba Shore Imaging, Pc | 1100 Route 70<br>West - Suite 102                 | Whiting                  | 08759       | (732) 364-9565 |
| Mammography Centers                 | Health Village Imaging                                 | 1301 Route 72<br>West- Suite 100                  | Manahawkin               | 08050       | (609) 660-9729 |

| Provider Type                       | Provider Name  | Street Address                             | Town              | Zip<br>Code | Phone          |
|-------------------------------------|--|--|-------------------|-------------|----------------|
| Mammography Centers                 | Jacqueline M Wilentz MMC-<br>SC                            | 500 River Avenue<br>- Suite 200            | Lakewood          | 08701       | (732) 923-7942 |
| Mammography Centers                 | Lacey Diagnostic Imaging                                   | 833 Lacey Road                             | Forked River      | 08731       | (609) 242-2334 |
| Mammography Centers                 | Ocean Gynecological & Obstetrical Associates               | 475 Route 70                               | Lakewood          | 08701       | (732) 364-8000 |
| Mammography Centers                 | Ocean Medical Imaging<br>Women's Center                    | 9 Mule Road                                | Toms River        | 08757       | (732) 240-1400 |
| Mammography Centers                 | Shore Imaging, Chandru Jain,<br>Md, PC                     | 1166 River<br>Avenue - Suite<br>102        | Lakewood          | 08701       | (732) 364-9565 |
| Mammography Centers                 | Southern Ocean Medical<br>Center                           | 1140 Route 72<br>West                      | Manahawkin        | 08050       | (609) 978-8900 |
| Mammography Centers                 | Toms River X-Ray   | 154 Hwy 37 West                            | Toms River        | 08755       | (732) 244-0777 |
| Mammography Centers                 | University Radiology Group, Pc                             | 3822 River Road                            | Point<br>Pleasant | 08742       | (732) 892-1200 |
| Mammography Centers                 | Woman's Imaging Pavilion<br>At Ocean Medical Center        | 425 Jack Martin<br>Boulevard               | Bricktown         | 08724       | (732) 836-4083 |
| Maternal & Pediatric                | Planned Parenthood   | 800 West Main<br>Street                    | Freehold          | 07728       | (732) 431-1717 |
| Maternal & Pediatric                | Center For Health Education, Medicine & Dentistry (Chemed) | 1771 Madison<br>Avenue                     | Lakewood          | 08701       | (732) 364-2144 |
| Maternal & Pediatric                | Community Medical Center /<br>RWJ Barnabas Health          | 99 Highway 37<br>West                      | Toms River        | 08755       | (732) 557-8000 |
| Maternal & Pediatric                | Ocean Health Initiatives                                   | 101 Second<br>Street                       | Lakewood          | 08701       | (732) 363-6655 |
| Maternal & Pediatric                | Ocean Health Initiatives                                   | 333 Haywood<br>Road                        | Manahawkin        | 08055       | (609) 489-0110 |
| Maternal & Pediatric                | Ocean Health Initiatives                                   | 301 Lakehurst Rd                           | Toms River        | 08755       | (732) 552-0377 |
| Maternal & Pediatric                | Ocean Health Initiatives -<br>Lakehurst Circle Ctr Ii      | 686 Route 70                               | Lakehurst         | 08733       | (732) 363-6655 |
| Maternal & Pediatric                | Ocean Health Initiatives -<br>The Mobile Unit              | 101 Second<br>Street                       | Lakewood          | 08701       | (732) 363-6655 |
| Maternal & Pediatric                | Ocean Health Initiatives<br>Elementary School              | 625 Clifton<br>Avenue                      | Lakewood          | 08701       | (732) 363-6655 |
| Maternal & Pediatric                | Planned Parenthood   | 268 South<br>Academy Street                | Hightstown        | 08520       | (609) 448-3439 |
| Maternal & Pediatric                | Planned Parenthood   | 69 Newman<br>Springs Road East             | Shrewsbury        | 07702       | (732) 842-9300 |
| Maternal & Pediatric                | Southern Ocean Medical<br>Center                           | 1140 Route 37<br>West                      | Manahawkin        | 08050       | (609) 597-6011 |
| Monmouth County<br>Cancer Coalition | Center For Kids & Family                                   | Att: Debra<br>Levinson<br>99 Route 37 West | Toms River        | 08755       | (732) 286-3693 |
| Ocean County Cancer<br>Coalition    | Center For Kids & Family                                   | Att: Debra<br>Levinson<br>99 Route 37 West | Toms River        | 08755       | (732) 286-3693 |
| Primary Health Care<br>Center       | Lakewood Resource &<br>Referral Center - Chemed            | 1771 Madison<br>Ave (Route 9)              | Lakewood          | 08701       | (732) 364-2144 |
| Primary Health Care<br>Center       | Lakewood Resource &<br>Referral Center - Chemed            | 1771 Madison<br>Avenue (RTE 9)             | Lakewood          | 08701       | (732) 364-2144 |

