Robert Wood Johnson University Hospital Rahway | RWJBarnabas HEALTH

COMMUNITY HEALTH NEEDS ASSESSMENT

ROBERT WOOD JOHNSON UNIVERSITY HOSPITAL RAHWAY

2019

ACKNOWLEDGMENTS

The following partners led the Robert Wood Johnson University Hospital Rahway (RWJ Rahway or RWJR) Community Health Assessment:

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- Ann Marie Shears, RN, MA, NE-BC, Vice President Patient Services, Chief Nursing Officer
- Barbara Mullery, Vice President, Administration
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ROBERT WOOD JOHNSON UNIVERSITY HOSPITAL RAHWAY OVERSIGHT COMMITTEE

- Sheri Cognetti, Senior Program Director, Scotch Plains Fanwood YMCA
- Donna Peart, Healthy Living Director, Scotch Plains Fanwood YMCA
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- John Dowd, Middlesex County Public Health
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- Heather Hays, Vice President, Development, Robert Wood Johnson University Hospital Rahway
- Nancy Raymond, Clark Health Department
- Nancy Koblis, Linden Health Department
- Sherie Wolpert, Middlesex County Public Health

RWJ BARNABAS HEALTH COMMUNITY HEALTH NEEDS ASSESSMENT STEERING COMMITTEE

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:

- Jen Velez, Executive Vice President, Community and Behavioral Health, Committee Chair
- Michellene Davis, Executive Vice President, Corporate Affairs
- Bryan Soltes, System Vice President, Network Development, Oncology Services
- Connie Greene, Behavioral Health/Preventive Care

- Joseph Jaeger, DrPH, Chief Academic Officer
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- Jessica Israel, M.D., Corporate Chair, Geriatrics
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- Tamara Cunningham, Vice President, System Development/Planning
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    - Irene Borgen, Vice President, Quality and Standards, Jersey City Medical Center
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ROBERT WOOD JOHNSON UNIVERSITY HOSPITAL RAHWAY STEERING COMMITTEE CONSULTANT ADVISORS

Steering Committee Technical Advisors:

- Withum, Smith & Brown (Scott Mariani)
- New Solutions Inc. (Nancy Erickson[1])
- Bruno & Ridgway, Inc. (Joseph Ridgway)

Questions regarding the Community Needs Assessments should be directed to RWJ Barnabas Health System Development & Planning at BHPlanningDept@RWJUH.org.

1 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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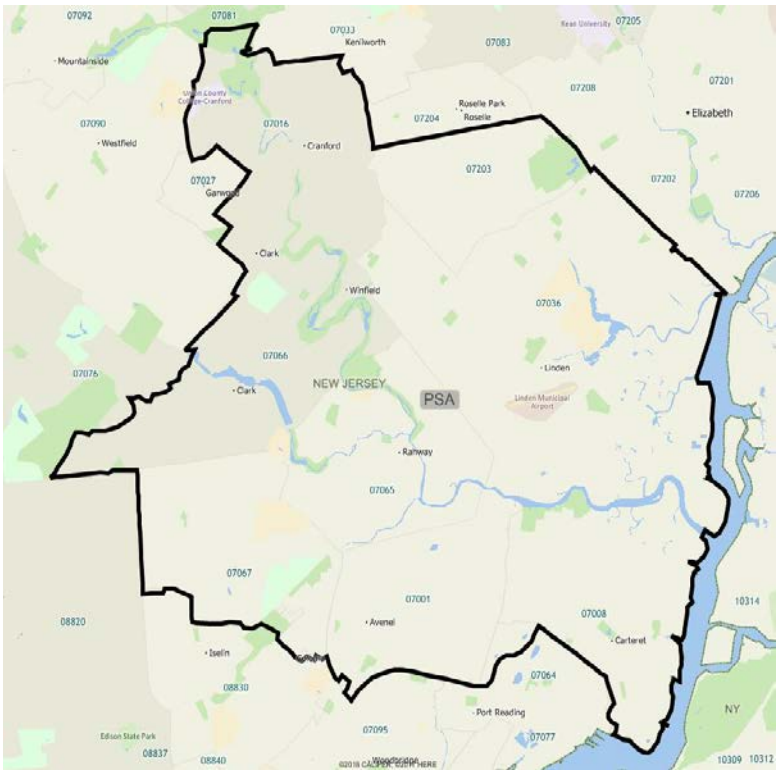
EXECUTIVE SUMMARY

Background

The Robert Wood Johnson University Hospital Rahway's (RWJ Rahway or RWJR) Community Health Needs Assessment (CHNA) is designed to ensure that the Hospital continues effective and efficient service to the community. 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 RWJ Rahway Needs Assessment was undertaken in this context and developed for the purpose of enhancing health and the quality of life throughout the community. This assessment builds upon the CHNA completed in 2016. The results of the previous implementation plan are reviewed in **Appendix A** of this document.

RWJ Rahway Service Area



The CHNA uses detailed secondary public health data at state, county, and community levels, and a community health survey. RWJ Rahway is a member of RWJ Barnabas Health, which convenes a multi-disciplinary, multi-facility Oversight Committee that provides additional support and leadership. Also, insight and expertise from the Robert Wood Johnson University Hospital Rahway 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 RWJ Rahway 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 included in the secondary service area (SSA). Geographic proximity is used to create a contiguous area and completes the service area determination. RWJ Rahway's PSA is predominantly located in the southeastern portion of Union County and includes Middlesex County municipalities. For purposes of this assessment, Union County, RWJ Rahway's home county, was selected to best represent communities served by the Hospital in reviewing data sources presented at the county level.

RWJ Rahway Primary Service Area	
ZIP Code	**ZIP Name**
07001	Avenel
07008	Carteret
07016	Cranford
07036	Linden
07065	Rahway
07066	Clark
07067	Colonia
07203	Roselle

Union County encompasses a land mass of 105 square miles comprised of 21 urban and suburban municipalities. The county's municipalities are diverse, encompassing large inner-city communities, Elizabeth, Plainfield and Linden, and the suburban communities of Summit, Westfield, Berkeley Heights and Scotch Plains. Economic wealth is not uniformly distributed across municipalities; urban areas include a high number of poor and minority populations. Robert Wood Johnson University Hospital Rahway (RWJ Rahway or RWJR), located in Rahway, is one of three acute care hospitals operating in Union County.

- Union County has a larger proportion of African American and Hispanic/Latino residents than New Jersey.[2]
    - Union County's population is 20.9% African American, compared to 12.8% statewide.
    - Union County's population is 32.2% Hispanic/Latino, compared to 20.7% statewide**.**
    - Union County's population is 39.2% White, compared to 54.4% statewide.
- In 2016, 10.8% of people and 8.4% of Union County families were living in poverty compared to 10.9% of people and 8.1% of families statewide.
    - In 2018, 14.1% of people and 11.7% of families were living in poverty in Roselle.
    - In 2018, 13.5% of families were living in poverty in Carteret.[3]
- In 2016, 5.8% of Union County residents were unemployed, higher than the State (5.2%).
    - The unemployment rate in Carteret (7.4%) exceeded the County rate (5.8%) and was higher than the State rate (5.2%).
    - The Cranford unemployment rate was 3.9%, the lowest in the county and lower than the Union County rate of 5.8%.
- In 2016, the Union County median household income was $70,476, more than $3,000 below the state average.[4]
    - The 2016 median household income of Roselle residents ($46,118) was nearly $30,000 less than the statewide figure ($73,702).[5]
    - Cranford had the highest median household income in the RWJ Rahway Service Area at $116,851, while Roselle had the lowest at $46,118.
    - Between2014-2016, income levels across the county and the RWJ Rahway Service Area showed little increase or decline.

TOP THREE HEALTH ISSUES

The RWJ Rahway Oversight Committee considered primary and secondary data to determine priority needs of the Community. Then the top three health issues were selected by the Hospital based on its 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: nutrition education, diabetes/obesity and behavioral health.

2 United States Census Bureau American Community Survey 2014
3 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
4 United States Census Bureau 2014
5 United States Census Bureau American Community Survey 2014

1. ***Nutrition Education***

Good nutrition, physical activity and a healthy body weight are essential to overall health and well-being. Food security and the environmental factors that are involved in safe, healthy communities play an important part in ensuring that basic needs are available to support healthy nutrition and physical activity.

Poor nutrition and a lack of a healthy diet pattern, and regular physical activity, are health behaviors that contribute to obesity. A healthy diet pattern is one that emphasizes eating whole grains, fruits, vegetables, lean protein, low fat and fat-free dairy products, and drinking water. Healthy activity patterns include 150 minutes of moderate intensity activity or 75 minutes of vigorous activity or a combination of both, along with two days of weight training per week.

Being overweight or obese can have a serious impact on health. Overweight and obesity are risk factors for a number of chronic diseases including cardiovascular disease (mainly heart disease and stroke), Type 2 diabetes, musculoskeletal disorders like osteoarthritis, and some cancers (endometrial, breast and colon). These conditions cause premature death and disability. Onset of increased risk begins when someone is only slightly overweight, and the risk increases as weight rises. Many conditions cause long-term consequences for individuals and families. In addition, the costs of care are high. Prevention and wellness programs are necessary to address the insidious effects of excess weight.

Nutrition education offers a great opportunity to teach individuals about the essentials of nutrition for health and to take steps to improve their quality of life. Nutrition education is a process of teaching the science of nutrition to an individual or group with the major focus not on knowledge or facts but on the development of permanent behavioral change. Education means a change in behavior. It moves the individual from lack of interest and ignorance to increasing appreciation and knowledge and finally to action.

Nutrition education must continue throughout the individual's life in order to accommodate to developments in nutritional science, changing economic circumstances, health requirements and new food products as they appear in the nation's markets.

- In 2015, Union County had an index of 8.9 out of ten on the food environment index, which is an indicator of access to healthy foods. The state index was 9.2. The county ranked in the middle quantile compared to the other New Jersey counties.
- The community survey revealed that 18% of community residents found it difficult to find fresh fruits and vegetables.
- Although 96% of survey respondents say they understood what healthy food is, only 84% said that they eat healthy on a regular basis.
- Of those surveyed from the community, 15% say they worried whether their food would run out before they got money to buy more food.

RWJ Rahway operates a nutritional counseling program for medical nutritional therapy to address the following concerns:

- Basic Nutrition
- Cancer Nutrition Therapy
- Celiac Disease
- Eating Disorders

- Food Allergies
- Gastrointestinal Disorders
- Heart Disease
- Hyperlipidemia
- Hypertension
- Hypoglycemia
- Pregnancy
- Renal Failure
- Weight Loss, Weight Gain, Weight Management

2. ***Diabetes/Obesity***

Obesity and overweight are abnormal or excessive fat accumulation that presents a health risk. A crude population measure of obesity is body mass index (BMI), a person's weight (in kilograms) divided by the square of his or her height (in meters). A person with a BMI of 30 or more is considered obese; a person with a BMI equal to or more than 25 is overweight. Once considered a problem only in high income countries, overweight and obesity are now increasing in low and middle-income countries, particularly in urban settings.

Being overweight or obese can have a serious impact on health. Overweight and obesity are risk factors for a number of chronic diseases, including cardiovascular disease (mainly heart disease and stroke), type 2 diabetes, musculoskeletal disorders like osteoarthritis, and some cancers (endometrial, breast and colon). These conditions cause premature death and disability. Onset of increased risk begins when someone is only slightly overweight, and the risk increases as weight rises. Many conditions cause long-term consequences for individuals and families. In addition, the costs of care are high. Prevention and wellness programs are necessary to address the insidious effects of excess weight.

Genetics affect the amount of body fat stored, where fat is distributed, and how efficiently the body converts food into energy. Family eating and physical activity habits play a role in the development of obesity. Prolonged inactivity results in calorie imbalance, the intake of calories is higher than the burning of calories. Often, inactivity is a result of other medical problems like arthritis or injuries. An unhealthy diet, high in calories and lacking in fruits and vegetables, is a significant contributor to weight gain. Research has linked social and economic factors to obesity. Socioeconomic factors include not having safe areas to exercise, cultural traditions of eating unhealthy and obese family members.

Obesity can occur at any age, even among young children. Hormonal changes and physical inactivity in older individuals also increase risk. The amount of body muscle decreases with age, leading to a decrease in metabolism. Quitting smoking is also associated with weight gain, sometimes resulting in obesity. Structured smoking cessation programs can help mitigate the effects of weight gain associated with quitting. Not getting enough sleep or conversely getting too much sleep can cause changes in the hormones that increase appetite and contribute to weight gain.

Diabetes is a chronic disease in which blood glucose levels are too high due to abnormal levels of the hormone insulin. In Type 1 diabetes, the body is not able to make insulin. In Type 2 diabetes, the more common type, the body does not make or use insulin well. Without enough insulin, glucose stays in your blood. Over time, too much glucose in the blood can cause serious problems, damaging the eyes, kidneys, and nerves. Diabetes can also cause heart disease, stroke and even the need to remove a limb. Pregnant

women can get gestational diabetes. The American Diabetes Association estimates that more than 18 million people suffer from diabetes.

Prediabetes is a precursor to diabetes in which blood sugar is higher than normal, but not high enough to be diabetes. Having prediabetes puts an individual at a higher risk of Type 2 diabetes. Obesity is a major risk factor for Type 2 Diabetes. This form of diabetes, once believed to affect only adults, is now diagnosed in children. Between 1980 and 2000, obesity rates doubled among children and adults and tripled among adolescents.[6] Overweight children with diabetes are at risk for serious complications including kidney disease, blindness, and amputations. Other risk factors related to obesity include unhealthy diet, physical inactivity, and high blood pressure. While many diabetes risk factors are modifiable, other factors including a family history, increasing age, and ethnicity are uncontrollable.

- The percent of Union County residents with a body mass index (BMI) >=30 trended upward from 23.3% in 2012 to 25.6% in 2016. The county ranked in the middle quantile of New Jersey counties.
- Union County performs in the lowest quantile compared to the County Health Ranking benchmark with regard to the percent of people reporting no leisure time physical activity.
- Union County ranks in the lowest quantile in terms of the percent of diabetic Medicare enrollees receiving hbA1c screening.
- Diabetes was the 8th leading cause of death in Union County.
- In 2016, Union County had the second highest percentage of residents reporting diabetes among the comparison counties. Union County ranked in the middle performing quantile among all New Jersey counties.

RWJ Rahway provides cooking programs and demonstrations focusing on diabetes and pre-diabetes and offers diabetes testing and counseling to the local food pantry on a monthly basis. The Hospital offers a diabetes support group and a multidisciplinary program on lifestyle, snacking, cooking and medication management for diabetes patients.

The Hospital offers a comprehensive program for bariatric patients that includes surgical options as well as nutrition and lifestyle support needed to maintain a healthy weight for patients following surgery.

3. Behavioral Health

Behavioral health refers to a constellation of mental health and substance use disorders, which together affect more than 25% of Americans aged 18 and over.[7] These disorders are recurrent, serious and may co-occur, but they are treatable and many people recover.

Mental disorders are health conditions characterized by alterations in thinking, mood, and/or behavior associated with distress and or impaired functioning. Risk factors for mental illness include family history, stressful life situations, chronic medical conditions, brain damage, and substance abuse.

6www.cdc.gov/pdf/facts_about_obesity_in_the_united_states.pdf
[7] *https://www.samhsa.gov/disorders.*

Serious mental illnesses include schizophrenia, major depression, and bi-polar disorder among others. Patients with serious mental illness are more likely to be unemployed, involved with law enforcement, and have housing insufficiency.[8] According to the 2015 National Survey of Drug Use & Health, an estimated 98 million adults 18 or older in the U.S. had a serious mental illness, including 2.5 million living below the poverty level.[9] The relationship between poverty and serious mental illness is complex. Poverty may heighten the experience of mental illness as well as increase the likelihood of the onset of mental illness. In addition, experiencing a mental illness can also increase one's chances of living below poverty level.

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.

Behavioral health disparities affect 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 because of an opioid overdose. In 2014 alone, AHQR reported New Jersey had the 6th 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 that will include first responders, mental health advocates, substance abuse counselors specially trained in dealing with addiction. In addition, programs include an enhanced prescription-monitoring program funded by more than a million dollars in federal grants.

- Binge drinkers increased from 14.8% in 2014, to 15.2% in 2016. The county ranked in the middle quantile of New Jersey counties.
- Union County had the second highest rate of residents with an inpatient hospitalization for a mental health condition compared to New Jersey and comparison counties.
- Drug overdose deaths nearly doubled from 48 to 84 between 2014 and 2016.

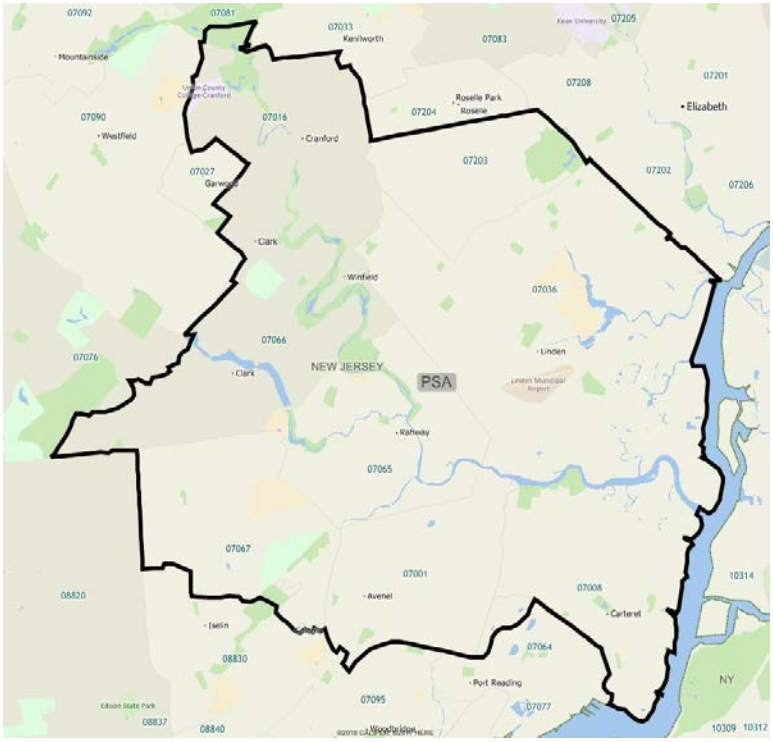
[8] *Ibid.*
[9] *http://www.samhsa.gov/data/*

- In 2016, 9.1% of Union County residents reported 14 of the past 30 days with “not good” mental health. Union County was in the bottom quantile with respect to the County Health Ranking benchmark.

RWJ Rahway works with community partners to provide support, education and screening for behavioral health services to the community. The Hospital provides a number of bereavement and caregiver support groups led by mental health professionals throughout the year. It has expanded its Opioid Overdose Recovery Program to include patient navigation services to inpatients and increased awareness among staff and the public about outreach services.

1. INTRODUCTION

RWJ Rahway Service Area



The Robert Wood Johnson University Hospital Rahway (RWJ Rahway or RWJR) 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 RWJ Rahway 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**.

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. RWJ Rahway 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 RWJ Rahway CHNA Oversight Committee helps to identify health assets, gaps, disparities, trends, and priorities. The Methodology section details the data collection process and analysis.

Robert Wood Johnson University Hospital Rahway, located in Rahway, New Jersey, is one of three acute care hospitals operating in Union County. RWJ Rahway's primary service area comprises communities located in southeastern Union County.

The RWJ Rahway Oversight Committee determined three issues to be within the Hospital's purview, competency and resources to impact in a meaningful manner: nutrition education, diabetes/Obesity and behavioral health.

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 used throughout the report to measure the overall health of Union County residents and contrast County rates to statewide rates.

RWJ Rahway develops its needs assessment to assist in its mission to enhance 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:

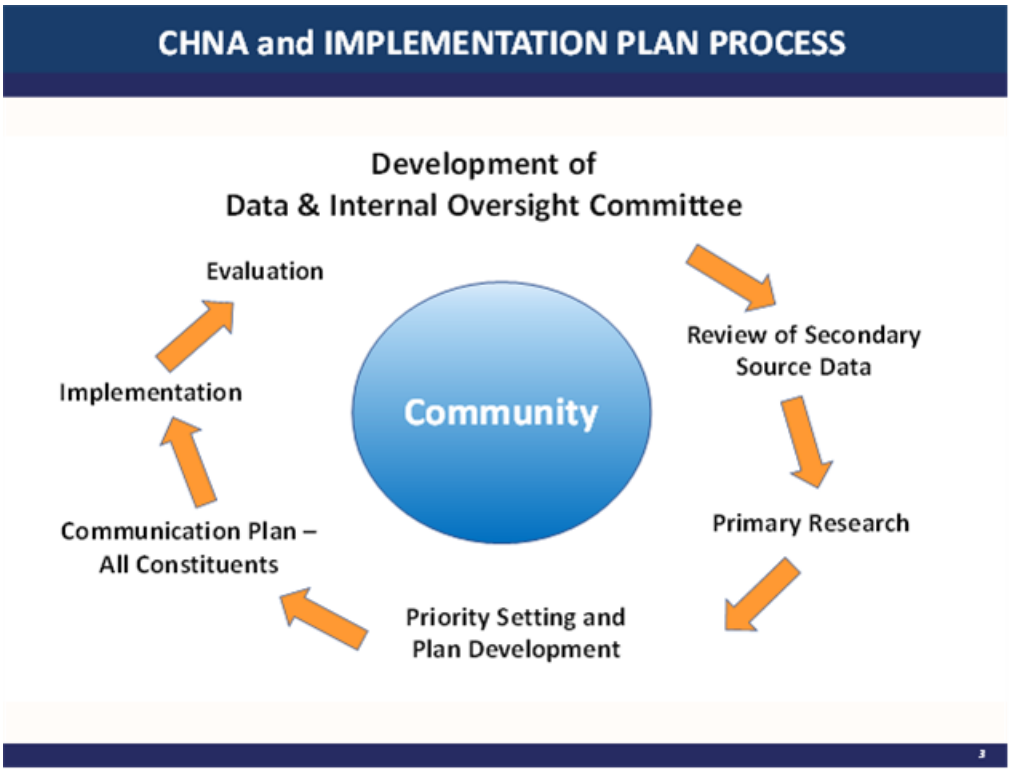
- Cardiovascular Health
- Geriatric Services
- Cancer Care
- Cost of Care
- Insurance
- Access to Physicians
- Language/Cultural Barriers
- Violence/Safety
- Preventive Health Services (Vaccines and Screenings)
- Chronic Disease Management

2. METHODOLOGY/SERVICE AREA

A. METHODOLOGY

Robert Wood Johnson University Hospital Rahway (RWJ Rahway or RWJR) developed an evidenced-based process to determine the health needs of Union 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 by the local Oversight 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 Oversight Committee's review of quantitative and qualitative data on September 24, 2019, a list of 16 issues were identified by consultants as common themes of the research. These issues became the suggested priority issues and included:

- Behavioral Health/Mental Health
- Diabetes
- Substance/Opioid Use
- Obesity
- Cardiovascular Health
- Geriatric Services
- Cancer Care

- Nutrition Education
- Transportation
- Diabetes
- Cost of Care
- Insurance
- Access to Physicians
- Language/Cultural Barriers
- Violence and Safety
- Preventive Health Services (Vaccine use/Screening)
- Chronic Disease Management

A ballot was developed, and a survey sent to the Oversight 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 and review of Hospital competencies resulted in the selection of the following three issues:

- Nutrition Education
- Diabetes/Obesity
- Behavioral Health

Primary Data Sources

Community Health Needs Surveys

In order to obtain a service area-specific analysis for the RWJ Rahway Primary Service Area, the hospital conducted a community-based survey. The 232 interviews were conducted by a research firm online and by telephone. The hospital provided a link to the survey on its web pages and social media sites. Postcards with the survey information were distributed to area businesses and libraries to increase participation. This CHNA incorporates these survey results. (See Section 3).

A survey of the CHNA Oversight Committee members provided additional insights and perspectives.

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 Union 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 Union 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. Union 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 Union County value is more than 20% worse or lower than the indicator value. If the Union 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 Union County or the RWJ Rahway Service Area that have a negative trend, in comparison to other counties in the State or to other races or genders.

Resource Inventory

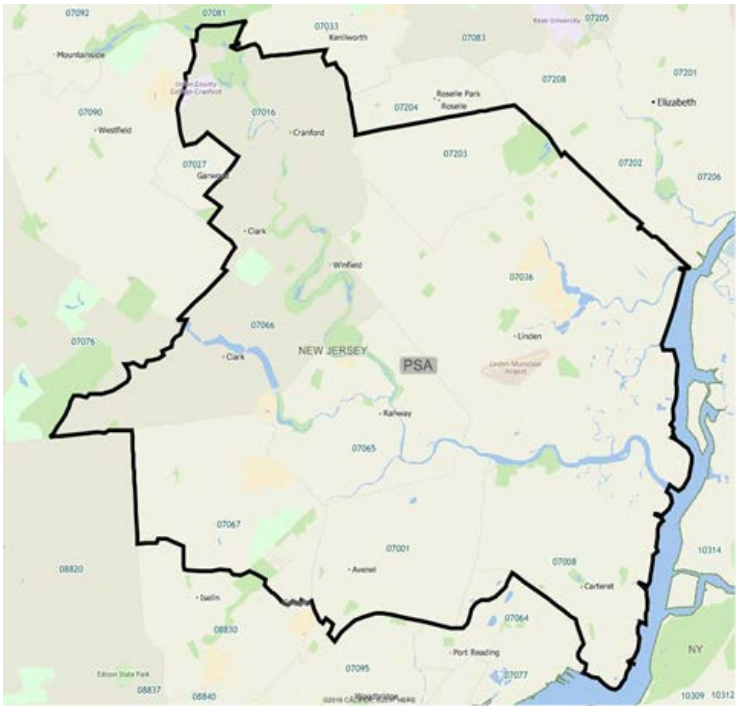
A service area-specific resource inventory is included as **Appendix D,** which details health and social service resources available to residents in Union County. Providers' names, addresses, and phone numbers and type of services provided are contained in the inventory.

B. RWJ RAHWAY SERVICE AREA

Robert Wood Johnson University Hospital Rahway is located in Rahway, New Jersey. It is one of three hospitals serving residents in Union County. The Medical Center's primary service area (PSA) consists of the following zip codes:

RWJ Rahway Primary Service Area	
ZIP Code	**ZIP Name**
07001	Avenel
07008	Carteret
07016	Cranford
07036	Linden
07065	Rahway
07066	Clark
07067	Colonia
07203	Roselle

RWJ Rahway Service Area Map

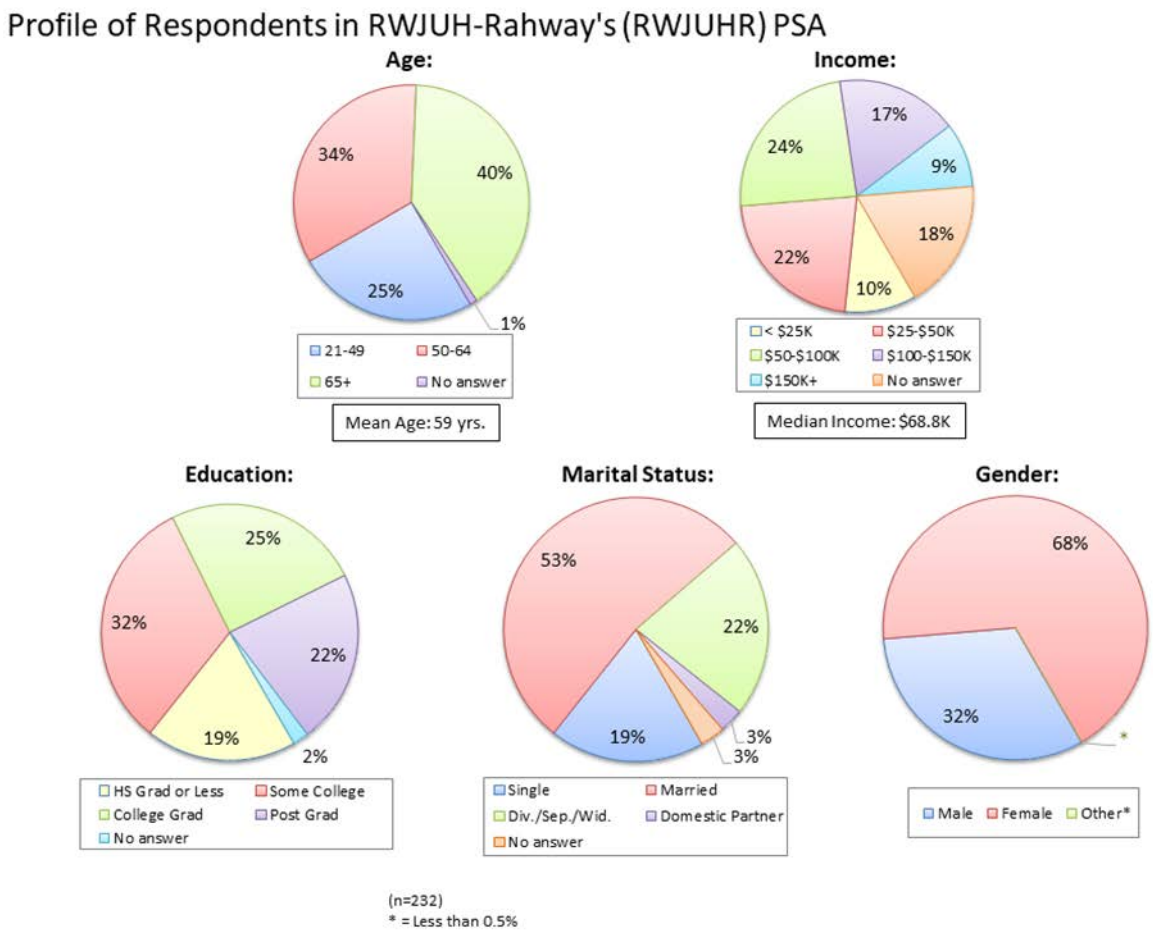


The service area is determined by taking into consideration three factors: patient origin, market reliance on the Hospital (market share) and geographic continuity/ proximity. Typically, the combined service area represents 75-80% of the Medical Center's patients. Zips codes representing approximately 50% of the RWJ Rahway 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 becomes part of the secondary service area (SSA) which includes the next range of zip codes comprise the SSA. Geographic proximity is used to create a contiguous area completes the service area determination. RWJ Rahway's PSA is predominantly located in the southeast portion of Union County. The SSA is comprised of small sections of Middlesex County. For purposes of this assessment, Union County, RWJ Rahway's home county, was selected to best represent communities served by the Hospital in reviewing data sources presented at the county level.

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 Hospital.

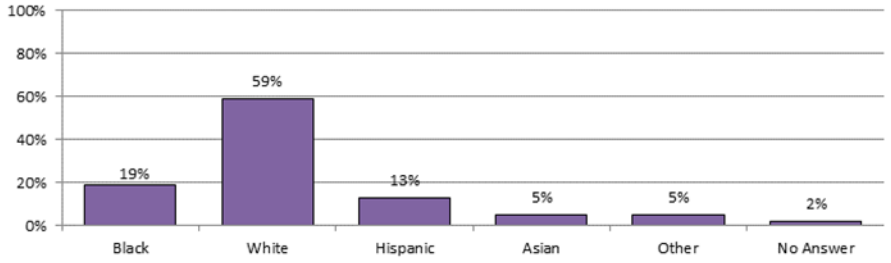
3. COMMUNITY HEALTH NEEDS SURVEY

A. SURVEY RESPONDENTS' PROFILE

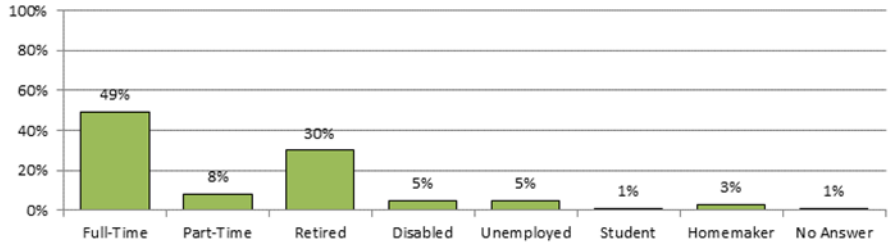


Profile of Respondents in RWJUH-Rahway's (RWJUHR) PSA – (continued)

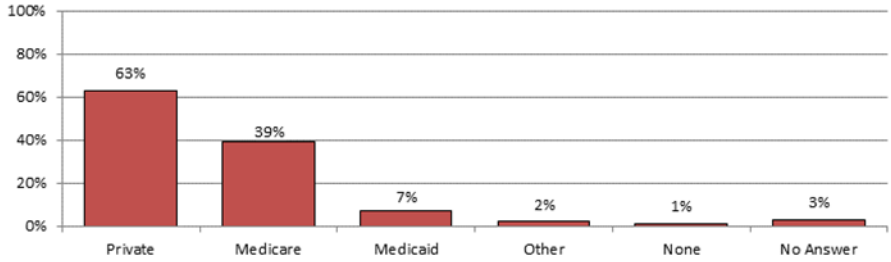
Ethnicity*^:



Employment^:

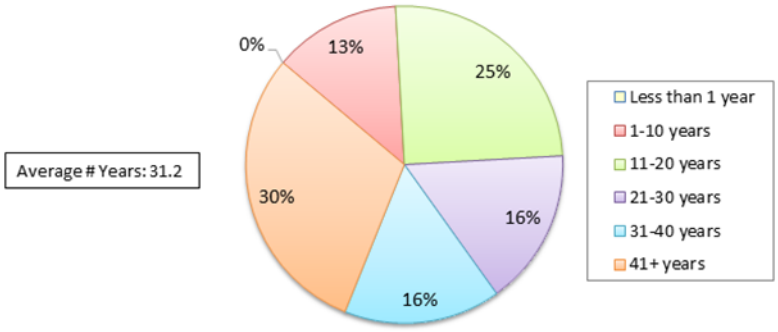


Health Insurance^:

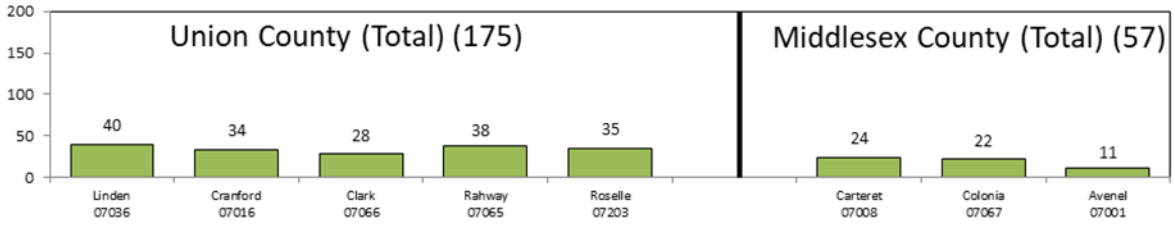


(n=232)
*Quotas were established to align closely with census data.
^ = Multiple mentions.

Length of Time in Area



Towns/Zips Where Interviews Came From

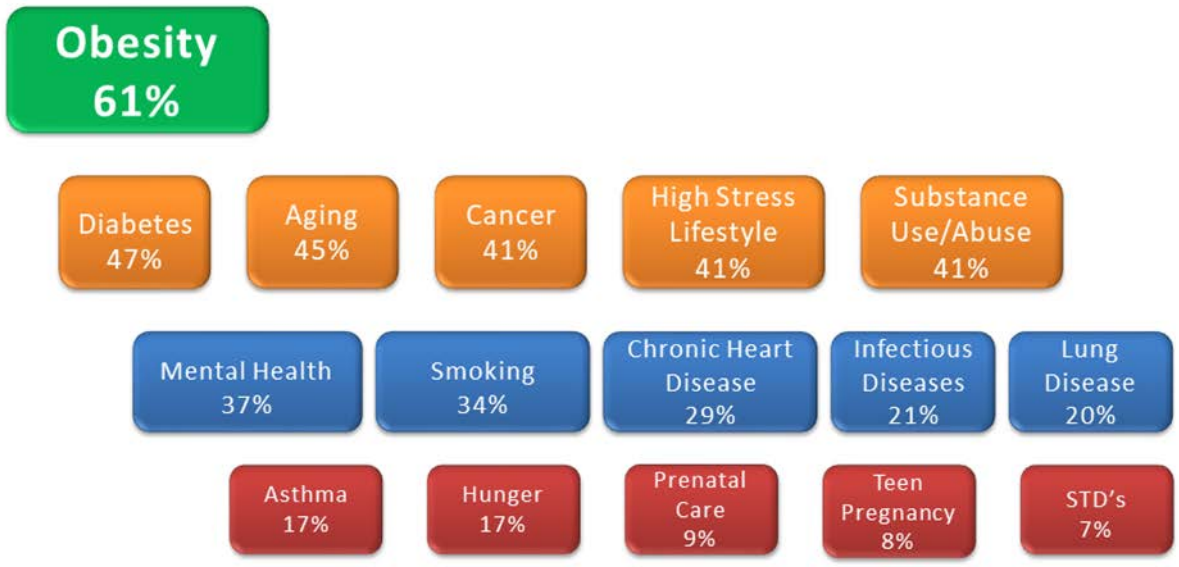


(n=232)

B. HEALTH-RELATED CONCERNS OF AREA RESIDENTS

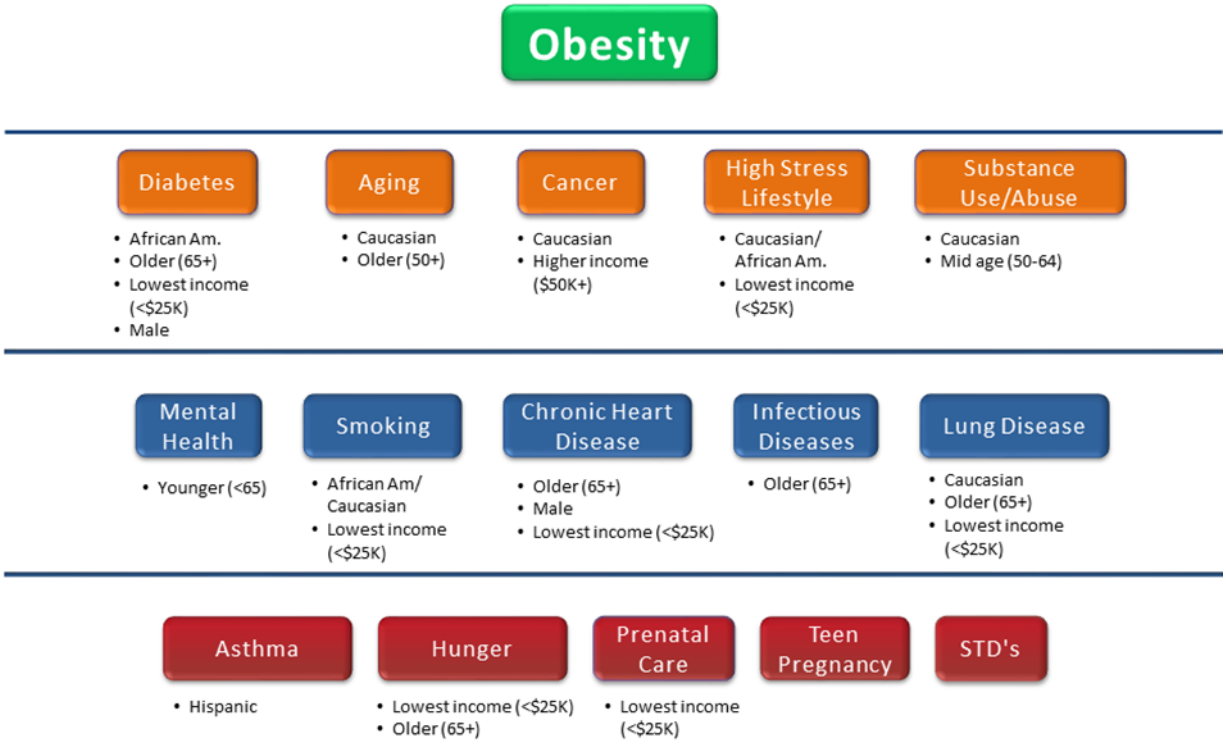
Major Health Concerns Among Respondents in RWJUHR's PSA Community

- Obesity is the #1 health concern among area residents surveyed, followed by concerns about diabetes, aging, high stress, cancer and substance abuse.



(n=232)
Q.3 - In your opinion, what are the TOP 3 HEALTH ISSUES OR CONCERNS in your community?

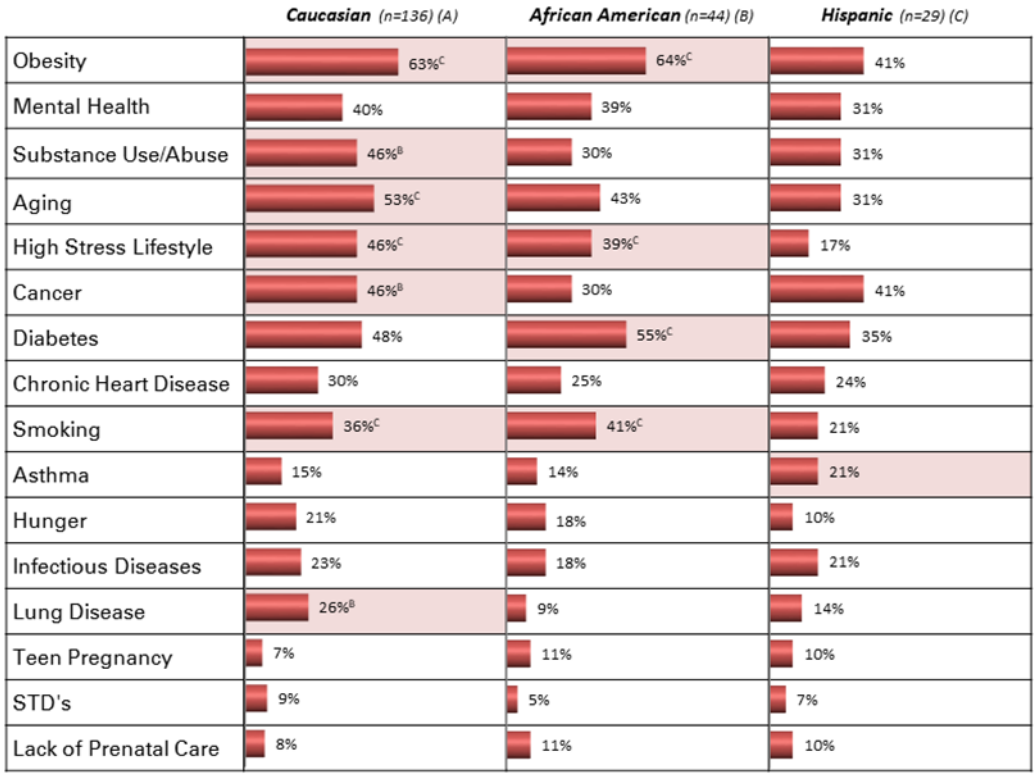
Summary of Health Concerns by Subgroups



(n=232)
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

- **Hispanics express the fewest health-related concerns.**



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 Age

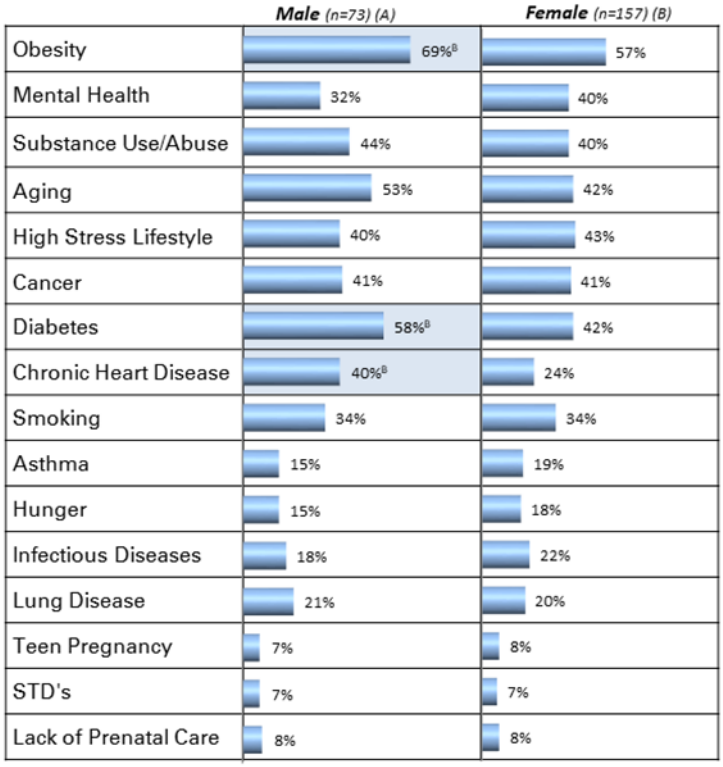
- **Older residents express more health-related concerns versus younger residents, particularly with regard to aging, diabetes, heart disease, hunger, infectious diseases and lung disease.**
- **Mental health is of more concern to younger residents and substance abuse is of most concern to mid age (50-64) respondents.**

	21-49 *(n=57) (A)*	***50-64*** *(n=79) (B)*	***65+*** *(n=94) (C)*
Obesity	54%	63%	62%
Mental Health	40%	42%	31%
Substance Use/Abuse	37%	54%[AC]	34%
Aging	28%	43%[A]	57%[AB]
High Stress Lifestyle	40%	48%	37%
Cancer	39%	39%	45%
Diabetes	35%	47%	53%[A]
Chronic Heart Disease	19%	25%	38%[AB]
Smoking	30%	30%	40%
Asthma	19%	17%	16%
Hunger	9%	15%	25%[A]
Infectious Diseases	21%	11%	29%[B]
Lung Disease	12%	20%	25%[A]
Teen Pregnancy	5%	9%	10%
STD's	5%	8%	7%
Lack of Prenatal Care	7%	8%	11%

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 obesity, diabetes and heart disease versus 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

- **Respondents in the lowest income level (<$25K) cite many health-related concerns.**

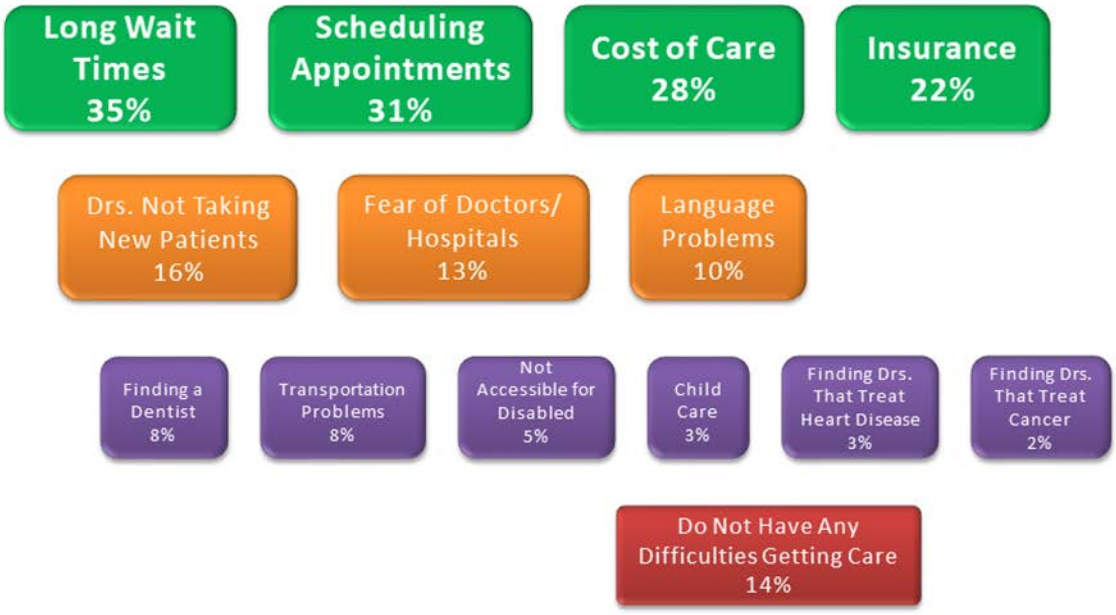
	Under $25K (n=23) (A)	*$25-50K (n=51) (B)*	*$50-100K (n=56) (C)*	*$100K+ (n=60) (D)*
Obesity	52%	71%^{D}	70%^{D}	53%
Mental Health	44%	31%	48%^{BD}	30%
Substance Use/Abuse	35%	41%	43%	45%
Aging	52%	45%	50%	38%
High Stress Lifestyle	61%^{BD}	39%	45%	35%
Cancer	26%	39%	48%^{A}	43%
Diabetes	65%^{D}	53%^{D}	50%	37%
Chronic Heart Disease	44%^{CD}	35%	23%	23%
Smoking	52%^{D}	35%	38%	32%
Asthma	17%	20%	21%	12%
Hunger	30%^{D}	22%^{D}	20%^{D}	7%
Infectious Diseases	26%	22%	29%^{D}	12%
Lung Disease	39%^{BD}	20%	21%	15%
Teen Pregnancy	13%	12%^{D}	7%	3%
STD's	13%	4%	9%	7%
Lack of Prenatal Care	17%	12%	9%	5%

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

C. BARRIERS TO ACCESSING HEALTH CARE SERVICES

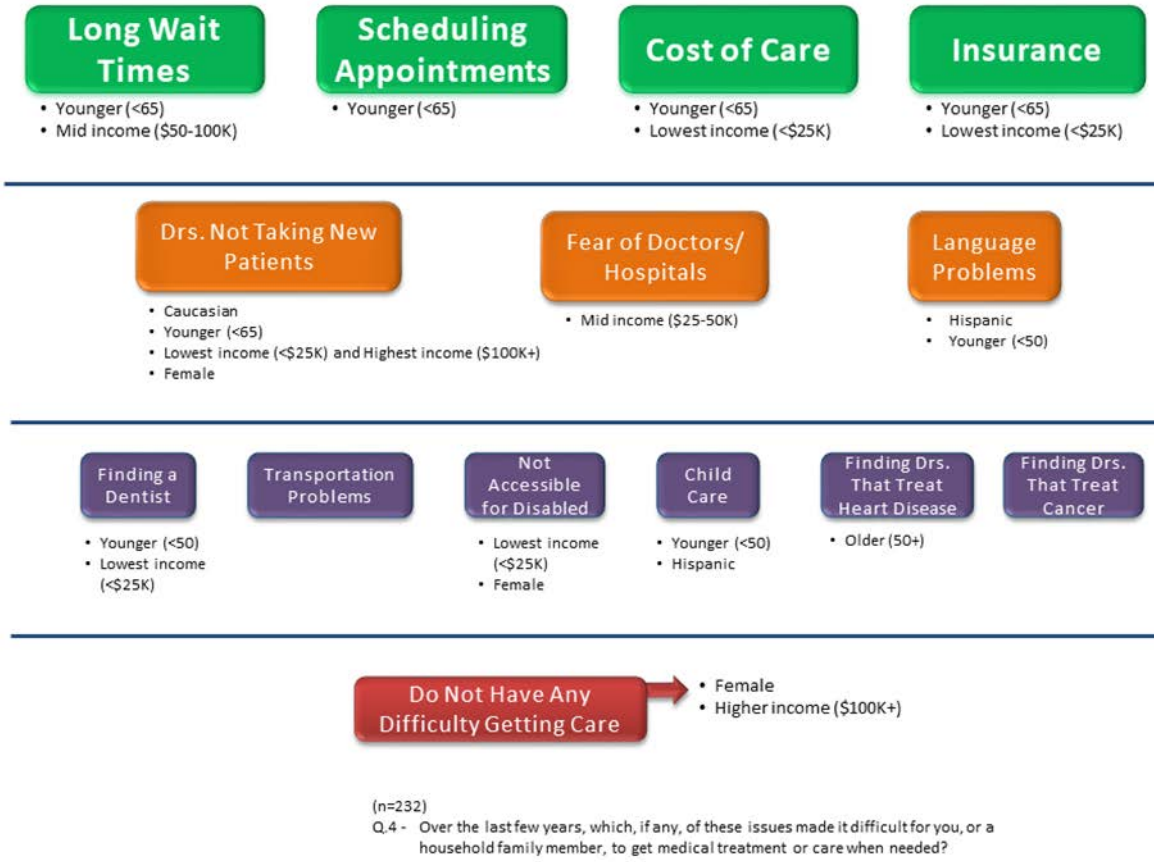
Major Barriers to Accessing Health Care in RWJUHR's PSA

- Long wait times and scheduling appointments are the key barriers cited by area residents surveyed followed by cost of care and insurance.
- The large majority (86%) of residents surveyed feel they have at least some difficulty getting the care they need, while only 14% of respondents claim they do not experience any difficulty.



(n=232)
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

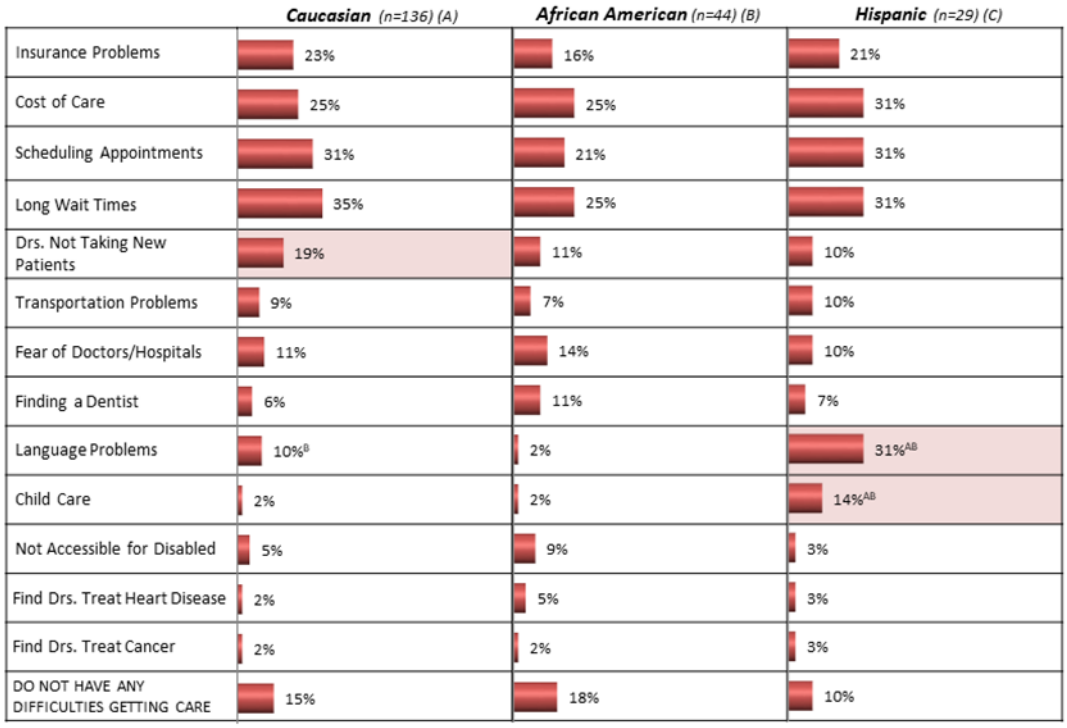


(n=232)

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

- **Hispanics cite a high level of language and child care barriers, while Caucasians often cite doctors not taking new patients as a key barrier.**



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 Age

- **In general, younger respondents cite more barriers than older respondents.**

	21-49 *(n=57) (A)*	***50-64*** *(n=79) (B)*	***65+*** *(n=94) (C)*
Insurance Problems	32%[C]	28%[C]	12%
Cost of Care	35%[C]	33%[C]	18%
Scheduling Appointments	42%[C]	35%[C]	19%
Long Wait Times	40%[C]	39%[C]	26%
Drs. Not Taking New Patients	18%	22%[C]	11%
Transportation Problems	5%	11%	7%
Fear of Doctors/Hospitals	14%	13%	11%
Finding a Dentist	12%	6%	6%
Language Problems	16%[B]	6%	11%
Child Care	11%[BC]	-	2%
Not Accessible for Disabled	2%	6%	6%
Find Drs. Treat Heart Disease	-	5%[A]	3%[A]
Find Drs. Treat Cancer	2%	1%	2%
DO NOT HAVE ANY DIFFICULTIES GETTING CARE	14%	18%	12%

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

- **While females have less difficulty getting the care they need overall, they say they have more difficulty finding doctors that take new patients and also have more difficulty with services being accessible for disabled residents versus males.**

	Male *(n=73) (A)*	***Female*** *(n=157) (B)*
Insurance Problems	25%	21%
Cost of Care	23%	30%
Scheduling Appointments	30%	31%
Long Wait Times	33%	35%
Drs. Not Taking New Patients	10%	19%[A]
Transportation Problems	7%	9%
Fear of Doctors/Hospitals	8%	15%
Finding a Dentist	7%	8%
Language Problems	11%	10%
Child Care	3%	4%
Not Accessible for Disabled	-	8%[A]
Find Drs. Treat Heart Disease	1%	4%
Find Drs. Treat Cancer	1%	2%
DO NOT HAVE ANY DIFFICULTIES GETTING CARE	7%	18%[A]

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

- **Lower income groups, particularly those in the <$25K income group are the most likely to encounter problems when seeking care.**

	Under $25K (n=23) (A)	*$25-50K (n=51) (B)*	*$50-100K (n=56) (C)*	*$100K+ (n=60) (D)*
Insurance Problems	30%	20%	27%	20%
Cost of Care	44%[D]	33%[D]	36%[D]	18%
Scheduling Appointments	30%	22%	39%[B]	33%
Long Wait Times	39%	31%	50%[BD]	27%
Drs Not Taking New Patients	22%	10%	14%	22%[B]
Transportation Problems	17%	6%	13%	5%
Fear of Doctors/Hospitals	4%	18%[A]	13%	8%
Finding a Dentist	17%	8%	9%	7%
Language Problems	17%	8%	16%	10%
Child Care	9%	4%	2%	3%
Not Accessible for Disabled	17%[CD]	4%	4%	2%
Finding Dr. Treats Heart Disease	9%	4%	2%	2%
Finding Dr. Treats Cancer	-	2%	-	2%
DO NOT HAVE ANY DIFFICULTIES GETTING CARE	4%	12%	7%	27%[ABC]

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) = Significantly greater than indicated cell at the 90% confidence level.