| Provider Type                 | Provider Name   | Street Address                                  | Town                 | Zip<br>Code | Phone          |
|-------------------------------|---|---|----------------------|-------------|----------------|
| Primary Health Care<br>Center | Ocean Health Initiatives                              | Lakehurst Circle<br>Center Ii - 686<br>Route 70 | Lakehurst            | 08733       | (732) 363-6655 |
| Primary Health Care<br>Center | Ocean Health Initiatives                              | Lakehurst Circle<br>Ctr Ii- 686 Rt 70           | Lakehurst            | 08733       | (732) 363-6655 |
| Primary Health Care<br>Center | Ocean Health Initiatives                              | 101 Second<br>Street                            | Lakewood             | 08701       | (732) 363-6655 |
| Primary Health Care<br>Center | Ocean Health Initiatives                              | 333 Haywood<br>Road                             | Stafford             | 08050       | (609) 489-0110 |
| Primary Health Care<br>Center | Ocean Health Initiatives                              | 301 Lakehurst<br>Road                           | Toms River           | 08755       | (732) 552-0377 |
| Primary Health Care<br>Center | Ocean Health Initiatives<br>Elementary School         | 625 Clifton<br>Avenue                           | Lakewood             | 08701       |                |
| Primary Health Care<br>Center | Ocean Health Initiatives -<br>The Mobile Unit         | 101 Second<br>Street                            | Lakewood             | 08701       |                |
| Psychiatric Hospital          | St Barnabas Behavioral<br>Health Center               | 1691 Highway 9<br>CN 2025                       | Toms River           | 08755       | (732) 914-1688 |
| Senior Services               | A Friend's House<br>(Manahawkin)                      | 179 South Main<br>Street                        | Manahawkin           | 08050       | (609) 978-6444 |
| Senior Services               | A Friend's House (Toms<br>River)                      | 105 Sunset<br>Avenue, Cn2010                    | Toms River           | 08754       | (800) 511-1510 |
| Senior Services               | Ambassador Medical Day<br>Care, LLC                   | 619 River Avenue                                | Lakewood             | 08701       | (732) 367-1133 |
| Senior Services               | Brick Twp Senior Outreach<br>Services & Senior Center | 373 Adamston<br>Road                            | Brick Twp            | 08723       | (732) 920-8686 |
| Senior Services               | Day Break   | 816 Beaver Dam<br>Road                          | Point<br>Pleasant    | 08742       | (732) 892-1717 |
| Senior Services               | Golden Years Care Of<br>Freehold                      | 20 Jackson<br>Street, Suite 1A                  | Freehold             | 07728       | (732) 845-3332 |
| Senior Services               | James Howard Clinic                                   | 970 Route 70                                    | Brick                | 08724       | (732) 836-6008 |
| Senior Services               | Little Egg Harbor Senior<br>Center                    | 641 Radio Road                                  | Tuckerton            | 08087       | (609) 296-1789 |
| Senior Services               | Long Beach Island Senior<br>Center                    | 4700 Long Beach<br>Blvd                         | Brant Beach          | 08008       | (609) 494-8861 |
| Senior Services               | Ocean County Office Of<br>Senior Citizens             | 1027 Hooper<br>Avenue Bldg #2<br>First Floor    | Toms River           | 08754       | (732) 929-2091 |
| Senior Services               | Regency Memory Club<br>(Toms River)                   | 1311 Route 37<br>West                           | Toms River           | 08755       | (732) 286-2220 |
| Senior Services               | Riverside Manor Medical                               | 699 Cross Street                                | Lakewood             | 08701       | (732) 370-9400 |
| Senior Services               | Riverside Manor Medical Day                           | 699 Cross Street                                | Lakewood             | 08701       | (732) 370-9400 |
| Senior Services               | Seacrest Village Adult Day<br>Center                  | 1001 Center<br>Street, P.O. Box<br>1480         | Little Egg<br>Harbor | 08087       | (609) 296-9292 |
| Senior Services               | Senior Care Of Brick                                  | 2125 Route 88                                   | Brick                | 08724       | (732) 899-1331 |
| Senior Services               | Stainton Senior Center                                | 1735 Simpson<br>Avenue                          | Ocean City           | 08226       | (609) 399-0055 |
| Senior Services               | Toms River Twp Senior<br>Center                       | 652 Garfield<br>Avenue                          | Toms River           | 08753       | (732) 341-1000 |
| Senior Services               | Upper Township Senior<br>Center                       | 1369 Old<br>Stagecoach Road                     | Ocean View           | 08230       | (609) 390-9409 |