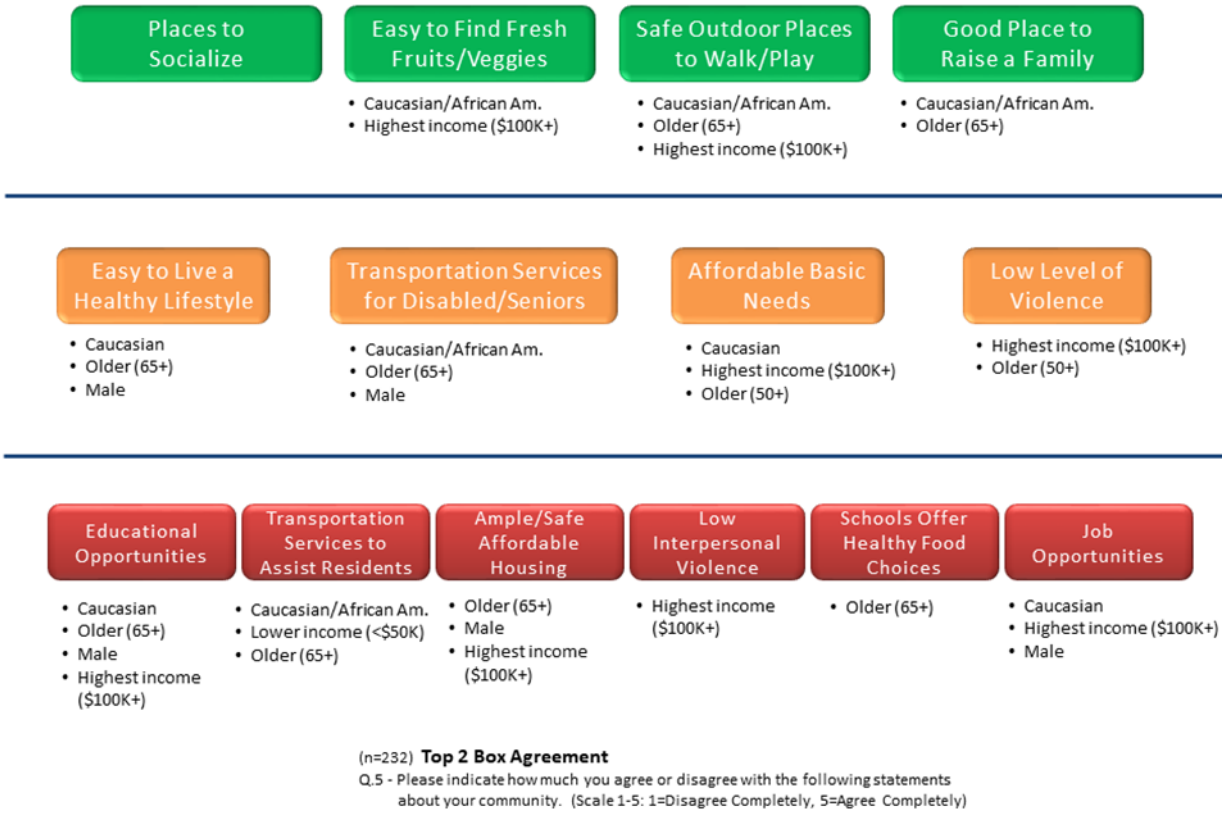
D. COMMUNITY STRENGTHS/OPPORTUNITIES

Community Strengths/Opportunities

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

(n=232) **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

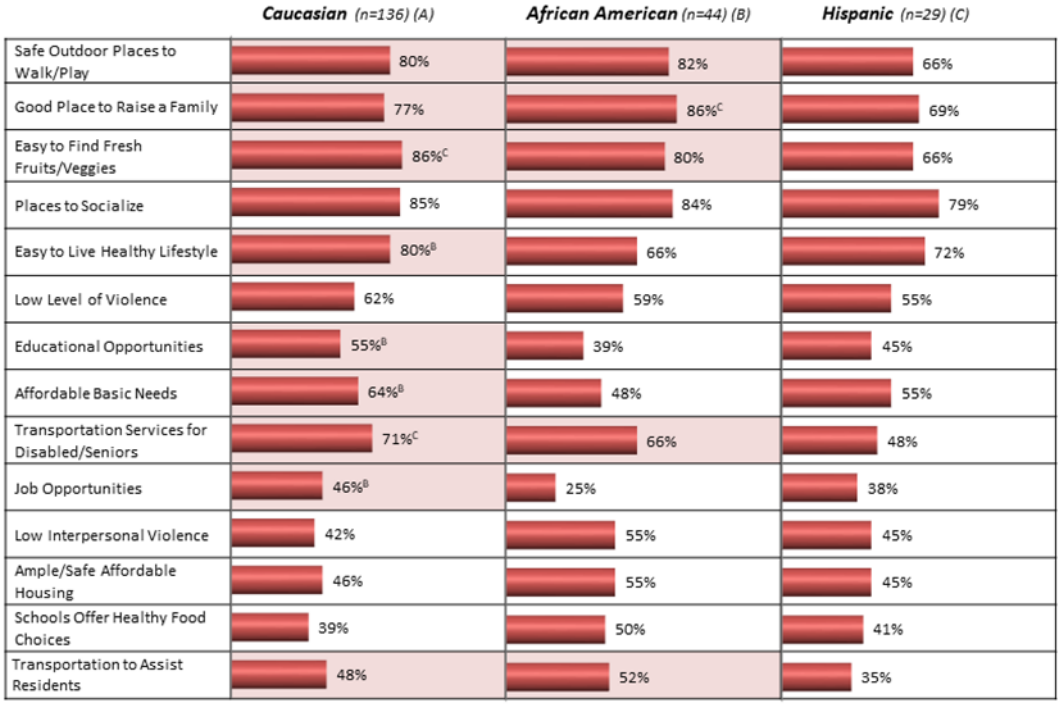


(n=232) **Top 2 Box Agreement**

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

- **In general, Caucasians tend to rate community services very positively, while Hispanics rate services significantly lower.**



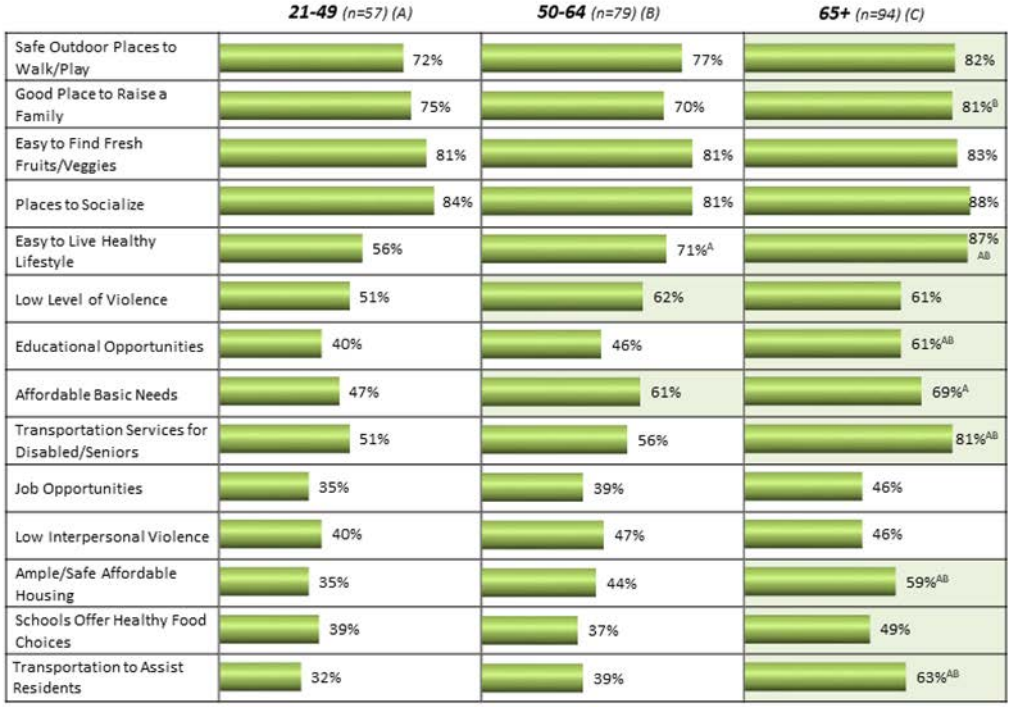
Top 2 Box Agreement

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 Age

- **Older residents surveyed (65+) are more positive towards most community services vs. younger respondents.**



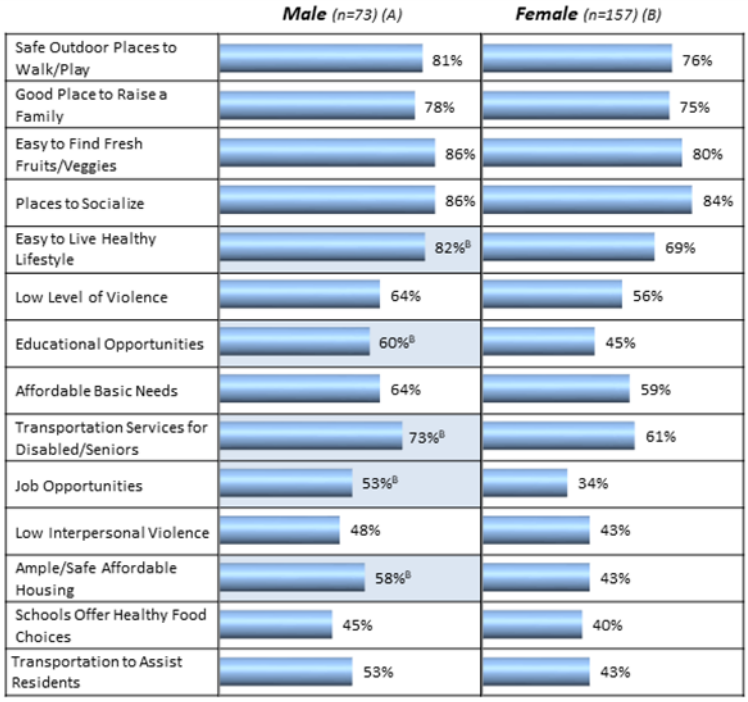
Top 2 Box Agreement

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 are more positive than females on a variety of community services: ease of living a healthy life style, educational opportunities, transportation services for the disabled, job opportunities and safe/affordable housing.**



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

- **Respondents in the highest income bracket ($100K+) are more positive to their community services versus those in lower income groups. The only area where lower income respondents are more favorable is transportation services to assist residents.**

Top 2 Box Agreement

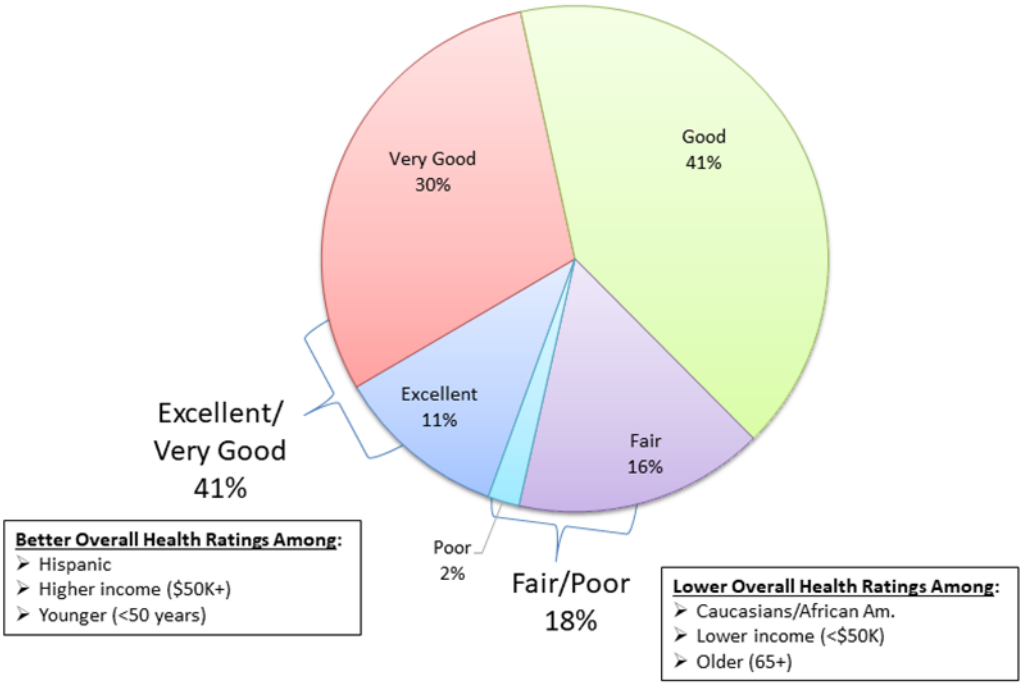
Q.5 - Please indicate how much you agree or disagree with the following statements about your community. (Scale 1-5: 1=Disagree Completely, 5=Agree Completely)

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

E. PERSONAL HEALTH HABITS AND PRACTICES

Self-Description of Overall Health

- Only one of ten respondents (11%) describe their health as "Excellent," with roughly 4 of 10 (41%) residents surveyed describing their health as being excellent or very good. An additional 41% describe their health as good, while 18% say their health is fair or poor.

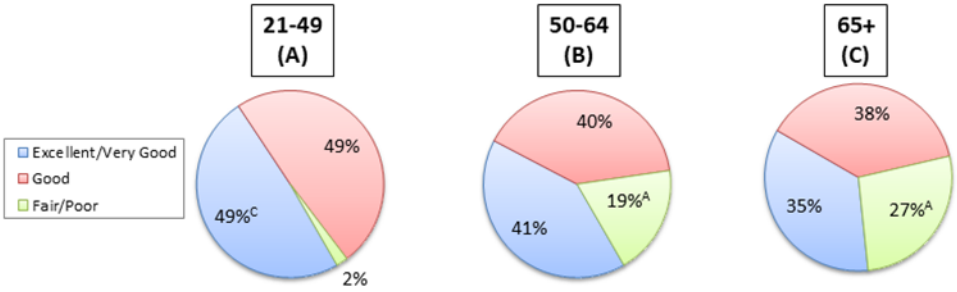


(n=232)
Q.6 - How would you describe your overall health?

Self-Description of Overall Health by Subgroups

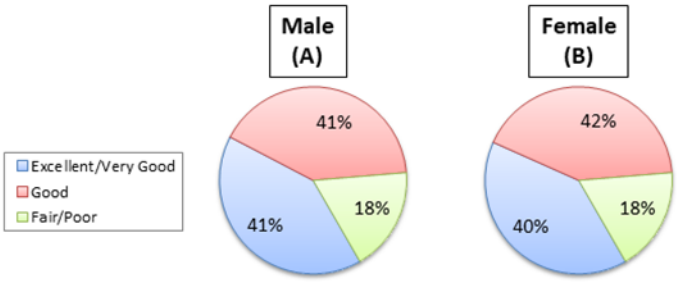
Age:

Younger respondents (<50 yrs.) report being in significantly better health versus older respondents.



Gender:

Males and females describe their overall health about the same.

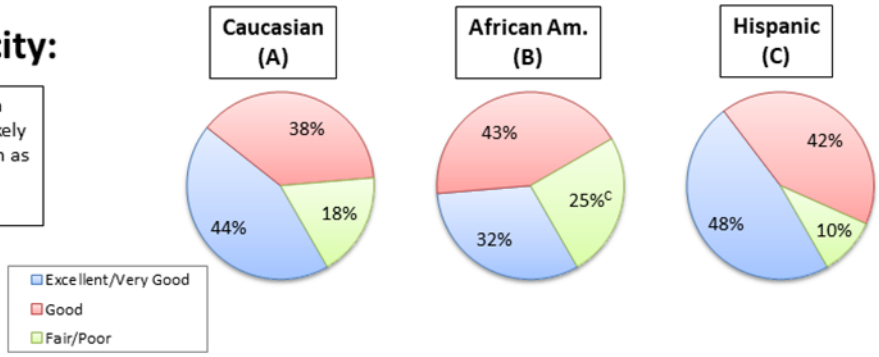


Q.6 - How would you describe your overall health?
(A/B/C) = Significantly greater than indicated cell at the 90% confidence level.

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

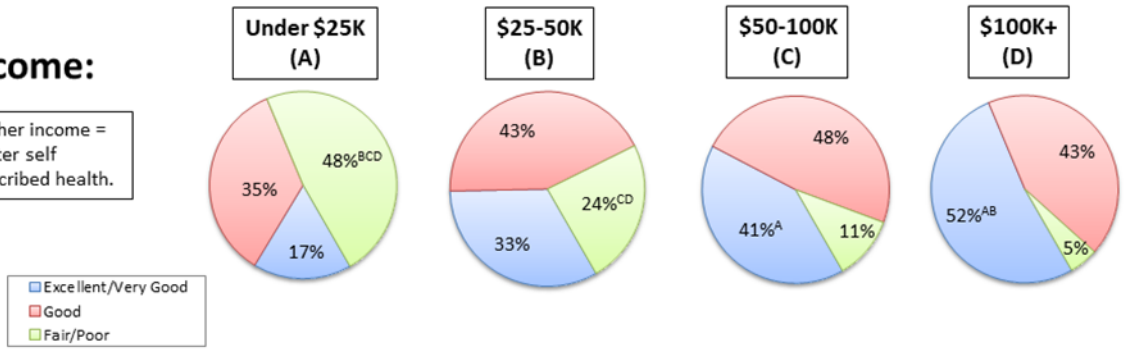
Race/Ethnicity:

Caucasians and African Americans are more likely to describe their health as being fair or poor vs. Hispanics.



Income:

Higher income = better self described health.

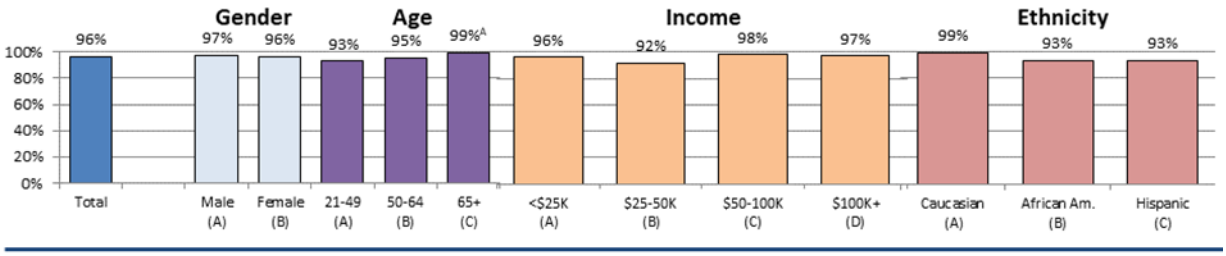


Q.6 - How would you describe your overall health?
(A/B/C/D) = Significantly greater than indicated cell at the 90% confidence level.

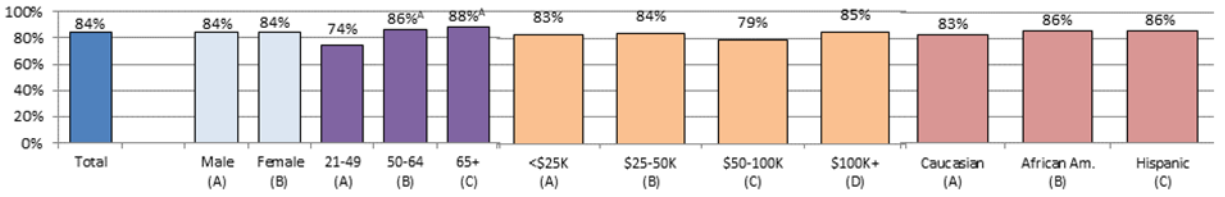
Self-Description of Understanding and Eating Healthy

- The very large majority of residents surveyed feel they understand what food is healthy (96%), with most saying they eat healthy food on a regular basis (84%).
- Older respondents are more likely to eat healthy on a regular basis.

Have enough information to understand what food is healthy



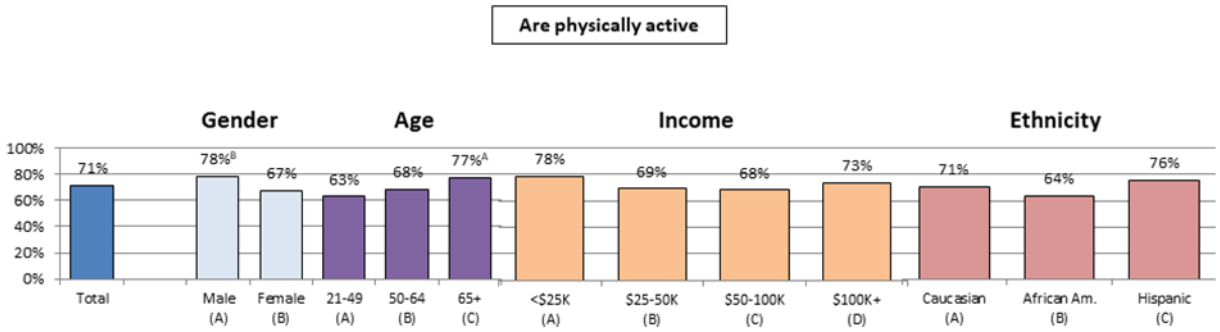
Eat healthy foods on a regular basis

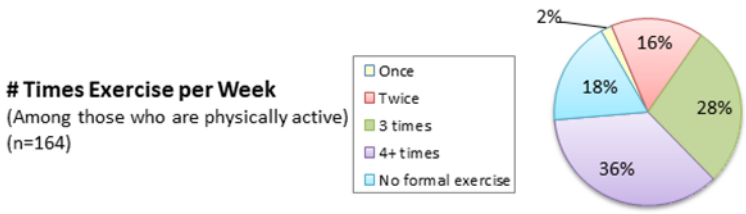


(n=232)
Q.11 - Do you feel that you...
(A/B/C/D) = Significantly greater than indicated cell at the 90% confidence level.

Self-Description of Physical Activity

- Seven-of-ten residents surveyed claim to be physically active, with many saying they exercise more than three times per week.
- Physical activity is higher among males and older residents.

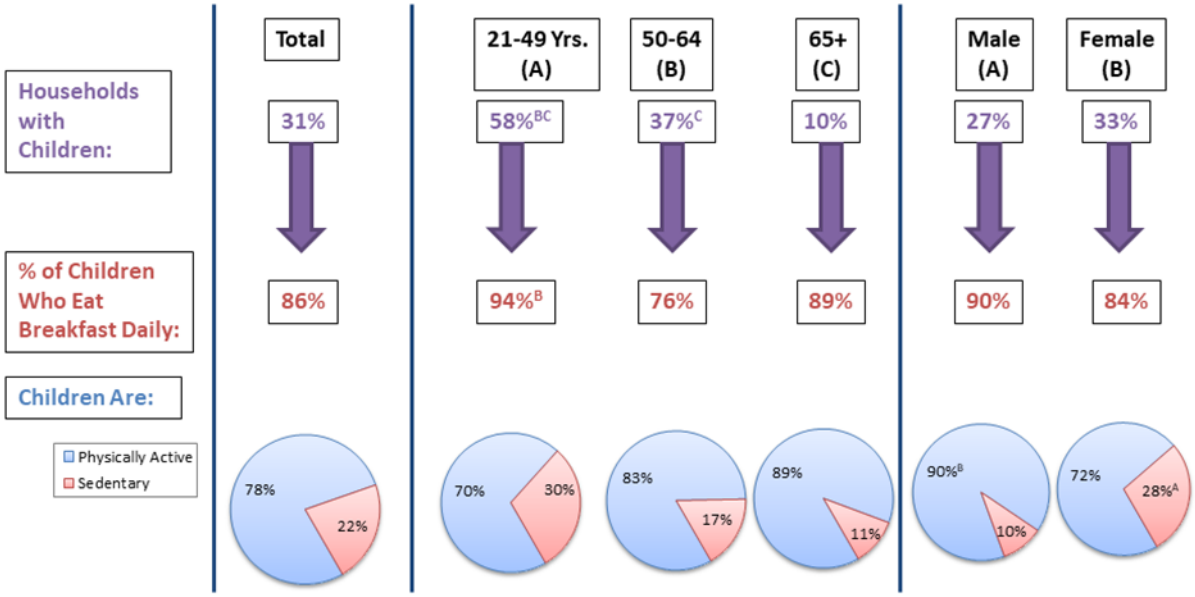




(n=232)
Q.11 - Do you feel that you...
Q.11 - How often do you exercise each week?
(A/B/C/D) = Significantly greater than indicated cell at the 90% confidence level.

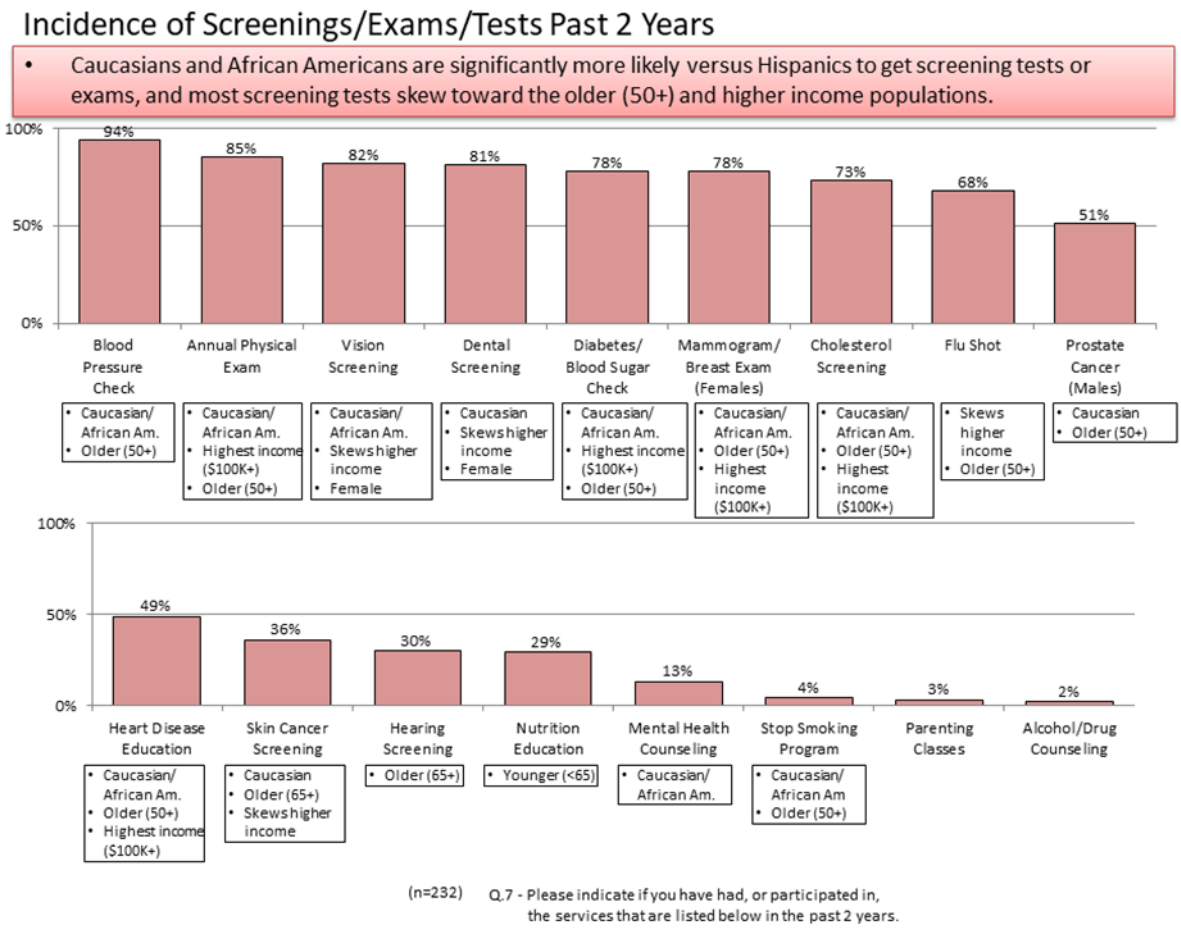
Activity Level of Children in Household

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



(n=232)
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 – by Ethnicity

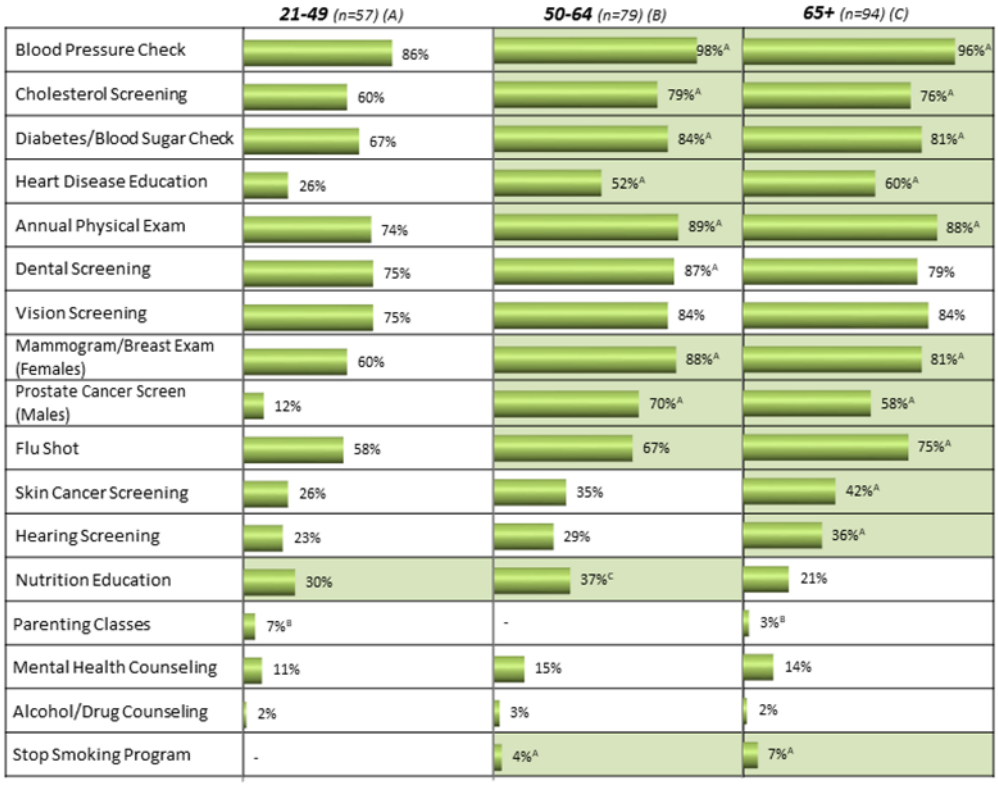
- **Caucasians followed by African Americans are the most likely to get preventative screening exams overall.**

	Caucasian (n=136) (A)	*African American* (n=44) (B)	*Hispanic* (n=29) (C)
Blood Pressure Check	99% BC	91%	79%
Cholesterol Screening	78%C	68%	52%
Diabetes/Blood Sugar Check	84%C	77%C	59%
Heart Disease Education	54%C	48%C	28%
Annual Physical Exam	88%C	86%C	66%
Dental Screening	85%C	75%	69%
Vision Screening	85%C	84%	69%
Mammogram/Breast Exam (Females)	82%C	83%C	57%
Prostate Cancer Screen (Males)	56%	29%	38%
Flu Shot	69%	59%	66%
Skin Cancer Screening	43%B	21%	31%
Hearing Screening	29%	27%	31%
Nutrition Education	32%	23%	21%
Parenting Classes	3%	2%	3%
Mental Health Counseling	15%	16%	7%
Alcohol/Drug Counseling	3%B	-	3%
Stop Smoking Program	6%C	5%	-

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 Age

- **Most screening exams skew towards the older population (50+).**

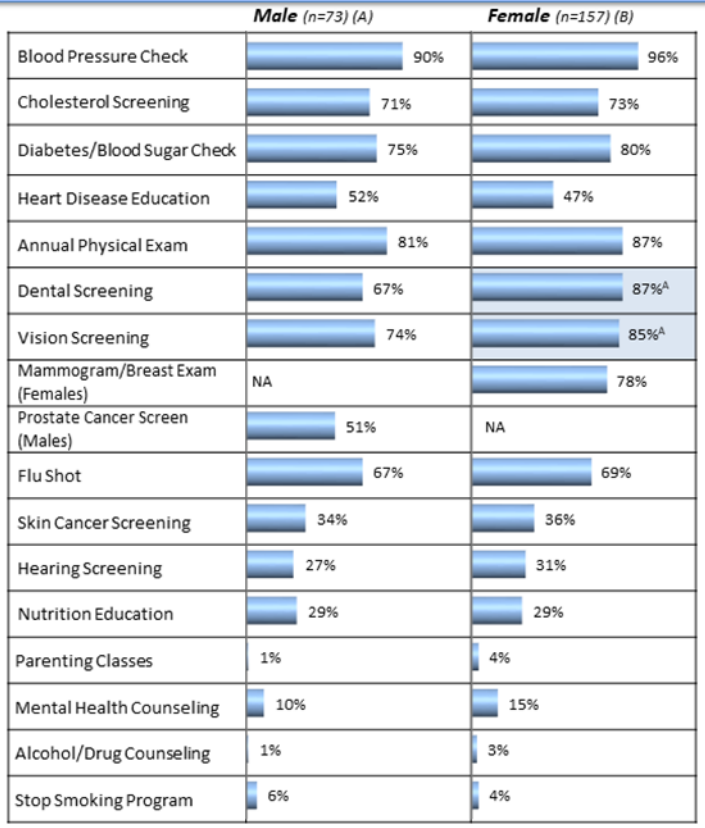


	21-49 (n=57) (A)	50-64 (n=79) (B)	65+ (n=94) (C)
Blood Pressure Check	86%	98%[A]	96%[A]
Cholesterol Screening	60%	79%[A]	76%[A]
Diabetes/Blood Sugar Check	67%	84%[A]	81%[A]
Heart Disease Education	26%	52%[A]	60%[A]
Annual Physical Exam	74%	89%[A]	88%[A]
Dental Screening	75%	87%[A]	79%
Vision Screening	75%	84%	84%
Mammogram/Breast Exam (Females)	60%	88%[A]	81%[A]
Prostate Cancer Screen (Males)	12%	70%[A]	58%[A]
Flu Shot	58%	67%	75%[A]
Skin Cancer Screening	26%	35%	42%[A]
Hearing Screening	23%	29%	36%[A]
Nutrition Education	30%	37%[C]	21%
Parenting Classes	7%[B]	-	3%[B]
Mental Health Counseling	11%	15%	14%
Alcohol/Drug Counseling	2%	3%	2%
Stop Smoking Program	-	4%[A]	7%[A]

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

- **Females tend to have a higher incidence than males with regard to dental and vision screenings.**



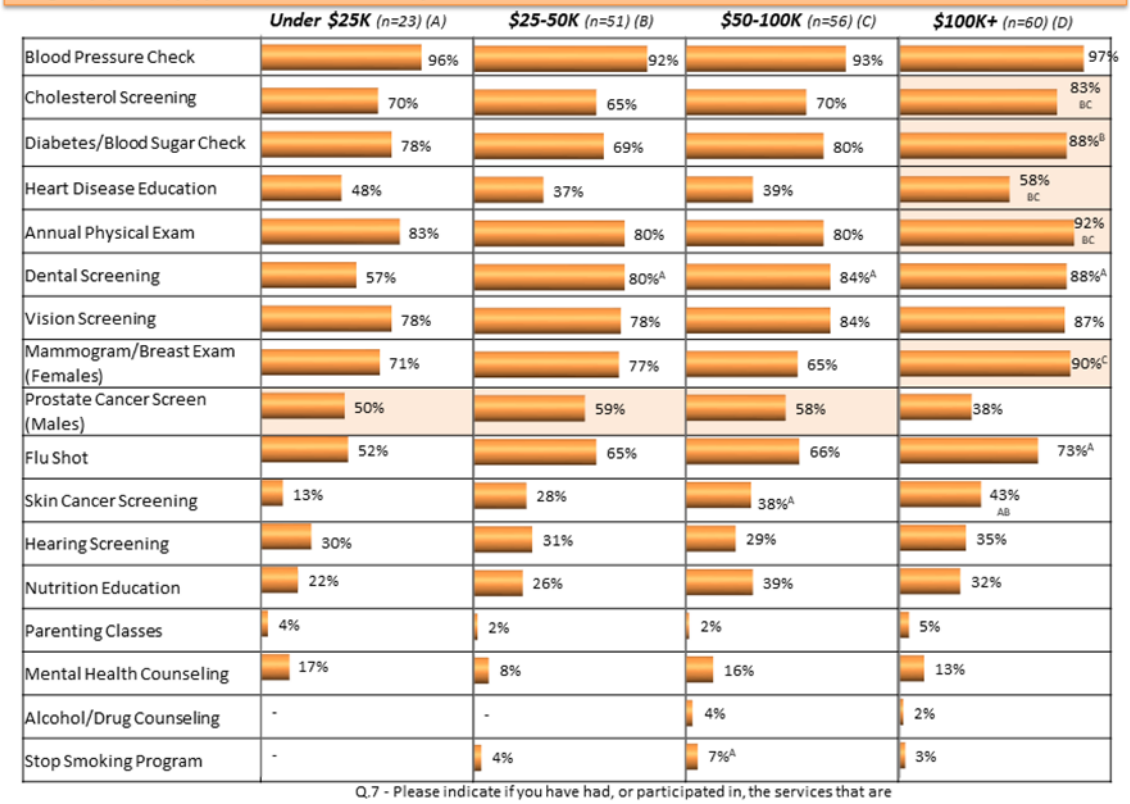
Q.7 - Please indicate if you have had, or participated in, the services that are listed below in the past 2 years.

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

NA = Not applicable.

Incidence of Screenings/Exams/Tests – by Income

- **Higher income respondents have more screening tests versus lower income respondents. Surprisingly, the highest income group ($100K+) reports lower incidence of prostate cancer screens.**

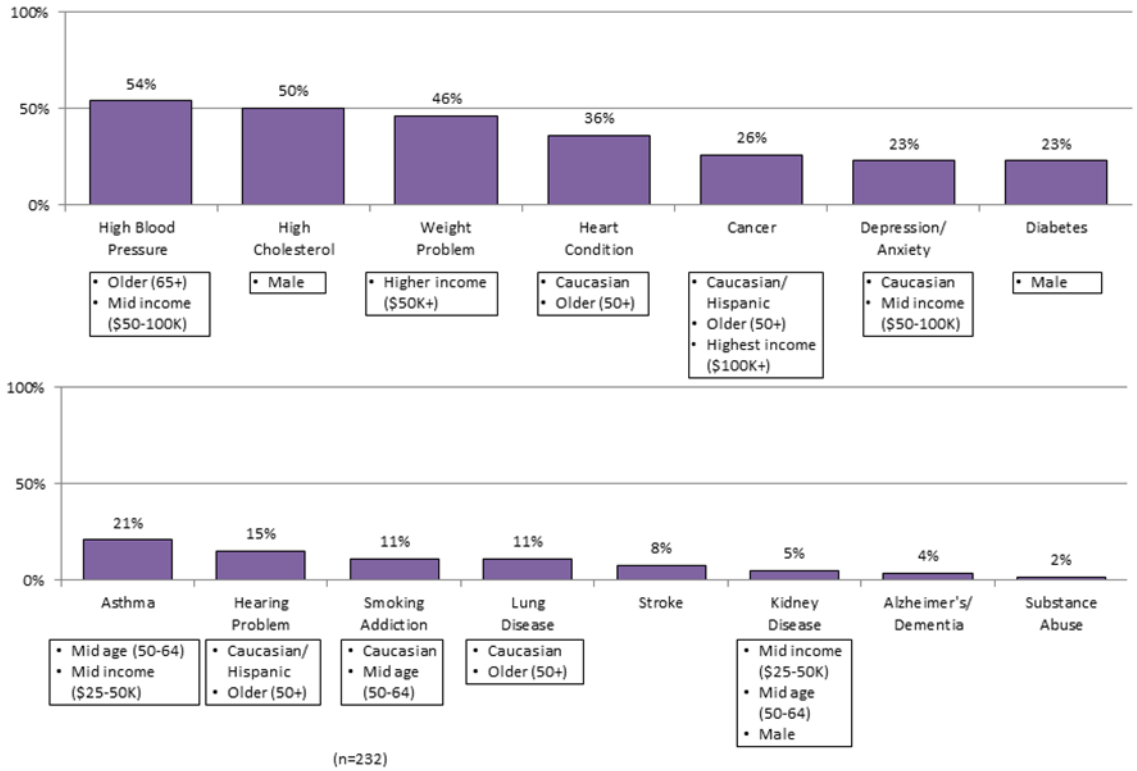


	Under $25K (n=23) (A)	*$25-50K (n=51) (B)*	*$50-100K (n=56) (C)*	*$100K+ (n=60) (D)*
Blood Pressure Check	96%	92%	93%	97%
Cholesterol Screening	70%	65%	70%	83% BC
Diabetes/Blood Sugar Check	78%	69%	80%	88%B
Heart Disease Education	48%	37%	39%	58% BC
Annual Physical Exam	83%	80%	80%	92% BC
Dental Screening	57%	80%A	84%A	88%A
Vision Screening	78%	78%	84%	87%
Mammogram/Breast Exam (Females)	71%	77%	65%	90%C
Prostate Cancer Screen (Males)	50%	59%	58%	38%
Flu Shot	52%	65%	66%	73%A
Skin Cancer Screening	13%	28%	38%A	43% AB
Hearing Screening	30%	31%	29%	35%
Nutrition Education	22%	26%	39%	32%
Parenting Classes	4%	2%	2%	5%
Mental Health Counseling	17%	8%	16%	13%
Alcohol/Drug Counseling	-	-	4%	2%
Stop Smoking Program	-	4%	7%A	3%

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) = 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.**

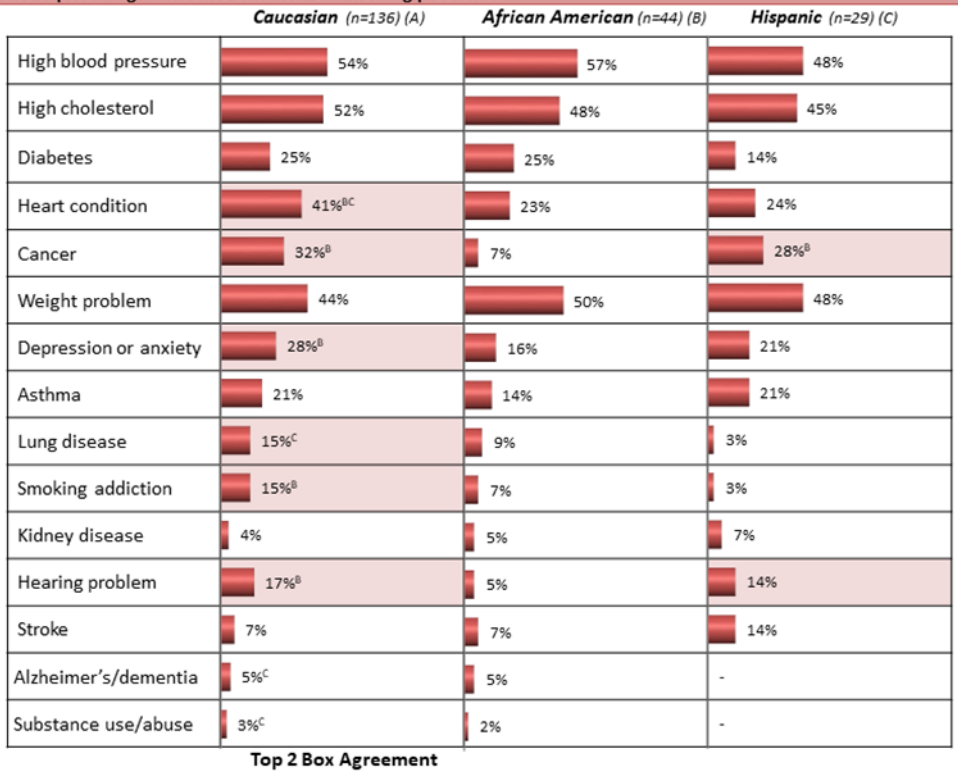


(n=232)

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

- **Caucasians report the highest incidence of heart conditions, cancer, depression, lung disease, smoking addiction and hearing problems.**
- **Hispanics also report a high incidence of cancer and hearing problems.**



Top 2 Box Agreement

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 Age

- **Not surprisingly, older respondents (50+) report being diagnosed with more conditions than younger respondents.**

	21-49 *(n=57) (A)*	***50-64*** *(n=79) (B)*	***65+*** *(n=94) (C)*
High blood pressure	37%	49%	68%[AB]
High cholesterol	44%	53%	51%
Diabetes	16%	24%	26%
Heart condition	18%	39%[A]	44%[A]
Cancer	18%	29%	28%
Weight problem	39%	44%	51%
Depression or anxiety	23%	23%	22%
Asthma	21%	28%[C]	14%
Lung disease	2%	13%[A]	15%[A]
Smoking addiction	5%	17%[A]	10%
Kidney disease	-	10%[AC]	3%[A]
Hearing problem	4%	20%[A]	17%[A]
Stroke	5%	9%	9%
Alzheimer's/dementia	2%	8%[A]	3%
Substance use/abuse	2%	3%	2%

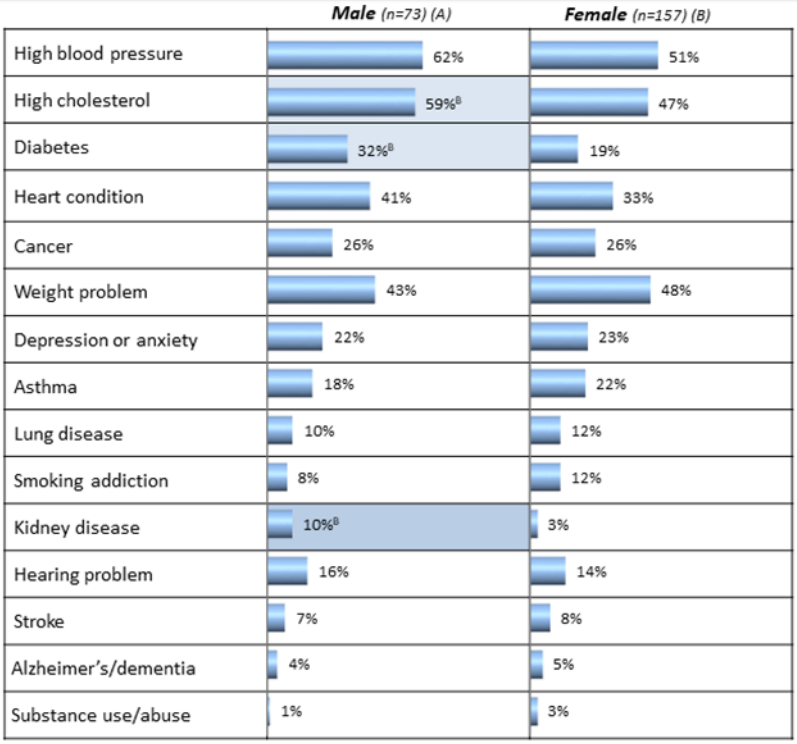
Top 2 Box Agreement

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

- **Males report a higher diagnosis of high cholesterol, diabetes and kidney disease versus females.**



Top 2 Box Agreement

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) = Significantly greater than indicated cell at the 90% confidence level.

Conditions Diagnosed by Physician – by Income

- **Few differences exist in conditions diagnosed by income groups.**

	Under $25K (n=23) (A)	*$25-50K (n=51) (B)*	*$50-100K (n=56) (C)*	*$100K+ (n=60) (D)*
High blood pressure	52%	53%	64%[D]	48%
High cholesterol	52%	45%	50%	62%[B]
Diabetes	30%	22%	21%	22%
Heart condition	48%	29%	39%	35%
Cancer	17%	22%	27%	37%[AB]
Weight problem	39%	37%	50%	52%
Depression or anxiety	22%	16%	32%[B]	22%
Asthma	22%	31%[D]	20%	17%
Lung disease	17%	10%	9%	12%
Smoking addiction	13%	10%	11%	15%
Kidney disease	9%	10%	4%	3%
Hearing problem	17%	16%	14%	15%
Stroke	4%	8%	9%	5%
Alzheimer's/dementia	9%	-	5%[B]	5%[B]
Substance use/abuse	4%	2%	2%	2%

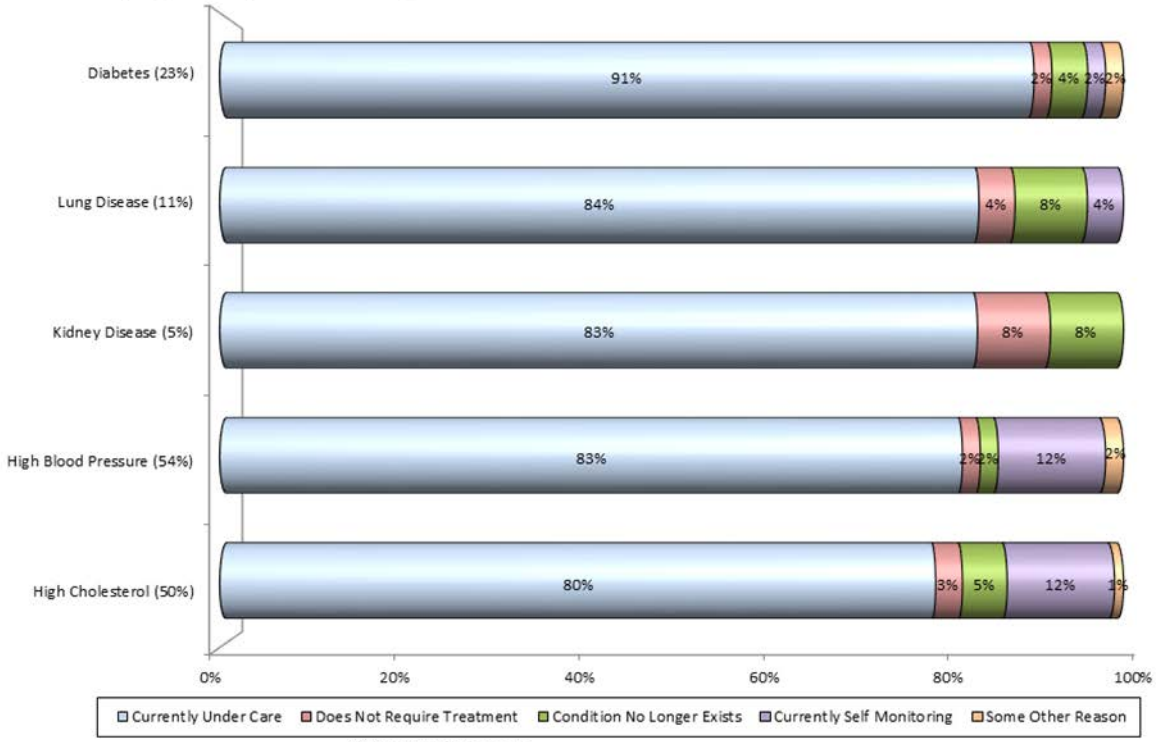
Top 2 Box Agreement

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) = Significantly greater than indicated cell at the 90% confidence level.

How Conditions Are Being Managed

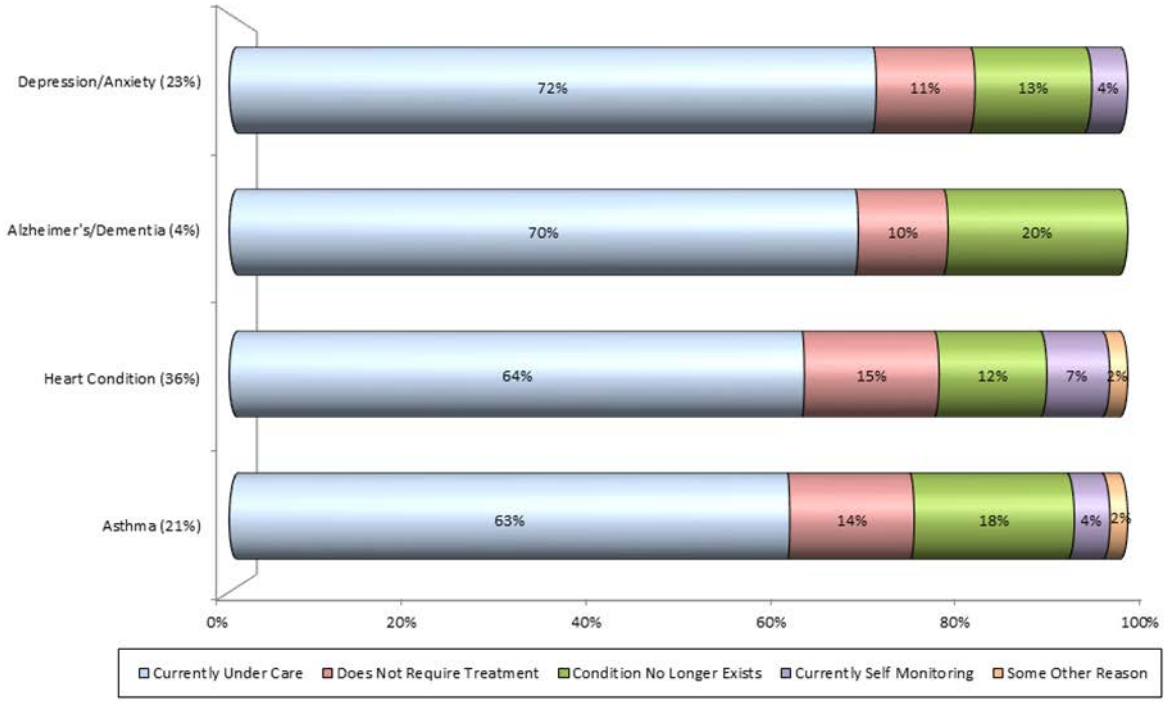
- Diagnosed conditions most likely to be under a physician's care include: diabetes, lung disease, kidney disease, high blood pressure and high cholesterol.



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

How Conditions Are Being Managed – (continued)

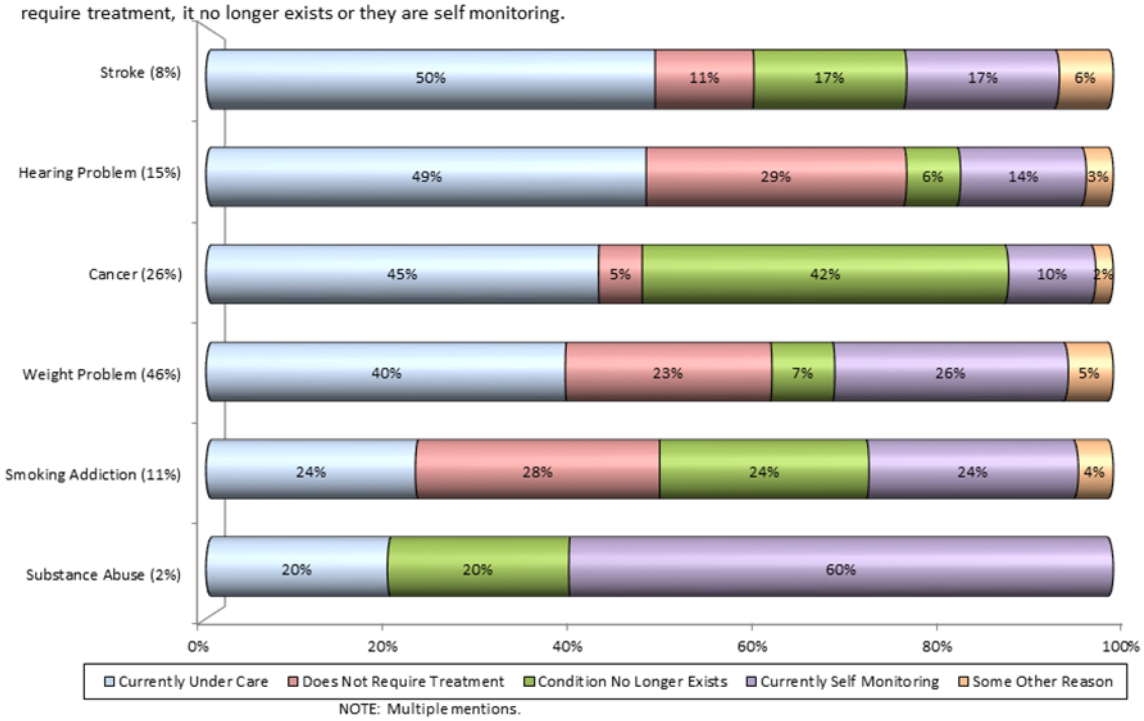
- Many are also under a physician's care for depression/anxiety, Alzheimer's, heart conditions and asthma.



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

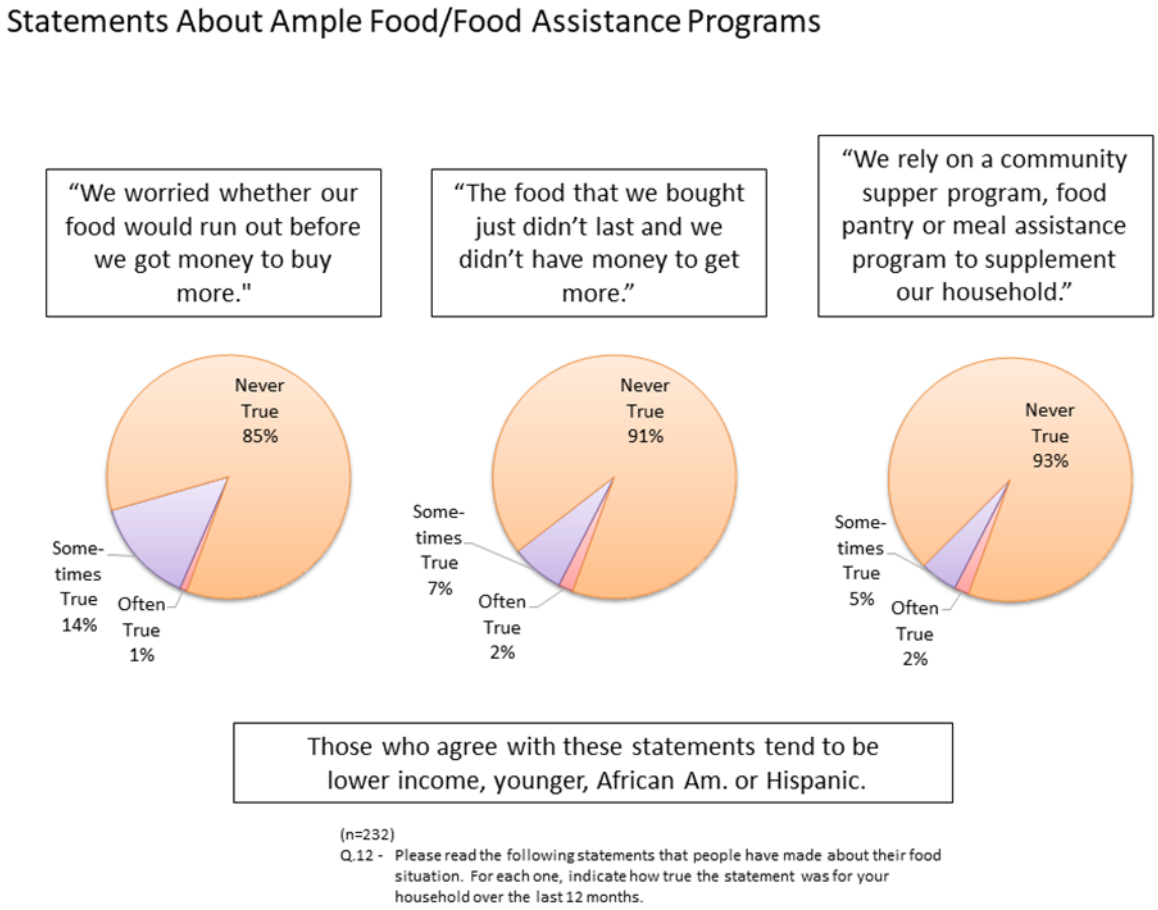
How Conditions Are Being Managed – (continued)

- For hearing problems, most of those who are not under a doctor's care say their condition does not require treatment, and for cancer many say the condition no longer exists.
- For respondents with weight issues, fewer than half are under a physician's care, while roughly one-fourth say their condition does not require treatment and another one-fourth say they are self-monitoring their condition.
- For substance abuse most are self monitoring; for smoking addition respondents are divided between saying their condition does not require treatment, it no longer exists or they are self monitoring.



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

G. ADDITIONAL DATA



Physician Habits

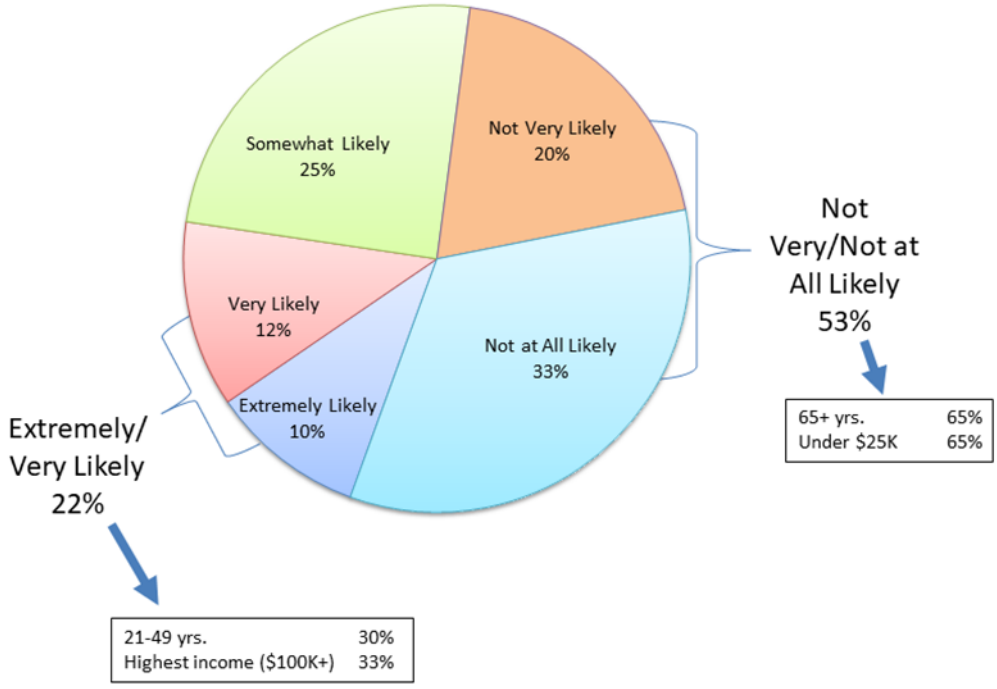
- Younger respondents are more likely to visit the doctor only when sick or need medical care.
- Hispanics are the most likely to visit an urgent care center when medical care is needed.

	Total	Age			Ethnicity		
		21-49 (A)	50-64 (B)	65+ (C)	Caucasian (A)	African Am. (B)	Hispanic (C)
	%	%	%	%	%	%	%
Go to Dr/group every year or two for check-up	74	60	76[A]	81[A]	76	73	66
Go to Dr/group only when sick/hurt	26	30[C]	33[C]	17	24	25	24
Only go to urgent care center or ER when need medical care	10	18[C]	9	5	8	11	21

(n=232)
NOTE: Multiple mentions.
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 2 of 10 respondents indicated a strong likelihood of accessing medical care virtually, highest among younger and higher income respondents.



(n=232)
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. UNION COUNTY/SERVICE AREA HEALTH PROFILE

The Union County Health Profile provides a discussion of health outcomes and factors, including social determinants of health, that are used in determining health status. Union County data are compared to local, State and national measures.

A. UNION COUNTY OVERVIEW

Union County is located in the northeast section of New Jersey. The county encompasses a land mass of 105 square miles with 21 urban and suburban municipalities. Union County's municipalities are diverse and include large inner-city communities, such as Elizabeth and Plainfield, as well as the suburban communities of Berkeley Heights, Westfield and Summit. The county is home to a number of parks and recreational areas and historical sights.

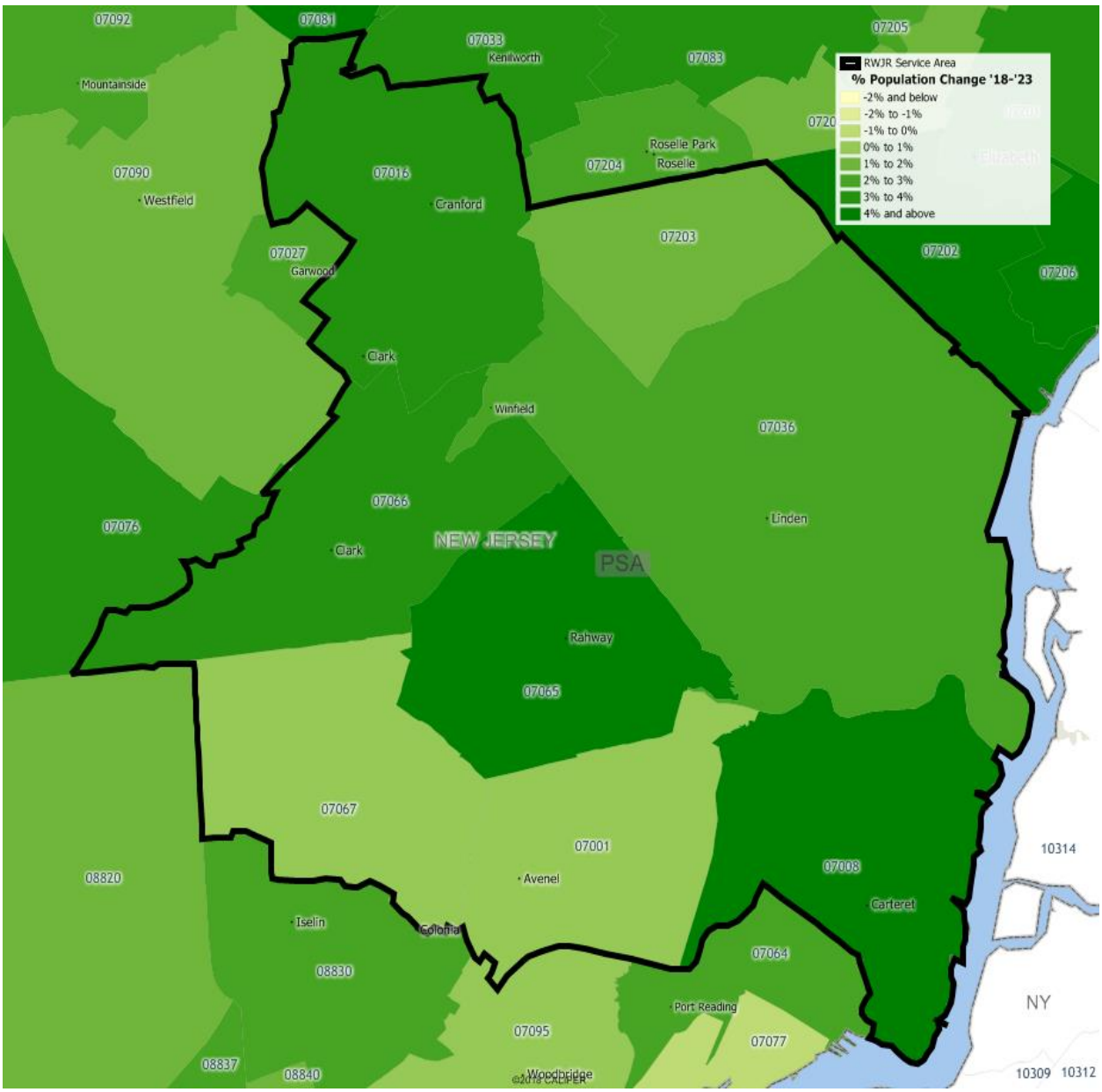
Union County is the seventh most populous of New Jersey's 21 counties. With a population density of 4,955 persons per square mile, the County is the 15th most densely populated county in the United State and the third densest in New Jersey, behind Hudson County. The County's 21 municipalities include Berkeley Heights, Clark, Cranford, Elizabeth, Fanwood, Garwood, Hillside, Kenilworth, Linden, Mountainside, New Providence, Plainfield, Rahway, Roselle, Roselle Park, Scotch Plains, Springfield, Summit, Union, Westfield and Winfield.

Between 2010 and 2018, Union County's population increased 4.3%, faster than New Jersey as a whole. The demographic trends in Union County show increases in Asian and Hispanic populations. By age cohort the County's population tends to be slightly younger than the population statewide.

B. RWJ RAHWAY SERVICE AREA

Between 2010 and 2018, the population of the RWJ Rahway Service Area grew 4.0%, slower than Union County (4.3%), but faster than New Jersey (2.0%). In 2023, the Service Area population is expected to grow another 2.1% to 196,309.

Population Change in RWJ Rahway Service Area
2018-2023



* Source: Claritas Population Estimates 2018, 2023

RWJ Rahway Service Area
Population Distribution & Projected Percent Change 2018-2023

	GEOGRAPHIC AREA												
AGE COHORT	New Jersey	Union County	Middlesex County	Essex County	RWJR Service Area	Avenel (07001)	Carteret (07008)	Cranford (07016)	Linden (07036)	Rahway (07065)	Clark (07067)	Colonia (07067)	Roselle (07203)
0-17	1,924,893	130,512	180,590	188,257	39,941	3,197	5,908	5,118	8,481	6,172	2,850	3,430	4,785
% of Total	21.19%	22.78%	21.04%	23.19%	20.35%	19.66%	23.00%	20.97%	19.30%	20.19%	18.43%	18.69%	22.12%
% Change '18-'23	-1.87%	-0.33%	-0.52%	-0.80%	-0.93%	1.75%	1.46%	-2.96%	-2.20%	1.20%	-1.66%	-4.11%	-0.91%
18-44	3,063,151	193,610	303,446	284,095	67,204	6,072	9,469	7,367	15,324	10,525	4,830	5,988	7,629
% of Total	33.72%	33.79%	35.36%	35.0%	34.23%	37.34%	36.87%	30.18%	34.88%	34.43%	31.23%	32.63%	35.26%
% Change '18-'23	-0.71%	-0.97%	-1.89%	-2.08%	-1.05%	-5.36%	0.72%	4.69%	-2.70%	-2.49%	2.61%	1.05%	-3.27%
45-64	2,440,092	155,495	228,902	213,515	54,842	4,858	6,726	6,889	12,213	8,556	4,426	5,431	5,743
% of Total	26.86%	27.14%	26.67%	26.30%	27.94%	29.87%	26.19%	28.22%	27.80%	27.99%	28.61%	29.60%	26.54%
% Change '18-'23	-1.87%	0.85%	0.88%	0.68%	0.16%	1.00%	2.58%	-3.45%	1.14%	4.30%	-2.92%	-4.95%	0.70%
65+	1,656,700	93,367	145,324	125,886	34,322	2,135	3,580	5,034	7,917	5,314	3,362	3,502	3,478
% of Total	18.24%	16.29%	16.93%	15.51%	17.48%	13.13%	13.94%	20.62%	18.02%	17.38%	21.74%	19.08%	16.08%
% Change '18-'23	15.44%	18.06%	17.56%	16.57%	17.46%	17.24%	20.42%	15.56%	18.01%	20.25%	14.82%	14.56%	17.62%
All Ages	9,084,836	572,984	858,262	811,753	196,309	16,262	25,683	24,408	43,935	30,567	15,468	18,351	21,635
% of Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
% Change '18-'23	1.30%	2.37%	2.01%	1.47%	2.13%	0.45%	3.75%	2.55%	1.69%	3.56%	2.49%	0.42%	1.21%
Female 15-44	1,677,665	106,947	165,399	158,516	36,456	2,775	5,252	4,110	8,436	5,780	2,613	3,285	4,205
% of Total	18.47%	18.66%	19.27%	19.53%	18.57%	17.06%	20.45%	16.84%	19.20%	18.91%	16.89%	17.90%	19.44%
% Change '18-'23	-1.21%	-0.80%	-1.59%	-2.53%	-1.24%	-3.98%	0.71%	2.90%	-2.95%	-2.28%	1.59%	-0.45%	-3.02%

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 Union County and RWJ Rahway Service Area that face many socioeconomic challenges that may have consequences for health and health care in the region.[10]

[10] https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

1. Socioeconomic Status

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).

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.

Union County

Union County is made up of a number of diverse municipalities and cities.

- In 2016, the median household income in Union County was $70,476, more than $3,000 below the State median of $73,702
- In 2016, Union County had a similar percentage of people living below the federal poverty level as the State, 10.8% and 10.9% respectively. [11]
- Between 2014 and 2016, unemployment throughout New Jersey declined. In 2016, the Union County unemployment rate was 5.8%, a decrease of 1.6% from 2014, but higher than the New Jersey unemployment rate of 5.2%.[12]

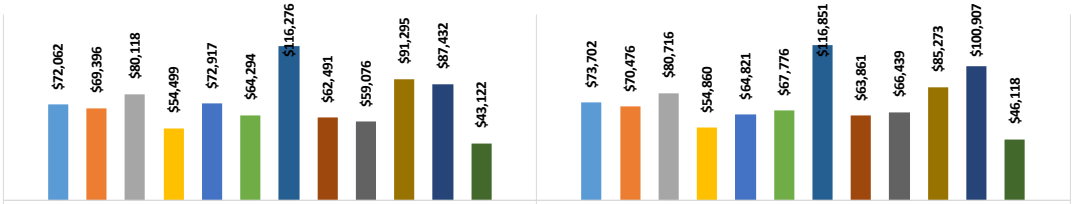
11 Ibid.

12 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

RWJ Rahway Service Area

- The 2016 median household income of Rahway residents ($66,439) was less than the statewide figure ($73,702).
    - In the RWJ Rahway Service Area, Cranford had the highest median household income at $116,851, while Roselle had the lowest ($46,118).
    - As noted in the next table, median household income levels were expected to grow in 2018.

Median Household Income
State and County Comparisons – 2014-2016

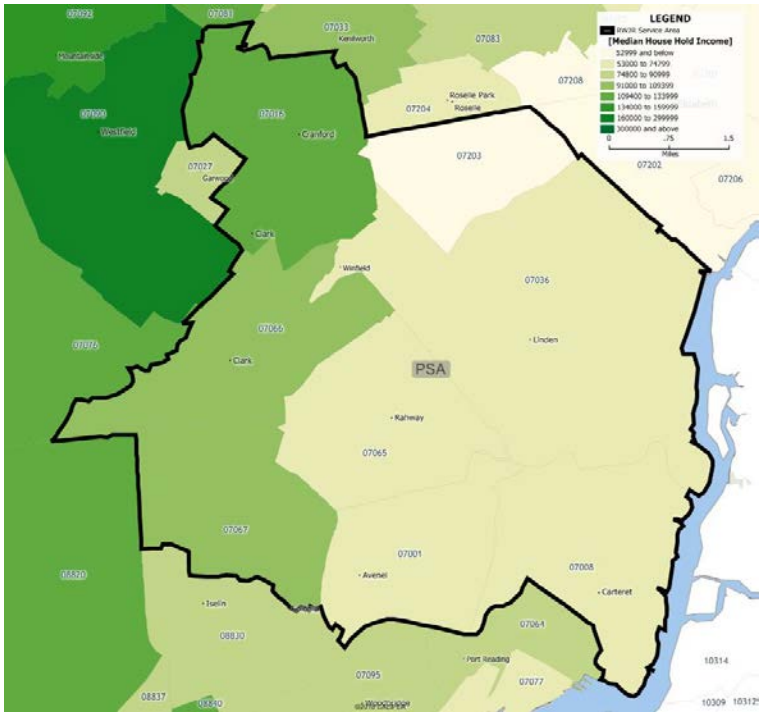


	2014	2016
New Jersey	$72,062	$73,702
Union County	$69,396	$70,476
Middlesex County	$80,118	$80,716
Essex County	$54,499	$54,860
Avenel (07001)	$72,917	$64,821
Carteret (07008)	$64,294	$67,776
Cranford (07016)	$116,276	$116,851
Linden (07036)	$62,491	$63,861
Rahway (07065)	$59,076	$66,439
Clark (07066)	$91,295	$85,273
Colonia (07067)	$87,432	$100,907
Roselle (07203)	$43,122	$46,118

Source: United States Census 2016 5 Year ACS Estimates

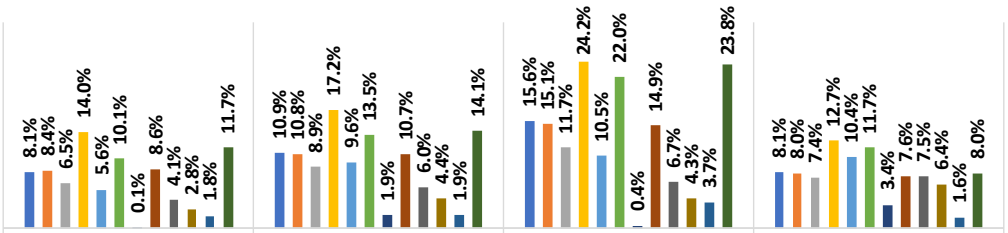
Median Household Income, 2018
Union County

HOUSEHOLD INCOME (2018*)	
GEOGRAPHIC AREA	MEDIAN
New Jersey	$78,317
Union County	$76,739
Middlesex County	$82,945
Essex County	$58,264
Cranford (07016)	$121,547
Colonia (07067)	$97,870
Clark (07066)	$100,912
Carteret (07008)	$70,263
Rahway (07065)	$70,199
Avenel (07001)	$71,997
Linden (07036)	$69,198
Roselle (07203)	$51,116



- In 2016, the percent of families living in poverty in Union County (8.4%) was higher than the State (8.1%).[13]
    - In 2016, 14.1% of people and 11.7% of families were living in poverty in Roselle. The percentage of children in poverty was over 23% in Roselle.
- In 2016, there was a wide range of percentages of families living in poverty across select RWJ Rahway Service Area zip codes[14]:
    - Cranford: 0.1%
    - Linden: 8.6%
    - Avenel: 5.6%
    - Roselle: 11.7%

Income Below Federal Poverty Level
State and County Comparisons, 2016



	Families	People	Children	Seniors
New Jersey	8.1%	10.9%	15.6%	8.1%
Union County	8.4%	10.8%	15.1%	8.0%
Middlesex County	6.5%	8.9%	11.7%	7.4%
Essex County	14.0%	17.2%	24.2%	12.7%
Avenel(07001)	5.6%	9.6%	10.5%	10.4%
Carteret(07008)	10.1%	13.5%	22.0%	11.7%
Cranford (07016)	0.1%	1.9%	0.4%	3.4%
Linden (07036)	8.6%	10.7%	14.9%	7.6%
Rahway (07065)	4.1%	6.0%	6.7%	7.5%
Clark (07066)	2.8%	4.4%	4.3%	6.4%
Colonia (07067)	1.8%	1.9%	3.7%	1.6%
Roselle (07203)	11.7%	14.1%	23.8%	8.0%

Source: United States Census 2016 5 Year ACS Estimates

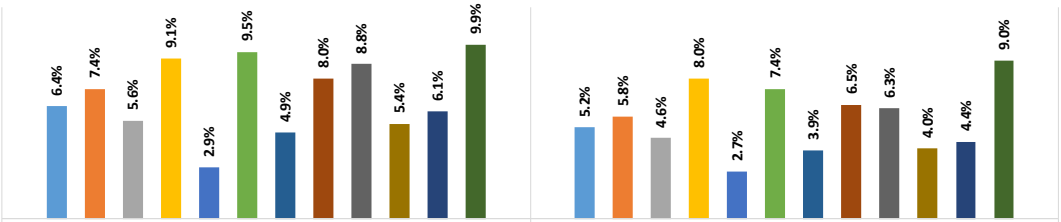
Unemployment

- In 2016, the unemployment rate for Union County (5.8%) was above the rate statewide (5.2%).
- The Union County unemployment rate declined 1.6 percentage points between 2014-2016.
- In 2016, Carteret's unemployment rate was 7.4%, a decrease from 9.5% in 2014, but higher than the Union County rate of 5.8%, and the State rate of 5.2%, and highest of the comparative geographies.[15]

13 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 Rahway unemployment rate was 6.3%, a decrease of 2.5% from 2014, but higher than the Union County unemployment rate of 5.8%.[16]
- In 2016, the Linden unemployment rate was 6.5%, a decrease from 8.0% in 2014.

Unemployment
State and County Comparisons, 2014-2016



	2014	2016
New Jersey	6.4%	5.2%
Union County	7.4%	5.8%
Middlesex County	5.6%	4.6%
Essex County	9.1%	8.0%
Avenel (07001)	2.9%	2.7%
Carteret (07008)	9.5%	7.4%
Cranford (07016)	4.9%	3.9%
Linden (07036)	8.0%	6.5%
Rahway (07065)	8.8%	6.3%
Clark (07066)	5.4%	4.0%
Colonia (07067)	6.1%	4.4%
Roselle (07203)	9.9%	9.0%

Source: United States Census 2014-2016 Year ACS Estimates

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

National Benchmark: 3.2%
Union County 2016: 5.8%

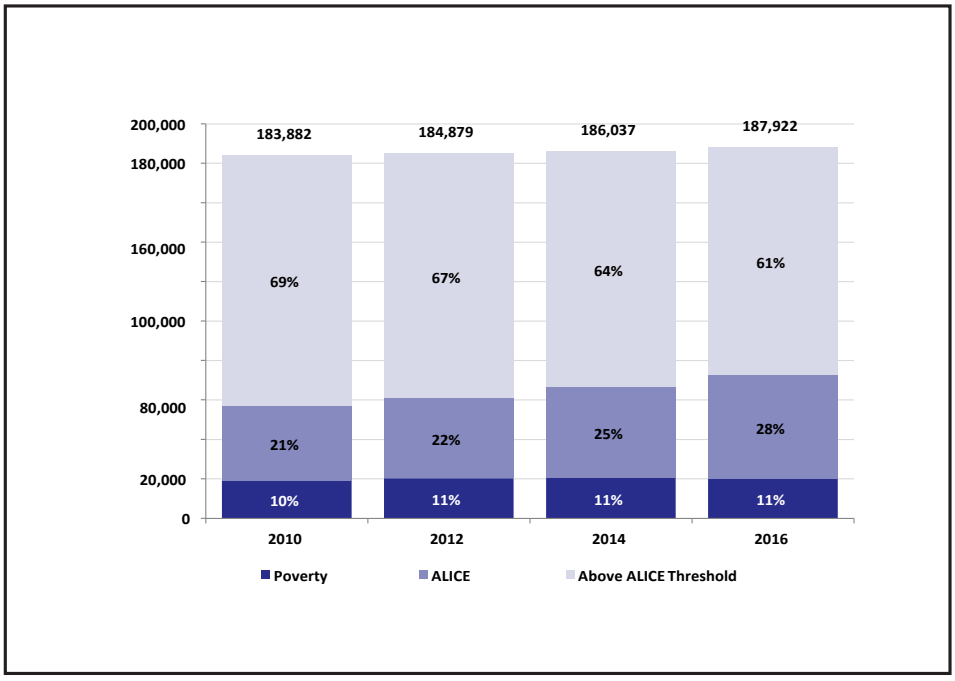
16 HomeFacts East Orange Unemployment Report 2016 http://www.homefacts.com/unemployment/New-Jersey/Union-County/East-Orange.html

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)[17] 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 Union 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 Union County, this percentage amounts to 39% (2016).

Households by Income, 2010 to 2016
Union County



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 Union 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 Union County.

[17] http://www.unitedwaynj.org/ourwork/aliceatnj.php

Household Survival Budget, Union County		
	SINGLE ADULT	2 ADULTS, 1 INFANT, 1 PRESCHOOLER
Monthly Costs		
Housing	$1,044	$1,324
Child Care	$–	$1,342
Food	$182	$603
Transportation	$116	$186
Health Care	$196	$727
Technology	$55	$75
Miscellaneous	$194	$486
Taxes	$348	$603
Monthly Total	$2,135	$5,346
ANNUAL TOTAL	$25,620	$64,152
Hourly Wage	*$12.81*	*$32.08*

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 wide differences among municipalities in Union County in terms of the percentage of households living in poverty or at the ALICE threshold. Between 31% and 56% of residents in the PSA towns of Clark, Linden, Rahway and Roselle had incomes at the Federal poverty level or at the ALICE threshold.

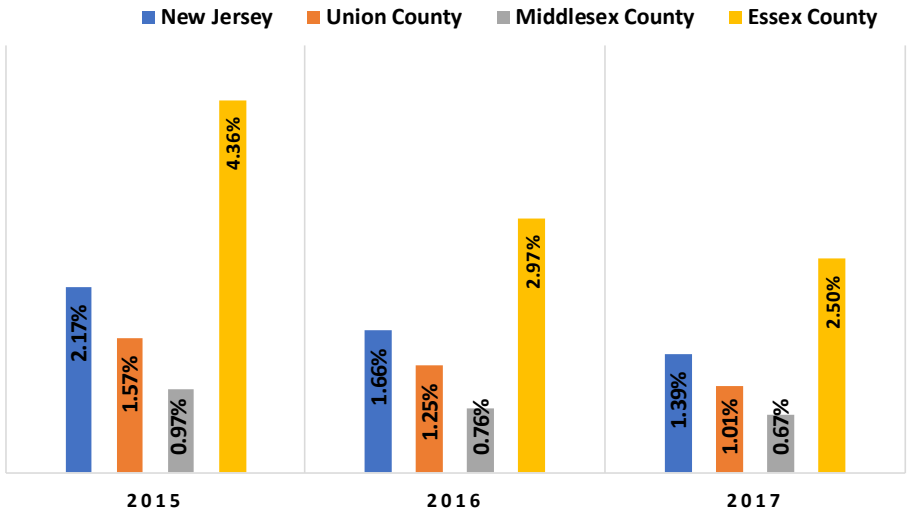
Union County, 2016		
Town	Total HH	% ALICE & Poverty
Berkeley Heights	4,378	16%
Clark	5,645	31%
Cranford	8,480	22%
Elizabeth	40,006	64%
Fanwood	2,519	15%
Garwood	1,750	33%
Hillside	7,252	46%
Kenilworth	2,675	26%
Linden	14,157	43%
Mountainside	2,360	21%
New Providence	4,345	20%
Plainfield	14,844	51%
Rahway	10,510	43%
Roselle	8,028	56%
Roselle Park	4,946	40%
Scotch Plains	8,409	22%
Springfield	7,148	27%
Summit	7,718	21%
Union	20,473	37%
Westfield	10,536	18%
Winfield	711	47%

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.[18]

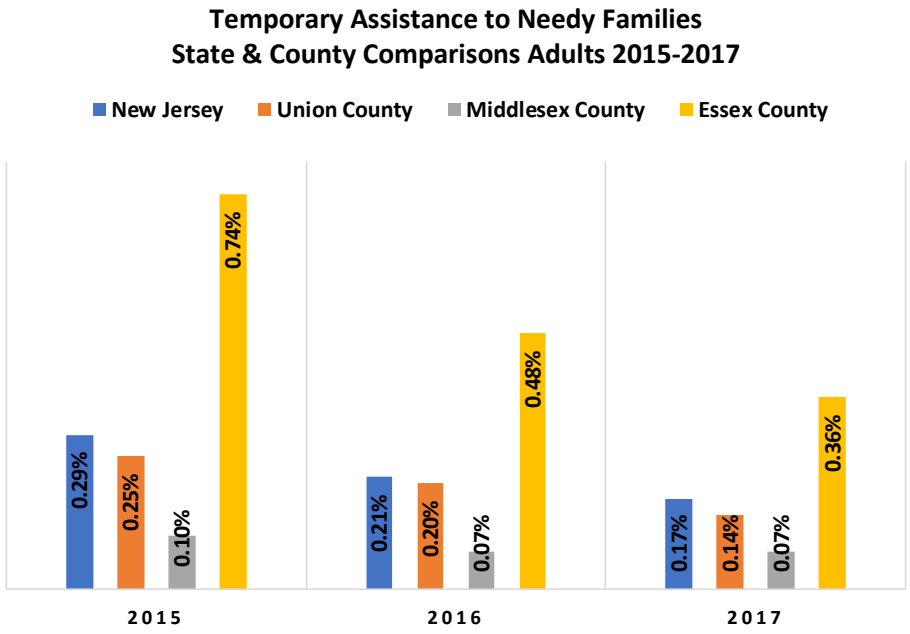
- As of December 2017, 1.01% of Union County children were receiving Work First NJ/TANF benefits, lower than the statewide rate (1.39%); Union County ranks in the middle performing quartile in New Jersey.
- As of December 2017, 0.14% of Union County adults were receiving Work First NJ/TANF benefits, less than statewide (0.17%).
- Between 2015 and 2017, the percentage of adults and children receiving WFNJ/TANF benefits declined.

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



Source: http://www.nj.gov/humanservices/dfd/news/cps_dec17.pdf

[18] *http://www.tanfprogram.com/new-jersey-tanf-eligibility*



Source: http://www.nj.gov/humanservices/dfd/news/cps_dec17.pdf

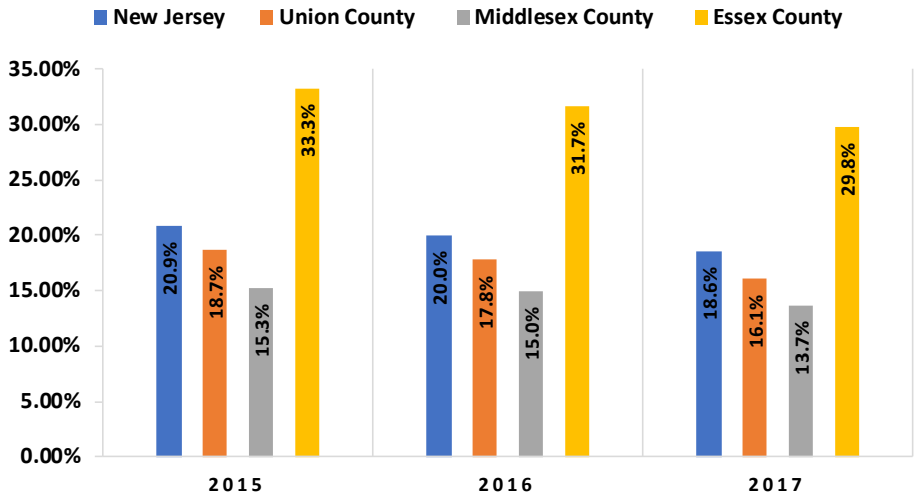
Supplemental Nutrition Assistance Program (SNAP)

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.[19]

- In 2017, 16.1% of Union County children used SNAP benefits compared to 18.6% of children Statewide.
- In 2017, 5.2% of Union County adults used SNAP benefits compared to 5.8% statewide.
- Between 2015 and 2017, Union County experienced declines in the percentages of adults and children receiving SNAP benefits.
- The percentage of Union County children and adults receiving SNAP benefits ranks in the middle performing quartile among all counties.

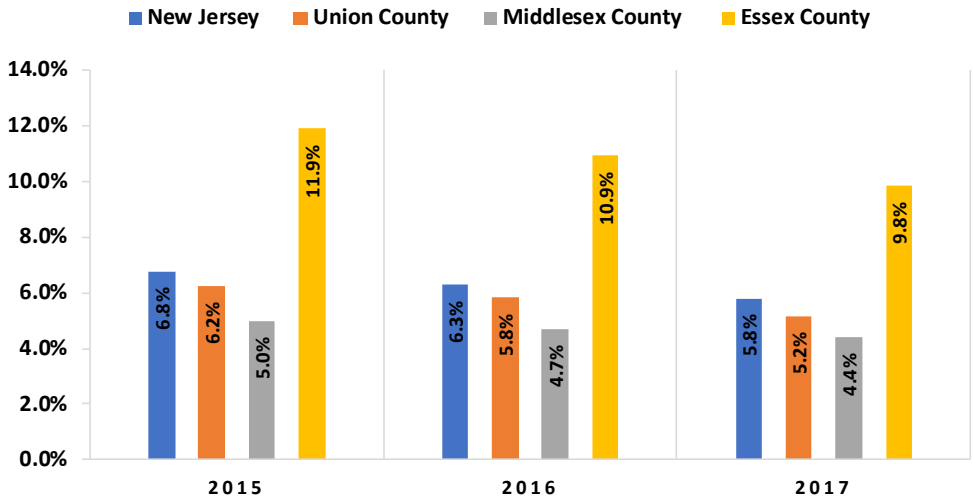
[19] *http://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program-snap*

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



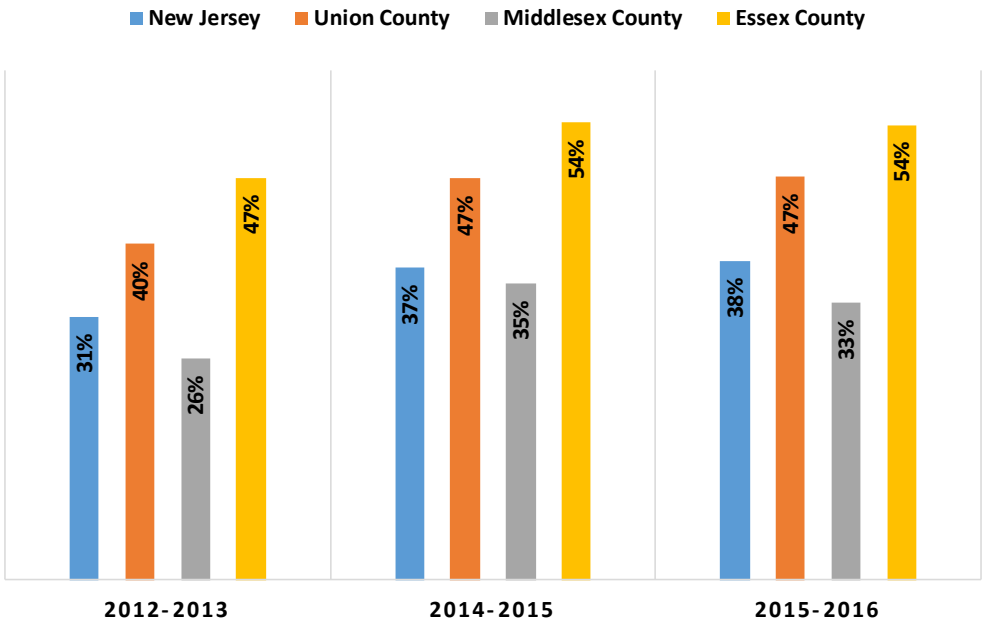
Source: http://www.nj.gov/humanservices/dfd/news/cps_dec17.pdf

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."[20]

- The percentage of children eligible for free lunch increased throughout New Jersey, Union, Essex and Middlesex Counties between 2012-2013 and 2015-2016.
- Union County reported a 7 percentage point increase in students eligible for free lunch from 40% during the 2012-2013 school years to 47% in 2015-2016 school years.
- Union County is within the middle performing quartile compared to all New Jersey counties for free school lunch eligibility.

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
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National Benchmark: 33.0%
Union County 2016: 47.0%

[20] http://www.nj.gov/agriculture/divisions/fn/childadult/school_lunch.html

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New 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.[21] 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. Union County residents experienced a decrease in the percentage of the population over age 5 with limited English proficiency.

Union County

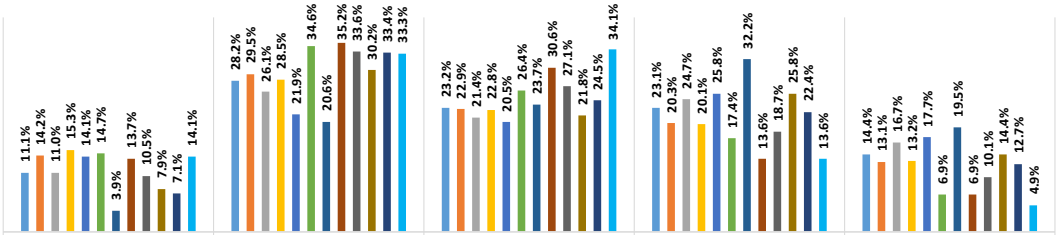
- In 2016, 14.2% of Union County residents did not graduate from high school, 3.1 percentage points higher than New Jersey at 11.1%.[22]
- In 2016, 33.4% of Union County residents earned a bachelor's degree or higher.[23]
- The percentage of Limited English Proficiency (LEP) persons age 5+ in Union County (19.8%) was higher than in New Jersey (12.2%).

21 National Poverty Center Policy Brief #9 Education and Health 2007 http://www.npc.umich.edu/publications/policy_briefs/brief9/
22 United States Census Bureau American Community Survey 2014
23 Ibid.

RWJ Rahway Service Area

- In 2016, 13.7% of Linden, 14.1% of Avenel, and 14.7% of Carteret residents did not complete high school, higher than the statewide percentage (11.1%).
- In 2016, 10.5% of Rahway residents did not complete high school, less than the statewide percentage (11.1%).

Educational Attainment
State & County Comparisons, 2016



	No High School Diploma	High school graduate (includes equivalency)	Some College/associate's degree	Bachelor's degree	Graduate or professional degree
New Jersey	11.1%	28.2%	23.2%	23.1%	14.4%
Union County	14.2%	29.5%	22.9%	20.3%	13.1%
Middlesex County	11.0%	26.1%	21.4%	24.7%	16.7%
Essex County	15.3%	28.5%	22.8%	20.1%	13.2%
Avenel(07001)	14.1%	21.9%	20.5%	25.8%	17.7%
Carteret(07008)	14.7%	34.6%	26.4%	17.4%	6.9%
Cranford (07016)	3.9%	20.6%	23.7%	32.2%	19.5%
Linden (07036)	13.7%	35.2%	30.6%	13.6%	6.9%
Rahway (07065)	10.5%	33.6%	27.1%	18.7%	10.1%
Clark (07066)	7.9%	30.2%	21.8%	25.8%	14.4%
Colonia (07067)	7.1%	33.4%	24.5%	22.4%	12.7%
Roselle (07203)	14.1%	33.3%	34.1%	13.6%	4.9%

Source: United States Census 2016 5 Year ACS Estimates

Healthy People 2020

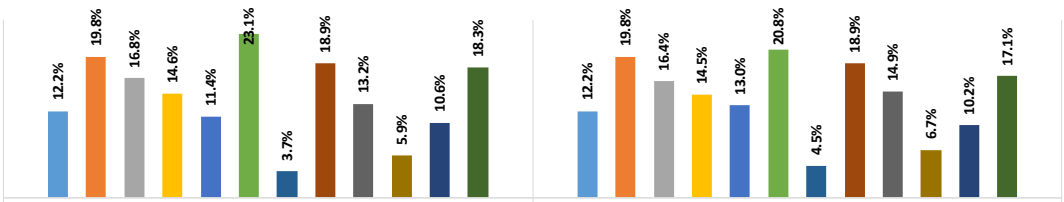
Baseline: 89.0 %
Target: 97.9%
Union County 2016: 85.8%

Limited English Proficiency

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

- In 2016, the percentage of Limited English Proficiency (LEP) individuals in Rahway (14.9%) was higher than New Jersey (12.2%), but lower than Union County (19.8%).
- Carteret had the highest percentage of residents with Limited English Proficiency (20.8%).

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



	2014	2016
New Jersey	12.2%	12.2%
Union County	19.8%	19.8%
Middlesex County	16.8%	16.4%
Essex County	14.6%	14.5%
Avenel(07001)	11.4%	13.0%
Carteret(07008)	23.1%	20.8%
Cranford (07016)	3.7%	4.5%
Linden (07036)	18.9%	18.9%
Rahway (07065)	13.2%	14.9%
Clark (07066)	5.9%	6.7%
Colonia (07067)	10.6%	10.2%
Roselle (07203)	18.3%	17.1%

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

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Educational Attainment: No High School Diploma *Percent of Population (Age 25+)*		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. Demographics

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.

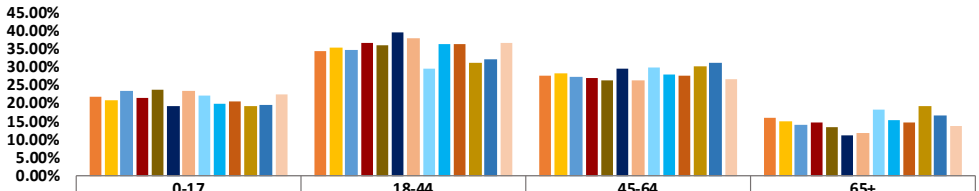
Union County

- Union County's population distribution is younger than the State.
- In 2018, 14.1% of Union County residents were seniors over 65 compared to 16.0% statewide.

RWJ Rahway Service Area

- The population distribution in the RWJ Rahway Service Area was younger than the State, but older than the County.
- In 2018, 23.5% of Carteret residents were 0-17, higher than the 23.4% in Union County and 21.9% in New Jersey.
- In 2018, 39.6% of Avenel residents were 18-44, higher than 34.9% in Union County and 34.4% in New Jersey.
- In 2018, 31.3% of Colonia residents were 45-64, higher than 27.6% in Union County and the 27.7% in New Jersey.
- In 2018, 19.4% of Clark residents were 65+, higher than 14.1% in Union County and 16.0% in New Jersey.

Population by Age Cohort
State & County Comparisons, 2018



	0-17	18-44	45-64	65+
New Jersey	21.87%	34.40%	27.73%	16.00%
Rahway Service Area	20.97%	35.34%	28.49%	15.20%
Union County	23.39%	34.93%	27.55%	14.13%
Middlesex County	21.58%	36.76%	26.97%	14.69%
Essex County	23.72%	36.27%	26.51%	13.50%
Avenel (07001	19.41%	39.63%	29.71%	11.25%
Carteret (07008)	23.52%	37.98%	26.49%	12.01%
Cranford (07016)	22.16%	29.56%	29.98%	18.30%
Linden (07036)	20.07%	36.45%	27.95%	15.53%
Rahway (07065)	20.66%	36.57%	27.79%	14.97%
Clark (07066)	19.20%	31.19%	30.21%	19.40%
Colonia (07067)	19.57%	32.43%	31.27%	16.73%
Roselle (07203)	22.59%	36.90%	26.68%	13.83%

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.[24]

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

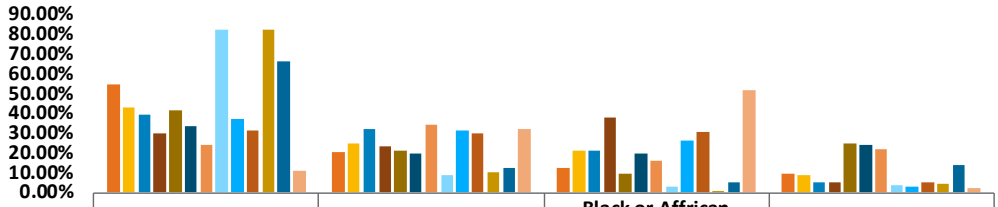
Union County

- In 2018, Union County had larger percentages of African-American and Hispanic populations than New Jersey.
    - 20.9% of the county population was African-American, compared to 12.8% statewide.
    - 32.2% of the population was Hispanic/Latino compared to 20.7% statewide.
    - Whites were 39.2% of the county's population compared to 54.4% in New Jersey.

RWJ Rahway Select Service Area

- In 2018, 51.9% of Roselle's population was African-American, higher than 12.8% in New Jersey.
- In 2018, 34.6% of the Carteret population and 32.5% of the Roselle population were Hispanic/Latino compared to 32.25% in Union County and 20.7% in New Jersey.
- In 2018, 82.6% of the Cranford population was White, double 39.2% in Union County and higher than 54.4% in New Jersey.
- In 2018, 23.9% of Avenel's population was Asian, higher than the 5.5% in Union County.

Population by Race/Ethnicity
State & County Comparisons, 2018



	White	Hispanic	Black or Affrican American	Asian
New Jersey	54.39%	20.65%	12.78%	9.88%
Rahway Service Area	43.35%	24.51%	21.09%	8.77%
Union County	39.23%	32.16%	20.90%	5.51%
Essex County	30.27%	23.49%	37.77%	5.51%
Middlesex County	41.77%	21.25%	9.56%	24.91%
Avenel (07001)	33.67%	19.70%	19.68%	23.93%
Carteret (07008)	24.18%	34.57%	16.09%	22.28%
Cranford (07016)	82.56%	8.90%	2.79%	3.59%
Linden (07036)	37.07%	31.35%	26.38%	3.04%
Rahway (07065)	31.38%	30.19%	30.61%	5.22%
Clark (07066)	82.50%	10.56%	1.15%	4.57%
Colonia (07067)	66.17%	12.27%	5.56%	14.15%
Roselle (07203)	11.33%	32.52%	51.85%	2.22%

Source: Claritas 2018 Population Estimate

Population by Race/Ethnicity
Union County – Trend

Union County			
RACE / ETHNICITY	2010	2018	% Change
White (alone)	243,312	219,589	-9.75%
Black / African American (alone)	111,705	116,997	4.74%
Asian (alone)	24,496	30,831	25.86%
Native American / Pacific Islander / Other Race (alone)	2,932	2,934	.07%
Two or More Races (alone)	7,350	9,354	27.27%
Hispanic / Latino (of Any Race)	146,704	180,002	22.70%

Source: Claritas 2018 Population Estimate

4. Social and Community Context

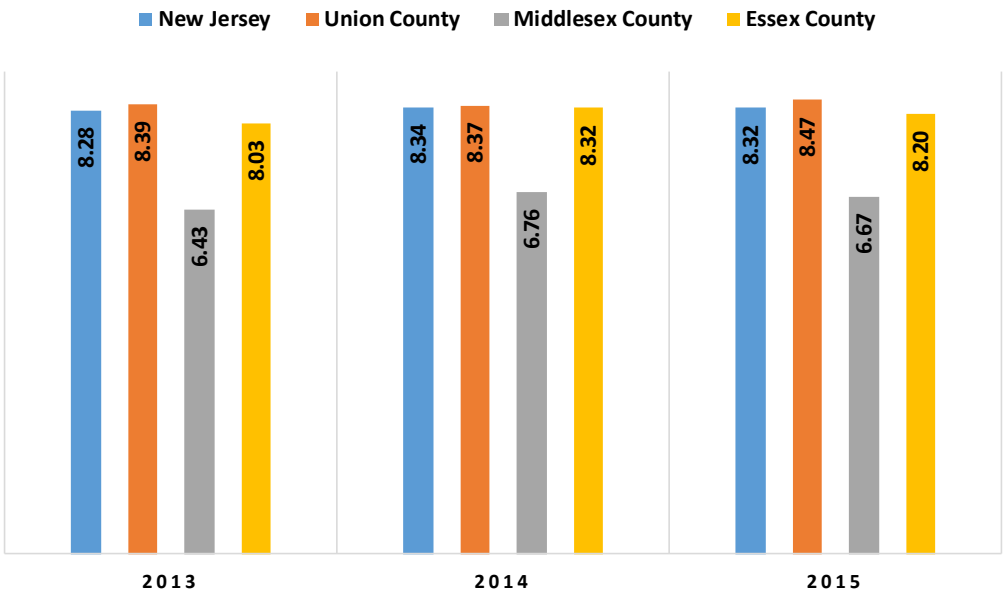
Social Associations

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.[25] 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, Union County had slightly higher membership association rates than New Jersey and Essex County.
- The membership association rate for Union County falls within the worst performing quartile of the County Health Rankings benchmark.

[25] 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
A Robert Wood Johnson Foundation program

National Benchmark: 22.1
Union County 2015: 8.47

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Membership Organizations	N.A.		

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

5. Health and Health Care

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.[26]

[26] http://www.countyhealthrankings.org/our-approach/health-factors/access-care

Health Insurance

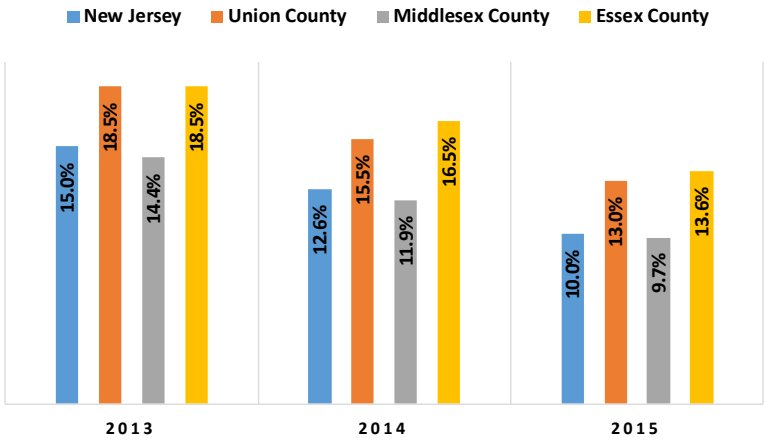
The expansion of Medicaid coverage and the Affordable Care Act's (ACA) coverage provisions, which began taking effect in 2010, helped decrease the nation's uninsured rate by 7.2 percentage points, from 16 percent in 2016. That translates into 20.4 million fewer people who lacked health insurance in 2016 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 Union County has trended downward, decreasing from 18.5% in 2013 to 13.0% in 2015.
- From 2013 through 2015, Union County had consistently higher rates of non-elderly population without health insurance than statewide.
- In 2015, Union County (13.0%) was higher than the ambitious *Healthy People 2020* target of no person without health coverage. Union 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



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

Healthy People 2020

Baseline: 10.0%
Target: 0.0%
Union County 2015: 13.0%

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

National Benchmark: 6.0%
Union County 2015: 13.0%

Access to Care

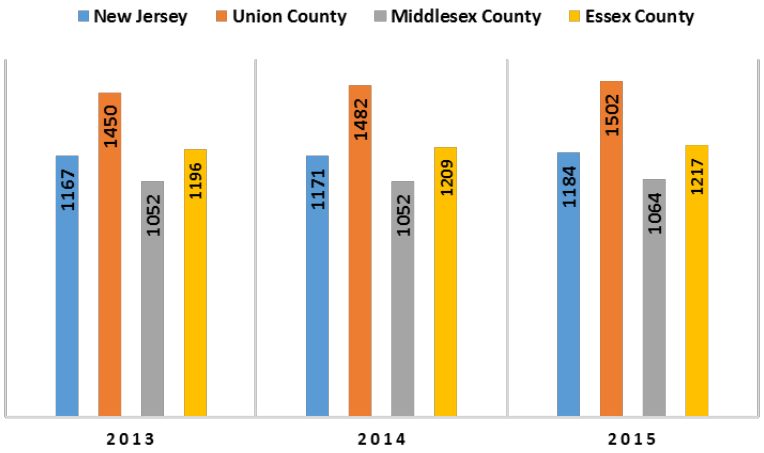
Access to affordable quality health care is important to ensuring physical, social, and mental health. Health insurance assists individuals and families to obtain primary care, specialists, and emergency care, but does not ensure access. Access to care goes beyond just insurance, it is also necessary for providers to offer affordable care, be available to treat patients and be near patients.[27]

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.[28,29]

- Within Union County, the ratio of physicians to population increased from 1,450:1 to 1,502:1.
- Between 2013 and 2015, the ratio of population to physicians in Union County was higher than Statewide.
- In 2015, the Union County ratio for primary care physicians to population ratio (1,502:1) is higher than the County Health Rankings benchmark of (1,030:1).

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



Source: County Health Rankings – HRSA Area Resource File

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

National Benchmark: 1,030:1
Union County 2015: 1,502:1

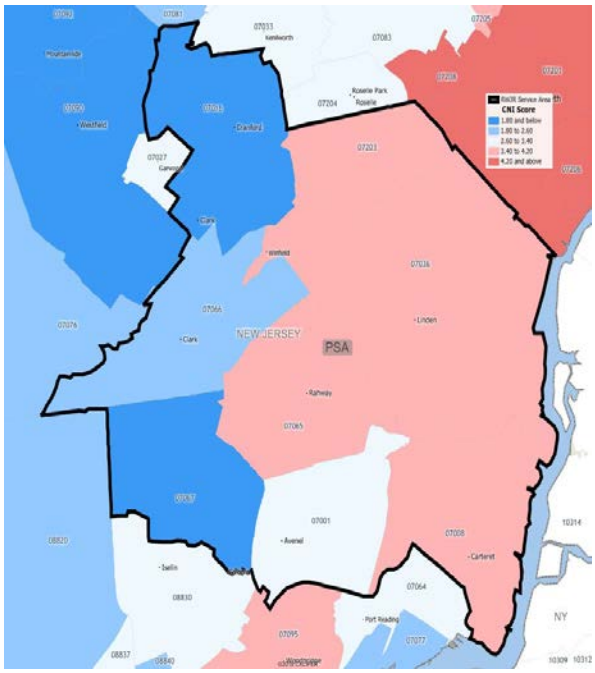
[27] http://www.countyhealthrankings.org/our-approach/health-factors/access-care
[28] http://www.countyhealthrankings.org/our-approach/health-factors/access-care
[29] http://www.cdc.gov/fastfactsaccesstohealthcare.htm

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Primary Care Physicians *Rate/ 100000 Population*	N.A		
Health Care Access/ Coverage *Do You Have Any Kind of Coverage* *% No*			

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

Community Need Index [30]

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:

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

[30] Truven Health Analytics, 2017; Insurance Coverage Estimates, 2017; Claritas, 2017; and Community Need Index, 2017. http://cni.chw-interactive.org/

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 Description	CNI Score
Highest CNI Score (Highest Need)	RWJ Rahway	07036	Linden	3.8
		07203	Roselle	3.8
		07065	Rahway	3.8
		07008	Carteret	3.8
Lowest CNI Score (Lowest Need)	RWJ Rahway	07001	Avenel	3.2
		07066	Clark	2.0
		07016	Cranford	1.8
		07067	Colonia	1.8

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

Linden, Roselle, Rahway and Carteret had the highest CNI scores (3.8) indicating highest need in the service area. Conversely, Colonia's and Cranford's score (1.8) represented the lowest CNI score in the service area, followed by Clark (2.0) and Avenel (3.2).

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:

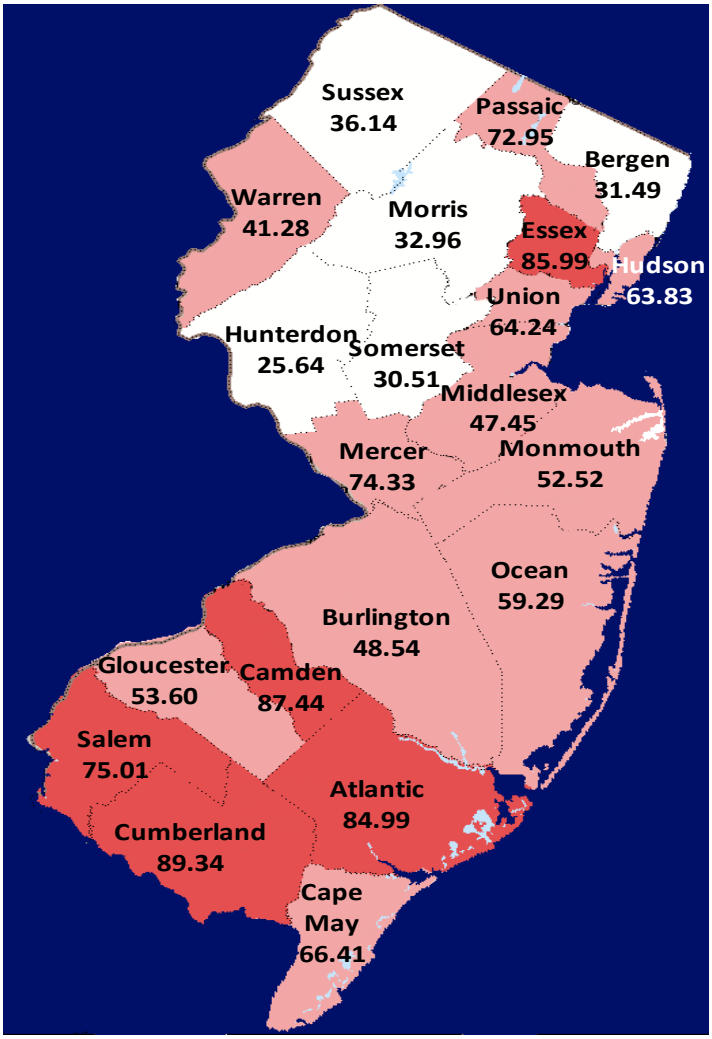
- No regular source of primary care
- Lack of health insurance
- Cost
- Transportation
- Office hours
- Citizenship status

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, Union County's ACSC ED visit rate (at 64.24/1,000) was higher than the statewide rate (58.22/1,000).
- In 2016, Union County had the ninth highest ACSC ED visit rate of the 21 counties (64.24/1,000). This was a 2.3 percentage point increase from the 2013 rate.