| Provider Type     | Provider Name   | Street Address                              | Town       | Zip<br>Code | Phone          |
|-------------------|---|---|------------|-------------|----------------|
| Senior Services   | Visiting Homecare Service Of Ocean County, Inc.       | 105 Sunset<br>Avenue                        | Toms River | 08754       | (732) 244-5565 |
| Senior Services   | Whiting Health Care Center                            | 3000 Hilltop Road                           | Whiting    | 08759       | (732) 849-4969 |
| Senior Services   | Young At Heart  | 2125 Route 88                               | Brick      | 08724       | (732) 899-1331 |
| Senior Services   | Young At Heart  | 2125 Route 88                               | Brick      | 08724       | (732) 899-1331 |
| Senior Services   | Young At Heart Adult Center                           | 115 Grawton<br>Road                         | Jackson    | 08527       | (732) 928-9222 |
| Senior Services   | Young At Heart Adult Center                           | 115 Grawton<br>Road                         | Jackson    | 08527       | (732) 928-9222 |
| Special Hospital  | Specialty Hospital Of Central Jersey                  | 600 River<br>Avenue, 4 West                 | Lakewood   | 08701       | (732) 806-3207 |
| Surgical Practice | Bey Lea Ambulatory Surgical                           | 54 Bey Lea Road<br>Building 2               | Toms River | 08753       | (732) 281-1020 |
| Surgical Practice | Cataract & Laser Institute P A                        | 101 Prospect<br>Street, Suite 102           | Lakewood   | 08701       | (732) 367-0699 |
| Surgical Practice | Center For Special 475 Route 70, Procedures Suite 203 |   | Lakewood   | 08701       | (732) 886-1234 |
| Surgical Practice | Coastal Endoscopy Center<br>LLC                       | 175 Gunning<br>River Road Bldg<br>A, Unit 4 | Barnegat   | 08005       | (609) 698-0700 |
| Surgical Practice | Dr Michael Rosen Md Pc                                | 1114 Hooper<br>Avenue                       | Toms River | 08753       | (732) 240-6396 |
| Surgical Practice | Endoscopy Center Of Ocean<br>County                   | 477 Lakehurst<br>Road                       | Toms River | 08755       | (732) 349-4422 |
| Surgical Practice | Endoscopy Center Of Toms<br>River                     | 473 Lakehurst<br>Road                       | Toms River | 08755       | (732) 349-4422 |
| Surgical Practice | Garden State Ambulatory<br>Surgery Center             | 1 Plaza Drive                               | Toms River | 08757       | (732) 341-7010 |
| Surgical Practice | NJ Cataract and Laser<br>Institute, P.A.              | 101 Prospect<br>Street, Suite 102           | Lakewood   | 08701       | (732)-367-0699 |
| Surgical Practice | Northeast Surgi-Care LLC                              | 475 Route 70,<br>Suite 203                  | Lakewood   | 08701       | (732)-886-1234 |
| Surgical Practice | Ocean County Eye<br>Associates                        | 18 Mule Road                                | Toms River | 08755       | (732) 818-1200 |
| Surgical Practice | Ocean Surgery Center                                  | 501 Lakehurst<br>Road                       | Toms River | 08753       | (732) 341-7299 |
| Surgical Practice | The Surgicenter                                       | 500 Lakehurst<br>Road                       | Toms River | 08755       | (732) 914-2233 |

## APPENDIX E: DISCHARGES AND POPULATION 18-64 FOR AMBULATORY CARE SENSITIVE CONDITIONS

| ACSC Discharges from   | Total ACS<br>Discharges | ANGINA | ASTHMA | BACTERIAL<br>PNEUMONIA | CELLULITIS | CONGESTIVE<br>HEART<br>FAILURE | CONVULSION | COPD  | DEHYDRATION | DENTAL<br>CONDITIONS | DIABETES | ENT |
|------------------------|-------------------------|--------|--------|------------------------|------------|--------------------------------|------------|-------|-------------|----------------------|----------|-----|
| ALL RACES<br>Statewide | 55,565                  | 603    | 3,780  | 6,170                  | 6,230      | 5,260                          | 963        | 6,355 | 2,923       | 761                  | 7,624    | 533 |
| MMCSC PSA              | 1,991                   | 20     | 86     | 292                    | 238        | 204                            | 35         | 266   | 63          | 18                   | 268      | 16  |
| WHITE                  |                         |        |        |                        |            |                                |            |       |             |                      |          |     |
| Statewide              | 27,668                  | 276    | 1,289  | 3,316                  | 4,150      | 2,014                          | 528        | 3,729 | 1,469       | 379                  | 3,271    | 237 |
| MMCSC PSA              | 1,593                   | 15     | 58     | 238                    | 211        | 145                            | 29         | 224   | 52          | 17                   | 202      | 14  |
| BLACK                  |                         |        |        |                        |            |                                |            |       |             |                      |          |     |