Total ACSC ED Visits/Rate/1,000 Population

ACSC - ED Rate/1000			
COUNTY	NJ 2013	NJ 2016	Change '13-'16
CUMBERLAND	82.08	89.34	7.26
CAMDEN	92.53	87.44	(5.09)
Union	81.43	85.99	4.56
ATLANTIC	85.64	84.99	(0.65)
SALEM	77.56	75.01	(2.55)
MERCER	73.13	74.33	1.20
PASSAIC	70.77	72.95	2.18
CAPE MAY	71.68	66.41	(5.27)
UNION	61.98	64.24	2.26
HUDSON	58.01	63.83	5.81
OCEAN	62.11	59.29	(2.83)

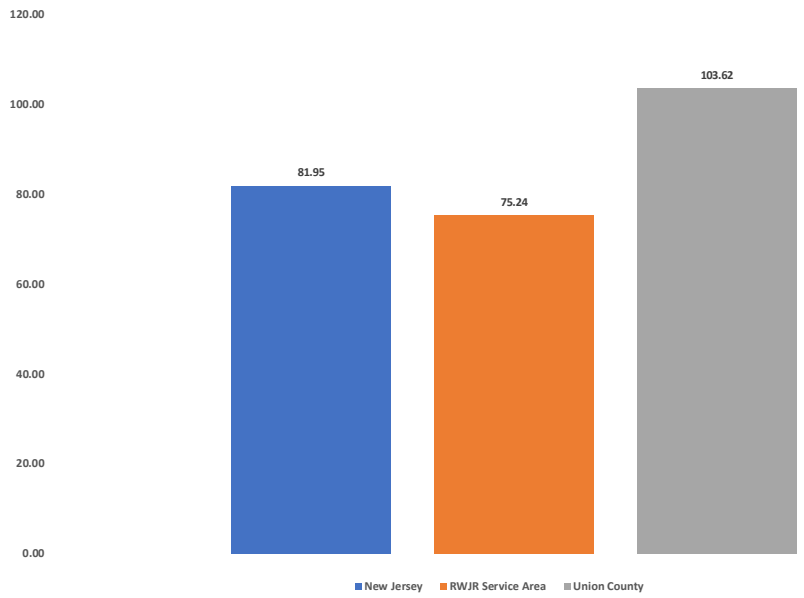
ACSC - ED Rate/1000			
COUNTY	NJ 2013	NJ 2016	Change '13-'16
GLOUCESTER	53.34	53.60	0.27
MONMOUTH	52.97	52.52	(0.46)
BURLINGTON	53.85	48.54	(5.31)
MIDDLESEX	48.46	47.45	(1.01)
WARREN	36.90	41.28	4.38
SUSSEX	25.76	36.14	10.38
MORRIS	30.40	32.96	2.56
BERGEN	31.74	31.49	(0.25)
SOMERSET	30.77	30.51	(0.26)
HUNTERDON	23.72	26.62	2.90
STATEWIDE	57.56	58.22	0.65

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

Children

- In 2016, Union County's ACSC ED visits for children age 0-17 (at 103.62/1,000) was 26.4% higher than the statewide rate (81.95/1,000).
- The 2016, Union County ACSC visit rate among children was also higher than the rate in the RWJ Rahway Service Area (75.24/1,000).
- The towns with the highest ACSC ED visit rate were Roselle (111.23/100,000), Linden (98.76/100,000), Carteret (98.38/100,000) and Rahway (95.79/100,000), each of which have rates above the RWJ Rahway Service Area.

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



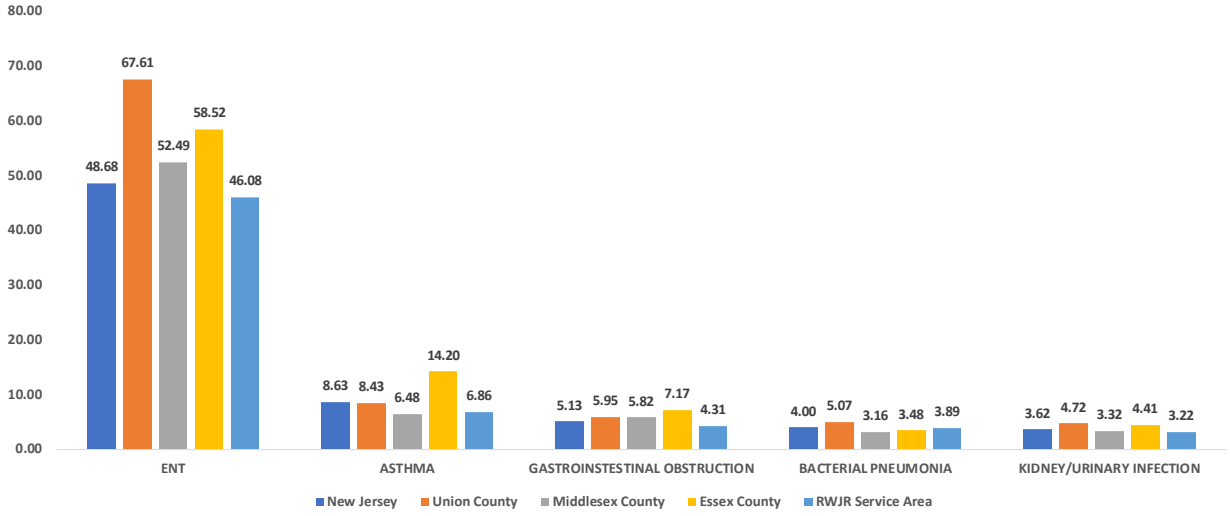
Source: UB-04 2016 Discharges

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

GEOGRAPHIC AREA	RATE	HIGHEST SERVICE AREA RATES	
New Jersey	81.95	07203 Roselle	111.23
Union County	103.62	07036 Linden	98.76
RWJR Service Area	75.24	07008 Carteret	98.38
		07065 Rahway	95.79
		07001 Avenel	55.20

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**		**Rate**
New Jersey	81.95	07203	Roselle	111.23
Union County	103.62	07036	Linden	98.76
RWJR Service Area	75.24	07008	Carteret	98.38
		07065	Rahway	95.79
		07001	Avenel	55.20

Source: UB-04 2016 Discharges

- There was a total of 3,058 ACSC ED visits for children from RWJ Rahway's Service Area in 2016.
- ENT is the most common ACSC that resulted in an ED visit for children, followed by asthma and gastrointestinal obstruction.

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

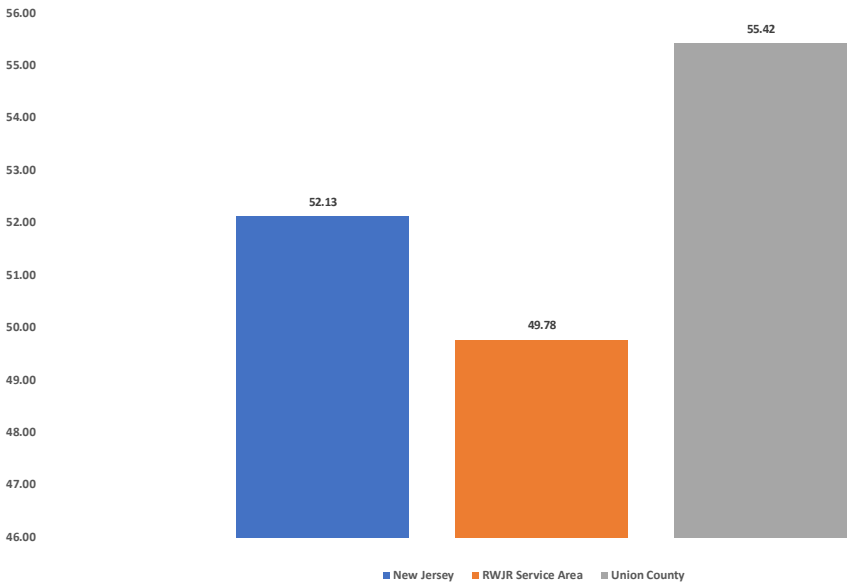
EMERGENCY DEPARTMENT (2016) – AGE 0-17		
Service Area	**ACSC Description (Top 5 Combined Service Area)**	**TOTAL IN AREA**
RWJ Rahway	ENT	1,873
	Asthma	279
	Gastrointestinal Obstruction	175
	Bacterial Pneumonia	158
	Kidney/Urinary Infection	131
	All Others	442
	TOTAL RWJR Service Area	3,058

Top 5 Based on Total ACSCs in RWJ Rahway Service Area: 2016

Adults

- The 2016 Union County's adult ED ACSC rate (55.42/1,000) is higher than the statewide rate (52.13).
- Union County adult ED ACSC rate is also higher than RWJ Rahway's Service Area rate (49.78).

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



Source: UB-04 2016 Discharges

- The 2016 adult ED ACSC rate for Roselle (70.69) was higher than the RWJ Rahway Service Area rate (49.78/1,000).
- The 2016 Avenel (31.55/1,000) adult ED ACSC rate was lower than the State (52.13/1,000).

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

GEOGRAPHIC AREA	RATE	Top 5 By Zip Code	RATE
Union County	55.42	07203 Roselle	70.69
New Jersey	52.13	07065 Rahway	66.56
RWJR Service Area	49.78	07036 Linden	60.97
		07008 Carteret	60.40
		07001 Avenel	31.55

Source: UB-04 2016 Discharges

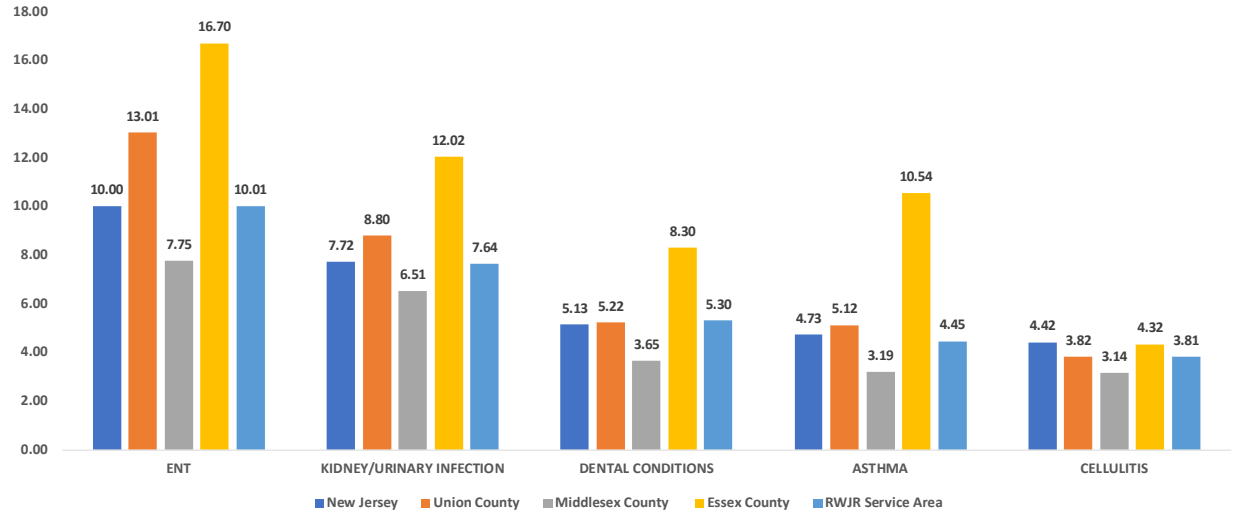
- There was a total of 7,452 adult ED ACSC visits in 2016 in the RWJ Rahway Service Area.

EMERGENCY DEPARTMENT (2016) – AGE 18+		
Service Area	ACSC Description (Top 5 Combined Service Area)	TOTAL IN AREA
RWJ Rahway	ENT	1,499
	Kidney/ Urinary inf.	1,143
	Dental Conditions	794
	Asthma	666
	Cellulitis	571
	All Others	2,779
	TOTAL RWJR Service Area	7,452

Top 5 Based on Total ACSCs in RWJ Rahway: 2016

- In 2016, ENT was the leading cause of adult ED ACSC, followed by kidney/urinary infection, dental conditions, asthma, and cellulitis in the service area.
- In 2016, Union County adults had an ED visit rate for the top 5 ACSC that was higher than the statewide rate for all conditions accept cellulitis.

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**
Union County	55.42	07203	Roselle	70.69
New Jersey	52.13	07065	Rahway	66.97
RWJR Service Area	49.30	07036	Linden	60.97
		07008	Carteret	60.40
		07001	Avenel	31.55

Source: UB-04 2016 Discharges

Inpatient Utilization for Ambulatory Care Sensitive Conditions

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

- Union County ranks 6/21 counties with 15.21/1,000 ACSC Inpatient admissions in 2016, a 0.97 percentage point decrease from 2013.
- In 2016, Union County (15.21/1,000) had a lower rate of 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/1000			
COUNTY	NJ 2013	NJ 2016	Change '13-'16
SALEM	26.07	27.47	(1.40)
CUMBERLAND	24.18	26.12	(1.94)
CAMDEN	22.87	22.61	(-0.26)
CAPE MAY	20.71	22.36	(1.65)
OCEAN	24.79	20.19	(-4.60)
ESSEX	21.61	19.76	(-1.85)
ATLANTIC	23.63	19.66	(-3.97)
BURLINGTON	18.91	18.90	(-0.01)
HUDSON	20.58	17.35	(-3.23)
PASSAIC	20.78	17.32	(-3.46)
MERCER	20.17	17.23	(-2.94)

ACSC - IP Rate/1000			
COUNTY	NJ 2013	NJ 2016	Change '13-'16
MONMOUTH	19.07	17.22	(-1.85)
GLOUCESTER	19.84	15.85	(-3.99)
WARREN	15.94	15.69	(-0.25)
MIDDLESEX	17.07	15.33	(-1.74)
UNION	16.18	15.21	(-0.97)
SUSSEX	15.34	14.12	(-1.22)
HUNTERDON	13.81	13.90	(0.09)
MORRIS	15.04	13.13	(-1.91)
BERGEN	15.20	12.18	(-3.02)
SOMERSET	14.04	11.48	(-2.56)
STATEWIDE	19.13	16.99	(-2.14)

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

- In 2016, Linden had the highest inpatient admissions due to ACSC (17.41/1,000) followed by Rahway (17.08/1,000).
- The 2016 Inpatient ACSC for Colonia (14.35/1,000) was lower than the RWJ Rahway Service Area rate (15.46/1,000).

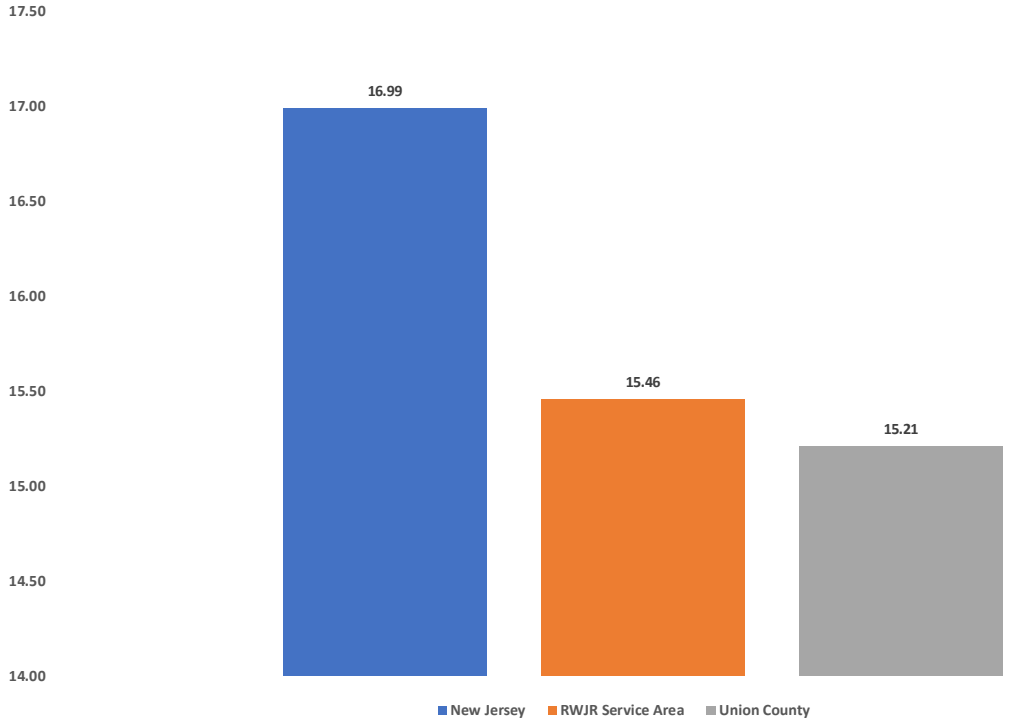
Total ACSC Inpatient Admissions – Rate/1,000 Population All Ages 2016

GEOGRAPHIC AREA	RATE	HIGHEST SERVICE AREA RATES	
New Jersey	16.99	07036 Linden	17.41
Union County	15.21	07065 Rahway	17.08
RWJR Service Area	15.46	07008 Carteret	16.30
		07203 Roselle	16.17
		07067 Colonia	14.35

*Source: UB-04 2016 Discharges

- In 2016, RWJ Rahway's Service Area inpatient use rate for ACSC was higher than the Union County rate and lower than the State rate.

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



Source: UB-04 2016 Discharges

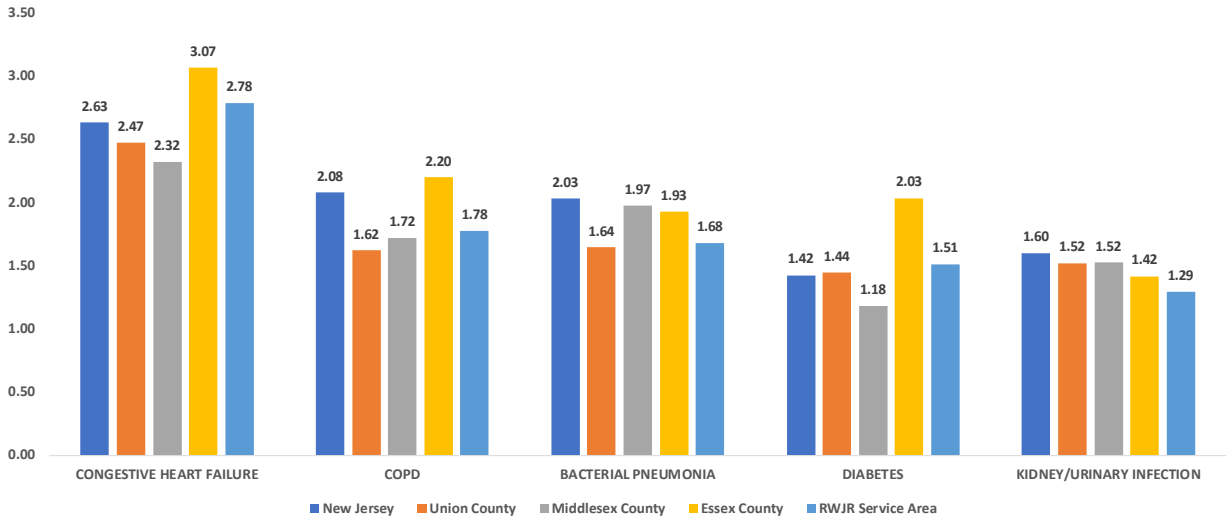
- In 2016, there was a total of 2,942 ACSC admissions from the RWJ Rahway Service Area.

INPATIENT (2016) – ALL AGES		
SERVICE AREA	**ACSC Description (Top 5Conditions Combined)**	**TOTAL IN AREA**
RWJ Rahway	Congestive Heart Failure	530
	COPD	338
	Bacterial Pneumonia	319
	Diabetes	288
	Kidney/Urinary Infection	246
	All Others	1,221
	TOTAL RWJR Service Area	2,942

Source: UB-04 2016 Discharges

- In 2016, congestive heart failure was the leading cause of inpatient ACSC admissions in RWJ Rahway's Service Area, followed by COPD, bacterial pneumonia, diabetes and kidney/urinary tract infection.
- The 2016 Union County inpatient ACSC rates for congestive heart failure, COPD, bacterial pneumonia, and kidney/urinary tract infection were lower than State 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**
New Jersey	16.99	07036	Linden	17.41
Union County	15.21	07065	Rahway	17.08
RWJR Service Area	15.46	07008	Carteret	16.30
		07203	Roselle	16.17
		07067	Colonia	14.35

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.[31]

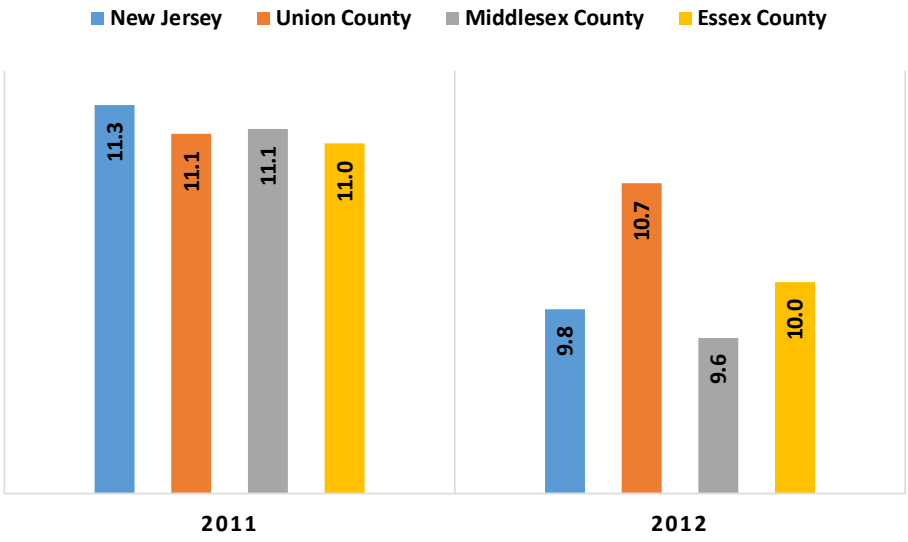
[31] Source: Commission to Build a Healthier America, Robert Wood Johnson Foundation http://www.commissiononhealth.org/PDF/888f4a18-eb90-45be-a2f8-159e84a55a4c/Issue%20Brief%203%20Sept%2008%20-%20Neighborhoods%20and%20Health.pdf

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.[32] County level data masks ZIP Code level analysis that may reveal higher concentrations of air pollution, particularly in industrialized areas of a county.

- In 2012, the daily measure of fine particle matter in Union County (10.7 PM2.5) is higher than the State rate (9.8 PM2.5). Compared to all 21 counties, Union County ranks in the worst quartile.
- Union County experienced a 3.6% reduction in fine particulate matter in between 2011 (11.1 per cubic meter) and 2012 (10.7 per cubic meter).
- In 2012, Union County (10.7 PM2.5) average daily measure of fine particles is 57.3% higher than the CHR national benchmark (6.7 PM2.5), placing it in the in the worst performing quartile.

Average Daily Density of Fine Particulate Matter
State & County Comparisons, 2011-2012



Source: County Health Rankings - Environmental Public Health Tracking Network

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

National Benchmark: 6.7
Union County 2012: 10.7

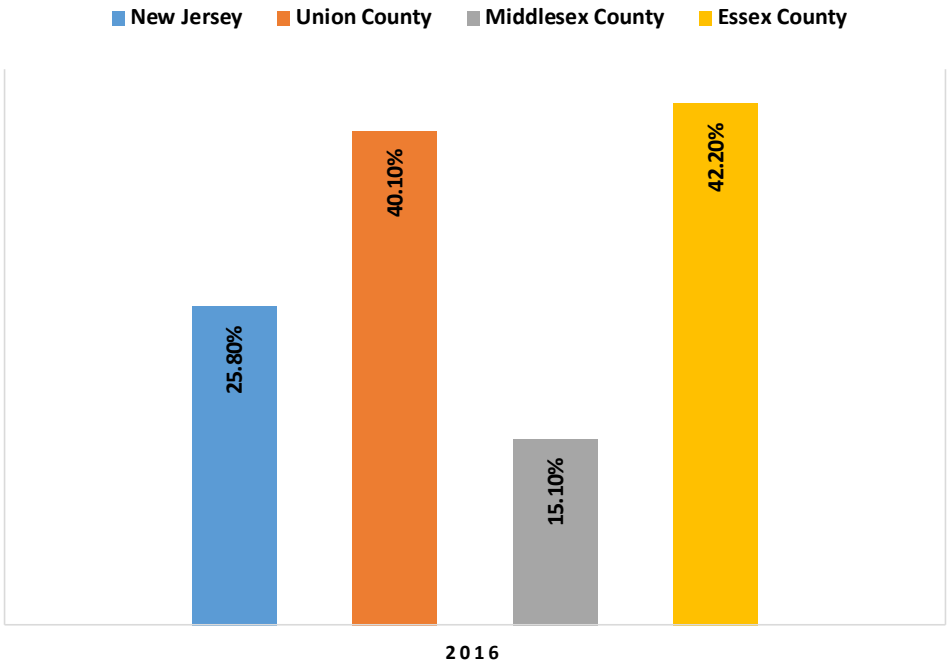
Housing Built before 1950

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.[33]

[32] http://www.cdc.gov/air/default.htm
[33] Report On the National Survey of Lead-Based Paint in Housing, https://www.epa.gov/sites/production/files/documents/r95-003.pdf

- In 2016, 40.1% of Union County housing units were built before 1950, 55.4% higher than New Jersey overall at 25.8%.
- Union County (40.1%) ranked among the worst performing quartiles of all counties in New Jersey, in terms of housing units built before 1950.

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

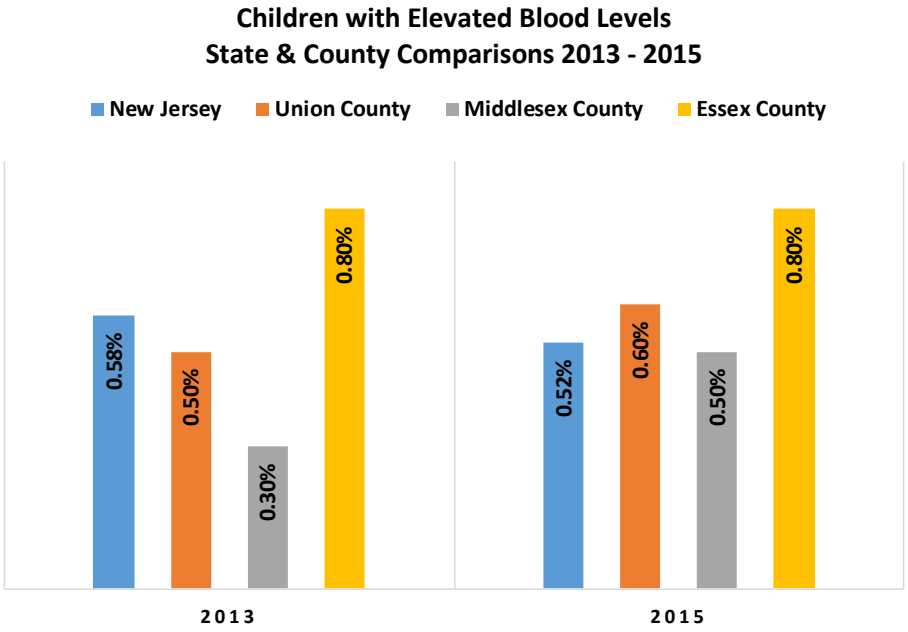
The Centers for Disease Control and Prevention (CDC) defines lead poisoning in children as a blood lead level of 10 micrograms per deciliter (µg/dL) or above. Young children can be exposed by swallowing lead dust or soil that gets on their hands or objects they put into their mouths such as toys; swallowing 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.[34] County level analysis cannot reveal individual town disparities in blood lead levels particularly in towns with housing stock built before 1950.

- In 2015, 0.60% of Union County children had elevated blood lead levels compared to 0.52% statewide.

[34] http://www.nj.gov/ health/fhs/newborn/ lead.shtml

- There was a slight change among the percent of children with elevated blood lead levels from 2013 (0.5%) to 2015 (0.6%). In 2015, Union County ranked in the middle quartile among counties statewide.



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

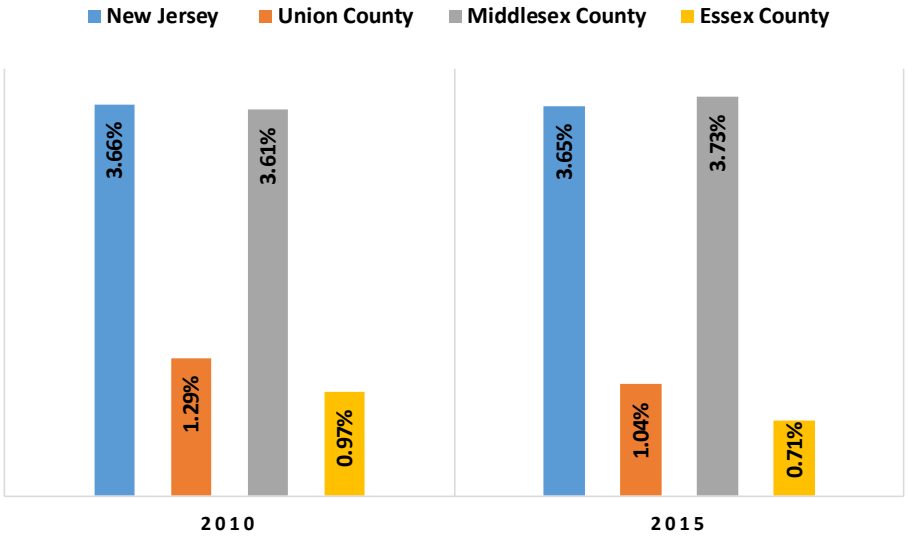
Access to Healthy Foods

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.[35]

- In 2010, 3.66% of New Jersey and 1.29% of Union County residents suffered from limited access to healthy foods.
- Between 2010 and 2015, the percent of Union County residents with limited access to healthy foods declined from 1.29% to 1.04%.

[35] https://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas/

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



Source: Map The Meal Gap

County Health Rankings & Roadmaps
Building a Culture of Health, County by County
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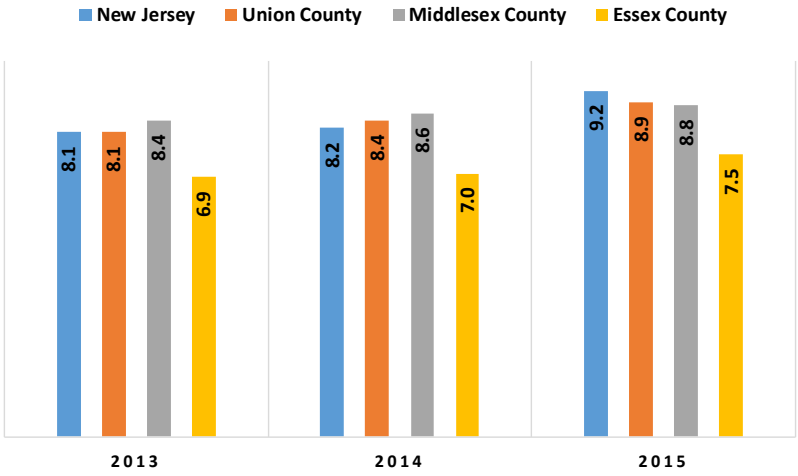
National Benchmark: 2.0
Union County 2015: 9.6

- In 2015, Union County had a rate of 8.9 out of 10 on the food environment index which is an indicator of access to healthy foods.

Food Environment Index 2013 – 2015



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
Union County 2015: 8.9

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New 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		

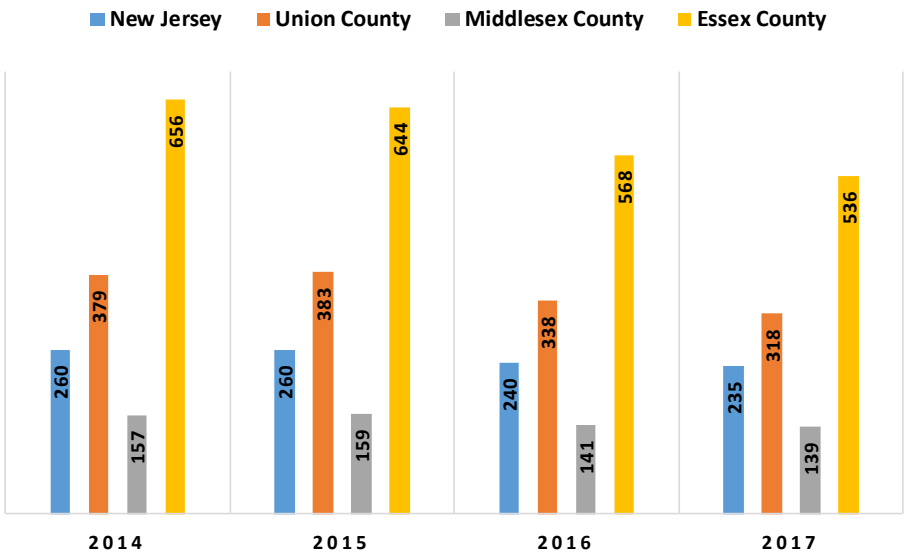
RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

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.

- Between 2014 and 2017, the violent crime rate in Union County (318/100,000) was higher than the State.
- The violent crime rate in Union County decreased from 379/100,000 in 2014 to 318/100,000 in 2017.
- The violent crime rate for Union County places it in the worst performing quartile.

Violent Crime
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 https://www.njsp.org/ucr/uniform-crime-reports.shtml

County Health Rankings & Roadmaps
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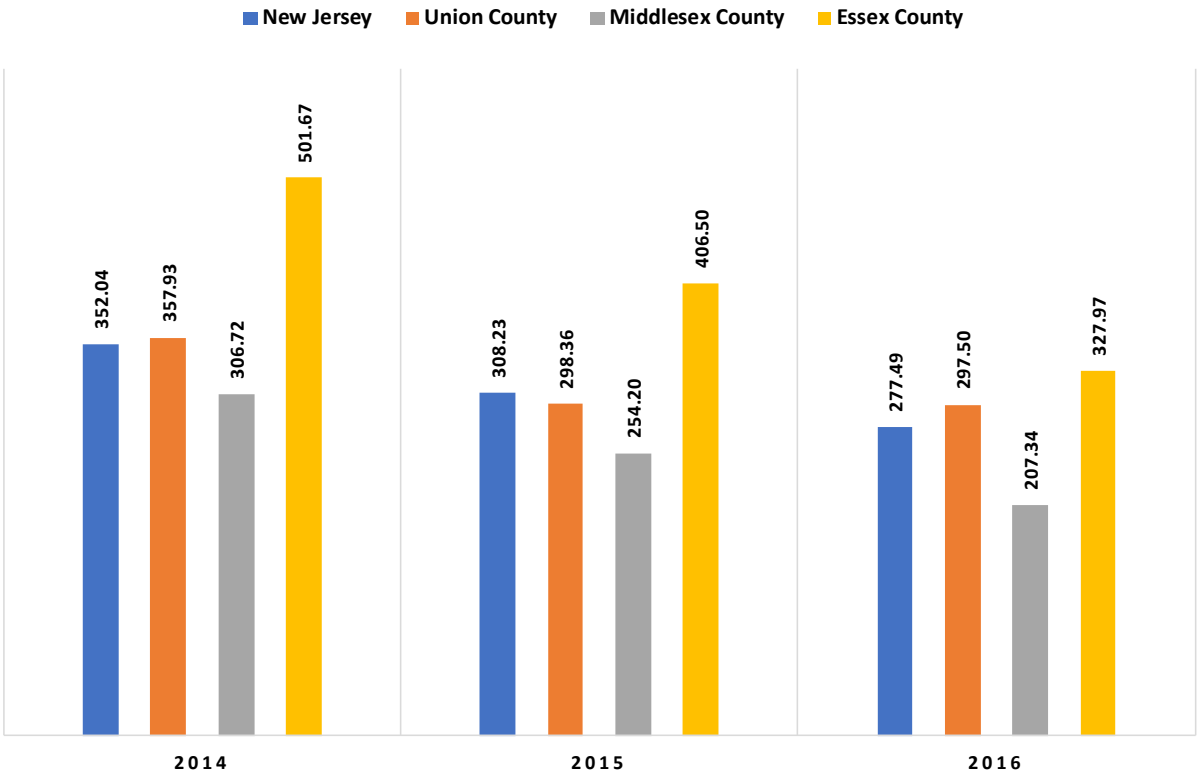
National Benchmark: 62
Union County 2016: 318

Burglaries

- Union County (279.5/100,000) had a slightly higher burglary rate than New Jersey (277.5/100,000) in 2016.
- The Union County burglary rate decreased from 357.3/100,000 in 2014, to 279.5/100,000 in 2016.
- Union County's burglary rate ranks in the middle performing quartile of New Jersey counties.

Burglary Rate
State & County Comparisons, 2014-2016



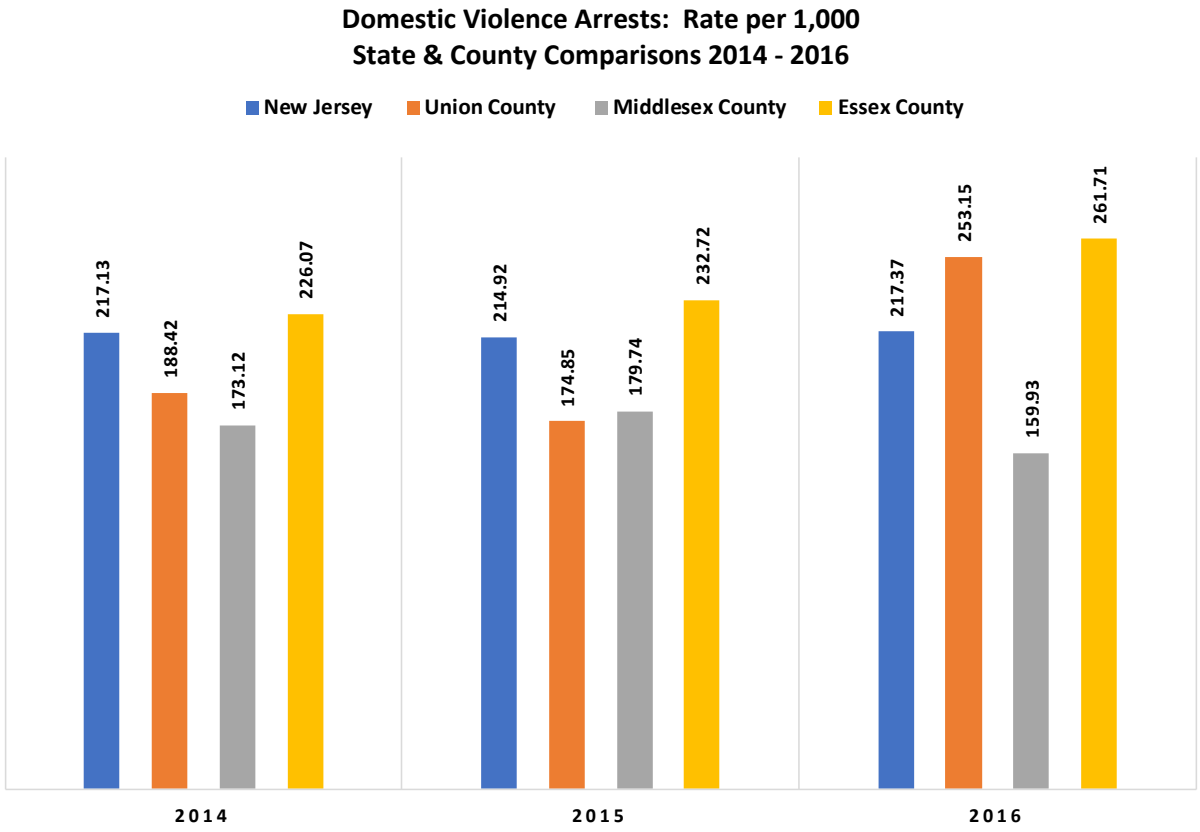
Source: http://www.njsp.org/ucr/2016/pdf/2015a_sect_7.pdf

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.[36]

- Statewide domestic violence arrest rates have remained fairly constant.
- In 2016, the Union County domestic violence arrest rates were higher than the State and Middlesex County.
- Between 2014 and 2016, the rate of domestic violence arrests in Union County increased from 188.4/100,000 to 253.2/100,000.
- Union County is within the middle quartile compared to all New Jersey counties for arrests due to domestic violence.

[36] http://www.stopvaw.org/health_effects_of_domestic_violence

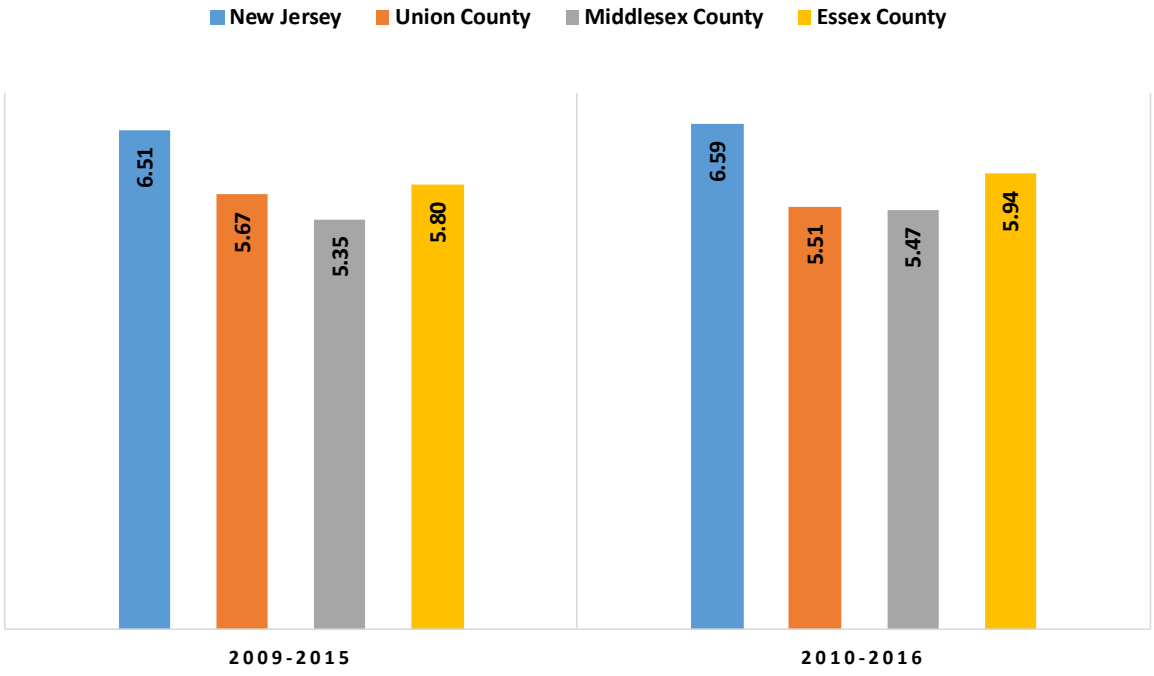


Source: County Health Rankings - The Uniform Crime Reporting (UCR) Program

Motor Vehicle Crash Deaths

- In 2010-2016, Union County (5.51/100,000) had a 16.4% lower motor vehicle crash death rate than New Jersey (6.59/100,000).
- Deaths due to motor vehicle accidents decreased slightly in Union County between 2009-2015 (5.67/1,000) and 2010-2016 (5.51/1,000).
- 2010-2016 Union County (5.51/1,000) car accident related deaths occurred 108.8% less often than the *Healthy People 2020* target (12.4/1,000).

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
Union County 2016: 5.5

County Health Rankings & Roadmaps
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National Benchmark: 9
Union County 2016: 5.5

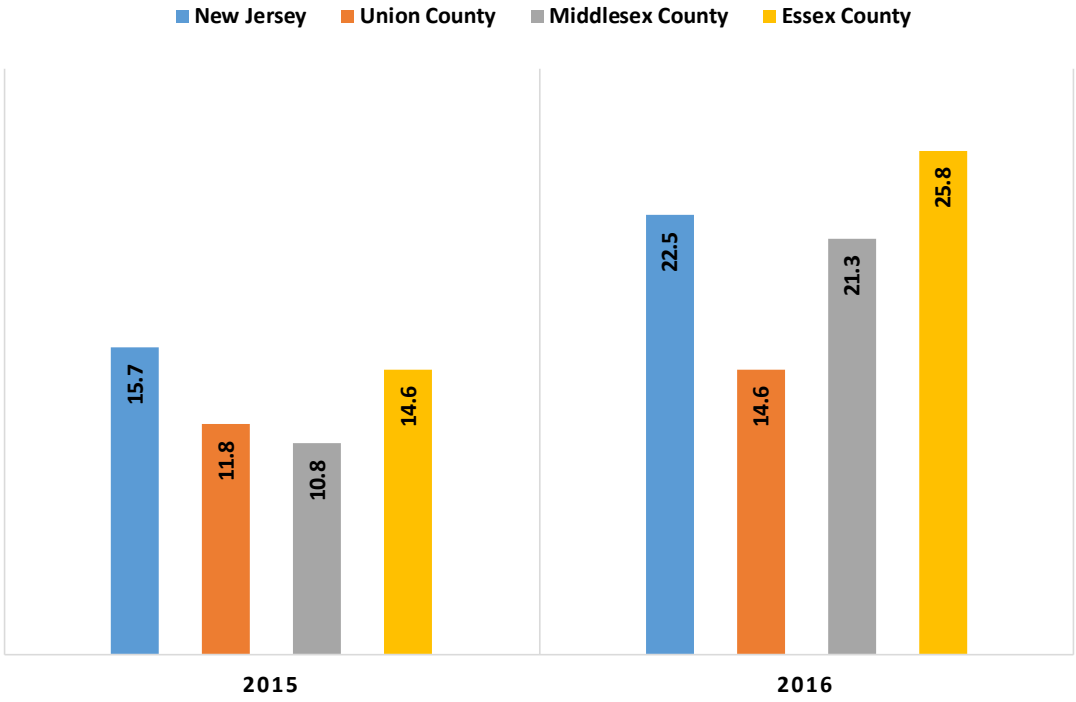
Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Violent Crime *Rate/ 100000 Population*	N.A		
Burglary *Rate/ 1000 Population*	N.A	N.A.	
Domestic Violence Arrests *Rate/ 1000 Population*	N.A	N.A	
Deaths Due to Motor Vehicle Crashes *Rate/ 1000 Population*			
Deaths Due to Poisoning *Rate/ 1000 Population*		N.A	

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

Accidental Poisoning and Exposure to Noxious Substances

- In 2016, Union County (14.6/100,000) had a lower death rate due to accidental poisoning and exposure to noxious substances than statewide (22.5/100,000).
- Union County had a higher death rate due to accidental poisoning and exposure to noxious substances in 2016 than in 2015.
- Union County ranks in the best quartile in New Jersey, and in the middle 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



Source: NJ SHAD

Baseline: 13.2
Target: 13.2
Union County 2016: 14.6

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 are described in Section B preceding Health Factors.

1. Clinical Care Measures

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.

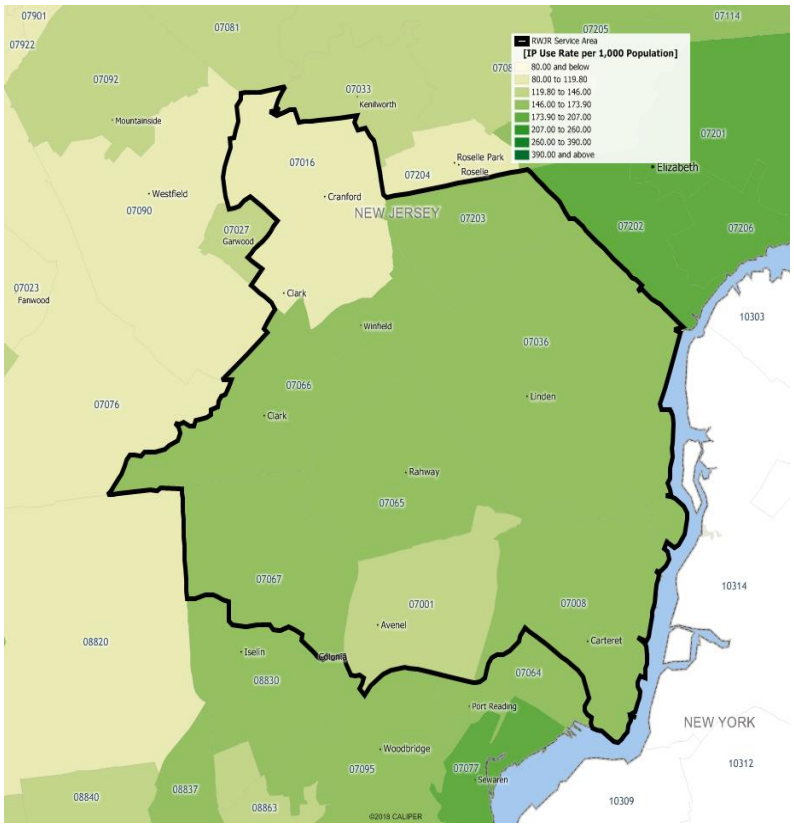
Inpatient

- Union County's 2016 inpatient utilization rate (145.50/1,000) was lower than the State (160.22/1,000).
- RWJ Rahway's Service Area inpatient rate (155.30/1,000) was slightly lower than the State rate.
- Rahway had the highest inpatient use rate in the RWJ Rahway Service Area (170.71/1,000).

Inpatient Use Rates per 1,000 Population 2016

GEOGRAPHIC AREA	RATE*
New Jersey	160.22
Union County	145.15
RWJR Service Area	155.30
TOP 5 BY SERVICE AREA	**RATE***
Rahway (07065)	170.71
Linden (07036)	168.19
Carteret (07008)	160.69
Roselle (07203)	159.69
Colonia (07067)	155.17

Source: UB-04 2016 Discharges Includes Inpatient & Same Day Stay, Excludes Normal Newborn; Population – Claritas 2015 Estimate



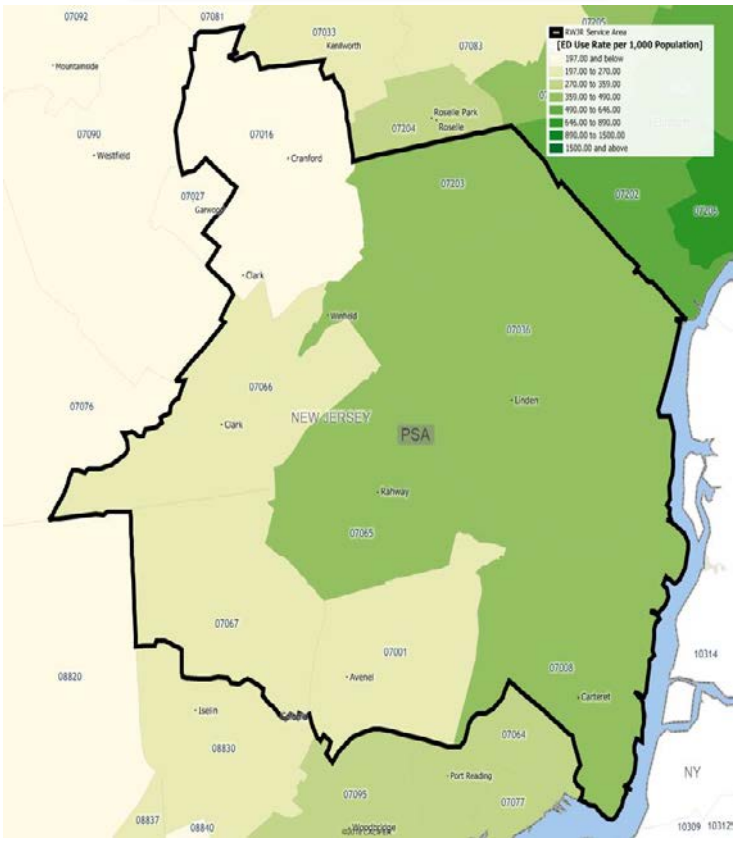
Source: UB-04 2016 Discharges Includes Inpatient & Same Day Stay, Excludes Normal Newborn; Population – Claritas 2015 Estimate

Emergency Department

- Union County's 2016 ED visit rate (361.22/1,000) was slightly higher than the State rate (352.20/1,000).
- RWJ Rahway's 2016 Service Area (333.15/1,000) ED use rate exceeded the State rate (352.2/1,000).
- In 2016, Roselle's ED visit rate (457.42/1,000) was higher than the State rate (352.2/1,000).
- In 2016, the ED visit rates in Roselle, Rahway, Linden and Carteret were greater than Union County.

ED Use Rate per 1,000 Population 2016

GEOGRAPHIC AREA	RATE*
New Jersey	352.20
Union County	361.22
RWJR Service Area	333.15
TOP 5 BY SERVICE AREA	**RATE***
Roselle (07203)	457.42
Rahway (07065)	420.25
Linden (07036)	395.01
Carteret (07008)	390.01
Avenel (07001)	243.55



*Source: UB-04 2016 ED Discharges; Claritas 2015 Estimate

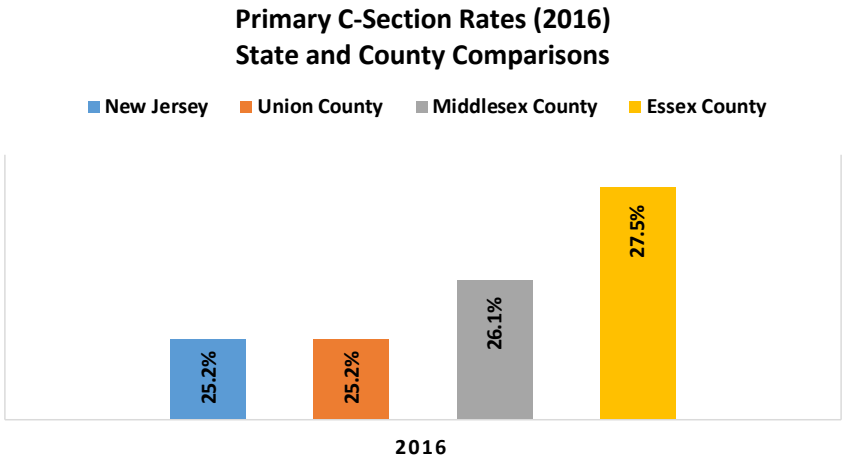
** Emergency Room Use Among Adults Aged 18–64: Early Release of Estimates From the National Health Interview Survey, January–June 2011; http ://www.cdc.gov/nchs/data/nhis/earlyrelease/emergency_room_use_january-june_2011.pdf

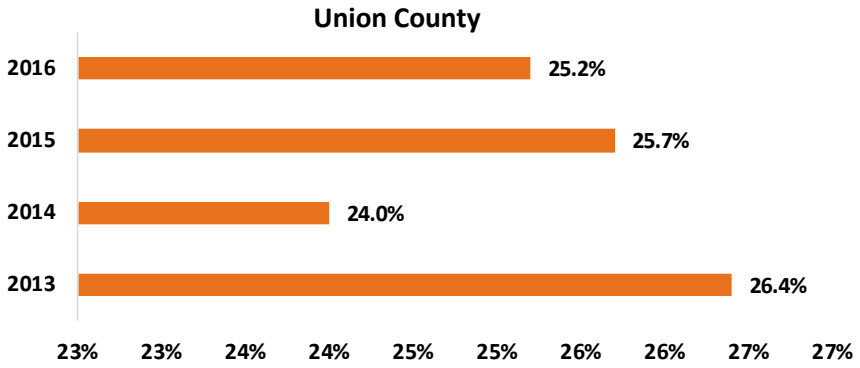
Cesarean Section

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.[37] 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.[38]

- The 2016 Union County primary C-section rate (25.2%) was lower than the Middlesex (26.1%) and Essex (27.5%) County rates.
- In 2016, the Union County primary C-section rate was in the middle quartile of New Jersey counties, and the *Healthy People 2020* target.
- County-wide, women with a primary C-section trended downward from 2013 through 2016, decreasing from 26.4% in 2013, to 25.2% in 2016.