| Statewide              | 15,535                  | 160    | 1,363  | 1,578                  | 892        | 2,180                          | 242        | 1,792 | 740         | 186                  | 2,603    | 134 |
| MMCSC PSA              | 207                     | 1      | 15     | 29                     | 14         | 43                             | 4          | 22    | 6           | 1                    | 37       | 2   |

|                      |            |             | GRAND MAL    |         |         |              |            | NUTRITION    |              |             |              |               |
|----------------------|------------|-------------|--------------|---------|---------|--------------|------------|--------------|--------------|-------------|--------------|---------------|
|                      |            | GASTRO-     | STATUS/OTHER |         |         | IMMUNIZATION | KIDNEY/URI | DEFICIENCIES |              | PELVIC      |              |               |
| ACSC Discharges from | Total ACS  | INSTESTINAL | EPILEPTIC    | HYPERTE | HYPOGLY | RELATED      | NARY       | (til 12/14   | OTHER        | INFLAMMAT   | PULMONARY    | SKIN GRAFTS W |
| NJ Hospitals         | Discharges | OBSTRUCTION | CONVULSION   | NSION   | CEMIA   | PREVENTABLE  | INFECTION  | DSCHG)       | TUBERCULOSIS | ORY DISEASE | TUBERCULOSIS | CELLULITIS    |
| ALL RACES            |            |             |              |         |         |              |            |              |              |             |              |               |
| Statewide            | 55,565     | 1,936       | 4,534        | 994     | 60      | 8            | 4,164      | 2,068        | 33           | 359         | 73           | 134           |
| MMCSC PSA            | 1,991      | 53          | 206          | 21      | 1       |              | 144        | 51           | 1            | 7           |              | 1             |
|                      |            |             |              |         |         |              |            |              |              |             |              |               |
|                      |            |             |              |         |         |              |            |              |              |             |              |               |
| WHITE                |            |             |              |         |         |              |            |              |              |             |              |               |
| Statewide            | 27,668     | 969         | 2,226        | 346     | 25      | 3            | 2,051      | 1,203        | 4            | 110         | 6            | 67            |
| MMCSC PSA            | 1,593      | 46          | 168          | 14      | 1       |              | 112        | 41           |              | 5           |              | 1             |
|                      |            |             |              |         |         |              |            |              |              |             |              |               |
|                      |            |             |              |         |         |              |            |              |              |             |              |               |
| BLACK                |            |             |              |         |         |              |            |              |              |             |              |               |
| Statewide            | 15,535     | 437         | 1,293        | 427     | 26      | 2            | 841        | 462          | 10           | 118         | 16           | 33            |
| MMCSC PSA            | 207        | 3           | 18           | 5       |         |              | 5          | 1            |              | 1           |              |               |

| ACSC 2016 Discharge<br>Rate per 1,000<br>population | Est 2016<br>Population<br>18-64 | Total ACS<br>Discharges | ANGINA  | ASTHMA  | BACTERIAL<br>PNEUMONIA |         | CONGESTIVE<br>HEART<br>FAILURE | CONVULSION | COPD    | DEHYDRATION | DENTAL<br>CONDITIONS | DIABETES | ENT     |
|---|---------------------------------|-------------------------|---------|---------|------------------------|---------|--------------------------------|------------|---------|-------------|----------------------|----------|---------|
| ALL RACES   |                                 |                         |         |         |                        |         |                                |            |         | :           |                      |          |         |
| Statewide   | 5,610,651                       | 9.903                   | 0.107   | 0.674   | 1.100                  | 1.110   | 0.938                          | 0.172      | 1.133   | 0.521       | 0.136                | 1.359    | 0.095   |
| MMCSC PSA   | 218,291                         | 9.121                   | 0.092   | 0.394   | 1.338                  | 1.090   | 0.935                          | 0.160      | 1.219   | 0.289       | 0.082                | 1.228    | 0.073   |
| Variance from Statewi                               | de<br>I                         | (0.783)                 | (0.016) | (0.280) | 0.238                  | (0.020) | (0.003)                        | (0.011)    | 0.086   | (0.232)     | (0.053)              | (0.131)  | (0.022) |
| <u>WHITE</u>  |                                 |                         |         |         |                        |         |                                |            |         |             |                      |          |         |
| Statewide   | 3,657,780                       | 7.564                   | 0.075   | 0.352   | 0.907                  | 1.135   | 0.551                          | 0.144      | 1.019   | 0.402       | 0.104                | 0.894    | 0.065   |
| MMCSC PSA   | 189,813                         | 8.392                   | 0.079   | 0.306   | 1.254                  | 1.112   | 0.764                          | 0.153      | 1.180   | 0.274       | 0.090                | 1.064    | 0.074   |
| Variance from Statewi                               | de                              | 0.828                   | 0.004   | (0.047) | 0.347                  | (0.023) | 0.213                          | 0.008      | 0.161   | (0.128)     | (0.014)              | 0.170    | 0.009   |
| BLACK   |                                 |                         |         |         |                        |         |                                |            |         |             |                      |          |         |
| Statewide   | 783,378                         | 19.831                  | 0.204   | 1.740   | 2.014                  | 1.139   | 2.783                          | 0.309      | 2.288   | 0.945       | 0.237                | 3.323    | 0.171   |
| MMCSC PSA   | 10,171                          | 20.352                  | 0.098   | 1.475   | 2.851                  | 1.376   | 4.228                          | 0.393      | 2.163   | 0.590       | 0.098                | 3.638    | 0.197   |
| Variance from Statewi                               | de                              | 0.521                   | (0.106) | (0.265) | 0.837                  | 0.238   | 1.445                          | 0.084      | (0.125) | (0.355)     | (0.139)              | 0.315    | 0.026   |
| Variance Black from W                               | /hite                           |                         |         |         |                        |         |                                |            |         |             |                      |          |         |
| Statewide   |                                 | 12.27                   | 0.13    | 1.39    | 1.11                   | 0.00    | 2.23                           | 0.16       | 1.27    | 0.54        | 0.13                 | 2.43     | 0.11    |
| PSA   |                                 | 11.96                   | 0.02    | 1.17    | 1.60                   | 0.26    | 3.46                           | 0.24       | 0.98    | 0.32        | 0.01                 | 2.57     | 0.12    |
| Est Admissions Statew                               | ride                            | 9609.41                 | 100.89  | 1086.94 | 867.82                 | 3.20    | 1748.67                        | 128.92     | 993.37  | 425.39      | 104.83               | 1902.46  | 83.24   |
| Est Admissions PSA                                  |                                 | 121.64                  | 0.20    | 11.89   | 16.25                  | 2.69    | 35.23                          | 2.45       | 10.00   | 3.21        | 0.09                 | 26.18    | 1.25    |

| ACSC 2016 Discharge<br>Rate per 1,000<br>population | Est 2016<br>Population<br>18-64 | Total ACS<br>Discharges | GASTRO-<br>INSTESTINAL<br>OBSTRUCTION | GRAND MAL<br>STATUS/OTHER<br>EPILEPTIC<br>CONVULSION | HYPERTE<br>NSION | HYPOGLY<br>CEMIA | IMMUNIZATION<br>RELATED<br>PREVENTABLE | KIDNEY/URI<br>NARY<br>INFECTION | NUTRITION<br>DEFICIENCIES<br>(til 12/14<br>DSCHG) | OTHER<br>TUBERCULOSIS | PELVIC<br>INFLAMMAT<br>ORY DISEASE | PULMONARY<br>TUBERCULOSIS               | SKIN GRAFTS W<br>CELLULITIS |
|---|---------------------------------|-------------------------|---------------------------------------|--|------------------|------------------|--|---------------------------------|---|-----------------------|------------------------------------|---|-----------------------------|
| ALL RACES   |                                 |                         |                                       |  |                  |                  |  |                                 |   |                       |                                    |   |                             |
| Statewide   | 5,610,651                       | 9.903                   | 0.345                                 | 0.808  | 0.177            | 0.011            | 0.001                                  | 0.742                           | 0.369   | 0.006                 | 0.064                              | 0.013                                   | 0.024                       |
| MMCSC PSA   | 218,291                         | 9.121                   | 0.243                                 | 0.944  | 0.096            | 0.005            | 0.000                                  | 0.660                           | 0.234   | 0.005                 | 0.032                              | 0.000                                   | 0.005                       |