[37] http://www.nlm.nih.gov/medlineplus/cesareansection.html
[38] http://www.cdc.gov/nchs/data/nvsr/nvsr63/nvsr63_01.pdf



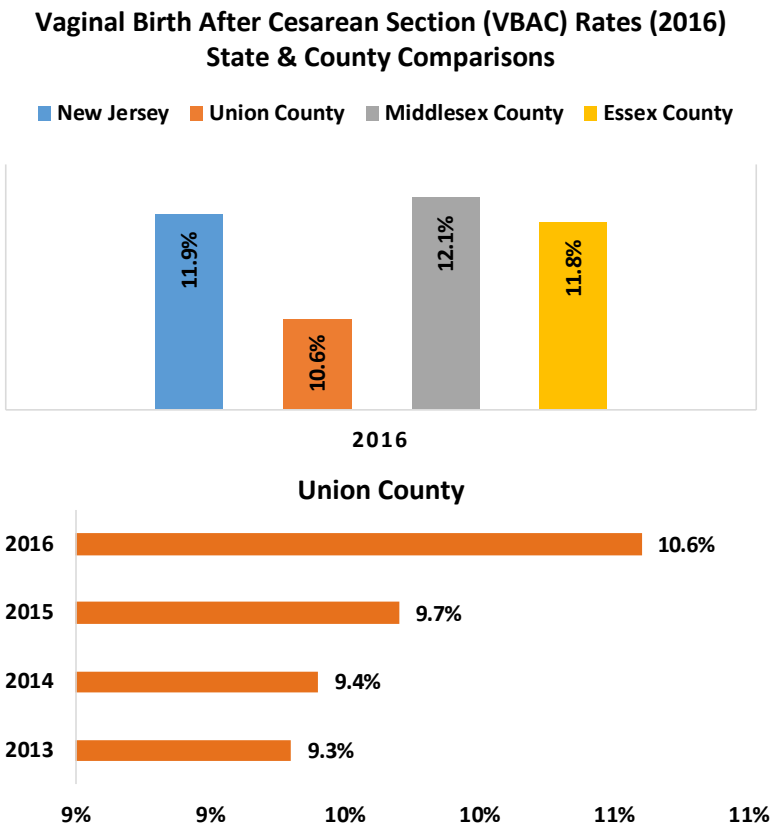


Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database http://www4.state.nj.us/dhss-shad/query/result/birth/BirthBirthCnty/Count.html
*Primary C-Section: Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females
**Repeat C-Section: 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%
Union County 2016: 25.2%

Vaginal Birth After C-Section (VBAC)

- Union County's 2016 VBAC rate (10.6%) is lower than the State rate (11.9%). Union County ranks in the middle performing quartile of all 21 New Jersey counties.
- County-wide women with a VBAC trended upward from 2013 through 2016, increasing from 9.3% in 2013 to 10.6% 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
*Primary C-Section: Single >=37 Week Low Risk Births Delivered By C-Section/Single Live Births To Low Risk Females
**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 2020* Target	County Health Rankings Benchmark	New 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. Health Behaviors

Maternal / Fetal Health

Prenatal Care

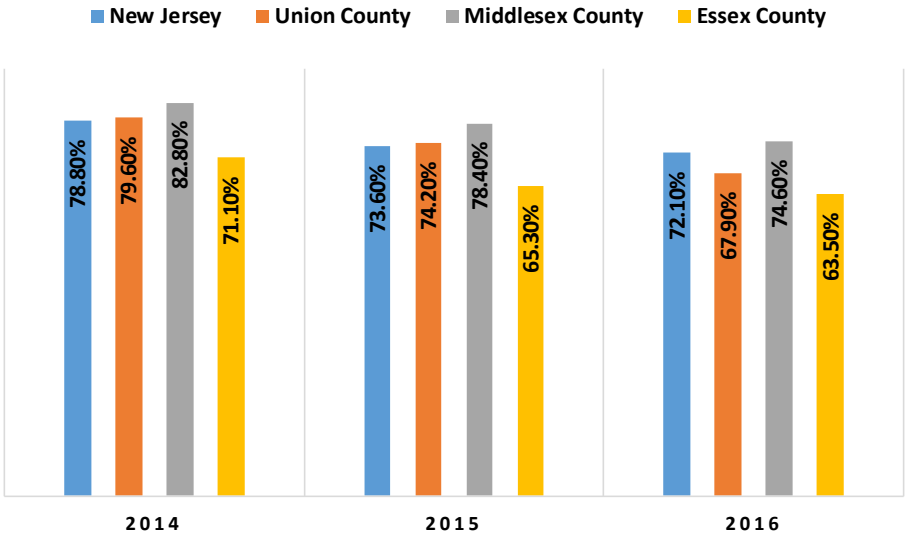
The medical care a woman receives during pregnancy monitors her health and the developing fetus. Low-risk pregnancies should visit a prenatal provider every four or six weeks through 28 weeks, then every two or three weeks from weeks 28-36, and finally every week in the ninth month until delivery. A high-risk pregnancy requires additional visits.[39] Pregnant women who do not receive adequate prenatal care risk undetected complications and an increased possibility of adverse outcomes.

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.[40]

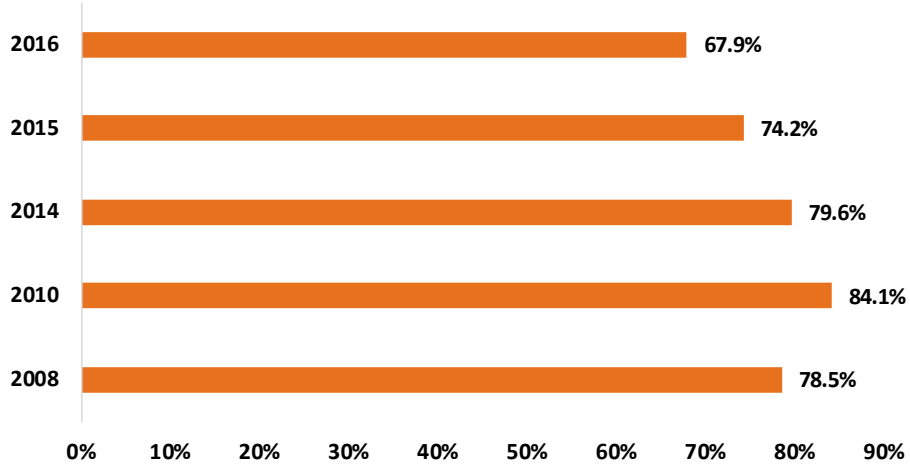
- In 2016, 67.9% of Union County women entered prenatal care in the first trimester compared to 72.1% in New Jersey. As compared to other New Jersey counties, Union County ranks in the middle quartile.
- Union County women enrolled in first trimester prenatal care declined from 79.6% in 2010 to 67.9% in 2016.

[39] http://www.plannedparenthood.org/health-info/pregnancy/prenatal-care
[40] http://www.hrsa.gov/quality/toolbox/measures/prenatalfirsttrimester/index.html

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



Union County



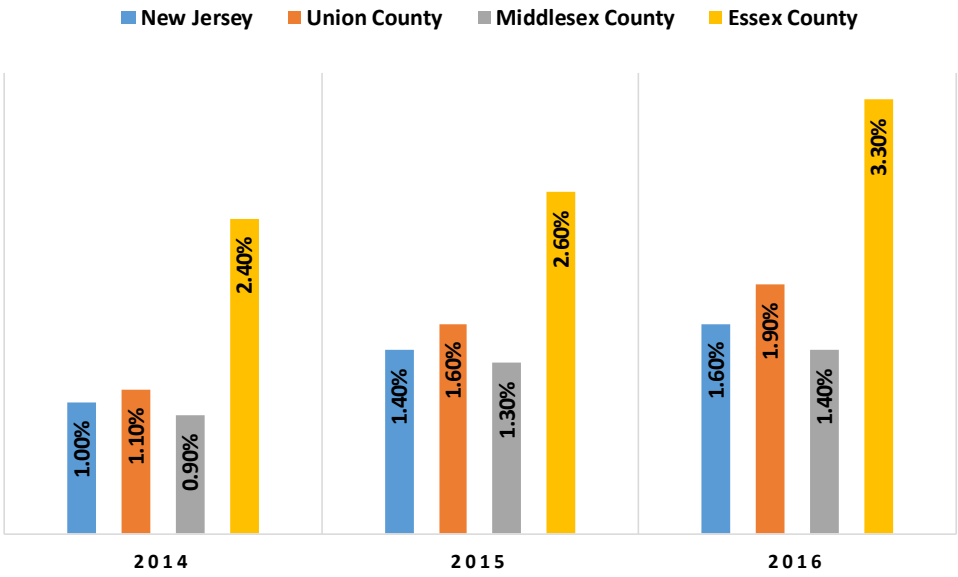
Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database
Note: Percentages are based on Total Number of Live Births for County and State

Healthy People 2020

Baseline: 70.8%
Target: 77.9%
Union County 2016: 67.9%

- The percent of Union County women without prenatal care ranged from a low of 1.0% in 2010 to a high of 1.9% in 2016.
- The 2016 Union County rate for no prenatal care was higher than the State rate of 1.6% and the Middlesex County rate of 1.4%, and performed in the lowest quartile in New Jersey.

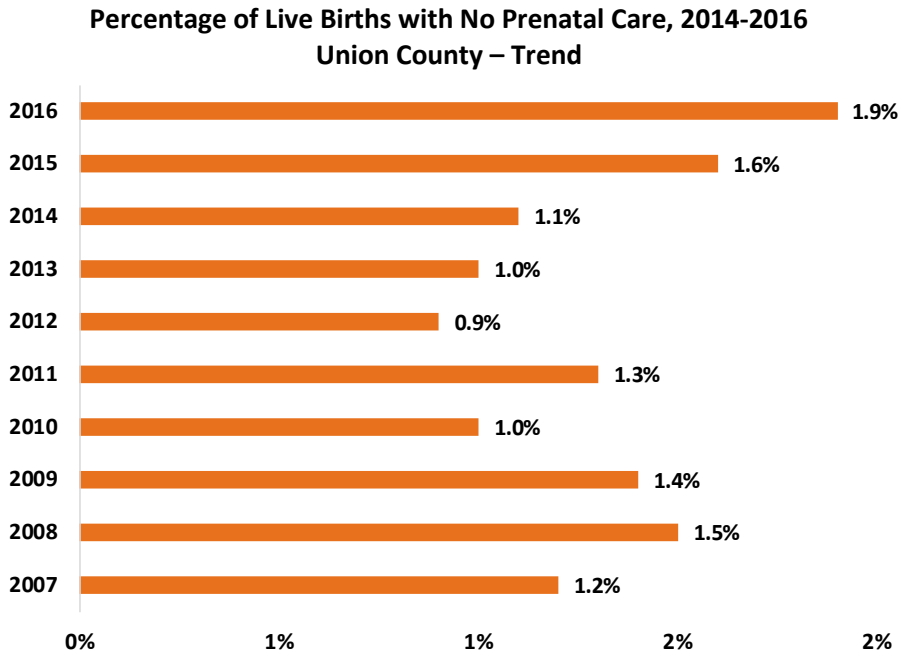
Percentage of Live Births with No Prenatal Care
State & County Comparisons 2014-2016



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

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
First Trimester Prenatal Care *Percentage of Live Births*		N.A.	
No Prenatal Care *Percentage of Live Births*	N.A	N.A.	

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



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

High Risk Sexual Behaviors

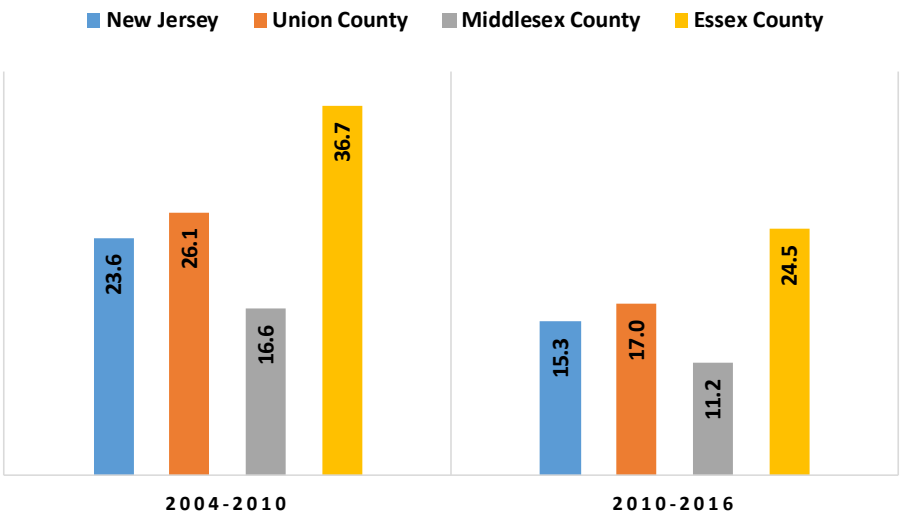
Teen Pregnancy

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.[41] Pregnant teens are less likely than older women to receive recommended prenatal care and are more likely to have pre-term or low birth weight babies. Teen mothers are often at increased risk for STIs and repeat pregnancies, 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.[42]

- The 2010-2016 Union County (17.0/1,000) birth rate among teens aged 15-19 was 11.1%, higher than the State rate (15.3/1,000) and in the middle performing quartile statewide.
- The birth rate among Union County teens aged 15-17 decreased from 11.0/1,000 in 2007-2011 to 5.9/1,000 in 2012-2016 and was in the best performing quartile compared to the *Healthy People 2020* target.

[41] http://www.hhs.gov/ash/oah/adolescent-health-topics/reproductive-health/teen-pregnancy/trends.html
[42] http://www.countyhealthrankings.org/our-approach/health-factors/sexual-activity

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



Source: NJDOH Center for Health Statistics State Health Assessment Data

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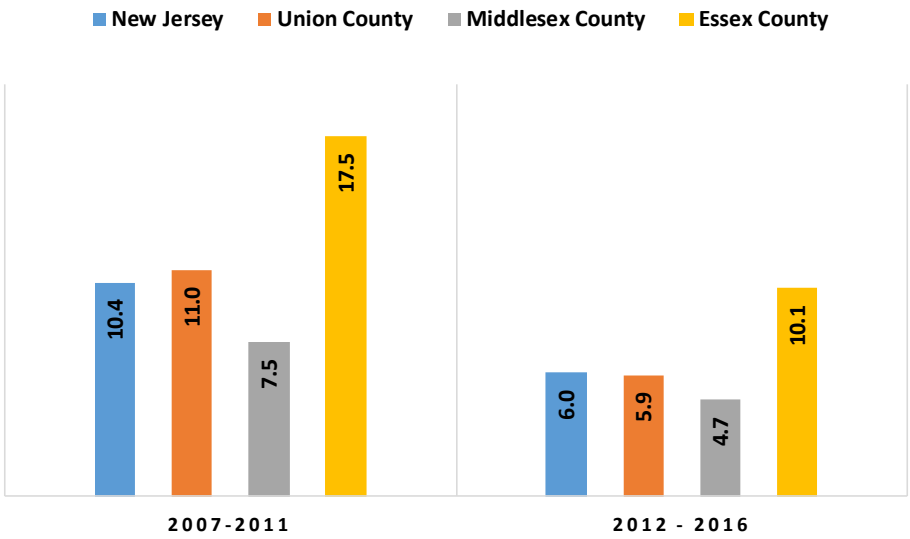
National Benchmark: 15
Union County 2016: 17.0

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



Source: NJDOH Center for Health Statistics State Health Assessment Data

Healthy People 2020

Baseline: 40.2
Target: 36.2
Union County 2016: 5.9

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 Carteret 2016 birth rate to teens aged 15-19 (14.15/1,000) was higher than the New Jersey rate (11.16/1,000), but lower than the Union County rate (14.57/1,000).

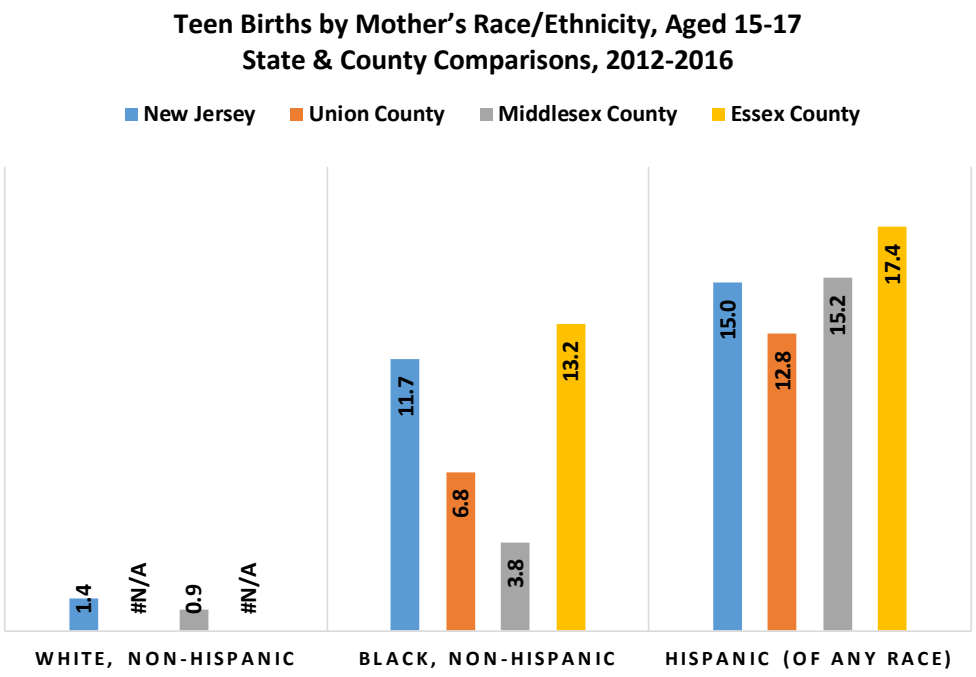
Teen Birth Rates 2016 – Deliveries Among 15-19 Year Old's

GEOGRAPHIC AREA	RATE
New Jersey	11.16
Union County	14.57
Middlesex County	9.09
Essex County	20.73
RWJR Service Area	8.12
TOP 5 BY ZIP CODE	
Carteret (07008)	14.15
Rahway (07065)	11.81
Linden (07036)	11.16
Roselle (07203)	10.29
Avenel (07001)	5.77

*Source: UB-04 2016 Discharges – All Deliveries to Mothers Age 15-19; Claritas Population Estimate
** NCHS Data Brief http://www.cdc.gov/nchs/data/databriefs/db46.pdf

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

- The 2012-2016 Union County teen birth rate for Hispanics was the lowest relative to New Jersey and the comparison counties.
- The teen birth rate among Union County teens age 15-17 was higher among Hispanics (12.8/1,000) than Blacks (6.8/1,000).



Source: Age 15-19 - County Health Rankings National Center for Health Statistics; Age 15-17- NJDOH Center for Health Statistics State Health Assessment Data

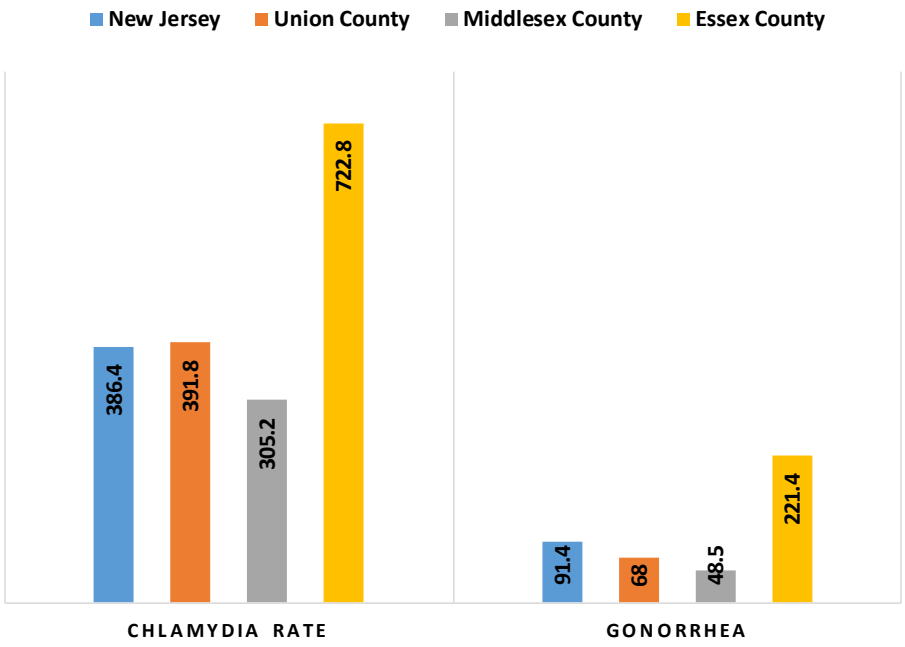
Sexually Transmitted Infection

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.[43]

- Chlamydia is the most prevalent STI. In 2016, the Union County (391.8/1,000) rate was higher than the New Jersey rate (386.4/1,000) and performed in the middle quartile statewide.
- The rate of chlamydia in Union County (391.8/1,000) was higher the CHR National benchmark (145.1/1,000).
- In 2016, the Union County gonorrhea rate (68.0/100,000) was lower than the New Jersey rate (91.4/100,000).
- Union County ranks in the middle quartile of New Jersey counties with regard to chlamydia and gonorrhea infection rates.

[43] http://www.nlm.nih.gov/medlineplus/sexuallytransmitteddiseases.html

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



Source: NJ SHAD

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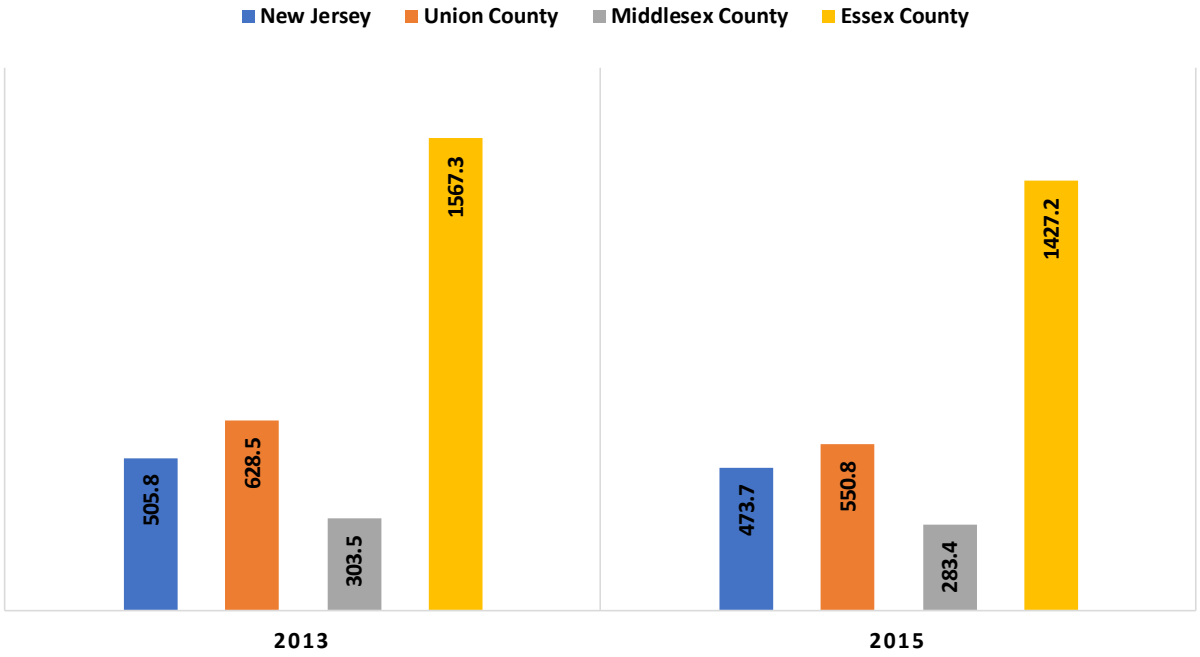
National Benchmark: 145.1
Union County 2016: 391.8

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 declined between 2013 (628.5/100,000) and 2015 (550.8/100,000).
- In 2015, HIV/AIDS prevalence rate in Union County (550.8/100,000) was higher than the New Jersey rate (473.7/100,000). Union County is in the lowest performing quartile statewide.
- Union County had more HIV/AIDS cases than neighboring Middlesex County.
- The prevalence rate was well above the CHR benchmark of 49.0/100,000.

HIV Rates 2013-2015
State and County Comparisons



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

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National Benchmark: 49
Union County 2015: 550.8

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New 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.	
Teen Births Ages 15-17 Race/Ethnicity *Rate per 100,000 Female Population*	N.A	N.A	
HIV/AIDS: Prevalence *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.[44]

Tobacco Use

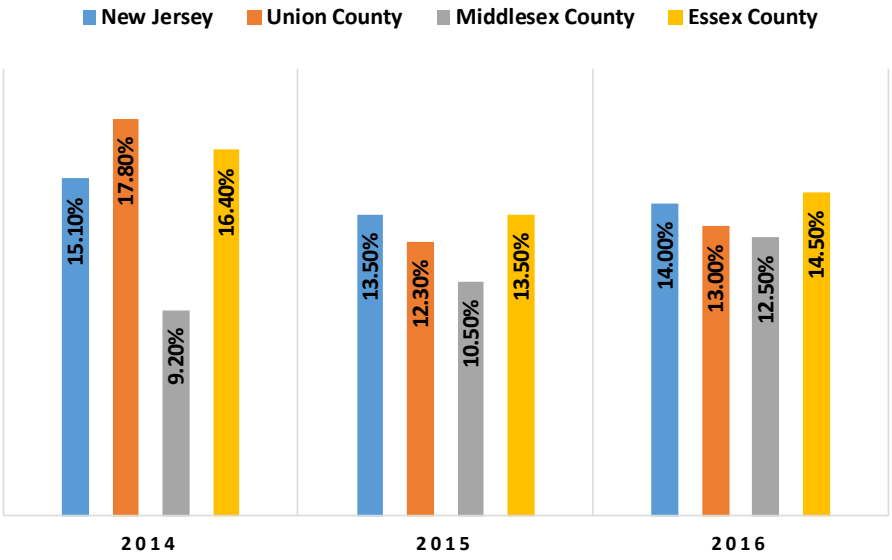
Tobacco use is the leading cause of preventable death in the United States. Smoking leads to disease and disability, and harms nearly every organ in the body, and causes cancer, heart disease, stroke, diabetes, and lung diseases such as emphysema, bronchitis, and chronic airway obstruction. Exposure 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.[45, 46]

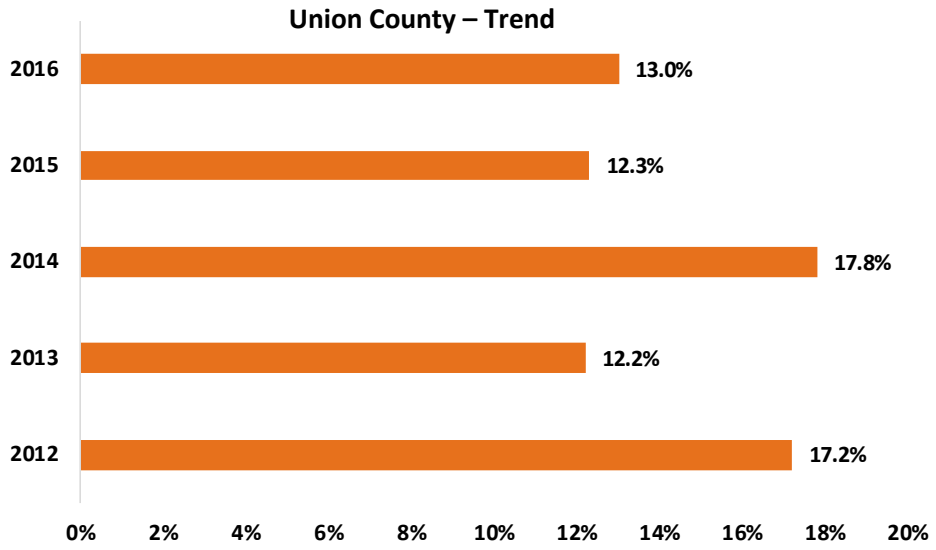
- Between 2012 and 2016, smoking rates have fluctuated in Union County with an overall decrease of 3.8 percentage points.
- In 2016, Union County had fewer adult smokers (13%) than neighboring Essex County (14.5%), and fewer than New Jersey (14%). Union County performs in the middle quartile in comparison to all counties statewide.
- In 2016, Union County was also in the top performing County Health Rankings benchmark and the middle performing quartile of the *Healthy People 2020* target.

[44] http://www.cdc.gov/features/livelonger/
[45] http://www.countyhealthrankings.org/our-approach/health-factors/tobacco-use
[46] 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)

Healthy People 2020

Baseline: 20.6%
Target: 12.0%
Union County 2016: 13.0%

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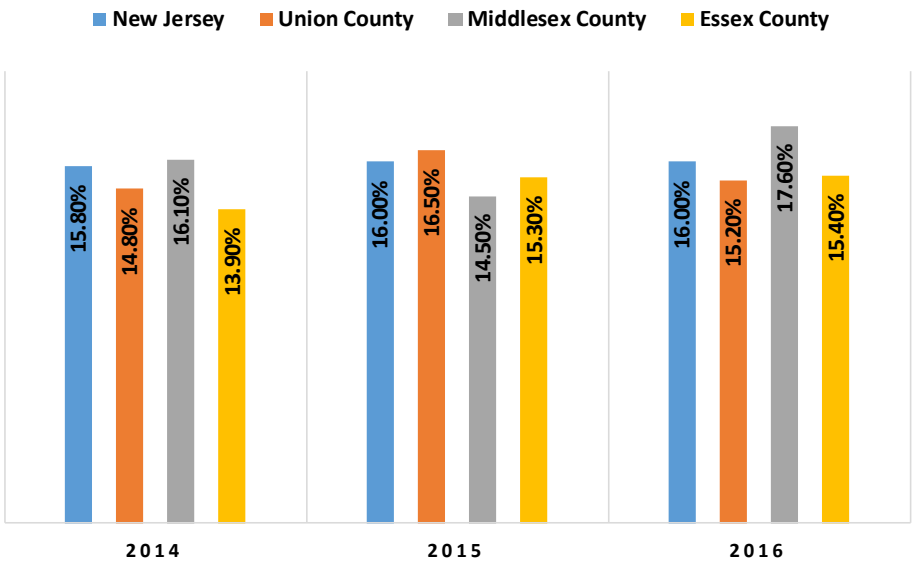
National Benchmark: 14.0%
Union County 2016: 13.0%

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.[47]

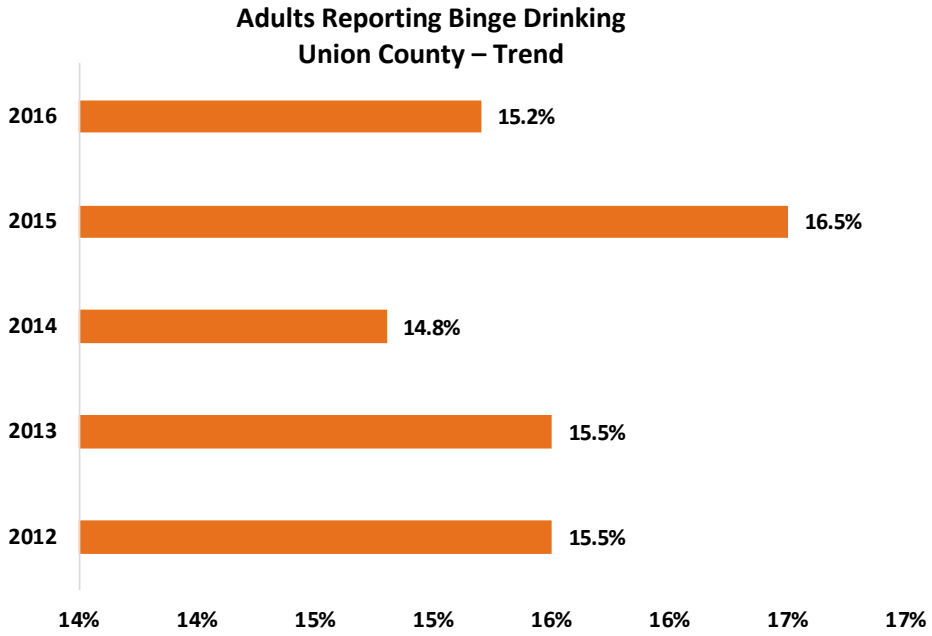
- Binge drinkers, those men that consume more than 5 drinks and women that consume more than 4 drinks in one occasion, increased from 14.8% in 2014, to 15.2% in 2016.
- In 2016, 15.2% of Union County residents were binge drinkers compared to 16% statewide. Union County had fewer binge drinkers than surrounding Middlesex County and Essex County.
- Statewide, Union County performs in the middle quartile among the 21 counties of New Jersey an in terms of the county health ranking 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?
"Binge Drinking" is defined when someone has at least 5(for males)/4(for females) or more drinks on an occasion a month.

[47] 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.

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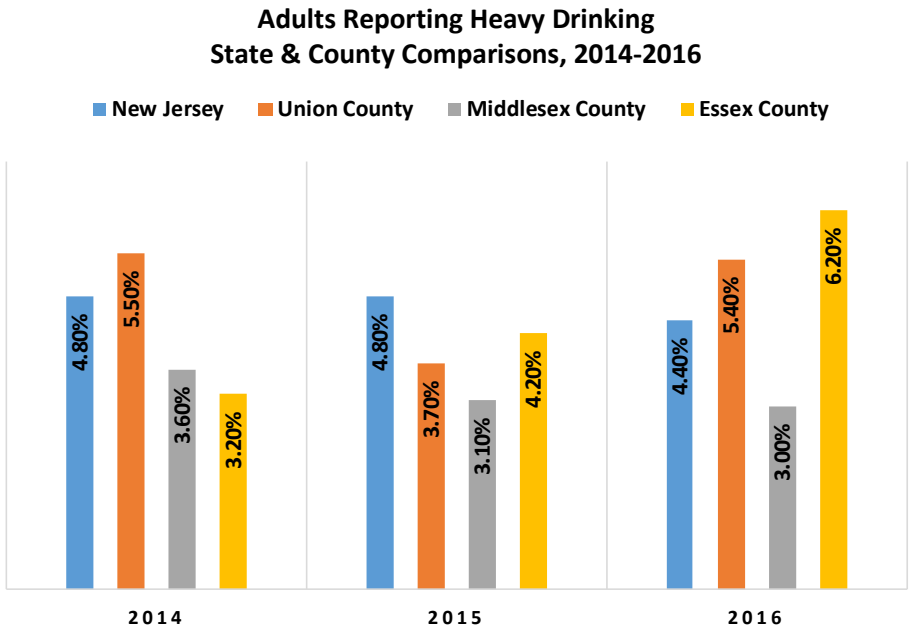
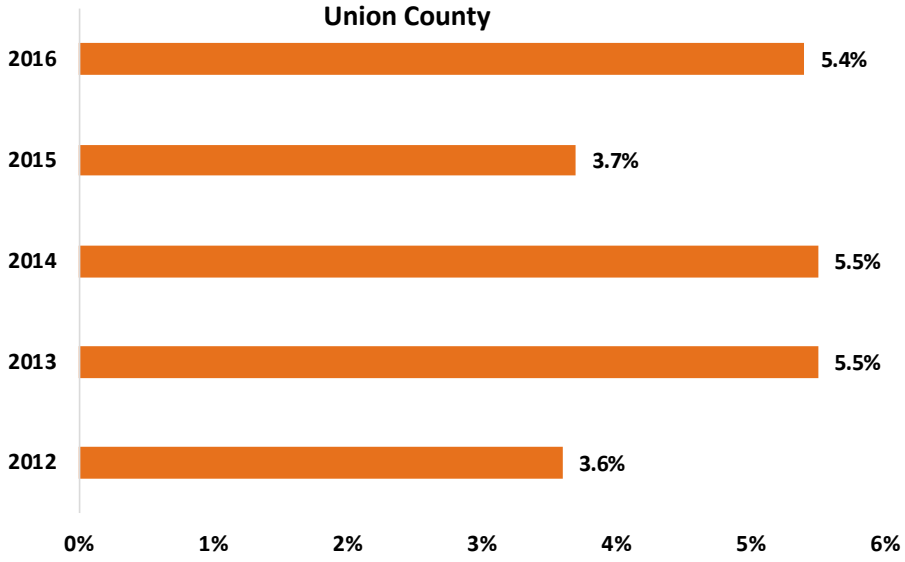
National Benchmark: 13.0%
Union County 2016: 15.9%

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

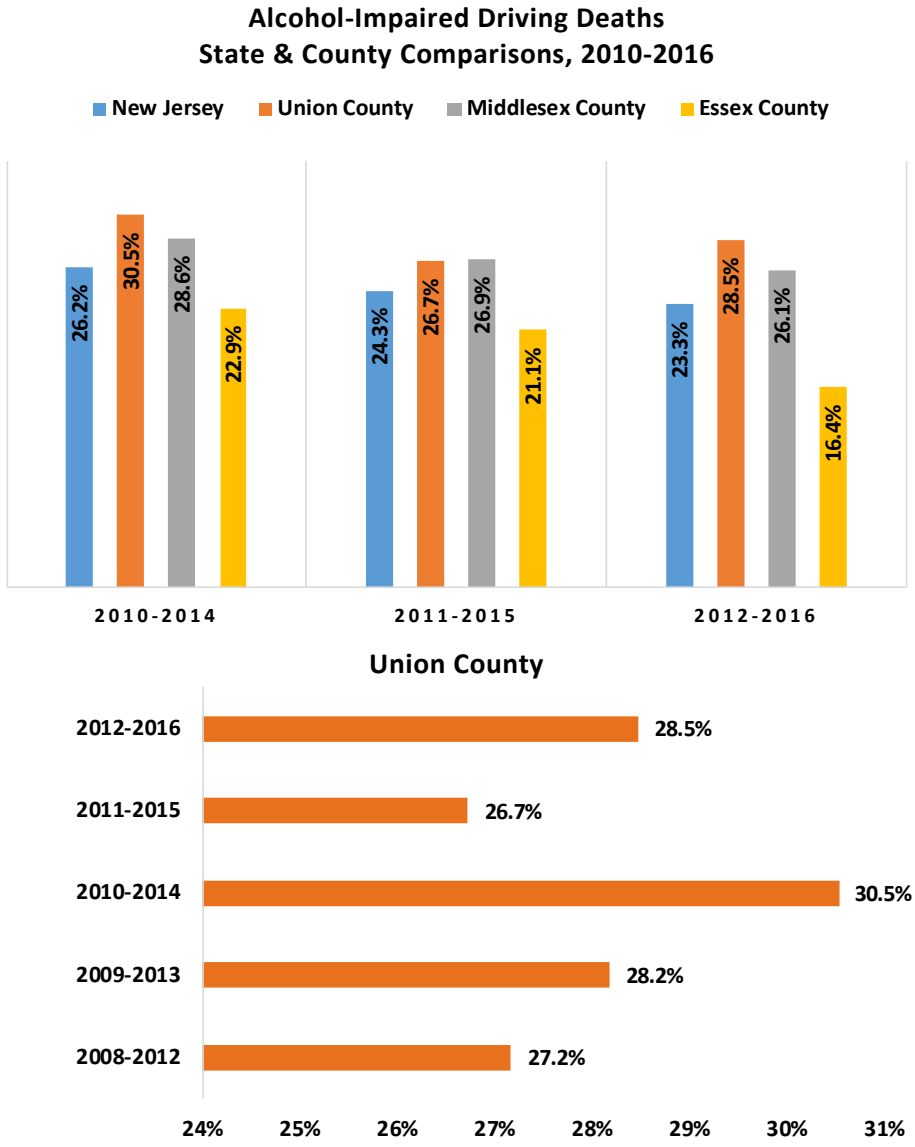
- County-wide, residents who were heavy drinkers decreased slightly from 5.5% in 2012 to 5.4% in 2016.
- In 2016, Union County had the second highest percent of residents reporting heavy drinking, relative to the State and the surrounding counties.
- Union County ranked in the middle quartile among the 21 counties in New Jersey.





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 Union County decreased 30.5% in 2010-2014 to 28.5% in 2012-2016.
- The rate of alcohol impaired driving deaths in Union County was historically the higher than New Jersey and Essex County.



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

County Health Rankings & Roadmaps
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National Benchmark: 13.0%
Union County 2016: 28.5%

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Tobacco Use *Adults Who Are Current Smokers*			
Excessive Drinking *Binge Drinkers*	N.A.		
Excessive Drinking *Heavy Drinkers*	N.A.	N.A.	
Alcohol Impaired Driving Deaths	N.A.		

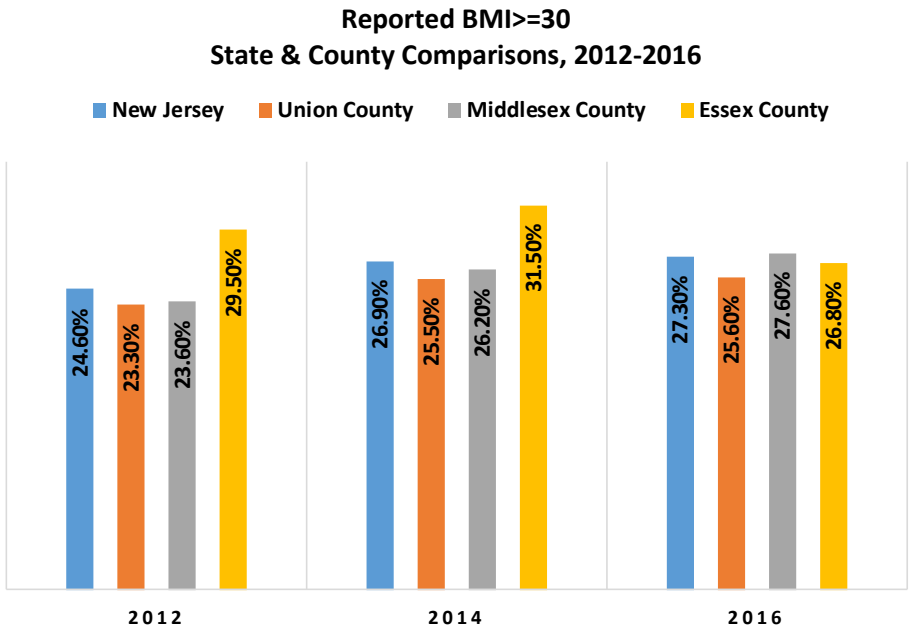
RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

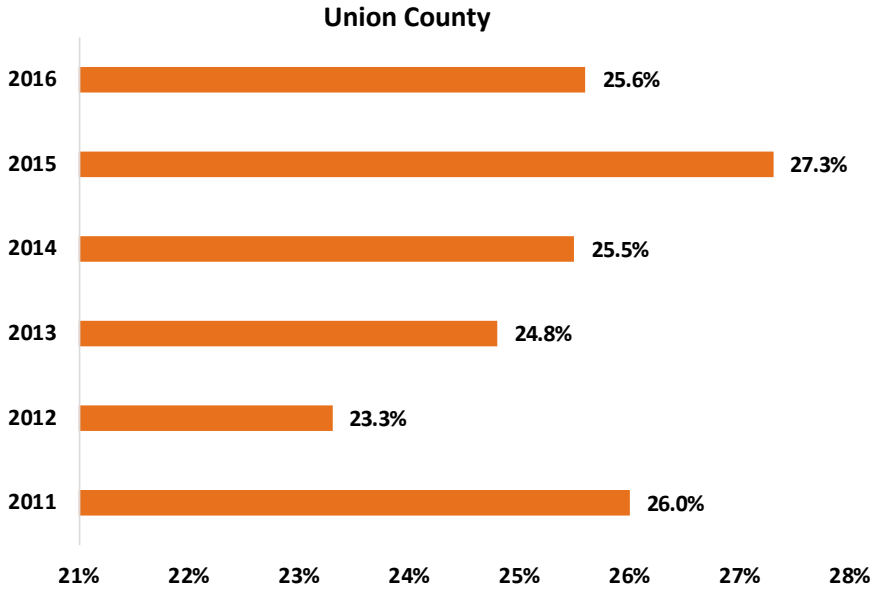
Obesity

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.[48]

- The percent of Union County residents with a Body Mass Index (BMI) >=30 trended upward from 23.3% in 2012, to 25.6% in 2016.
- In 2016, Union County (25.6%) had a lower rate of obesity than New Jersey and the comparative counties.
- In 2016, a lower percent of Union County residents (25.6%) are obese than the *Healthy People 2020* target (30.5%)
- In 2016, Union County residents with a BMI>=30 ranked in the middle quartile in New Jersey and in the best quartile regarding both the County Health Rankings and Healthy People 2020.

[48] http://www.frac.org





Source: CDC Behavioral Risk Factor Surveillance System

Healthy People 2020

Baseline: 33.9%
Target: 30.5%
Union County 2016: 25.6%

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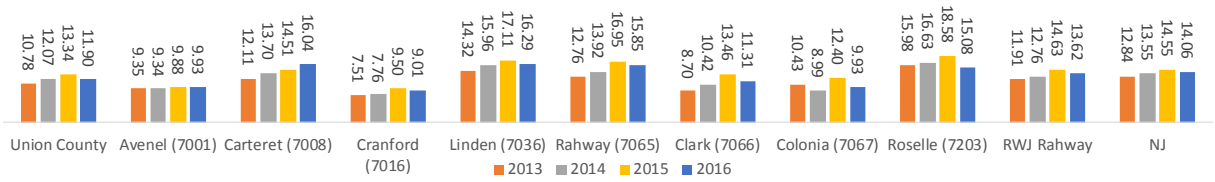
National Benchmark: 26.0%
Union County 2016: 25.6%

- In 2016, Linden residents had a higher rate of patients hospitalized with a diagnosis of obesity (16.29/1,000) as compared to Union County (11.90/1,000).
- In 2016, patients hospitalized from Union County had lower rates of obesity than hospitalized residents of RWJ Rahway's Service Area (13.62/1,000).

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

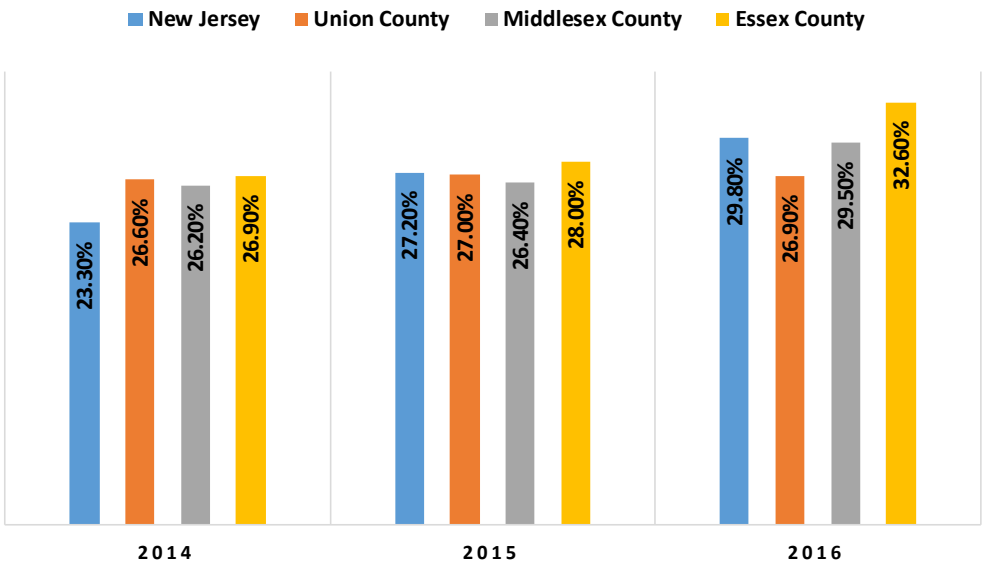
Exercise

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.[49]

- Within Union County, the percent of individuals reporting no leisure time physical activity remained increased from 26.6% in 2014, to 26.9% in 2016.
- In 2016, Union County had a lower percentage of residents reporting no leisure time physical activity than the State and comparison counties.
- Compared to all counties statewide, Union County performs in the middle quartile.
- Union County performs in the lowest quartile compared to the County Health Rankings benchmark.

[49] 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

County Health Rankings & Roadmaps
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National Benchmark: 20.0%
Union County 2016: 26.9%

Healthy People 2020

Baseline: 36.2%
Target: 32.6%
Union County 2016: 26.9%

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Obesity *Percent With Reported BMI >= 30*			
Exercise: Adults *Percent of Adults Age 20+ Reporting No Leisure-Time Physical Activity*			

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

Health Screenings

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

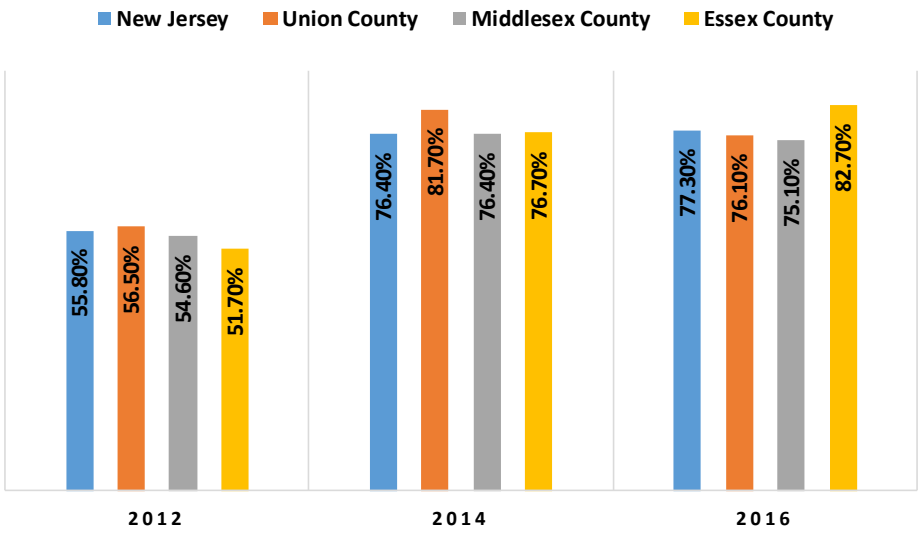
Cancer Screening

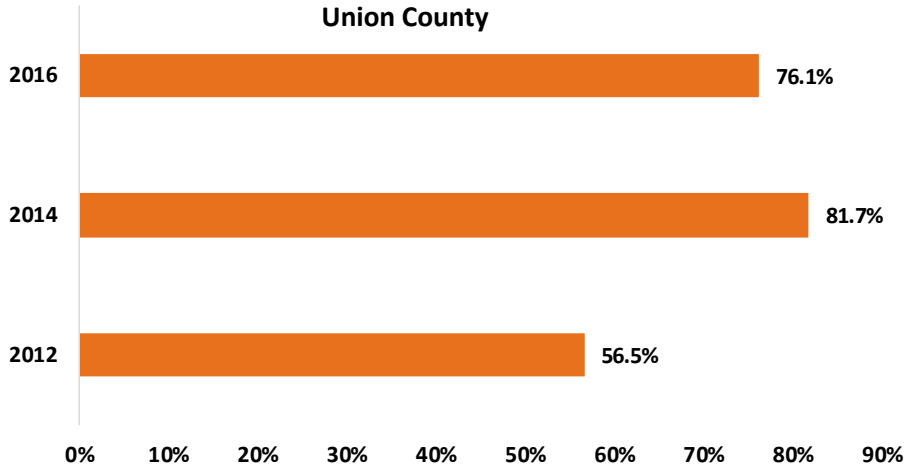
Breast Cancer (mammography)

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, 76.1% of Union County women over age 40 had a mammography within the past two years, up 19.6 percentage points since 2012. Compared to all counties statewide, Union County performs in the middle quartile.
- In 2016, Union County performed in the top quartile in terms of the County Health Ranking benchmark and the middle quartile of 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)

Healthy People 2020

Baseline: 69.8%
Target: 81.1%
Union County 2016: 76.1%

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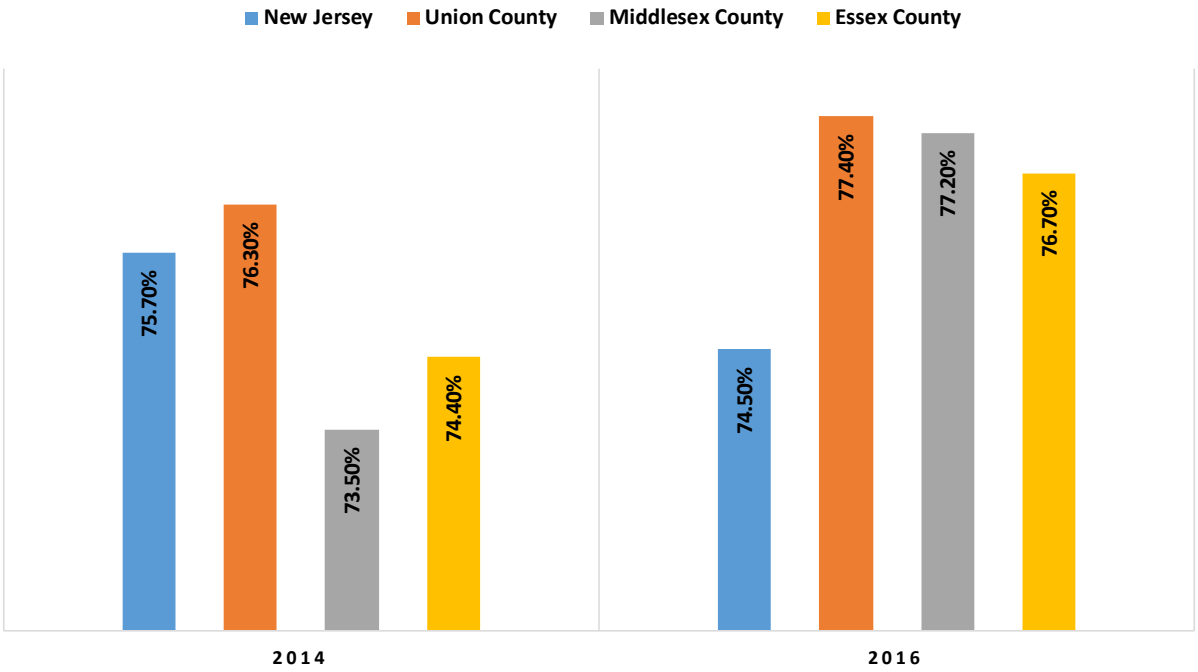
National Benchmark: 71.0%
Union County 2016: 76.1%

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, 77.4% of Union 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 Union County women over age 18 had a pap test within 3 years than in comparative Middlesex (77.2%) and Essex (76.7%) Counties. Compared to the State overall, Union County performs in the middle quartile.
- Between 2014 and 2016, Union County women who had a pap test within the past three years increased over 1.1 percentage points from 76.3% to 77.4%.

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



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

Healthy People 2020

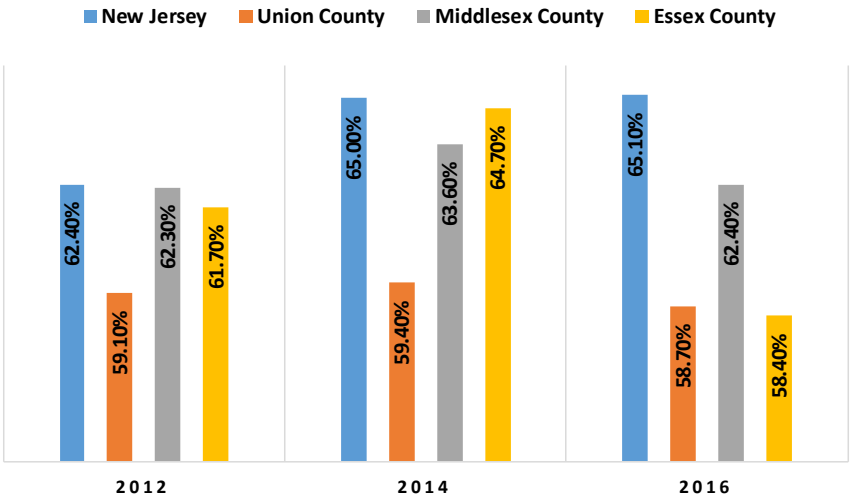
Baseline: 60.2
Target: 66.2
Union County 2016: 77.4

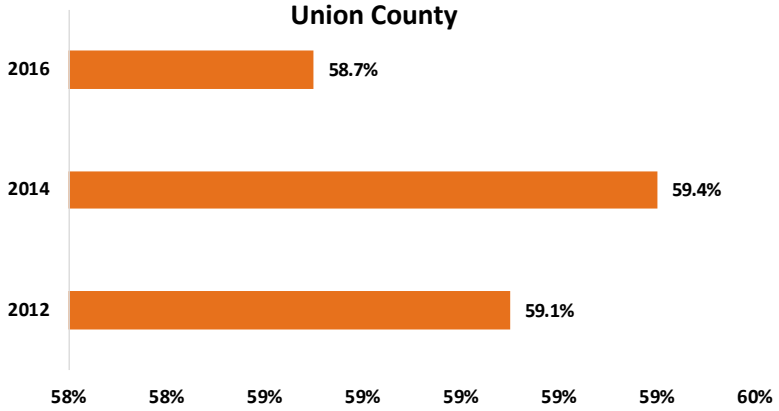
Colon-rectal Cancer (sigmoidoscopy or colonoscopy)

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 lower percentage of Union County adults over age 50 (58.7%) participated in colon-rectal screening than adults statewide (65.1%). Compared to all New Jersey counties, Union County performs in the lowest performing quartile.
- In 2016, fewer Union County adults (58.7%) over age 50 had a colonoscopy/sigmoidoscopy than in 2012 (59.1%). Union County was below the *Healthy People 2020* target of 70.5% of adults (50+) ever having colon-rectal screening in 2016.