| Variance from Statewi                               | de<br>I                         | (0.783)                 | (0.102)                               | 0.136  | (0.081)          | (0.006)          | (0.001)                                | (0.082)                         | (0.135)   | (0.001)               | (0.032)                            | (0.013)                                 | (0.019)                     |
| <u>WHITE</u>  |                                 |                         |                                       |  |                  |                  |  |                                 |   |                       |                                    | *************************************** |                             |
| Statewide   | 3,657,780                       | 7.564                   | 0.265                                 | 0.609  | 0.095            | 0.007            | 0.001                                  | 0.561                           | 0.329   | 0.001                 | 0.030                              | 0.002                                   | 0.018                       |
| MMCSC PSA   | 189,813                         | 8.392                   | 0.242                                 | 0.885  | 0.074            | 0.005            | 0.000                                  | 0.590                           | 0.216   | 0.000                 | 0.026                              | 0.000                                   | 0.005                       |
| Variance from Statewi                               | de                              | 0.828                   | (0.023)                               | 0.277  | (0.021)          | (0.002)          | (0.001)                                | 0.029                           | (0.113)   | (0.001)               | (0.004)                            | (0.002)                                 | (0.013)                     |
| BLACK   |                                 |                         |                                       |  |                  |                  |  |                                 |   |                       |                                    |   |                             |
| Statewide   | 783,378                         | 19.831                  | 0.558                                 | 1.651  | 0.545            | 0.033            | 0.003                                  | 1.074                           | 0.590   | 0.013                 | 0.151                              | 0.020                                   | 0.042                       |
| MMCSC PSA   | 10,171                          | 20.352                  | 0.295                                 | 1.770  | 0.492            | 0.000            | 0.000                                  | 0.492                           | 0.098   | 0.000                 | 0.098                              | 0.000                                   | 0.000                       |
| Variance from Statewi                               | de                              | 0.521                   | (0.263)                               | 0.119  | (0.053)          | (0.033)          | (0.003)                                | (0.582)                         | (0.491)   | (0.013)               | (0.052)                            | (0.020)                                 | (0.042)                     |
| Variance Black from W                               | hite_                           |                         |                                       |  |                  |                  |  |                                 |   |                       |                                    |   |                             |
| Statewide   |                                 | 12.27                   | 0.29                                  | 1.04   | 0.45             | 0.03             | 0.00                                   | 0.51                            | 0.26  | 0.01                  | 0.12                               | 0.02                                    | 0.02                        |
| PSA   |                                 | 11.96                   | 0.05                                  | 0.88   | 0.42             | -0.01            | 0.00                                   | -0.10                           | -0.12   | 0.00                  | 0.07                               | 0.00                                    | -0.01                       |
| Est Admissions Statew                               | ide                             | 9609.41                 | 229.47                                | 816.26   | 352.90           | 20.65            | 1.36                                   | 401.74                          | 204.36  | 9.14                  | 94.44                              | 14.71                                   | 18.65                       |
| Est Admissions PSA                                  |                                 | 121.64                  | 0.54                                  | 9.00   | 4.25             | -0.05            | 0.00                                   | -1.00                           | -1.20   | 0.00                  | 0.73                               | 0.00                                    | -0.05                       |