Adults Age 50+ Who Ever Had a Colonoscopy or Sigmoidoscopy
State & County Comparisons, 2012-2016





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

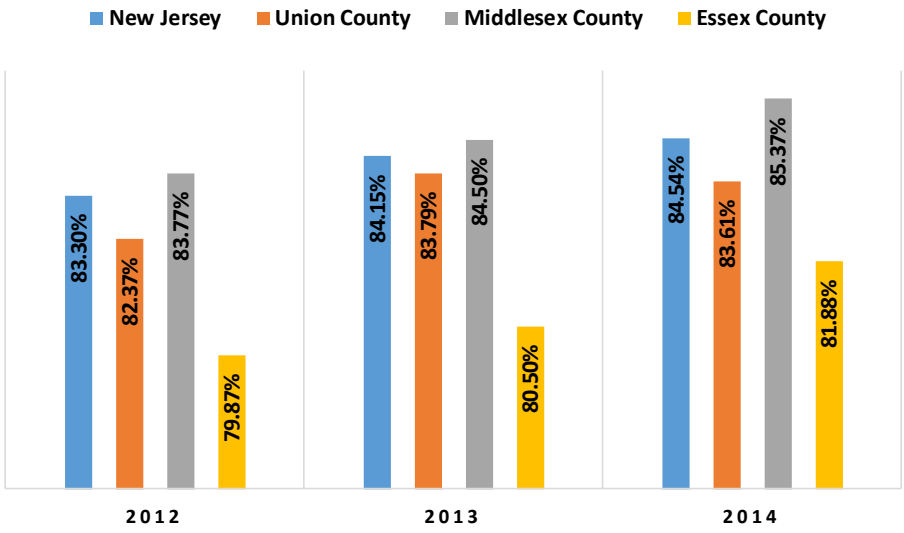
Baseline: 52.1%
Target: 70.5%
Union County 2016: 58.7%

Diabetes

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, 83.61% of Union County diabetic Medicare enrollees received HbA1c screening, lower than the State and Middlesex county. As compared to all New Jersey counties, Union County performs in the bottom quartile.
- The percent of Union County diabetic Medicare enrollees receiving HbA1c screening has trended upward since 2009.
- In 2014, fewer Union County diabetic Medicare enrollees (83.61%) were screened than the CHR national benchmark (91%). Union 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

County Health Rankings & Roadmaps
Building a Culture of Health, County by County
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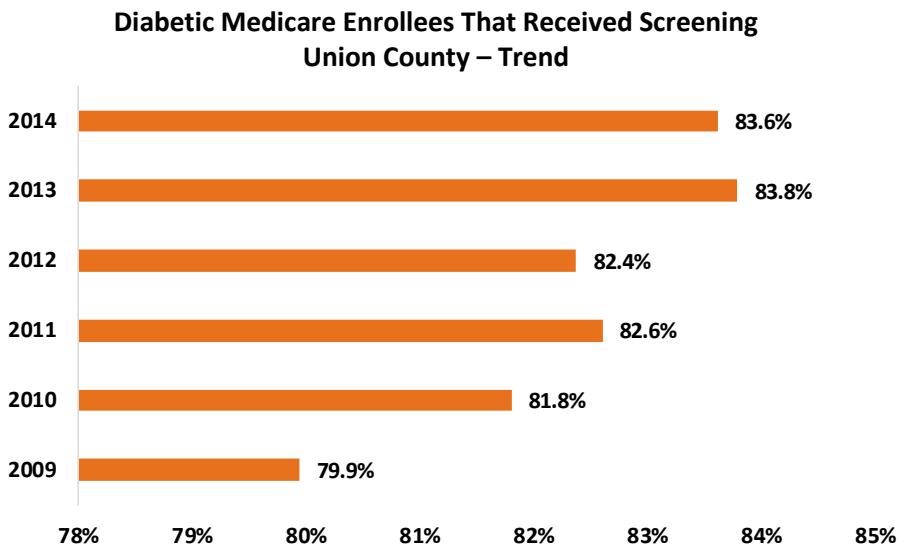
National Benchmark: 91.0
Union County 2014: 83.6



Source: County Health Rankings – Dartmouth Atlas of Health Care

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New 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.[50]

[50] http://www.cdc.gov/vaccines/vac-gen/howvpd.htm#why

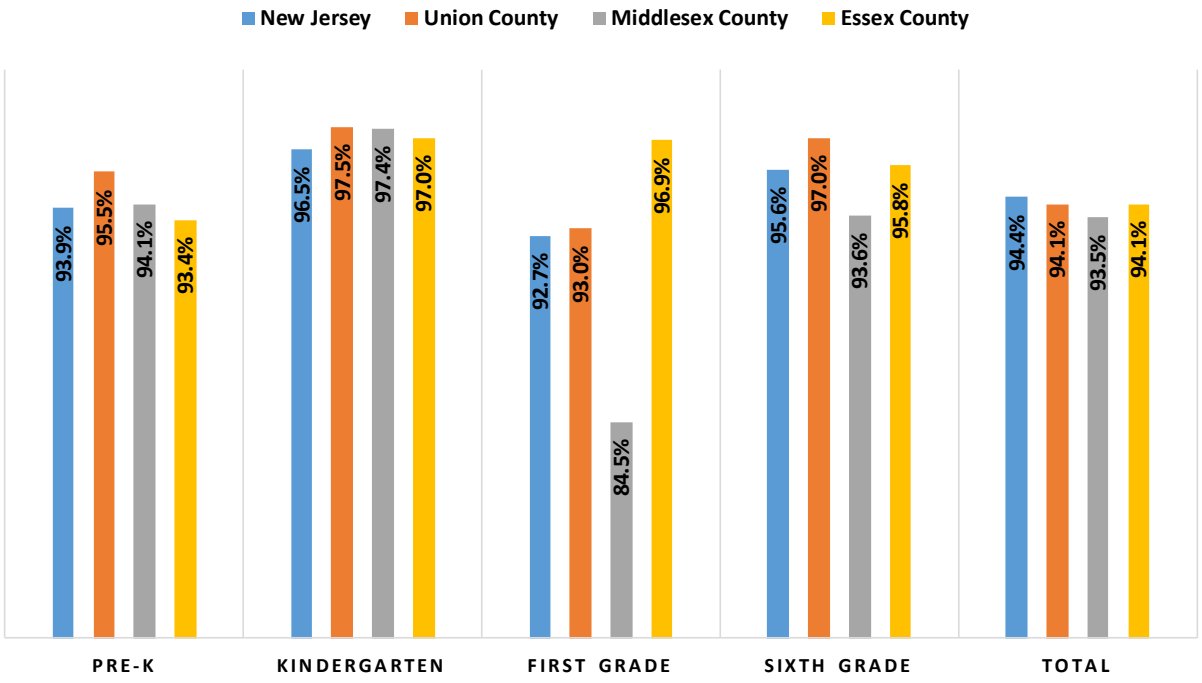
Childhood Immunizations: DPT, polio, MMR & Hib (aged 19-35 months)

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.[51] 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, 93.0% of first grade students in Union County had received all required immunizations compared to 92.7% statewide.
- 94.1% of all Union County students received all required immunizations, comparable to the statewide percentage (94.4%).
- Union County is in the middle performing quartile statewide.

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.

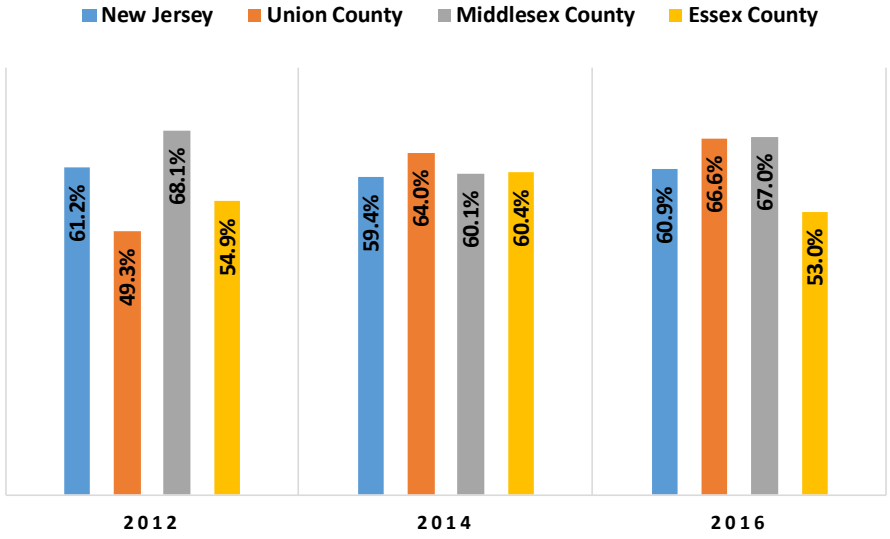
[51] http://www.cdc.gov/vaccines/imz-managers/coverage/nis/child/tech-notes.html)

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.[52]

- Union County had the second highest percent of adults (66.6%) receiving flu shots in comparison to residents of New Jersey and the tri-county area.
- As compared to all counties statewide, Union County performs in the top quartile.
- Between 2011 and 2016, the percentage of Union County adults who had a flu shot fluctuated with an overall increase of 9.5 percentage points.
- The percent of 2016 Union County adults who received the flu shot in the past year (66.6%) was lower than the *Healthy People 2020* target of 90.0%.
- Union County performs in the lowest *Healthy People 2020* quartile.

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

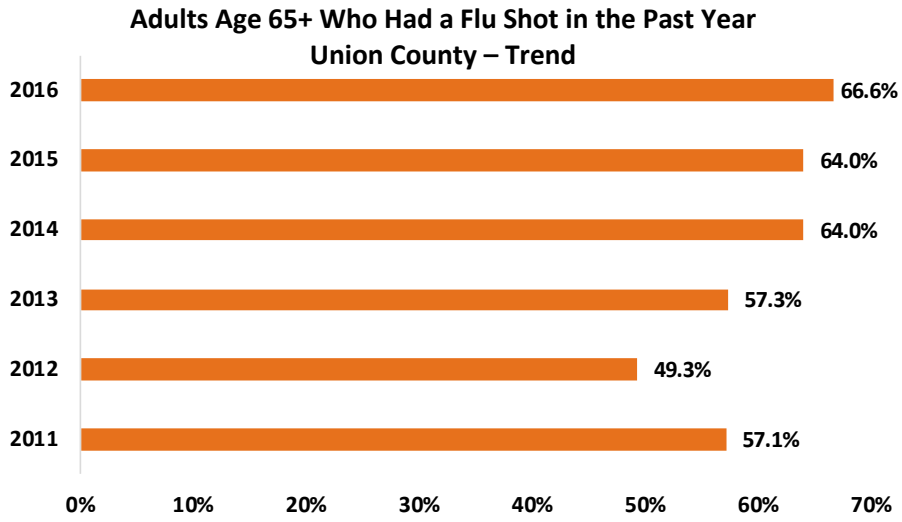


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

Healthy People 2020

Baseline: 66.6%
Target: 90.0%
Union County 2016: 66.6%

[52] http://www.cdc.gov/vaccines/adults/rec-vac/index.html)



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

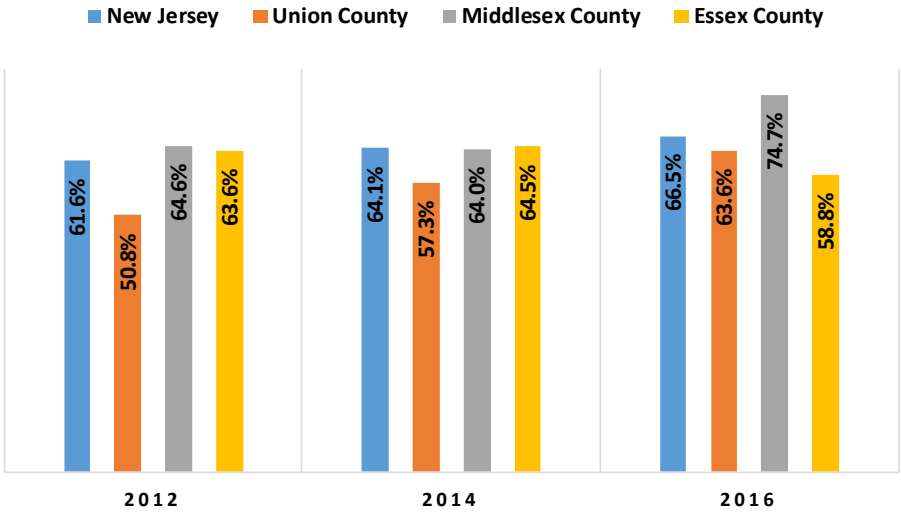
Adult Pneumonia

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.[53]

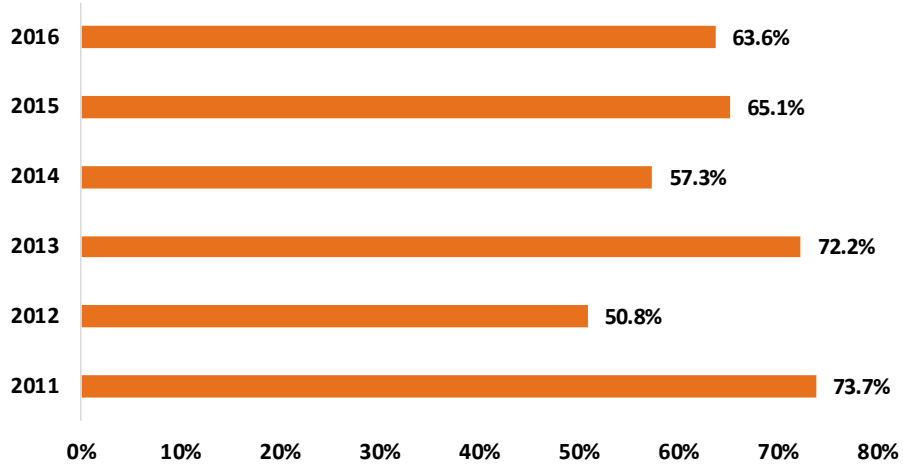
- The percent of Union County adults age 65+ who had a pneumonia vaccine decreased from 2011 through 2016, from 73.7% to 63.6%.
- In 2016, the percent of Union County (63.6%) adults that have had a pneumonia vaccine was lower than statewide (66.5%) and less than the *Healthy People 2020* target (90.0%). As compared to all counties statewide, Union County performs in the middle quartile. Union County performs in the bottom quartile in the *Healthy People 2020* target.

[53] http://www.cdc.gov/pneumococcal/about/prevention.html

Adults Age 65+ Who Had a Pneumonia Vaccination
State & County Comparisons, 2012-2016



Union County



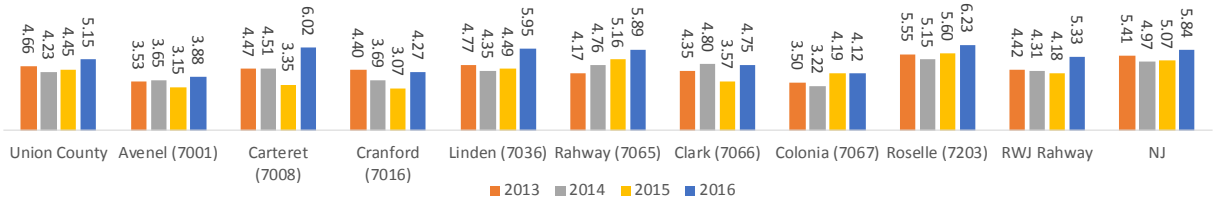
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

Healthy People 2020

Baseline: 60.0 %
Target: 90.0%
Union County 2016: 63.6%

- In 2016, Roselle residents who used a hospital service had the highest rate of pneumonia (6.23/1,000) and Avenel at 3.88/1,000 was the lowest as compared to all 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 2020* Target	County Health Rankings Benchmark	New Jersey
Flu Shot *Adults Age 65+ Who Have NOT Had a Flu Shot in the Past Year* *%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.	

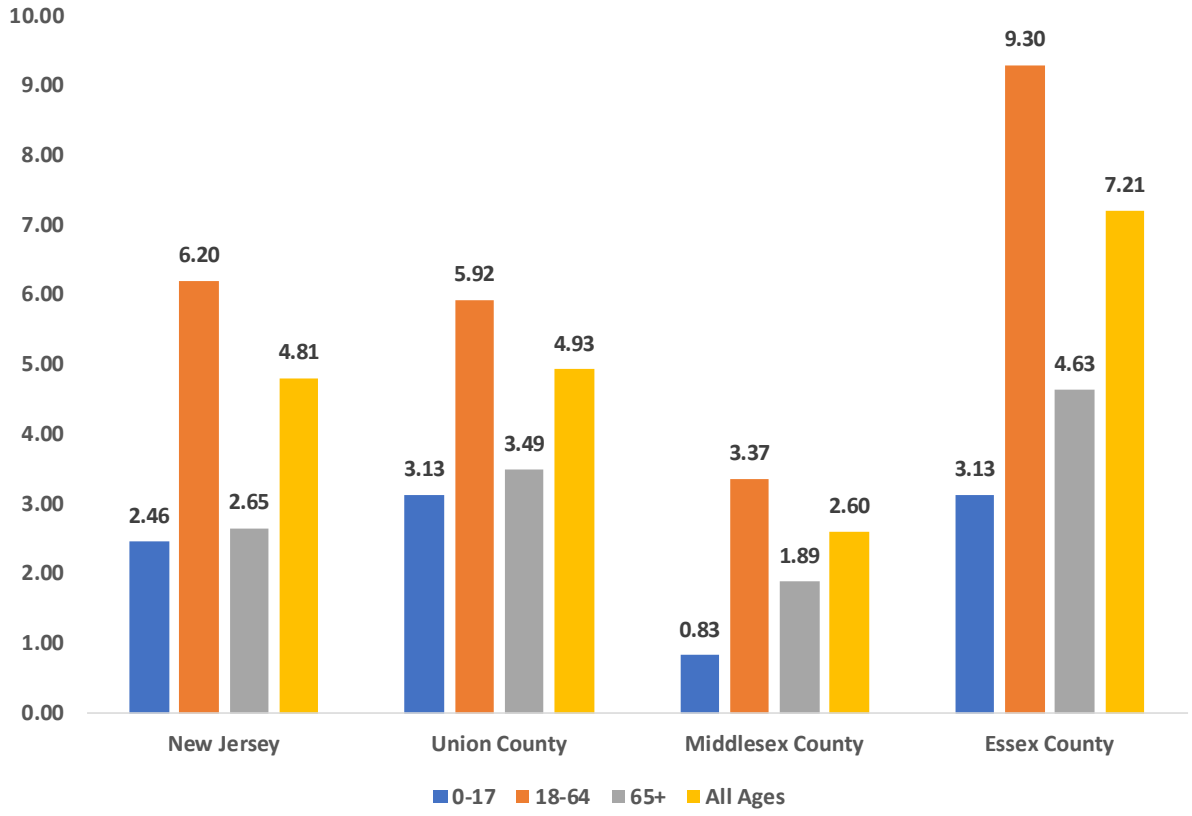
RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

4. Behavioral Health Utilization

Mental Health

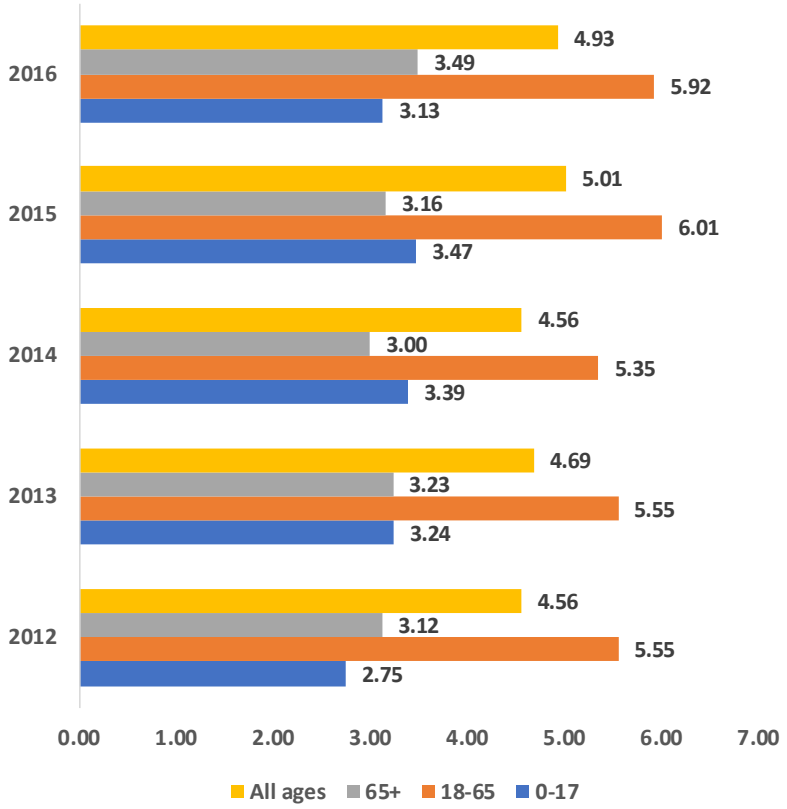
- In 2016, Union County (4.93/1,000) had the second highest rate of residents with an inpatient hospitalization for a mental health condition, as compared to the State and comparison counties.
- Within Union County, by age cohort in 2016, adults 18-64 (5.92/1,000) had the highest rate of mental/behavioral health inpatient hospital admissions compared to older adults 65+ (3.49/1,000) and children (3.13/1,000).
- Union County had slightly more patient hospitalizations for mental/behavioral health conditions in 2016 (4.93/1,000) than in 2012 (4.56/1,000).

Inpatient Admissions for Mental/Behavioral Health Conditions
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

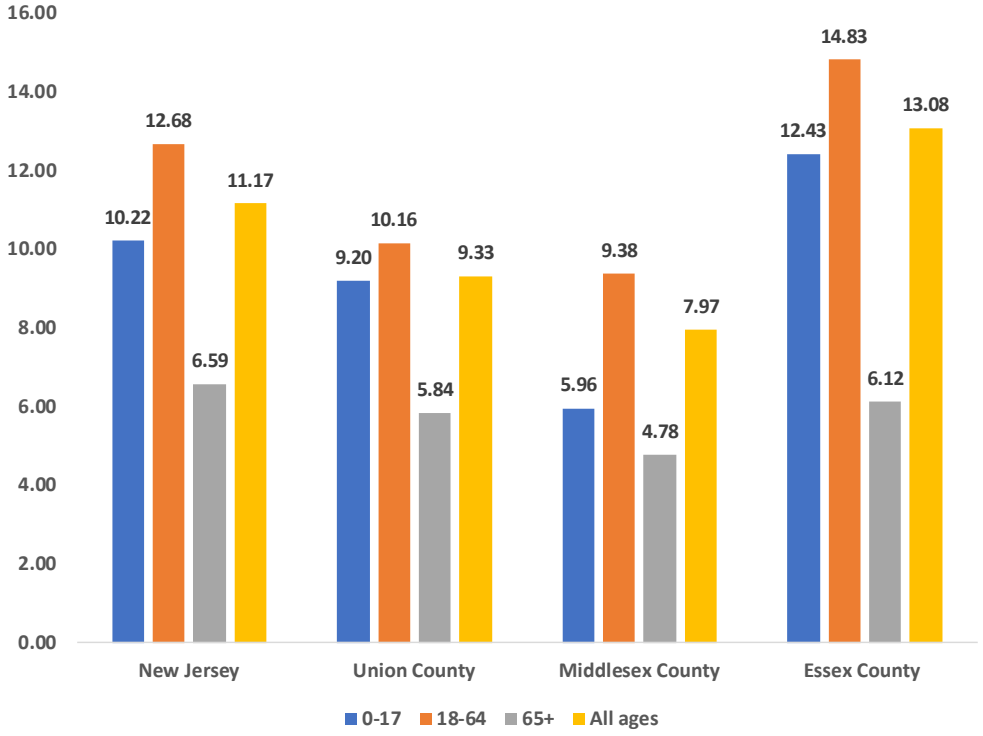
Inpatient Admissions for Mental/Behavioral Health Conditions
By Age; Rate / 1,000 Population
Union County – Trend



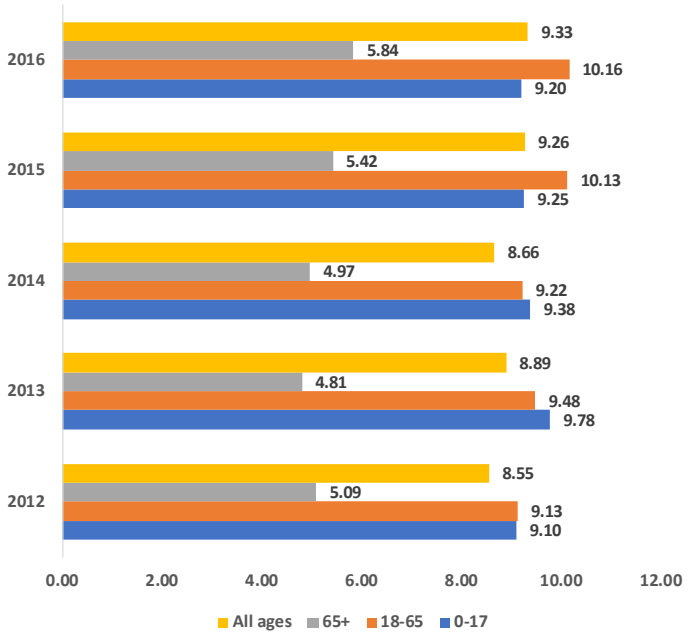
Source: NJDHSS 2012 - 2016 UB-04 Data MDC 19 – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

- In 2016, Union County (9.33/1,000) had a lower ED visit rate for mental health conditions than the State (11.17/1,000).
- In 2016, Union County adults 18-64 (10.16/1,000) had the highest rate of ED visits compared to children (9.20/1,000) and older adults 65+ (5.84/1,000).
- Union County ED visits for mental/behavioral health conditions increased between 2012 (8.55/1,000) and 2016 (9.33/1,000).

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



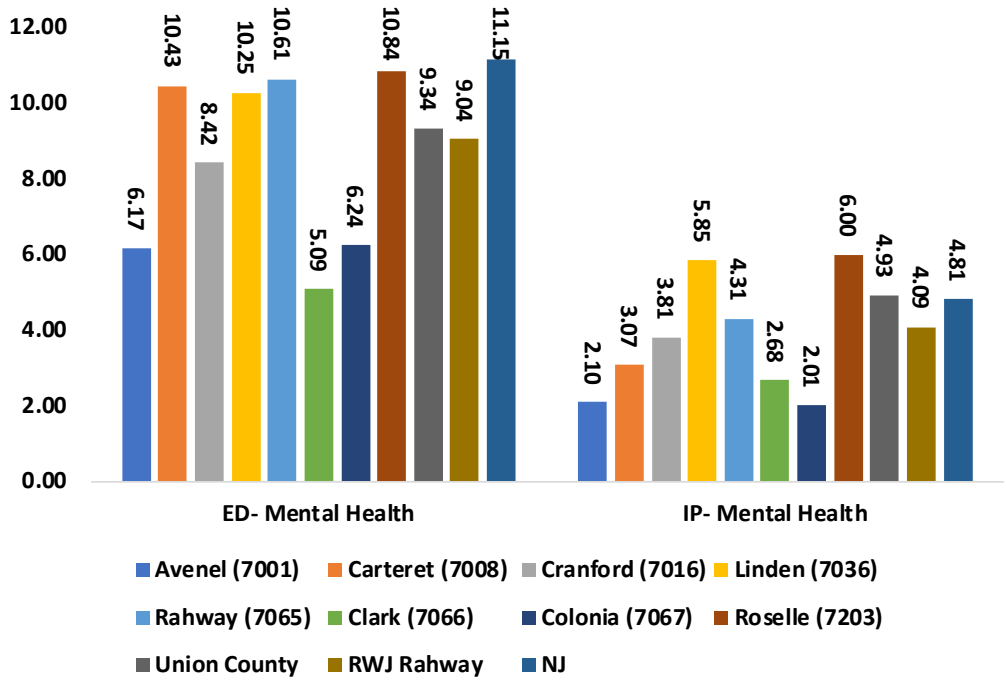
Union County



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 RWJ Rahway's Service Area (4.09/1,000) was lower than the New Jersey rate (4.81/1,000) and the Union County rate (4.93/1,000).
- In 2016, the emergency department rate for mental/behavioral health in Carteret (10.43/1,000) was greater than Union County (9.34/1,000), but less than New Jersey (11.15/1,000).
- In 2016, the emergency department rate for mental health in Clark (5.09/1,000) was less than the New Jersey rate (11.15/1,000) and less than the Union County rate (9.34/1,000).

Mental Health Use Rate /1,000 Population: 2016



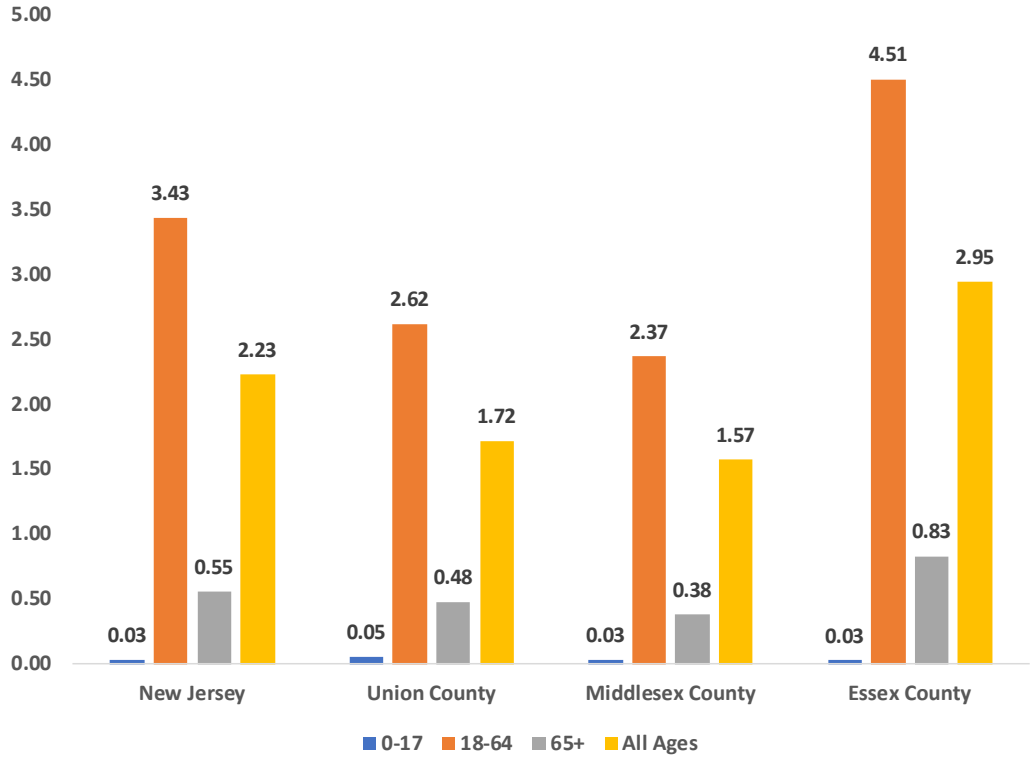
*Source: UB-04 2016 Discharges; Claritas Population Estimate
** Mental Health Defined as MDC 19, Substance Abuse Defined As MDC 20

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.[54]

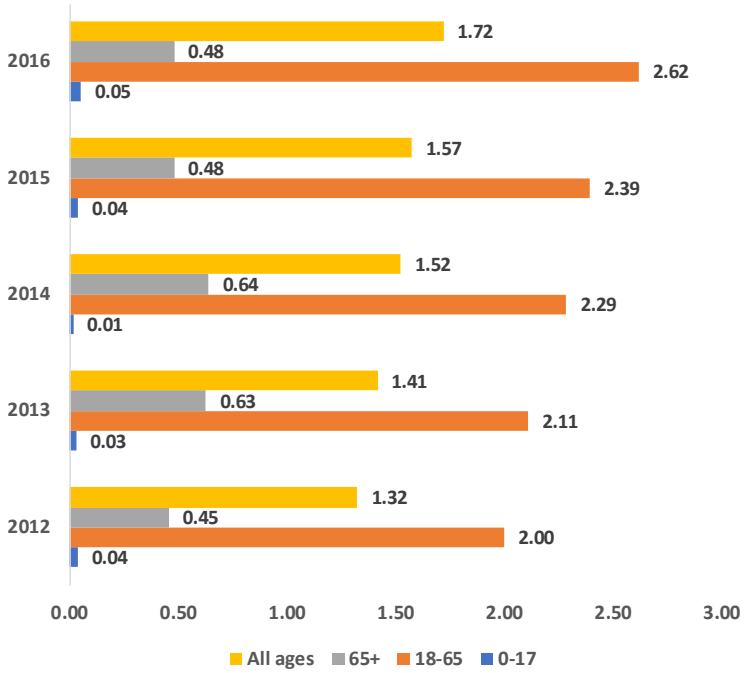
- In 2016, Union County had a lower use rate for residents with an inpatient admission for substance abuse than the State and Essex County, and among all age cohorts except among those 0-17.
- Inpatient use rates by age cohort in Union County trended upward among those 18-44.

Inpatient Substance Abuse Treatment Admissions: Rate / 1,000 Population
State & County Comparisons 2016



[54] http://www.healthypeople.gov/2020/topics-objectives/topic/substance-abuse

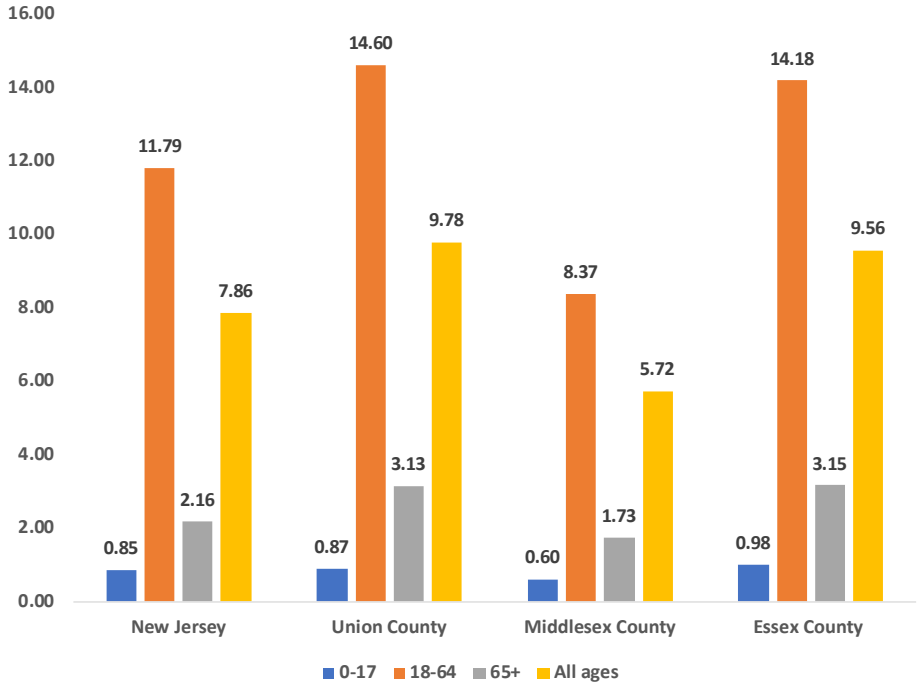
Inpatient Substance Abuse Treatment Admissions: Rate / 1,000 Population
Union County – Trend



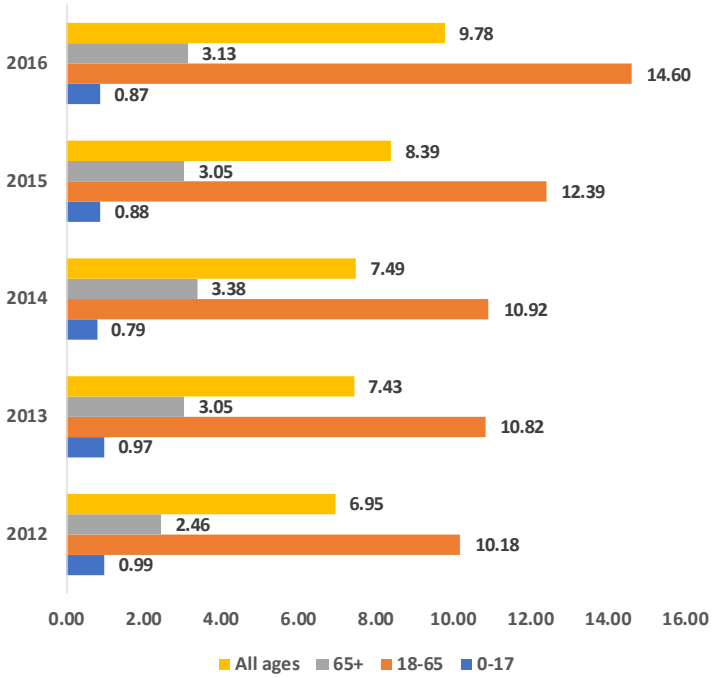
Source: NJDHSS 2010 - 2016 UB-04 Data MDC 20 – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

- In 2016, Union County (9.78/1,000) had a higher ED visit rate for substance abuse than the State (7.86/1,000) and all comparative counties.
- Between 2012 and 2016, ED visit rate for substance abuse in Union County increased from 6.95/1,000 to 9.78/1,000.
- In 2016, Union County residents aged 18-64 had the highest rate of ED visits for substance abuse (14.60/1,000).

ED Visits for Substance Abuse: By Age; Rate / 1,000 Population
State & County Comparisons 2016



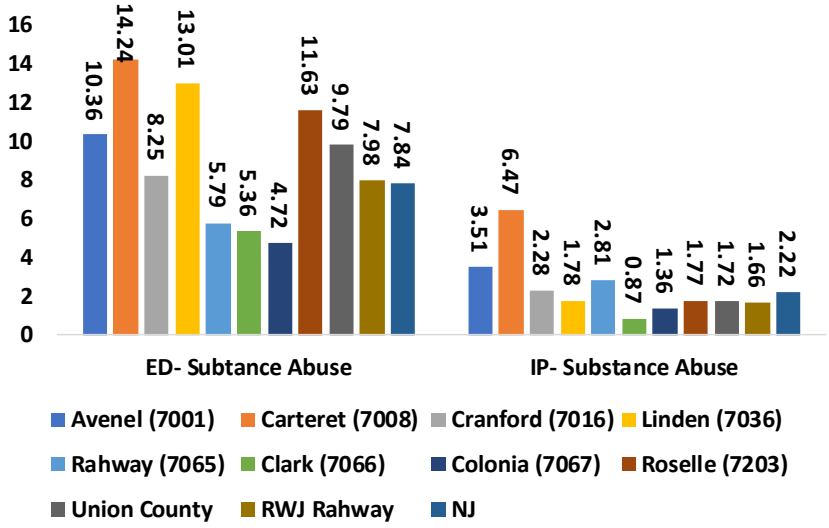
ED Visits for Substance Abuse: By Age; Rate / 1,000 Population
Union County – Trend



Source: NJDHSS 2010 - 2016 UB-04 Data MDC 20 – NJ Residents; Population: United States Census American Community Survey 5yr Estimate

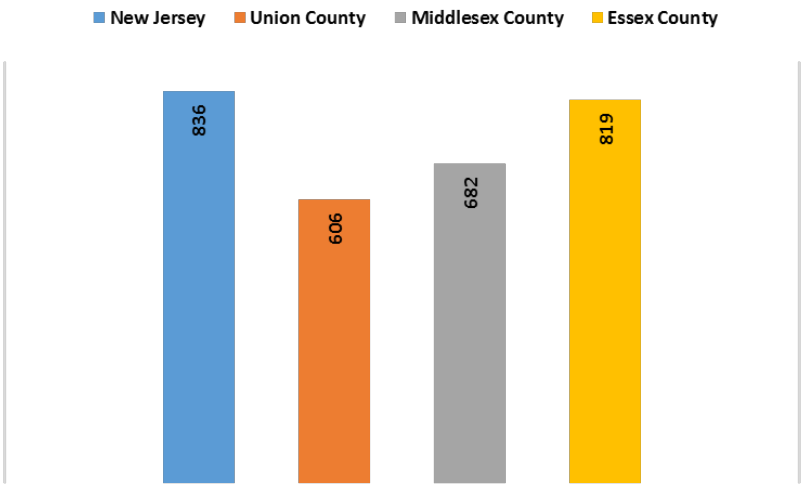
- Inpatient hospitalization to general hospitals for substance abuse in the RWJ Rahway Service Area (1.66/1,000) was lower than the County rate (1.77/1,000), and the State (2.22/1,000).
- Carteret's rate (6.47/1,000) for inpatient hospitalization for substance abuse was higher than RWJ Rahway's Service Area (1.66/1,000).
- In 2016, emergency department visits for substance abuse in RWJ Rahway's Service Area (7.98/1,000) was lower than the Union County rate (9.79/1,000), and slightly higher than the New Jersey rate (7.84/1,000).
- In 2016, emergency department utilization rates for substance abuse in Carteret (14.24/1,000) was higher than the RWJ Rahway Service Area rate (7.98/1,000).

Substance Abuse Use Rate 1,000 Population: 2016



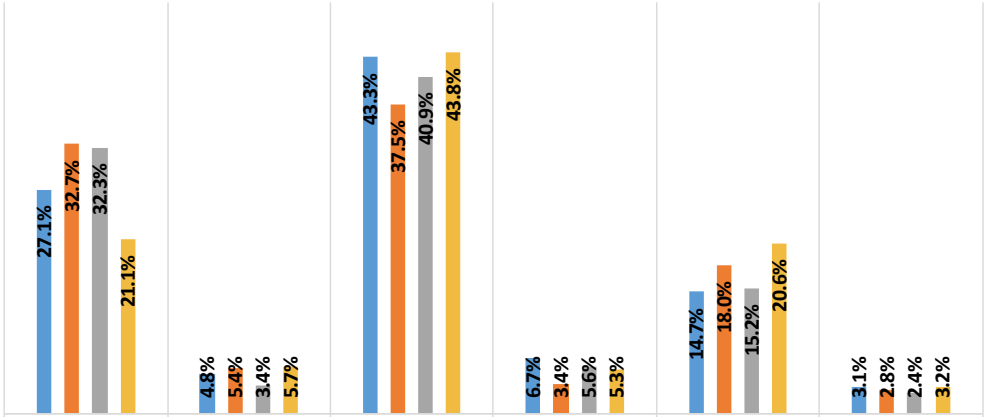
*Source: UB-04 2016 Discharges; Claritas Population Estimate
** Mental Health Defined as MDC 19, Substance Abuse Defined As MDC 20

Substance Abuse Administrations
State & County Comparisons 2016



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

Primary Drug Treatment Admissions
State & County Comparisons 2016



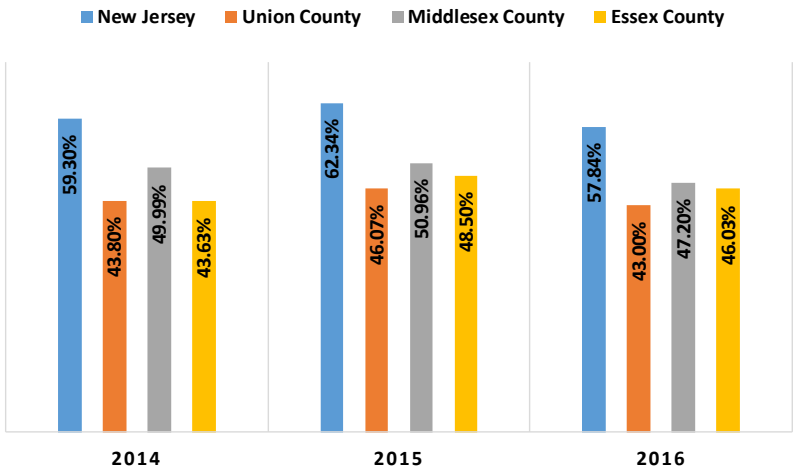
	Alcohol	Cocaine/Crack	Heroin	Other Opiates	Marijuana/Hashish	Other Drugs
New Jersey	27.1%	4.8%	43.3%	6.7%	14.7%	3.1%
Union County	32.7%	5.4%	37.5%	3.4%	18.0%	2.8%
Middlesex County	32.3%	3.4%	40.9%	5.6%	15.2%	2.4%
Essex County	21.1%	5.7%	43.8%	5.3%	20.6%	3.2%

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, and in Union County.

- In 2016, the number of drugs dispensed reached 43% of the Union County population.

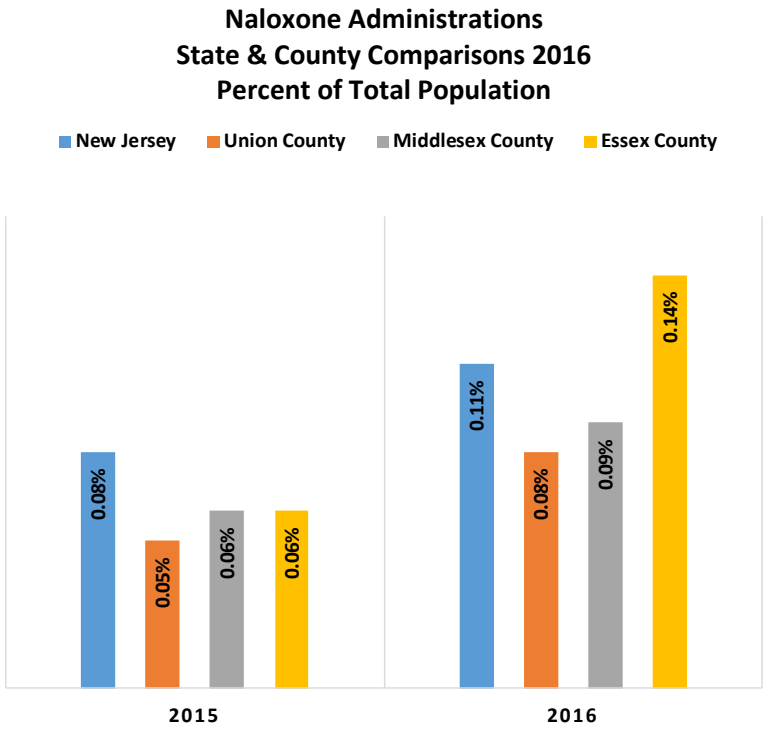
Opioid Dispensing
State & County Comparisons 2016



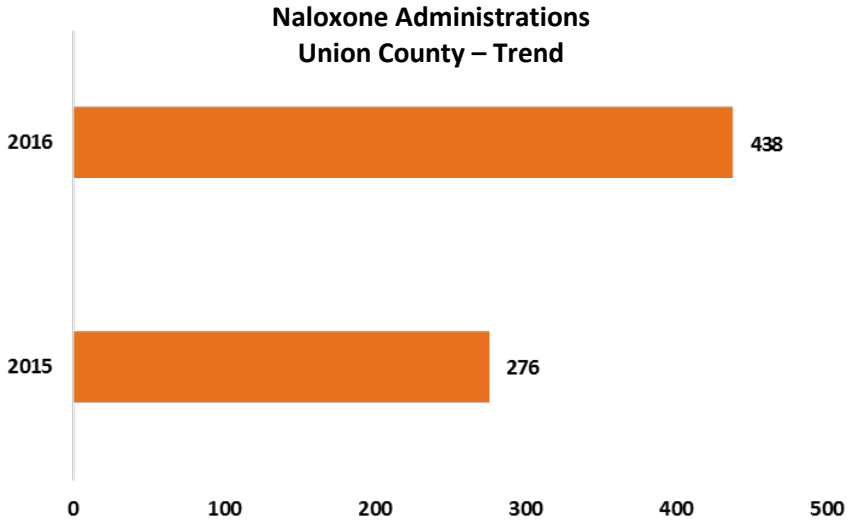
Source: http://www.nj.gov/humanservices/dmhas/publications/statistical/Substance%20Abuse%20Overview/2016/statewide.pdf

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, as well as in Union, Middlesex and Essex Counties. In Union County, Naloxone administrations increased from 276 to 438 administrations.



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



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

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New 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. Mortality - Leading Cause of Death

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, Union County age-adjusted mortality rates (AAMR) improved (decreased) for chronic lower respiratory diseases (-20.3%), diabetes (-18.0%), influenza and pneumonia (-22.2%), stroke (-6.7%), and cancer (-1.9%).
- Between 2013 and 2016, five of the top 10 leading causes of death for Union County increased including: Alzheimer's disease (52.5%), unintentional injuries (38.8%), septicemia (17.6%), nephritis (2.2%), and diseases of the heart (1.1%).

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

CAUSE	2008	2013	2016	% Change '13-'16
Diseases of heart	179.9	150.9	152.6	1.1%
Cancer (malignant neoplasms)	172.1	144.4	141.6	-1.9%
Unintentional injuries	25.9	22.4	31.1	38.8%
Stroke (cerebrovascular diseases)	33.9	33.0	30.8	-6.7%
Septicemia	21.7	18.2	21.4	17.6%
Alzheimer's disease	14.3	13.9	21.2	52.5%
Chronic lower respiratory diseases (CLRD)	30.7	25.1	20.0	-20.3%
Diabetes mellitus	23.7	22.2	18.2	-18.0%
Nephritis, nephrotic syndrome and nephrosis (kidney disease)	16.1	13.4	13.7	2.2%
Influenza and pneumonia	15.4	12.6	9.8	-22.2%

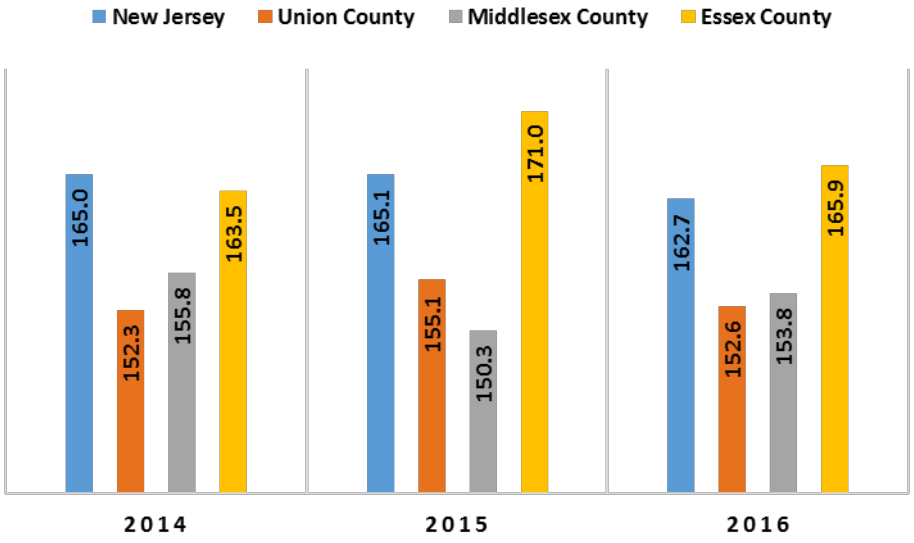
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2015 is most recent year available.

Heart Disease (1)

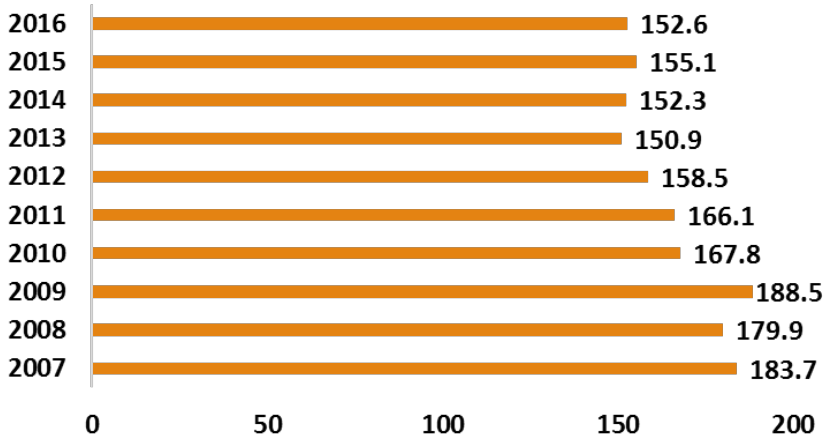
Heart disease includes several conditions, most commonly, coronary artery disease, angina, heart failure and arrhythmias. Nationally, statewide and in Union County, heart disease remains the leading cause of death. Responsible for 1 in every 4 deaths, approximately 610,000 people die of heart disease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

- The AAMR for heart disease deaths decreased between 2007 (183.7/100,000) and 2016 (152.6/100,000).
- The 2016 Union County mortality rate due to heart disease (152.6/100,000) was lower than statewide (162.7/100,000).
- In 2016, across the County, Whites (167.7/100,000) had the highest heart disease mortality rate as compared to Blacks (151.7/100,000) and Hispanics (96.2/100,000).

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



Union County

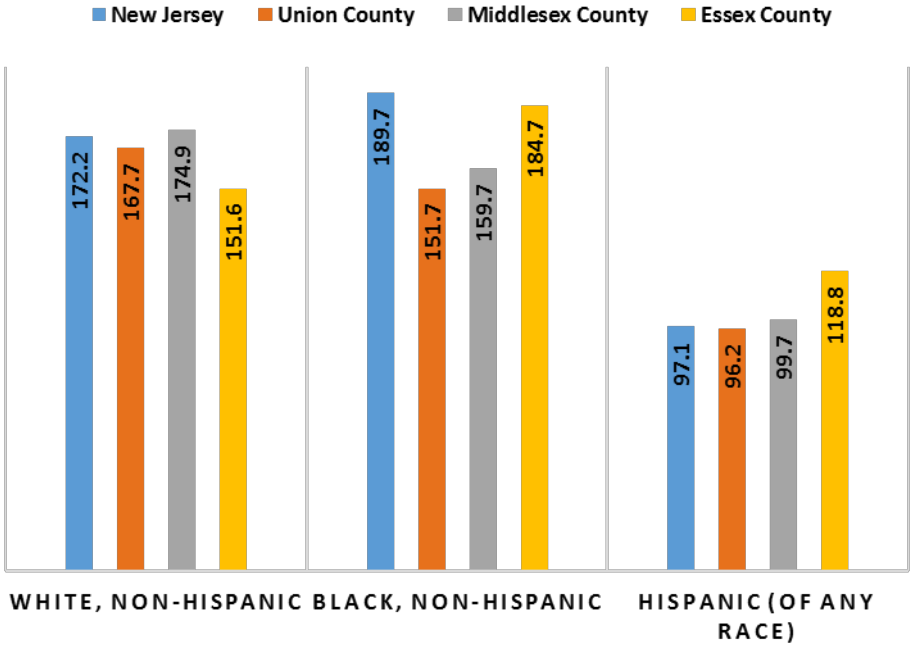


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

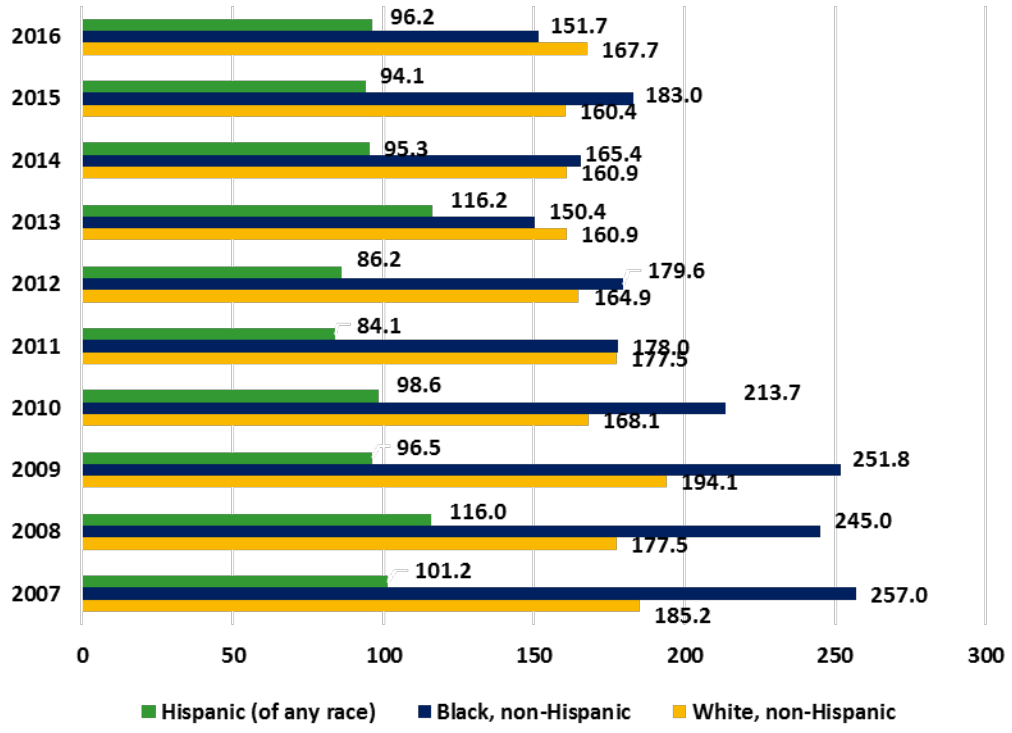
Healthy People 2020

Baseline: 129.2
Target: 103.4
Union County 2016: 152.6

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



Union County



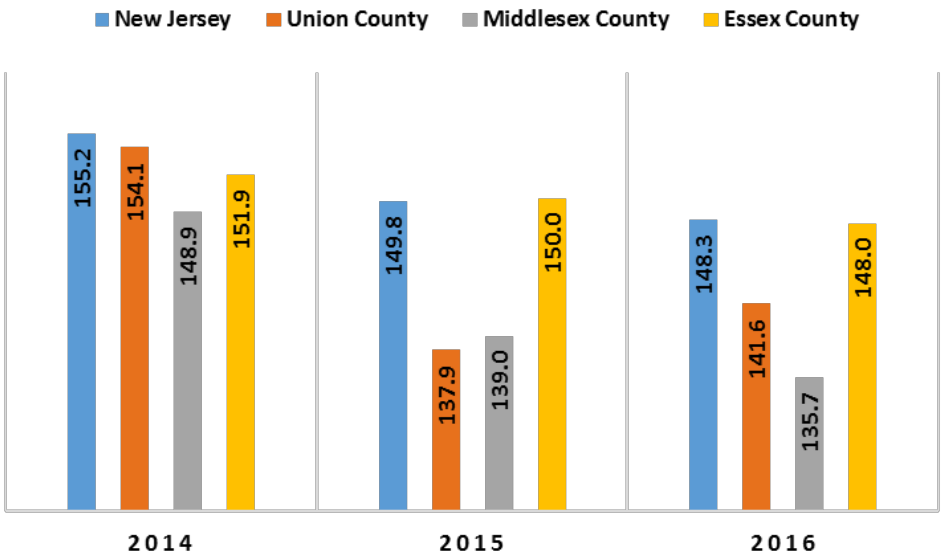
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Cancer (2)

Although there are many types of cancer, all originate from abnormal cells with untreated disease.[55] 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 Union County.[56]

- Union County deaths due to cancer decreased from 2007 (179.9/100,000) to 2016 (141.6/100,000). The 2016, County mortality rate was lower than New Jersey (148.3/100,000) and ranks in the middle performing quartile statewide.
- The 2016 Union County cancer AAMR (141.6/100,000) was lower than the *Healthy People 2020* target of 161.4/100,000 and ranks in the top performing quartile.

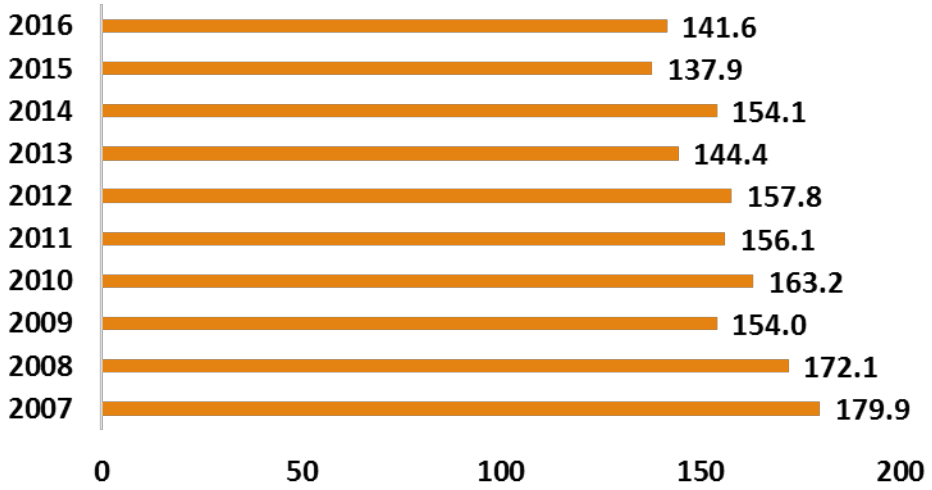
Deaths Due to Malignant Neoplasms (Cancer): Age-Adjusted Rate/100,000 Population
State & County Comparisons, 2014-2016



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

[55] http://www.cancer.org/cancer/cancerbasics/what-is-cancer
[56] http://www.cancer.org/ cancer/cancerbasics/questions-people-ask-about-cancer

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

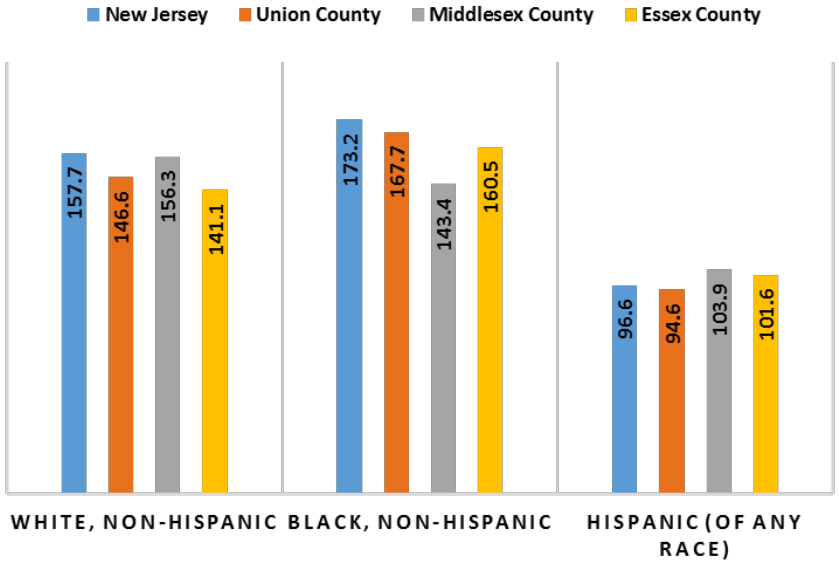


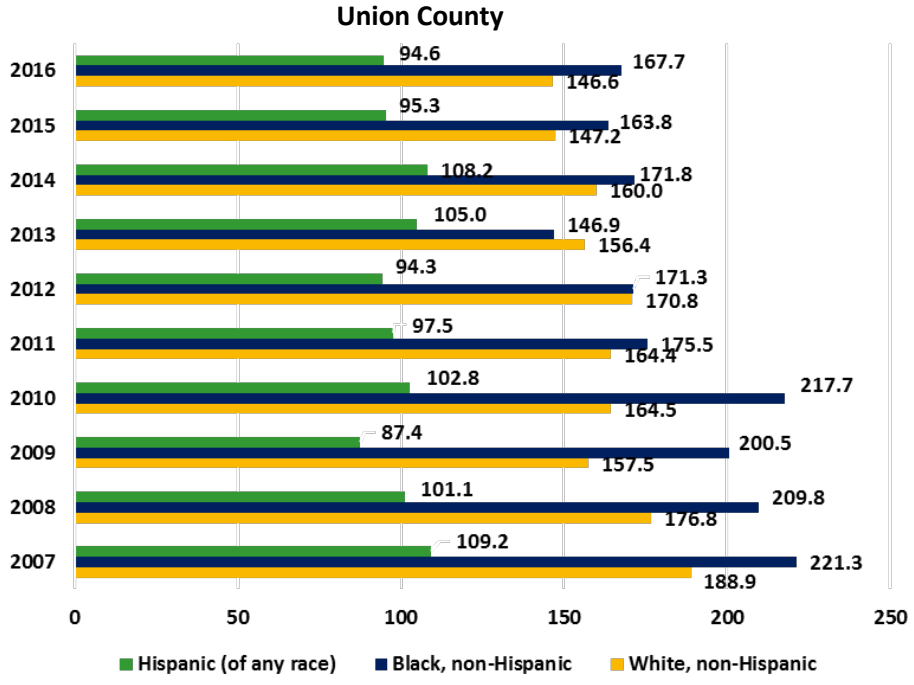
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Baseline: 179.3
Target: 161.4
Union County 2016: 141.6

- In 2016, the mortality rate for malignant neoplasm deaths among Whites in Union County was higher than the rate for Hispanics.
- The mortality rate for cancer among Blacks in Union County has historically been higher than Whites who historically experienced a higher death rate than Hispanics.

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





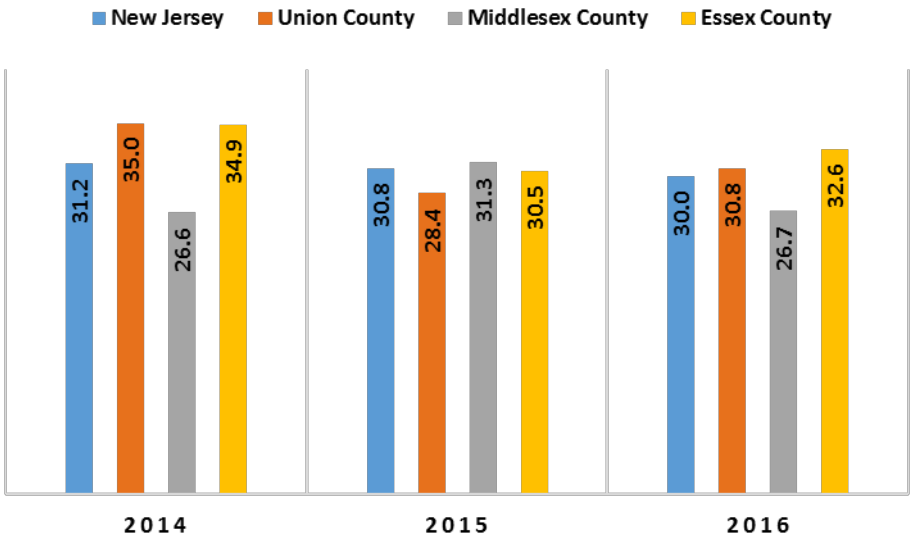
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Stroke (Cerebrovascular Diseases) (3)

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

- The Union County stroke AAMR decreased from 2014 (35.0/100,000) to 2016 (30.8/100,000). In 2016, the County AAMR was lower than the *Healthy People 2020* target (34.8/100,000).
- The 2016 Union County stroke AAMR (30.8/100,000) was slightly higher than the State (30.8/100,000) and ranks in the middle quartile statewide.

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

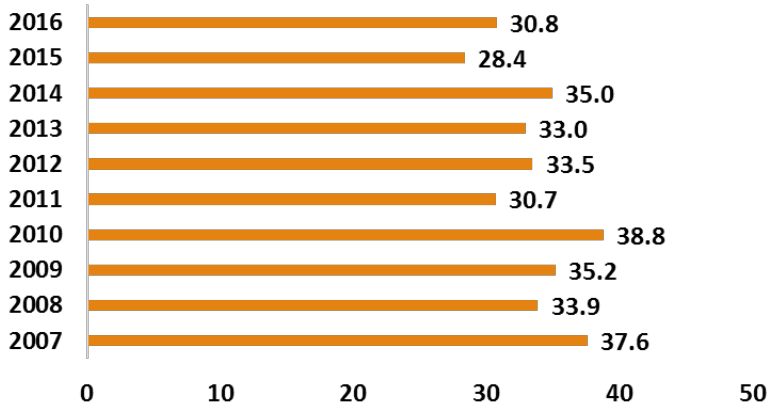


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Healthy People 2020

Baseline: 43.5
Target: 34.8
Union County 2016: 30.8

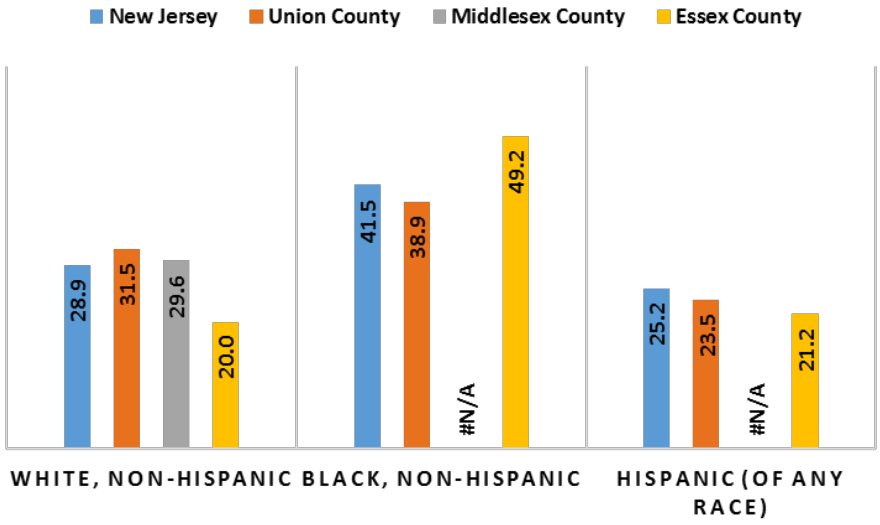
Deaths Due to Stroke: Age-Adjusted Rate/100,000 Population
Union County – Trend



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

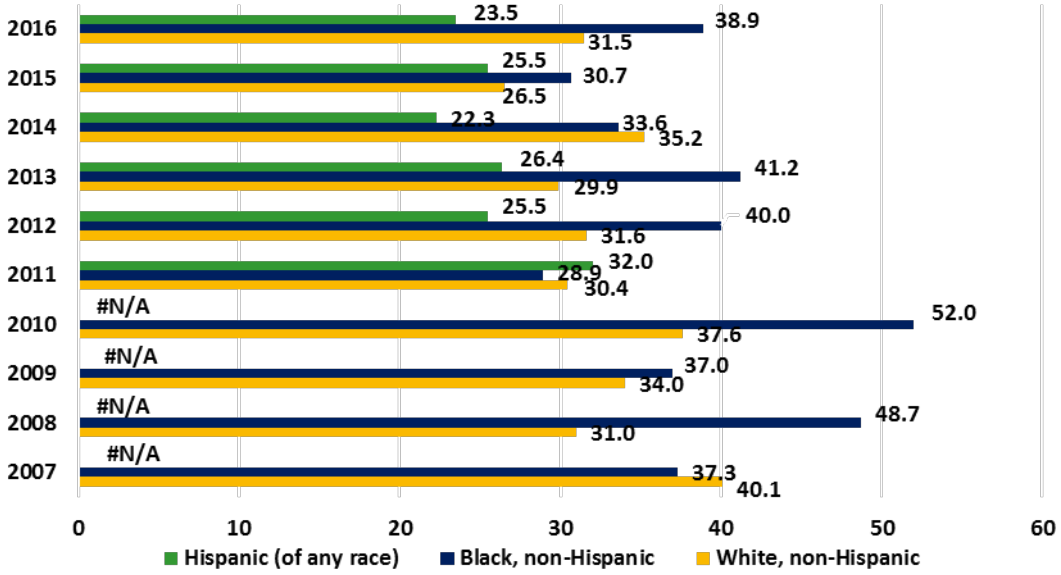
- By race/ethnicity, between 2014 and 2016, Blacks (38.7/100,000) had the highest death rate due to stroke compared to Whites (31.5/100,000) and Hispanics (23.5/100,000).

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
Union County – Trend



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

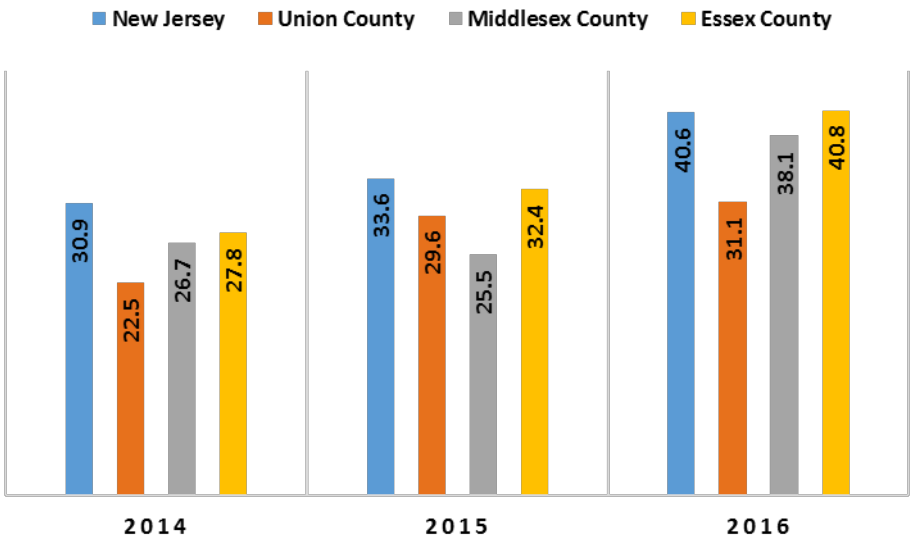
Unintentional Injuries (4)

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.[57]

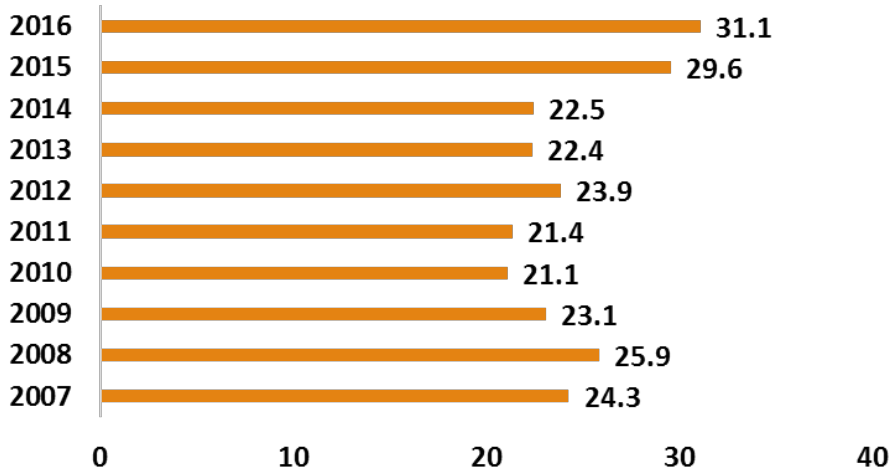
- The unintentional injury death rate increased steeply between 2007 (24.3/100,000) and 2016 (31.1/100,000) in Union County. Despite this gain, Union County ranked in the top performing quartile among New Jersey counties.
- The 2016 Union County unintentional injury AAMR was nearly 10 percentage points lower than the statewide rate.

[57] http://www.cdph.ca.gov/programs/ohir/Pages/UnInjury2010Background.aspx

Unintentional Injuries
State & County Comparisons, 2014-2016



Union County



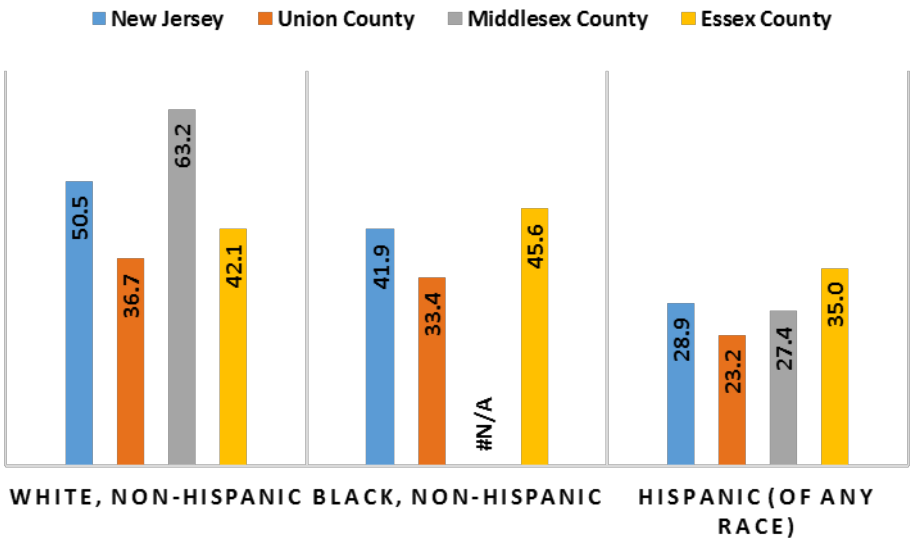
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Healthy People 2020

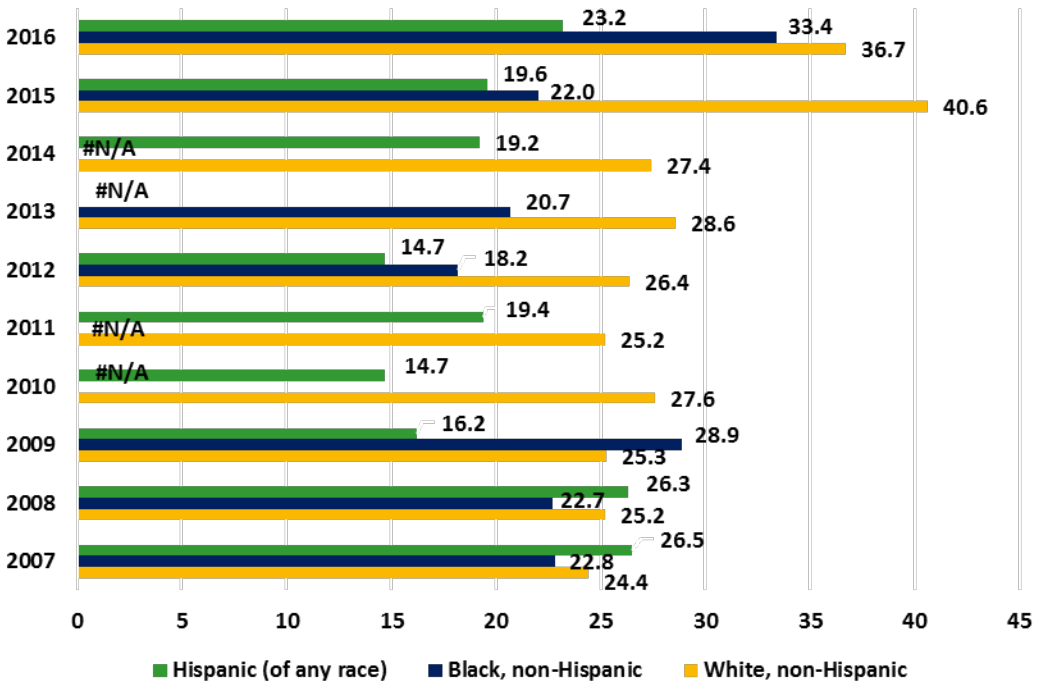
Baseline: 40.4
Target: 36.4
Union County 2016: 31.1

- The 2016 unintentional injury death rate for Whites (36.7/100,000) was higher than the rate for Blacks (33.4/100,000) and Hispanics (23.2/100,000).

Unintentional Injuries by Race/Ethnicity
State & County Comparisons, 2014-2016



Union County

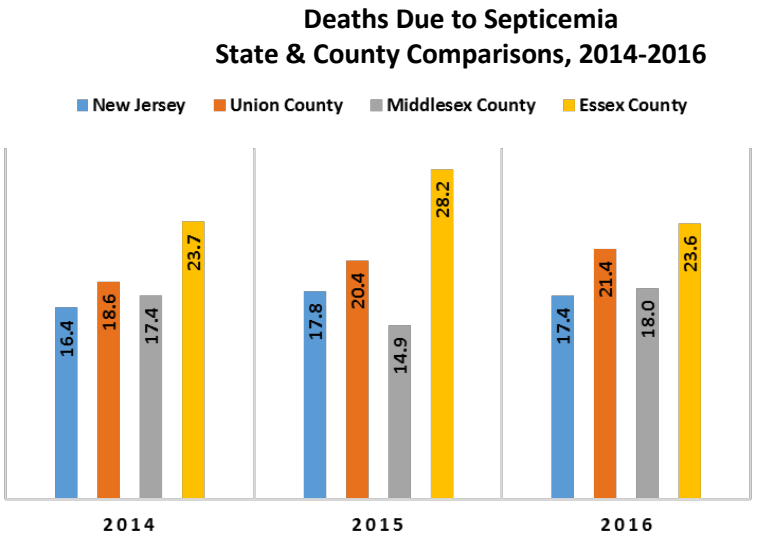


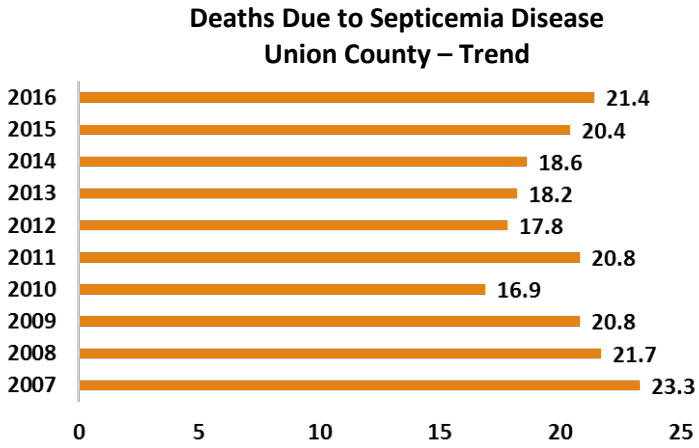
Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

Septicemia (5)

Sepsis is the body's response to a serious infection. Sepsis occurs when an infection that already exists in the skin, lungs, urinary tract or somewhere else triggers a chain reaction throughout the body. Without timely treatment Sepsis can lead to tissue damage, organ failure and death.[58]

- The Union County AAMR for septicemia increased from 18.6/100,000 in 2014, to 21.4/100,000 in 2016.
- The Union County septicemia death rate exceeded that of the State of New Jersey in 2016 (17.4/100,000) and was in the worst performing quartile in New Jersey.

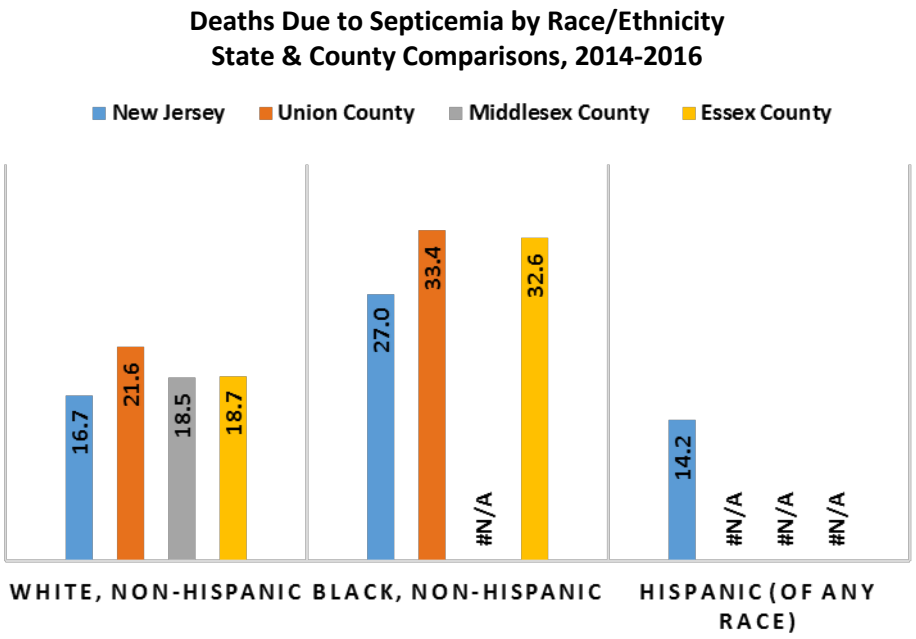


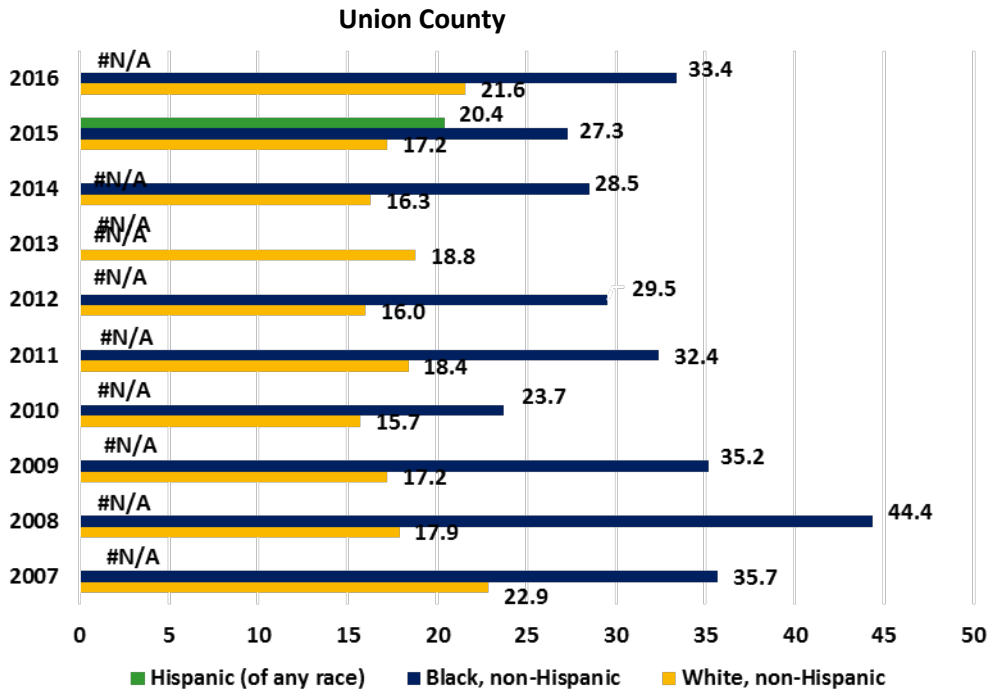


Source: NJDOH Center for Health Statistics NJ State Health Assessment Data – 2016 is most recent year available.

[58] www.cdc.gov/sepsis/whatissepsis.html

- By race, Blacks had a higher mortality rate due to septicemia (33.4/100,000) than Whites (21.6/100,000).





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

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Deaths Due to Diseases of The Heart *Age-Adjusted Rate/100000 Population*		N.A.	
Deaths Due to Diseases of The Heart (Whites, 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) (Black, 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 Septicemia *Age-Adjusted Rate/100000 Population*	N.A.	N.A	
Deaths Due to Septicemia (Black, Non-Hispanic) *Age-Adjusted Rate/100000 Population*	N.A.	N.A	

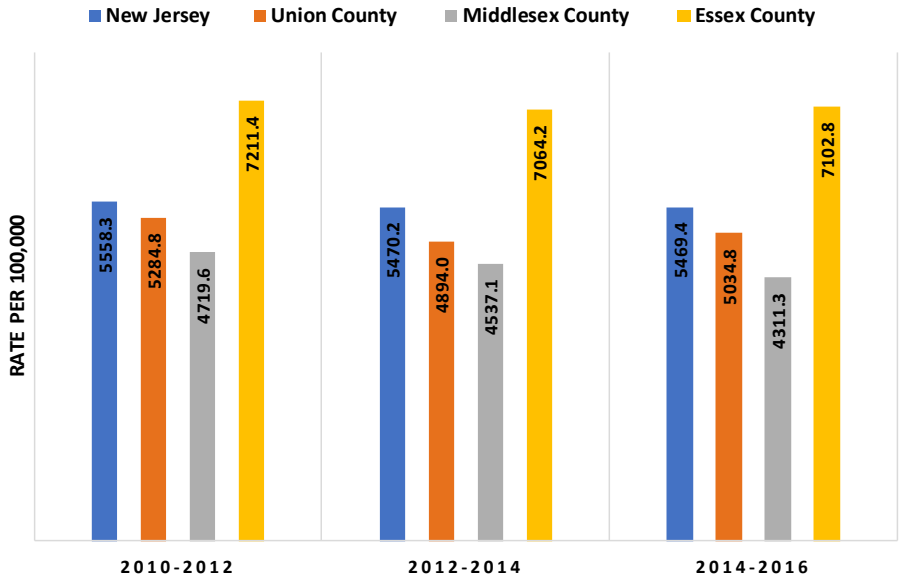
RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

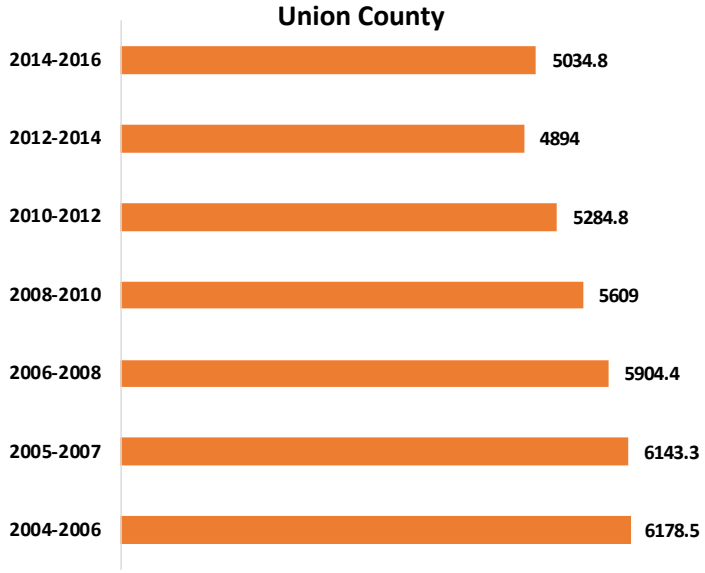
2. Premature Deaths

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 Union County YPLL rate decreased from 5,284.8/100,000 for the period 2010-2012, to 5,034.8/100,000 for the period from 2014-2016. The 2014-2016 Union County YPLL rate (5,034.8/100,000) was lower than the statewide rate (5,469.4/100,000) and ranks in the middle performing statewide quartile.
- The 2014-2016 Union County YPLL rate (5,034.8/100,000) outperformed the County Health Ranking benchmark (5,300/100,000) and was in the best performing quartile.

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

County Health Rankings & Roadmaps
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National Benchmark: 5,300.00
Union County 2014-2016: 5,034.8

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Premature Death: Years of Potential Life Lost Before Age 75 *Rate of Infant (Under 1 Year) Deaths/ 1000 Live Births*	N.A.		

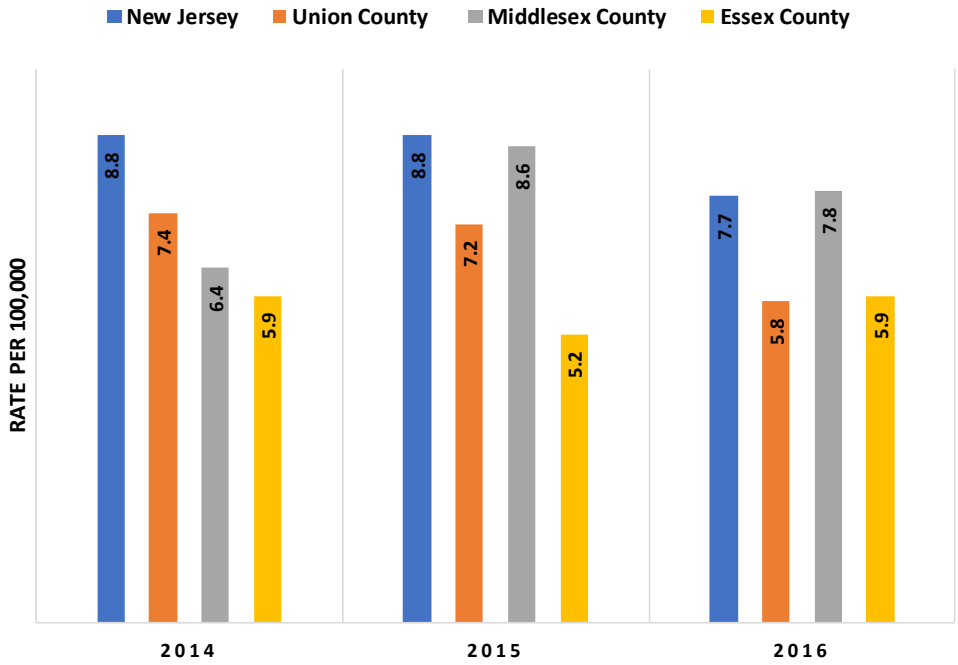
RED: Poorest Performing Quartile
Yellow: Middle Quartiles
Green: Best Performing Quartile

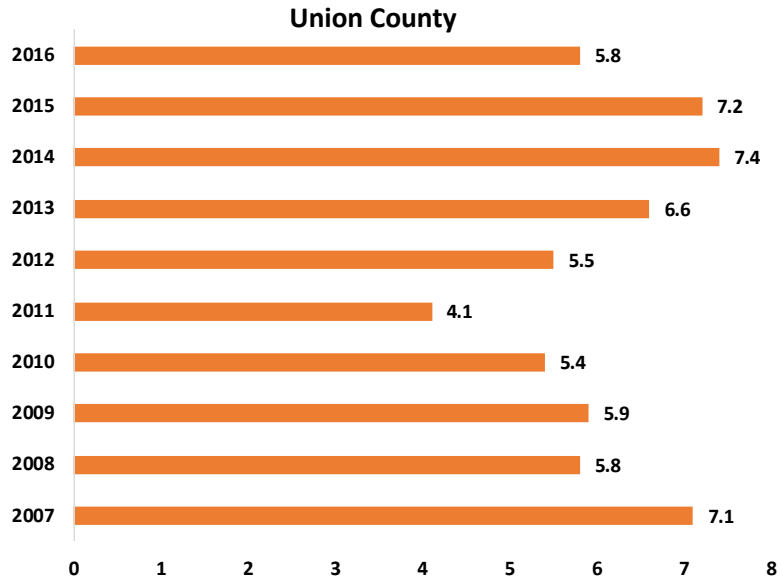
3. Behavioral Health-Related Deaths

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 Union County's suicide rate decreased at 7.4/100,000 in 2014 to 5.8/100,000 in 2016.
- Union County's 2016 suicide rate was lower than the rate statewide and the rates for Middlesex and Essex Counties.
- The 2016 Union County suicide rate (5.8/100,000) was lower than the *Healthy People 2020* target (10.2/100,000).

Deaths Due to Suicide: Age-Adjusted Rate/100,000 Population
State & County Comparisons, 2014-2016



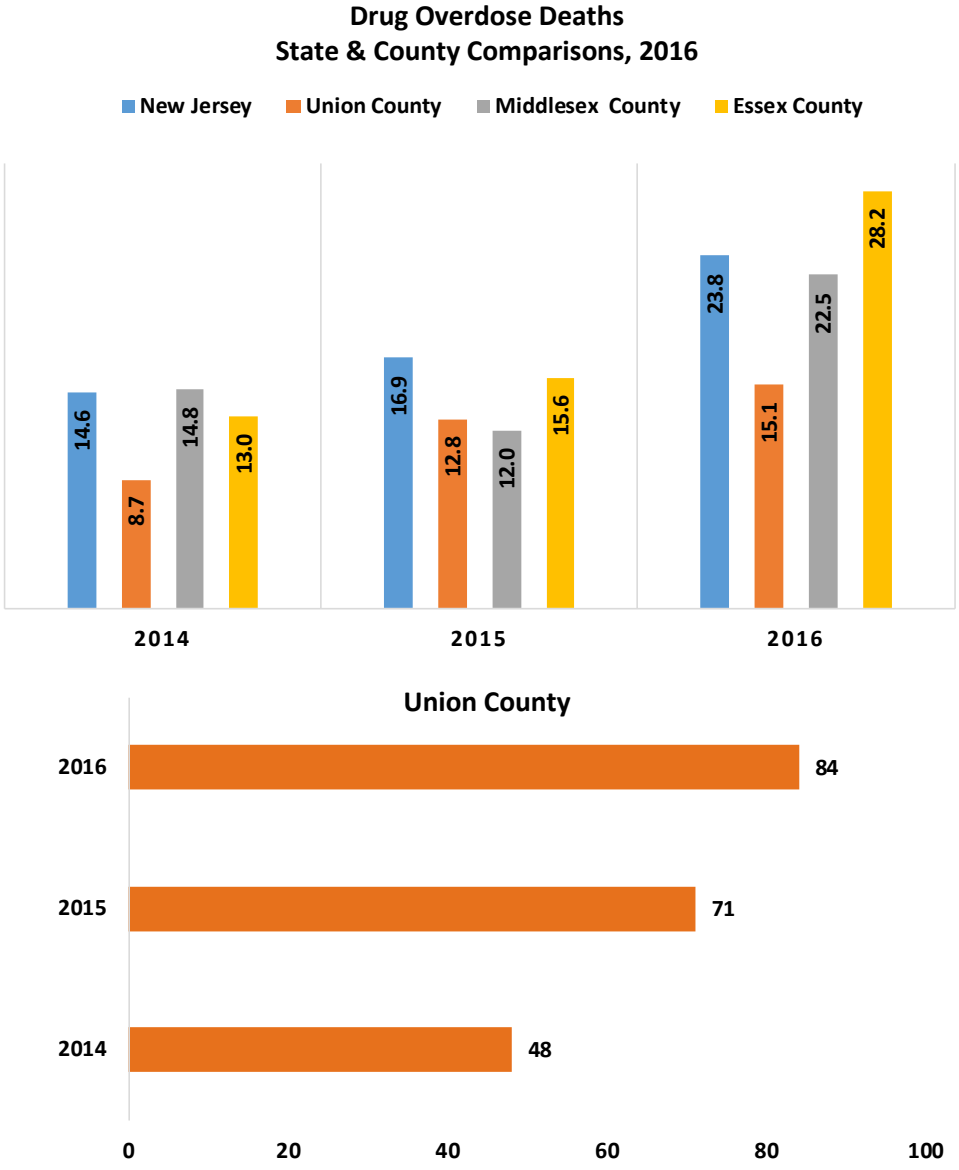


Source: NJDOH Center for Health Statistics; NJ State Health Assessment Data

Healthy People 2020

Baseline: 11.3
Target: 10.2
Union County 2016: 5.8

- Between 2014 and 2016, the rate of drug overdose deaths in Union County increased from 8.7/100,000 to 15.1/100,000.
- Between 2014 and 2016, drug overdose deaths in Union County increased from 48 to 84, nearly doubled.



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

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National Benchmark: 10
Union County 2016: 15.1

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

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

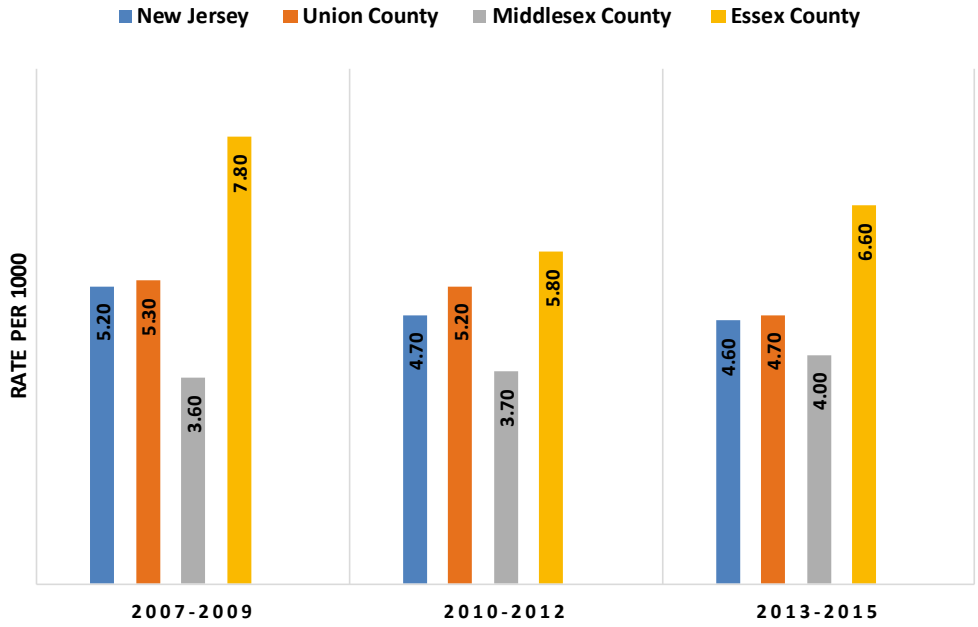
4. Infant Mortality

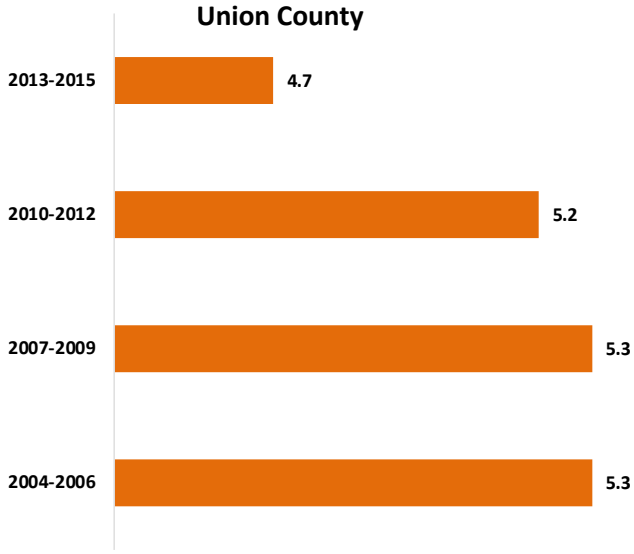
Infant mortality, the death of a baby prior to his or her first birthday, is t*raditionally* used as an indicator of the health and well-being of a nation. Infant mortality is calculated as the number of infant deaths under age 1 per 1,000 live births. Great disparities exist in infant mortality by age, 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.[59]

- The overall infant mortality rate declined countywide from the period 2007-2009 (5.3/100,000) to 2013-2015 (4.7/100,000).
- Union County ranks in the middle performing quartile among New Jersey counties for overall infant mortality in 2012-2014, the best performing quartile of the *Healthy People 2020* target, and the middle quartile in terms of the County Health Ranking benchmark.
- The Black infant mortality rate decreased between 2007-2009 from 8.4/100,000 to 7.0/100,000 in 2013-2015.
- Union County's Black infant mortality rate is lower than for Blacks in the State and surrounding counties.

[59] 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.

Healthy People 2020

Baseline: 6.7
Target: 6.0
Union County 2013-2015: 4.7

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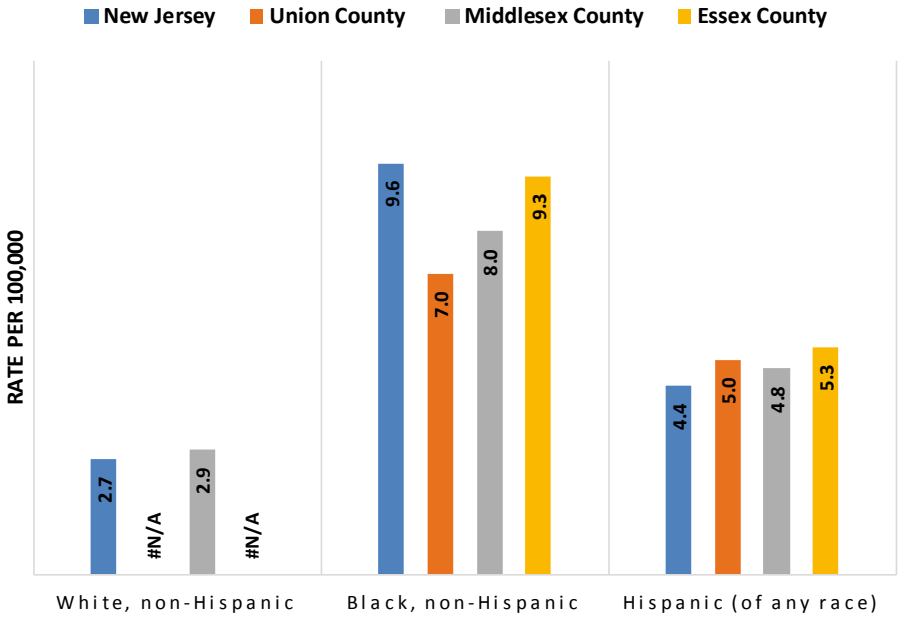
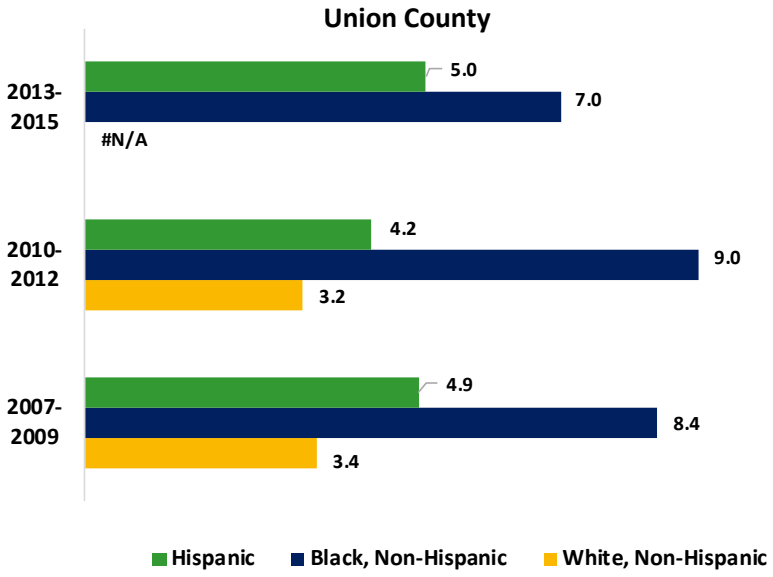
National Benchmark: 4.0
Union County 2015: 4.7

Infant Mortality Rate: Rate of Infant (Under 1 Year) Deaths/1,000 Live Births by Race/Ethnicity
State & County Comparisons, 2013-2015





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

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.[60] 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, Union County (7.6%) had a lower percentage of low birth weight babies than Middlesex County (8.0%), Essex County (9.7%), and the State (8.1%).
- The 2016 percent of Union County low birth weight babies was less than the *Healthy People 2020* target of 7.8%.
- In 2016, the percentage of Union County low birthweight babies was higher among Blacks (11.6%) than for Whites (5.6%) and Hispanics (6.9%).

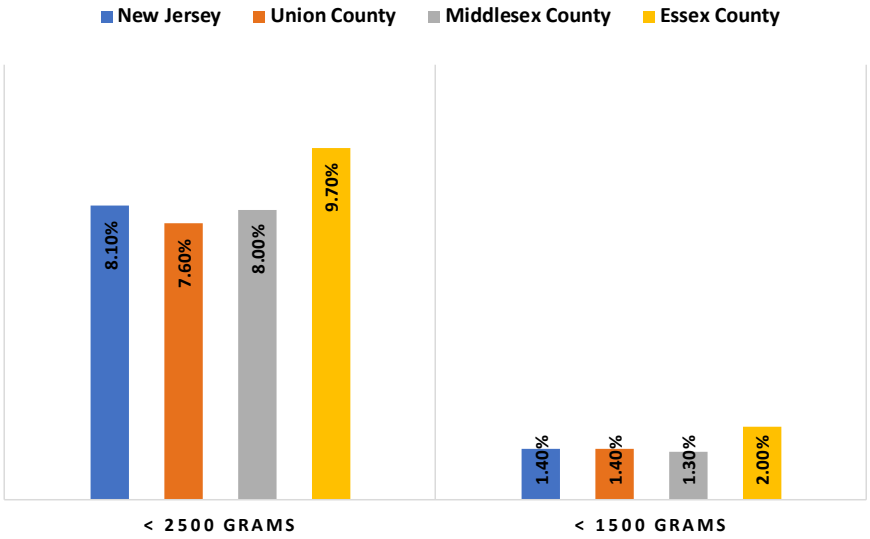
Very low birth weight babies (less than 1,500 grams) are at greater risk of adverse outcomes than low birth weight babies.

Very Low Birth Weight

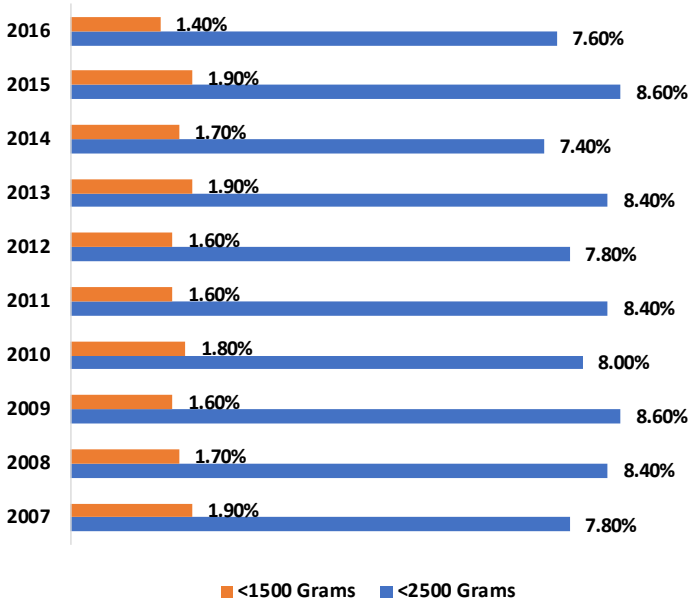
- In 2016, 1.4% of Union County babies are very low birth weight, the same as the rate statewide.
- The 2016 percent of very low birth weight babies in Union County was higher than the rate in Middlesex County (1.3%), but lower than the rate in Essex County (2.0%).
- By race, between 2011 and 2016, the percentage of very low birthweight babies: decreased for Whites from 1.3% to 0.7%; decreased from 3.5% to 2.9% for Blacks; and decreased from 1.7% to 1.2% for Hispanics.

[60] 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



Union County

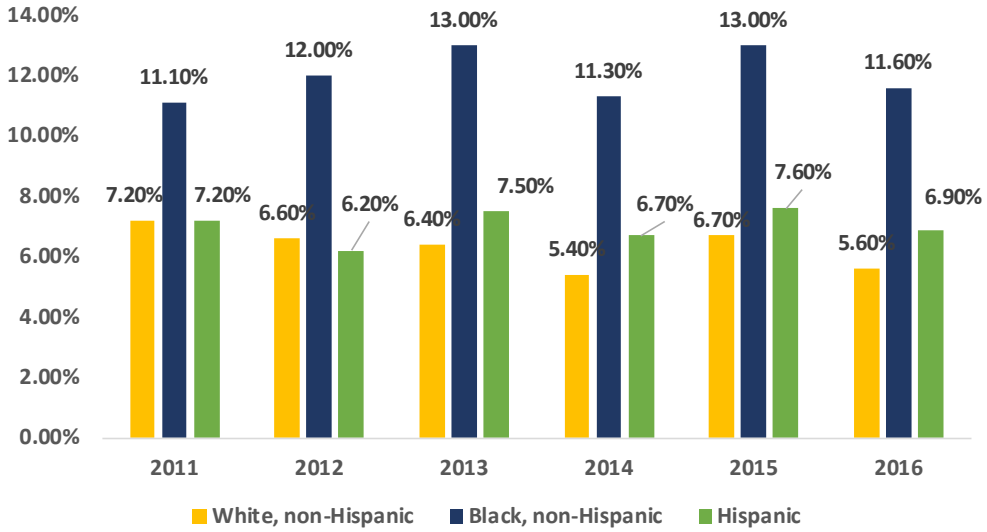


Source: NJDOH Bureau of Vital Statistics and Registration NJ Birth Certificate Database
Note: Percentages are based on the total number of live births for the County and State

Healthy People 2020

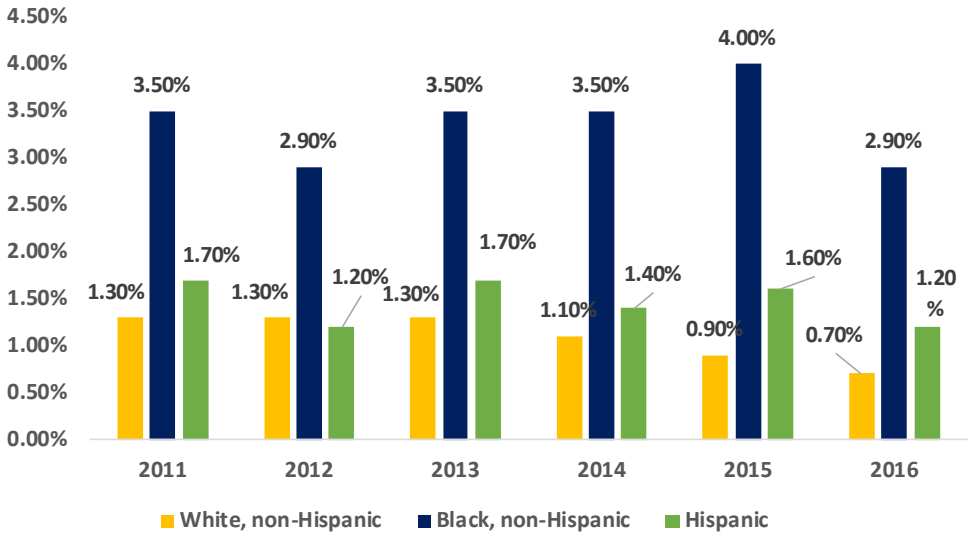
<2500/<1500
Baseline: 8.20% / 1.50%
Target: 7.80% / 1.40%
Union County 2016: 7.6% / 1.4%

Low Birth Weight by Mother's Race/Ethnicity: Percent of Live Births with Low Birth Weight Union 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 Union 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 2020* Target	County Health Rankings Benchmark	New Jersey
Infant Mortality Rate *Rate of Infant (Under 1 Year) Deaths/ 1000 Live Births*			
Infant Mortality Rate (Black Non-Hispanic) *Rate of Infant (Under 1 Year) Deaths/ 1000 Live Births*	N.A.	N.A.	
Low Birthweight (<2500 Grams) *Percentage of Live Births*		N.A.	
Low Birthweight (<2500 Grams) (Black Non-Hispanic) *Percentage of Live Births*		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

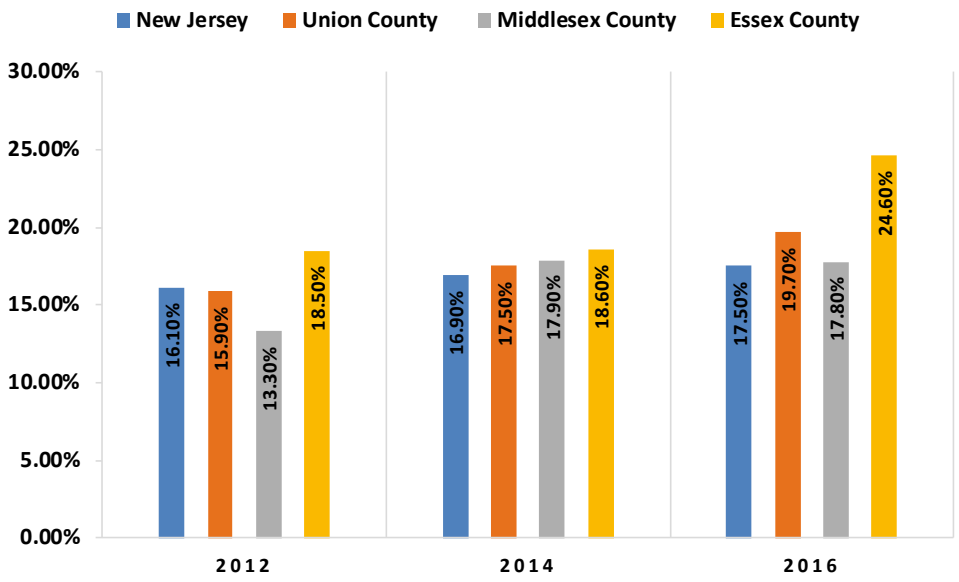
Health status and behavioral health status are broad multidimensional concepts including self-report measures of physical and mental health.

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.

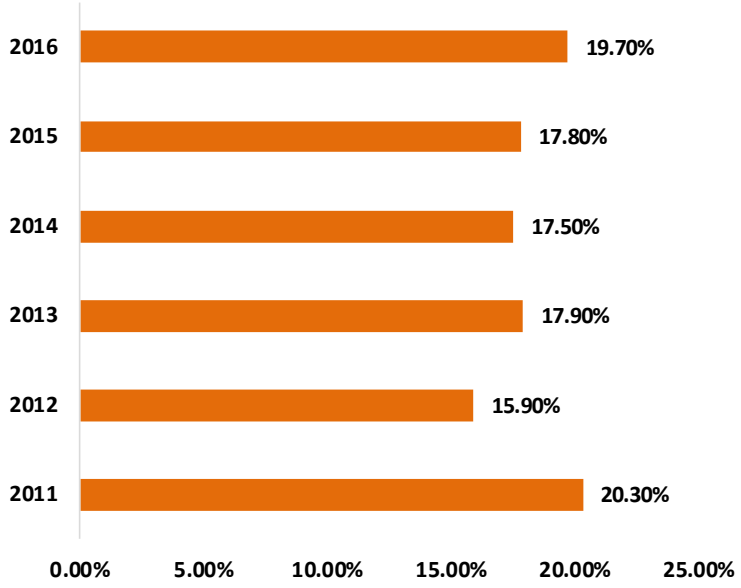
General Health Status

- Between 2012 and 2016, BRFSS data reported an increase in the percent of Union County residents who indicate their health as “fair or poor,” from 15.9% to 19.7%.
- In 2016, 17.5% of New Jersey respondents report that their health is “fair or poor,” lower than the rate among Union, Middlesex and Essex County residents.
- As compared to all New Jersey counties, Union County residents with “fair or poor” health rank in the middle performing quartile.
- As compared to the County Health Ranking, Union County residents with “fair or poor” health rank in the poorest performing quartile.

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



Union County



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

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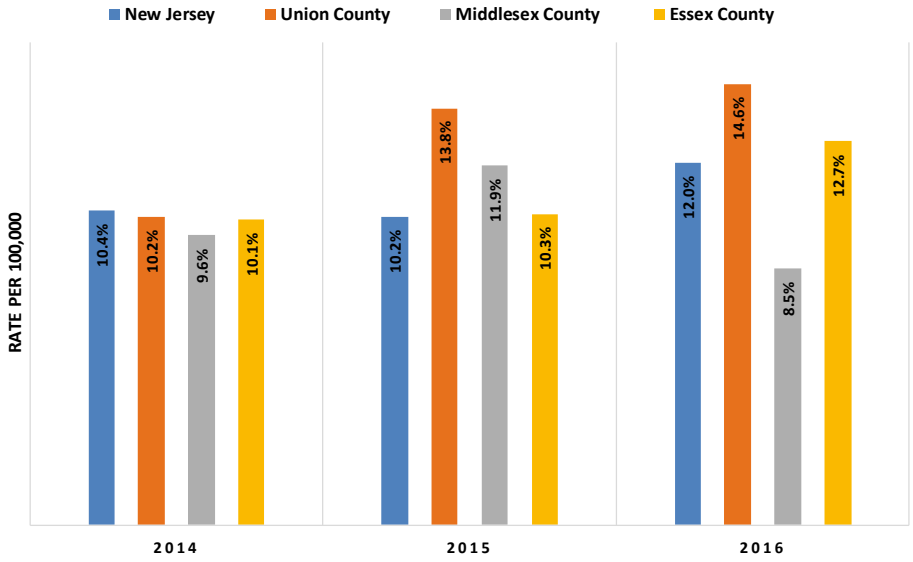
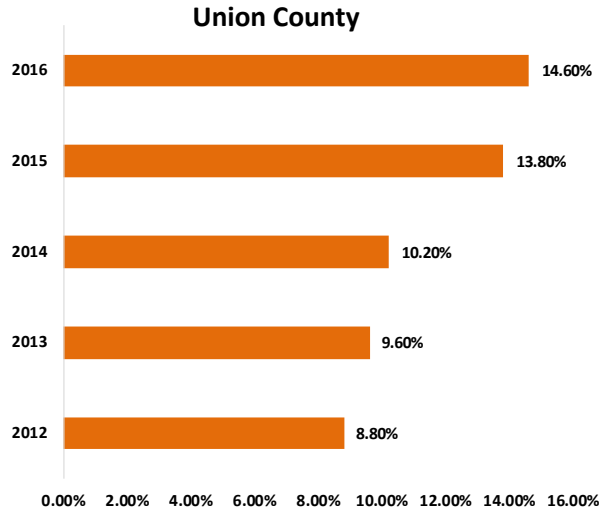
National Benchmark: 12%
Union County 2016: 19.6%

- NJBRFSS reports that the number of Union County adults with 14 or more physically unhealthy days (in the last 30 days) increased 5.8 percentage points between 2012 (8.8%) and 2016 (14.6%).
- Union County residents with 14+/30 days of poor physical health rank in the poorest performing quartile 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?"

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

National Benchmark: 3.0
Union County 2016: 15.0

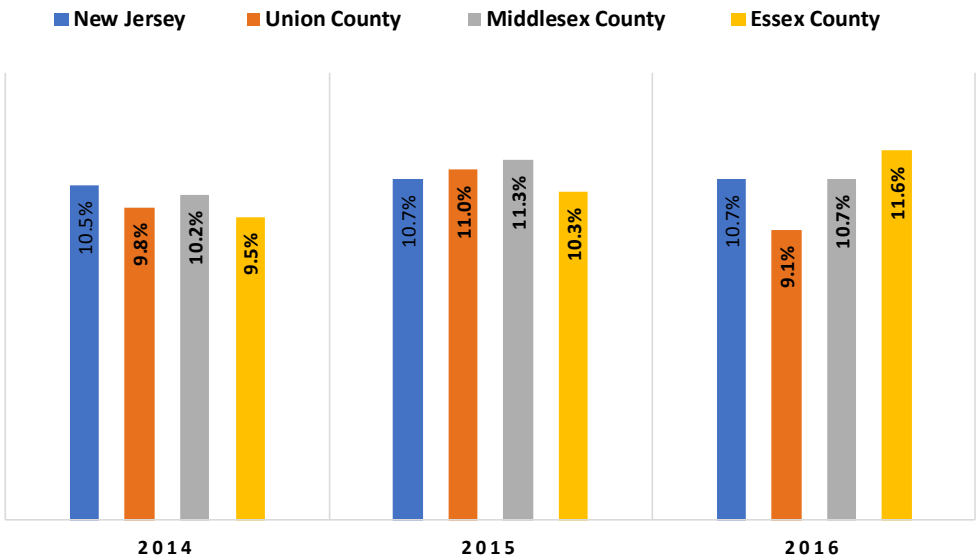
Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Reported "Fair" or "Poor" Health *Percentage of Respondents*	N.A.		
Physically Unhealthy Days Reported in the Past 30 Days *Average Age-Adjusted Number*	N.A.		

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 from 9.8% in 2014, to 9.1% in 2016. The 2016 Union County report of 14+/30 days with "not good" mental health was lower than New Jersey at 10.7%.
- As compared to all New Jersey counties, Union County residents with 14+/30 days in poor physical health ranks in the middle quartile.
- As compared to County Health Ranking Union 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

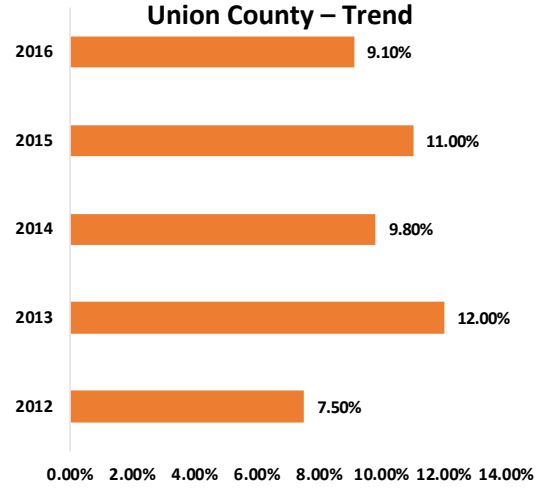


Source: New Jersey Behavioral Risk Factor Survey
Note: The physical health measure is based on response to the question: "Now thinking about your physical health which includes physical illness and injury for how many days during the past 30 days was your physical health not good?"

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

National Benchmark: 3.1%
Union County 2016: 9.1%

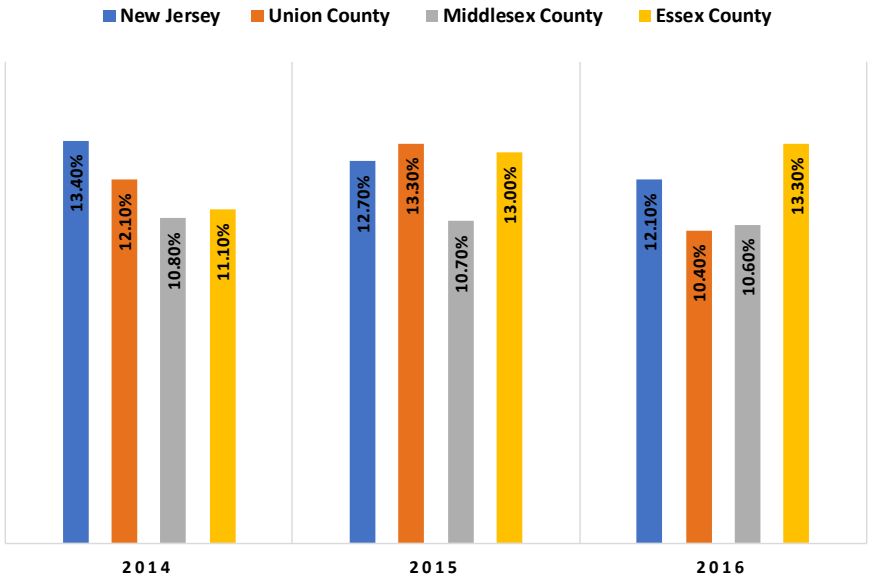
Frequent Mental Distress
Percent Reporting 14 or More of the Past 30 Days Mental Health Not Good
Union County – Trend



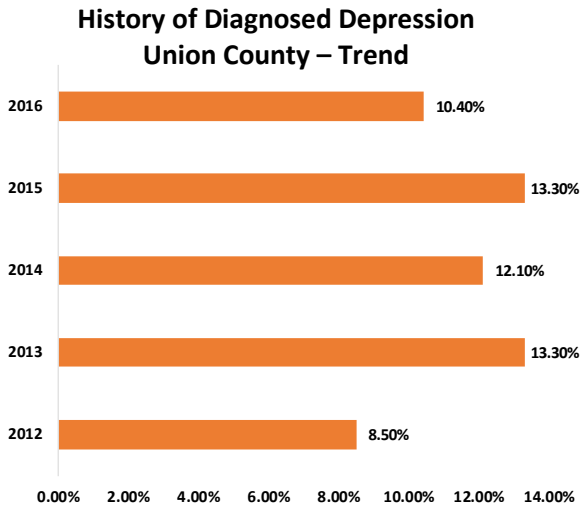
Source: New Jersey Behavioral Risk Factor Survey
Note: The physical health measure is based on response to the question: "Now thinking about your physical health which includes physical illness and injury for how many days during the past 30 days was your physical health not good?"

- Between 2014 and 2016, the percent of Union County residents reporting a history of depression decreased from 12.1% to 10.4%.
- The Union County rate for history of depression was lower than the statewide rate (12.1%), and ranked in the best performing quartile statewide.

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 2020* Target	County Health Rankings Benchmark	New Jersey
Mentally Unhealthy Days Reported in the Past 30 Days *Average Age-Adjusted Number*	N.A.		
History of Diagnosed Depression	N.A.	N.A.	

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

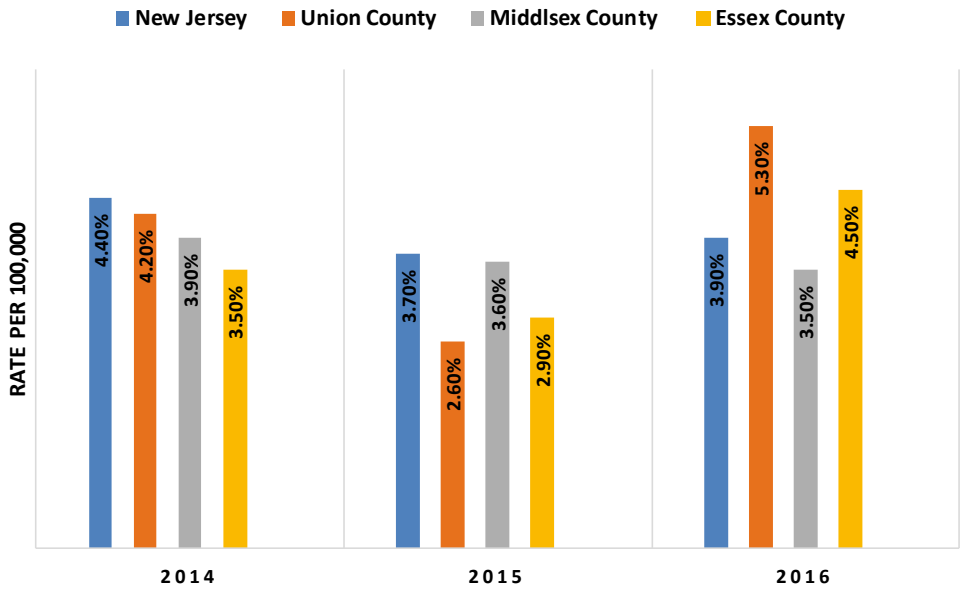
7. Morbidity

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.

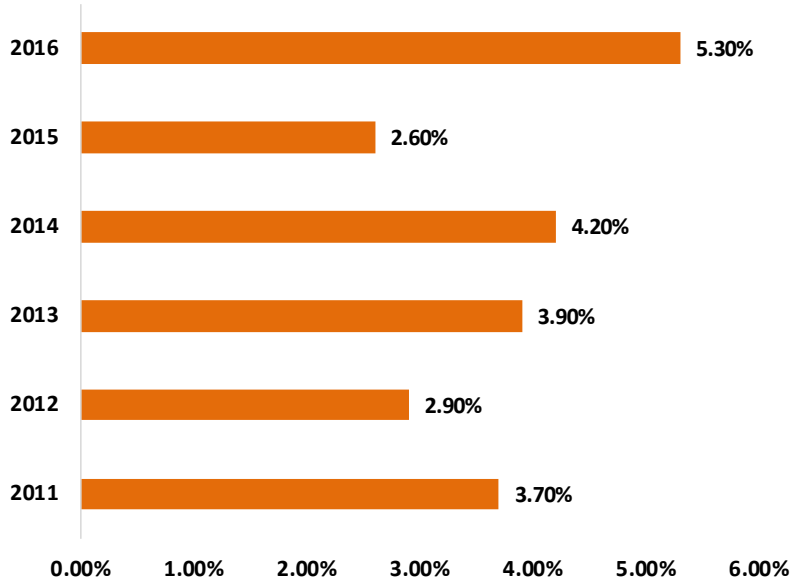
Heart Disease

- According to BRFSS, the percent of Union County residents told they have angina or coronary heart disease increased from 4.2% in 2014, to 5.3% in 2016. In 2016, BRFSS indicates 3.9% of New Jersey respondents have angina or coronary heart disease.
- As compared to New Jersey, Union County residents reporting angina or coronary heart disease ranks in the worst performing quartile.

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



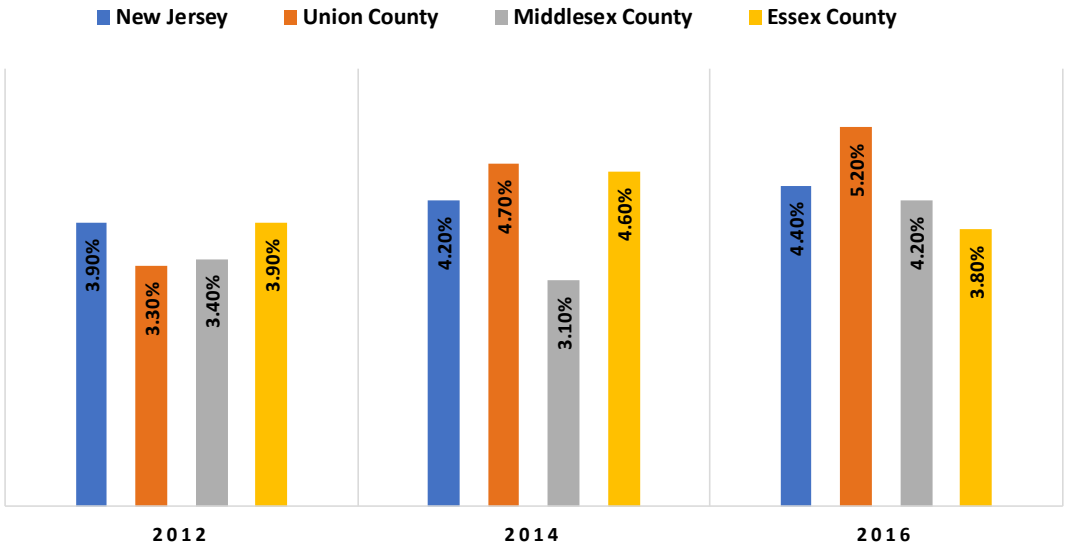
Union County



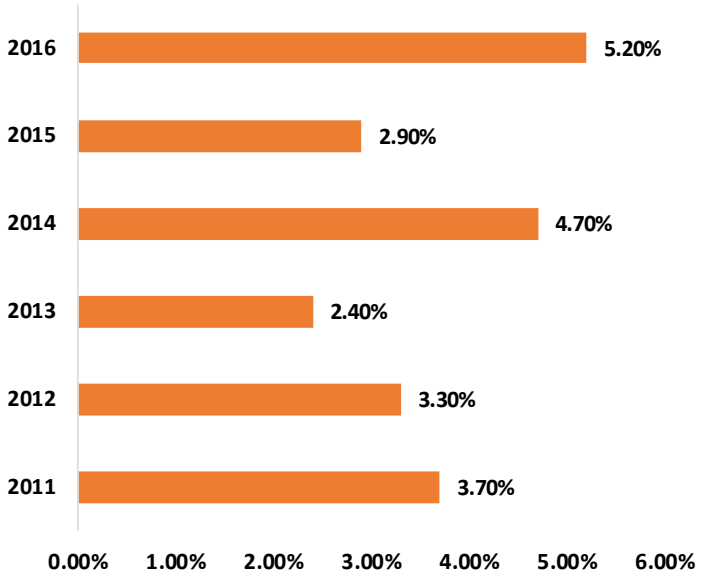
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

- According to BRFSS, the percent of Union County residents told they have had a heart attack increased 1.9 percentage points from 3.3% in 2012 to 5.2% in 2016. In 2016, BRFSS indicated 4.4% of New Jersey respondents were told they had a heart attack.
- Union County ranks in the worst 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)



Union County

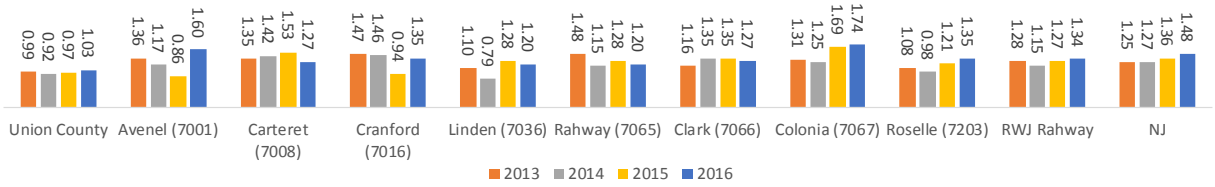


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

Heart Disease Hospital Use Rates for County, RWJ Rahway Service Area, and Selected Towns

- The rate of Union County residents hospitalized with a heart attack diagnosis (2013-2016) was lower than those in the State.
- In 2016, Colonia residents exhibited the highest rate of patients hospitalized with a diagnosis of heart attacks at 1.74/1,000 and Linden and Rahway residents reported the lowest rate of 1.20/1,000.

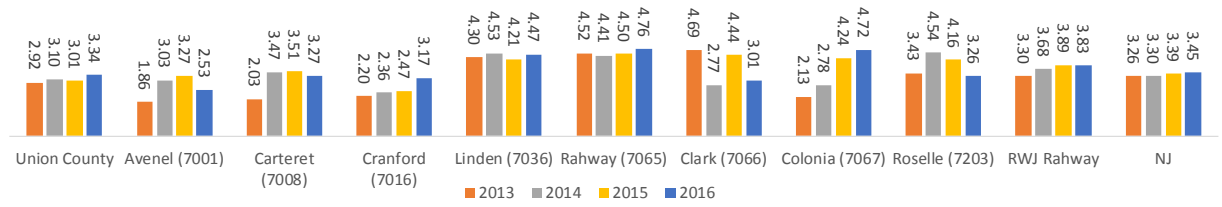
Heart Attack: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



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

- Between 2013 and 2016, the rate of patients hospitalized with a diagnosis of heart failure in Union County was lower than RWJ Rahway's Service Area.
- In 2016, Rahway residents exhibited the highest rate of patients hospitalized with a diagnosis of heart failure/CHF at 4.76/1,000 and Avenel residents had the lowest rate at 2.53/1,000.

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

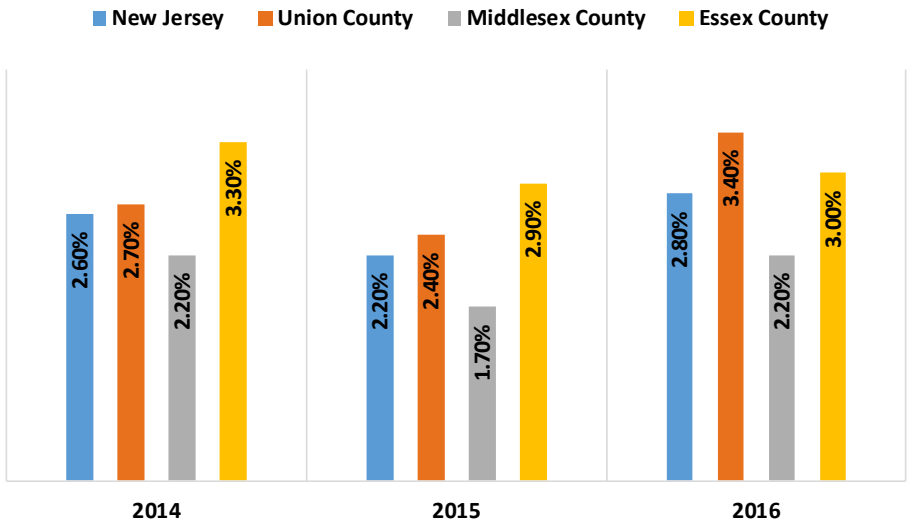


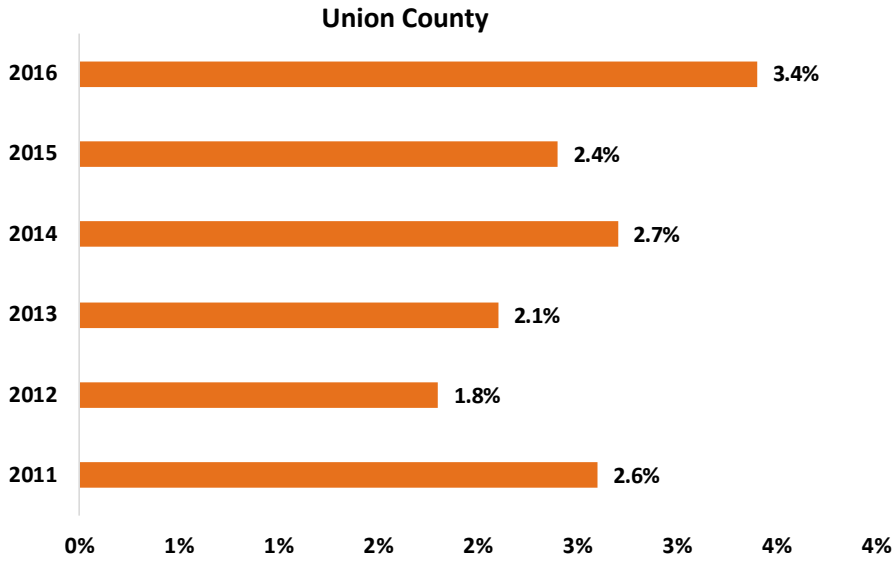
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges for MS-DRGs 291-293

Stroke

- In 2016, BRFSS reported 3.4% of Union County respondents indicated they had a stroke.
- In 2016, Union County (3.4%) reported a higher rate of strokes than the State (2.8%), Essex (3.0%), and Middlesex County (2.20%).
- Union County ranks in the middle 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



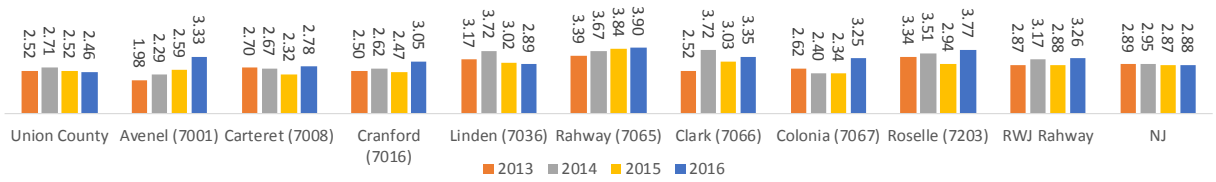


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

Stroke Hospital Use Rates for County, RWJ Rahway Service Area, and Selected Towns

- From 2013 through 2016, Union County had a lower rate of patients using a hospital service with stroke/TIA diagnosis compared to the State.
- In 2016, Rahway (3.90/1,000) had the highest rate for patients hospitalized for stroke/TIA diagnosis in the region, and Carteret (2.78/1,000) had the lowest.

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



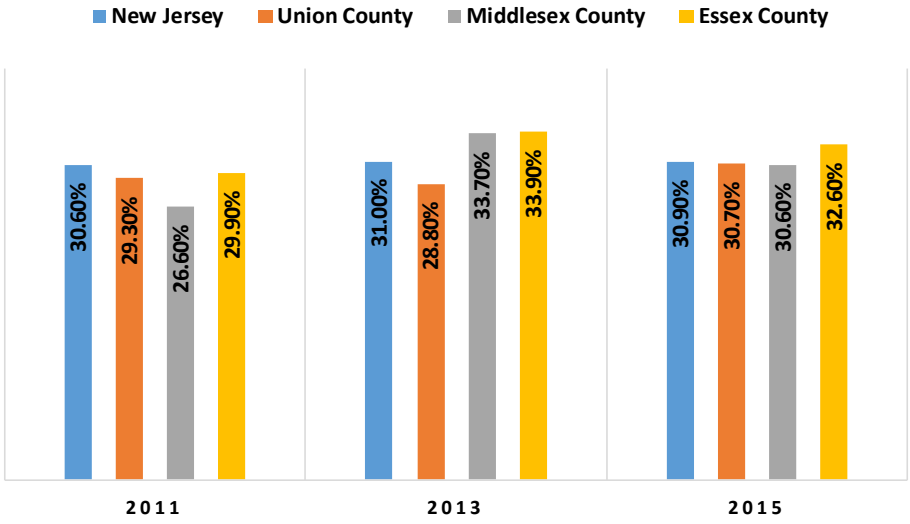
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges for MS-DRGs 061-069

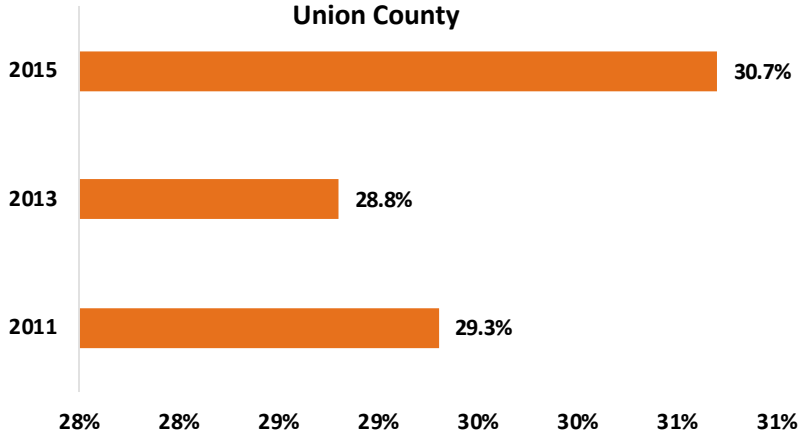
Hypertension and High Cholesterol

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 30.7% of Union County adults were aware that they suffered from hypertension, slightly less than New Jersey adults (30.9%), and adults in Essex County (32.6%).
- Between 2011 and 2015, Union County adults who were told they had high blood pressure increased 1.4 percentage points.
- In 2015, Union County (30.7%) 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





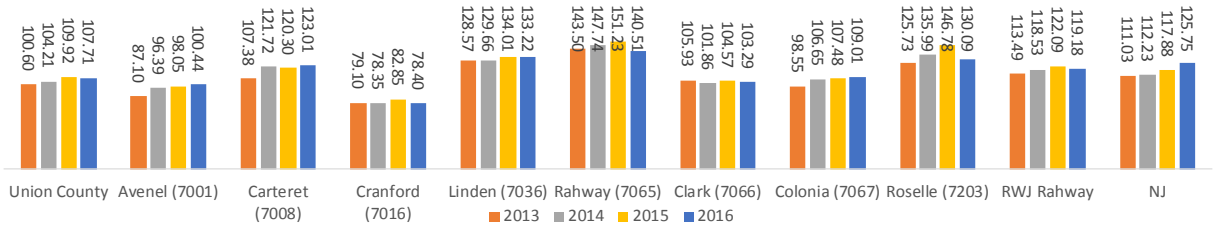
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

Baseline: 29.9%
Target: 26.9%
Union County 2015: 30.7%

Hypertension Hospital Use Rates for County, RWJ Rahway Service Area, and Selected Towns

- Rahway had the highest rate of patients using a hospital service with a diagnosis of hypertension for each year from 2013 through 2016.
- In 2016, RWJ Rahway's Service Area (119.18/1,000) had a higher rate of patients using a hospital service with a hypertension diagnosis than Union County (107.71/1,000).

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

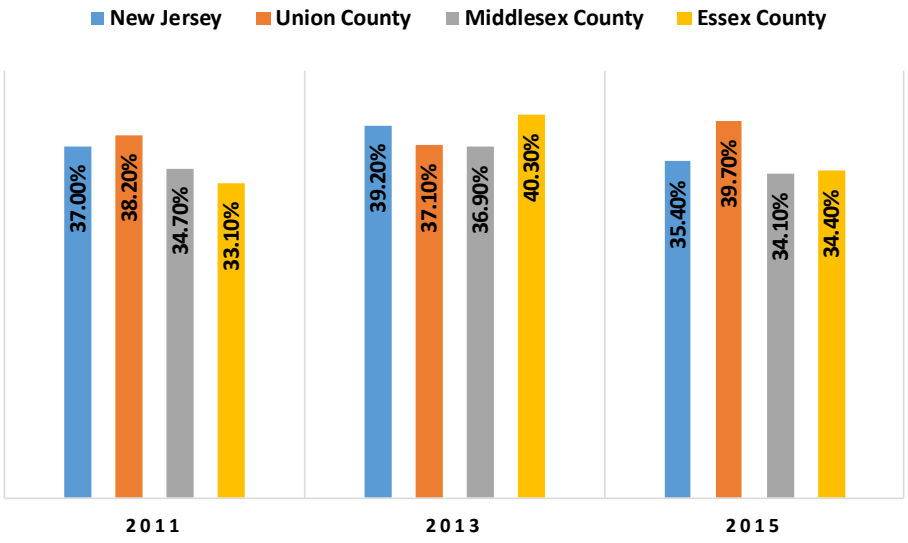


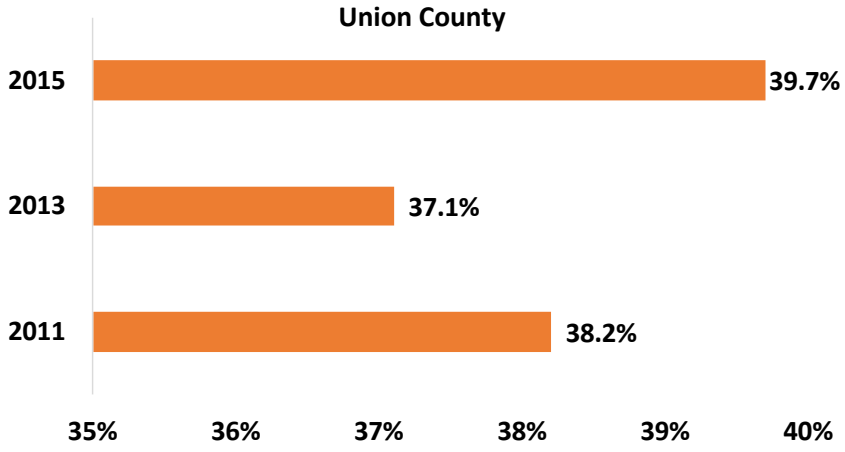
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes in Range 401-405.99 (Appearing Anywhere In First 13 DX Codes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

Cholesterol

- In the 2015 BRFSS, 39.7% of Union County adults who had their cholesterol checked were told it was high, was higher than to New Jersey adults (35.4%).
- The percent of Union County adults reporting high cholesterol trended upward from 2011 (38.2%) through 2015 (39.7%).
- The 2015 Union 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%. Union County is in the lowest performing quartile with respect to counties statewide and 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)

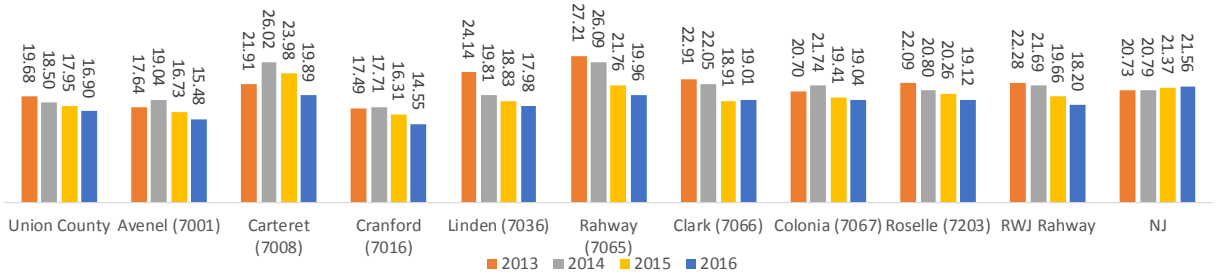
Healthy People 2020

Baseline: 15.0%
Target: 13.5%
Union County 2015: 39.7%

High Cholesterol Hospital Use Rates for County, RWJ Rahway Service Area, and Selected Towns

- The rate of patients using a hospital service with a diagnosis of high cholesterol was highest in Rahway in 2016 (19.96/1,000).
- In 2016, the rate of patients using a hospital service with a diagnosis of high cholesterol was lowest in Cranford (14.55/1,000).

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

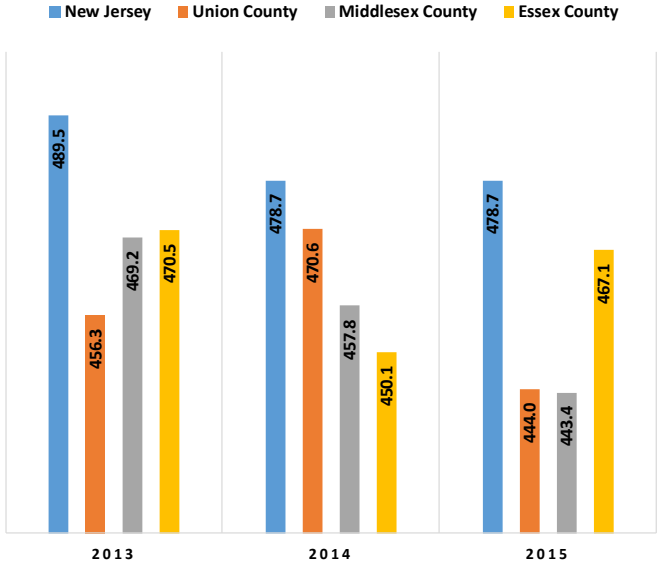


Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes 272.0 or 272.2 (Appearing Anywhere In First 13 DX Codes On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

Cancer

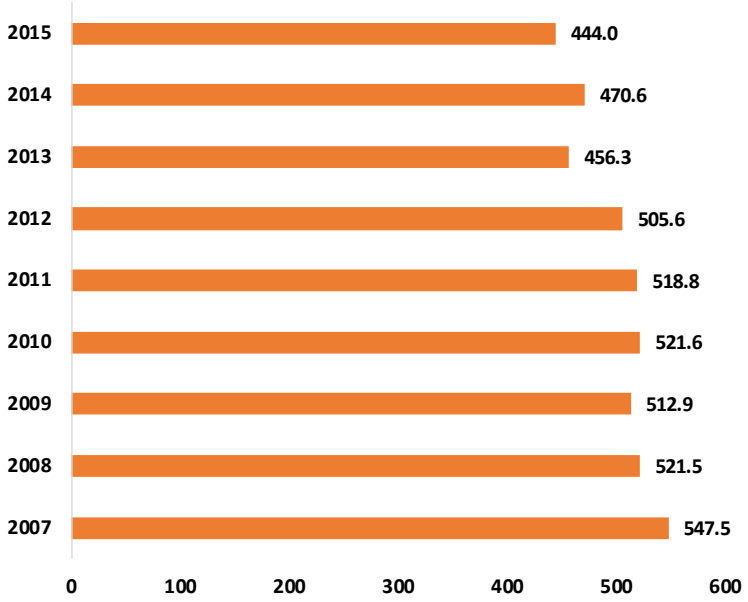
- Incidence of overall invasive cancer in Union County decreased from 547.5/100,000 in 2007, to 444.0/100,000 in 2015.
- In 2015, the overall incidence of cancer in Union County was lower than the State and Essex County.

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
Union County – Trend

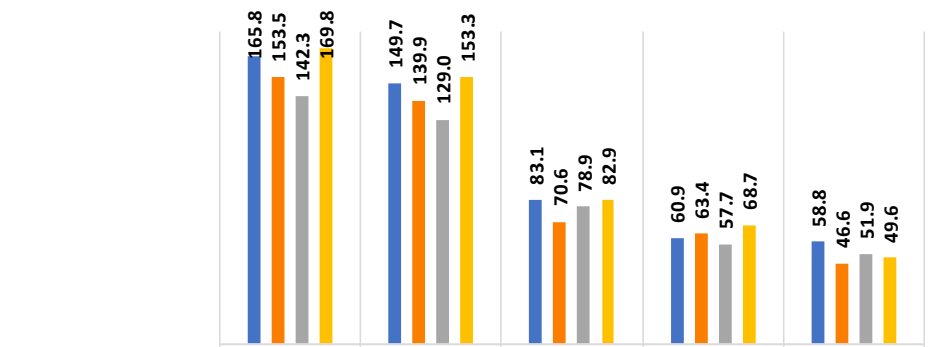


Source: NJDOH New Jersey Cancer Registry
Note: The Rate / 100,000 for Prostate Cancer is based on Males and the Rate / 100000 for Breast Cancer is based on Females

Incidence by Site

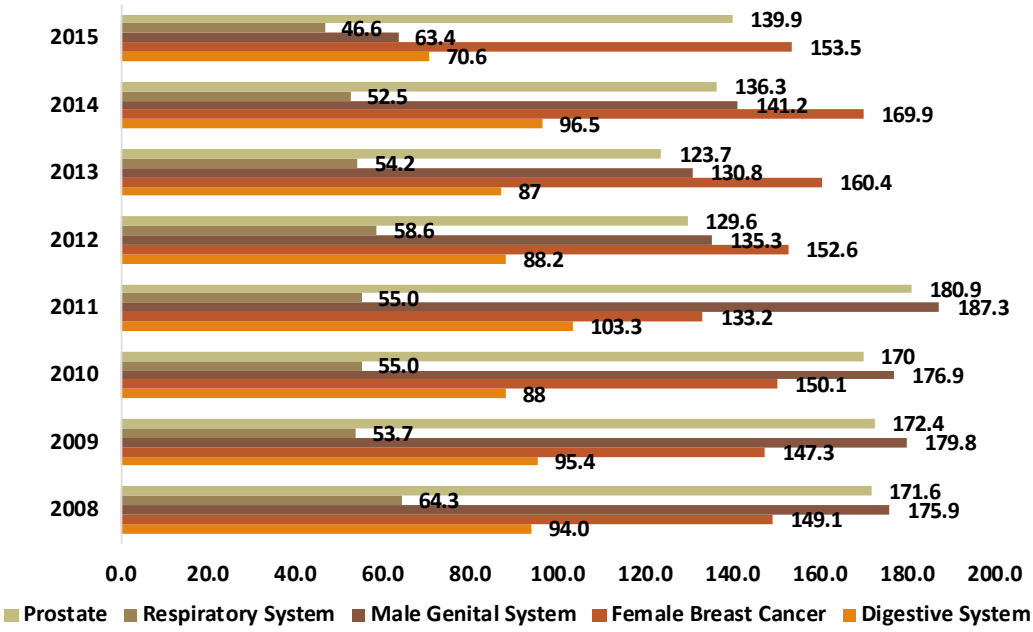
- In Union County, breast (153.5/100,000) and prostate (139.9/100,000) cancers had the highest incidence rates among the top five cancers, followed by digestive system (70.6/100,000), male genital system (63.4/100,000), and respiratory system (46.6/100,000).
- In 2015, the rates of the top five cancer site for Union County were lower than New Jersey, except male genital system cancer.
- Between 2008 and 2015, incidence trends for Union County cancer rates by site were:
    - Breast increased 2.9%
    - Digestive System decreased 24.9%
    - Prostate declined 18.5%
    - Male Genital System decreased 64.0%
    - Respiratory System decreased 27.5%
- Breast, prostate, digestive system and respiratory system cancer incidence for Union County perform in the top quartile in comparison to all 21 New Jersey counties. Male genital system cancer incidence in Union County performs in the middle quartile.

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



	Breast	Prostate	Digestive System	Male Genital System	Respiratory System
New Jersey	165.8	149.7	83.1	60.9	58.8
Union County	153.5	139.9	70.6	63.4	46.6
Middlesex County	142.3	129.0	78.9	57.7	51.9
Essex County	169.8	153.3	82.9	68.7	49.6

Union 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

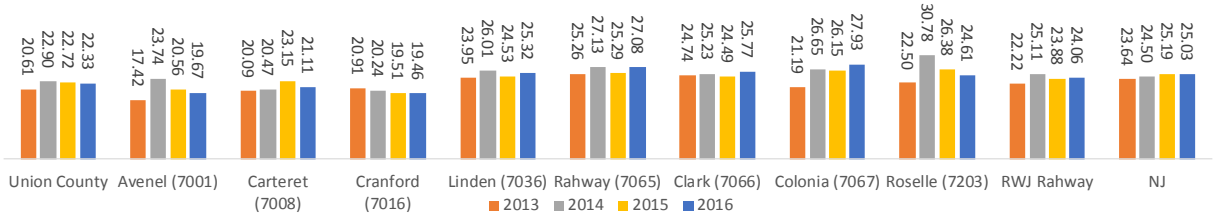
Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New Jersey
Overall Cancer Incidence *Age-Adjusted Rate per 100,000 Population*	N.A	N.A.	
Prostate Cancer Incidence *Age-Adjusted Rate per 100,000 Population*	N.A.	N.A.	
Breast Cancer Incidence *Age-Adjusted Rate per 100,000 Population*	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

Cancer Hospital Use Rates for County, RWJ Rahway 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 Colonia (27.93/1,000).
- In 2016, the rate for patients discharged with a cancer diagnosis/1,000 population was lower in the County (22.33/1,000) than in the RWJ Rahway Service Area (24.06/1,000).

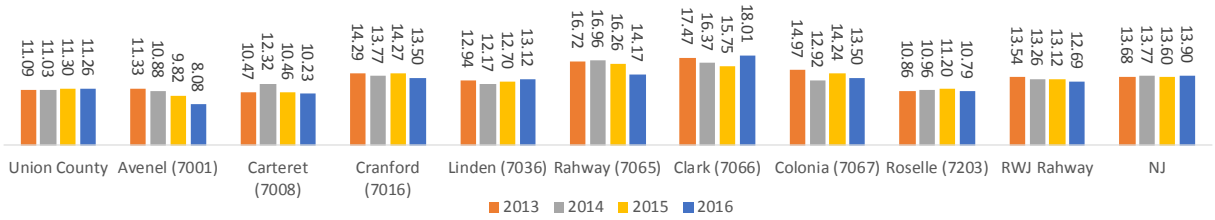
Cancer: Acute Care IP, Same Day and ED Discharges; Rate / 1,000 Population, 2013-2016



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 Clark (18.01/1,000).
- In 2016, the rate of patients hospitalized with a history of cancer diagnosis/1,000 population was lowest in Avenel (8.08/1,000).

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)

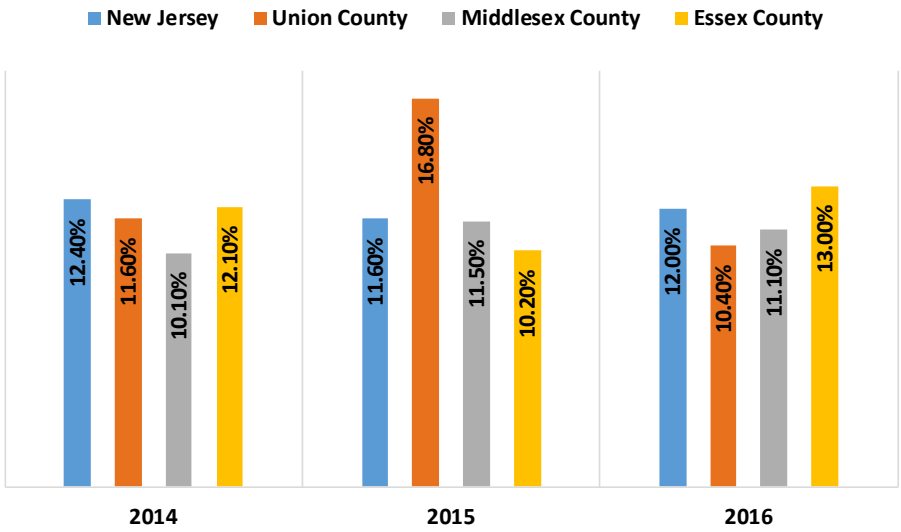
Asthma

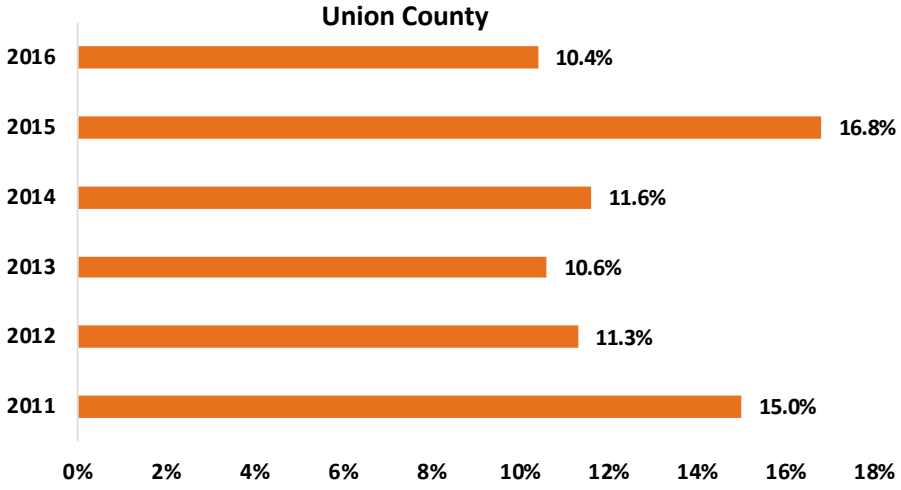
Asthma, a chronic lung disease often with childhood onset, inflames and narrows airways and causes recurring periods of wheezing, chest tightness, shortness of breath and coughing.[61] The exact cause of asthma is unknown; however, researchers believe genetic and environmental factors are involved. Factors 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.[62]

- According to the 2016, BRFSS survey, 10.4% of Union County adults reported ever being told they have asthma. This was 1.2 percentage points lower than 2014.
- The percent of Union County residents with asthma (10.4%) is lower than the State (12.0%), and the comparative counties. Compared to all 21 New Jersey counties, Union County was in the middle quartile.

[61] http://www.nhlbi.nih.gov/health/health-topics/topics/asthma
[62] ibid

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



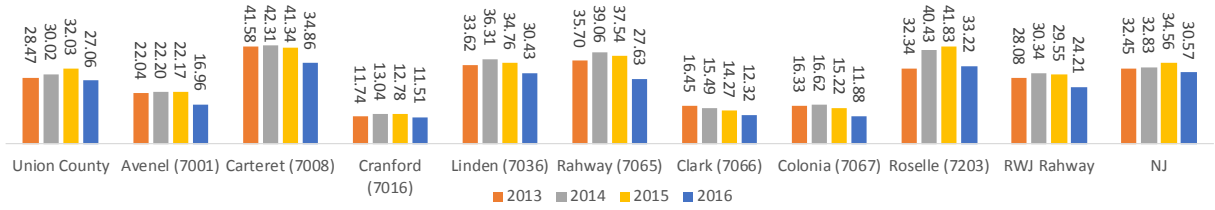


Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

Asthma Hospital Use Rates for County, RWJ Rahway Service Area, and Selected Towns

- Rates of residents using a hospital service with a diagnosis of asthma were highest in Carteret in 2016 (34.86/1,000).
- In 2016, the rate of Carteret (34.86/1,000) patients using a hospital service with a diagnosis of asthma exceeded the New Jersey (30.57/1,000) rate and the rate in the RWJ Rahway Service Area (29.21/1,000). Rates were lowest in Cranford (11.51/1,000).

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



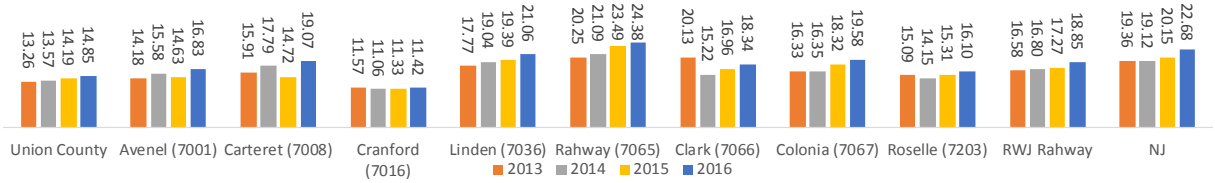
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes In the Range 493-493.9 (Appearing Anywhere In First 13 DX Codes 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 highest in Rahway from 2013 through 2016.
- In 2016, the rate of hospitalization for patients with a diagnosis of COPD was highest in Rahway (24.38/1,000) and lowest in Cranford (11.42/1,000).

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)

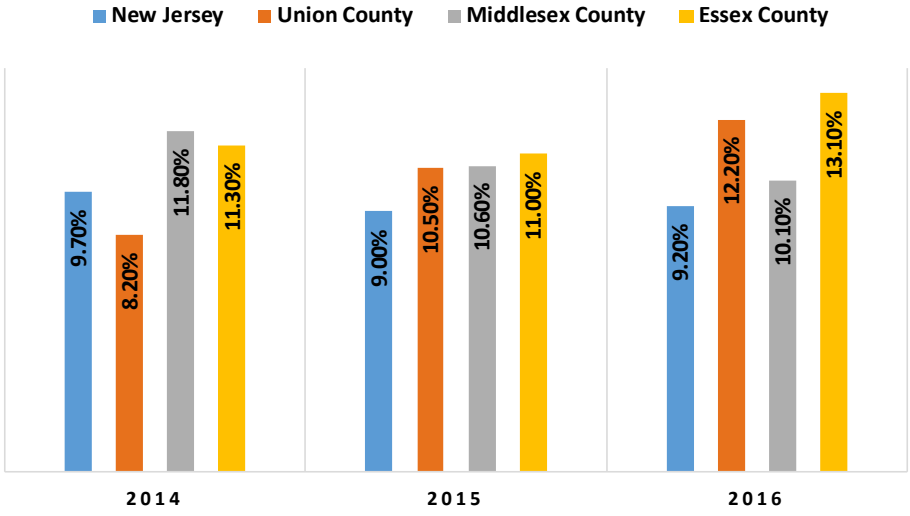
Diabetes

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.[63]

- Diabetes is increasing among Union County residents. Between 2014 (8.2%) and 2016 (12.2%), the rate increased by 48.8%.
- In 2016, Union County had the second highest percentage of patients reporting diabetes among comparison counties. Union County is in the middle 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



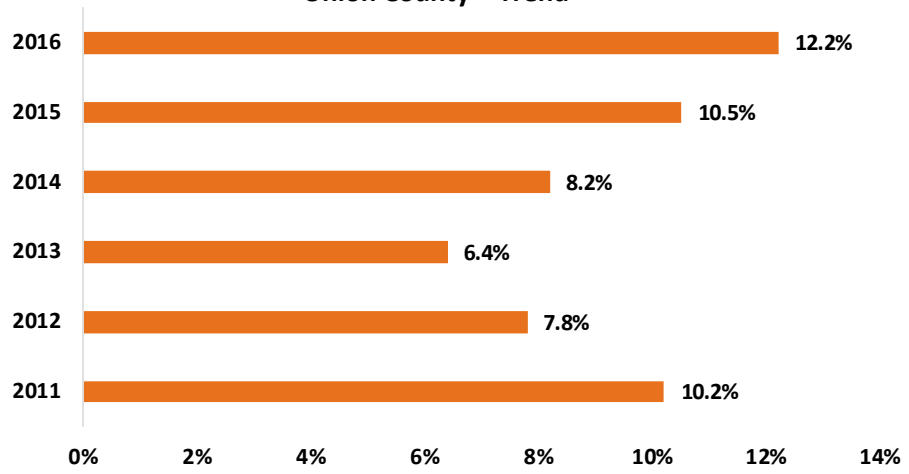
Source: CDC Behavioral Health Risk Factor Surveillance System (BRFSS)

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

National Benchmark: 8%
Union County 2016: 12.2%

[63] http://www.cdc.gov/diabetes/pdfs/data/2014-report-generalinformation.pdf

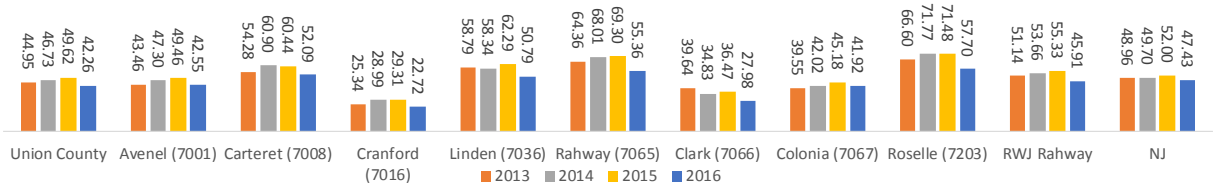
Diabetes (Percent "Yes"): Have You Ever Been Told by a Doctor That You Have Diabetes?
Union County – Trend



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

- Roselle had the highest rate of residents using a hospital service with a diabetes diagnosis (57.70/1,000) in 2016. Rates in Rahway were second highest in the region (55.36/1,000).
- In 2016, the rate of patients using a hospital service with diabetes diagnosis was higher in the RWJ Rahway Service Area (45.91/1,000) than in the County (42.26/1,000).

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



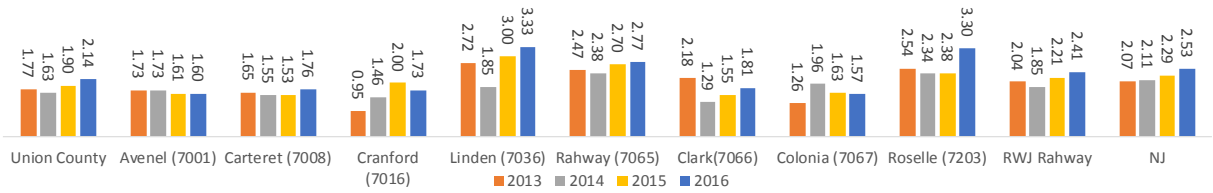
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges – ICD-9 DX Codes In The Range 249.00-250.03 (Appearing Anywhere In First 13 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.[64]

- In 2016, the rate of Union County residents using a hospital service with diagnosis of renal failure was highest in Linden (3.33/1,000) and lowest in Colonia (1.57/1,000).
- The 2016 rate of Union County residents using a hospital service with diagnosis of renal failure was lower than for New Jersey residents.

[64] http://www.cdc.gov/Features/WorldKidneyDay

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



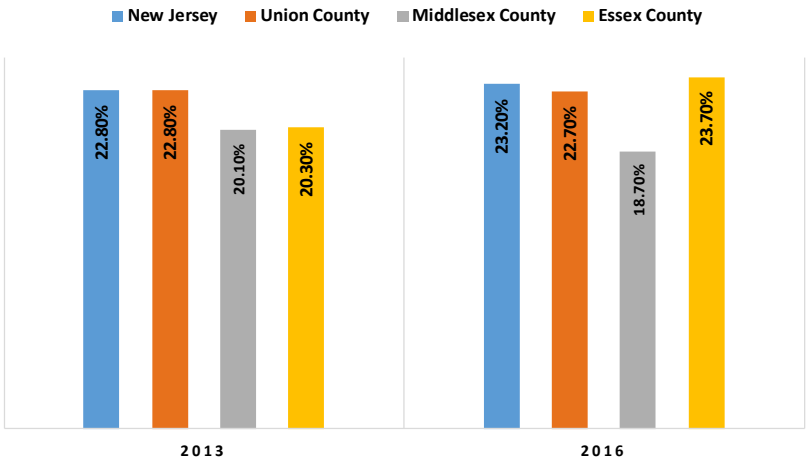
Source: NJ UB-04 Acute Care IP, Same Day Stay, ER Discharges (2013 – 2016), Population: 2010, 2016 Claritas/HCDA, 2011 Straight Line Value Based on 2000 and 2010 Census; Definition: Inpatient, Same Day Stay and ED Discharges For MS-DRGs In the Range 682-685

Arthritis

Arthritis affects more than 1 in 5 adults and is the nation's most common cause of disability. A*rthritis* 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.[65]

- Between 2013 and 2016, the percentage of Union County residents reporting arthritis remained nearly the same, decreasing slightly from 22.8% in 2013, to 22.7% in 2016.
- The percentage of Union County residents reporting arthritis was lower than the State (23.2%) and Essex County (23.70/1,000). As compared to 21 counties statewide, Union County ranks in the middle 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)

[65] http://www.cdc.gov/arthritis/basics.htm

Indicator	*Healthy People 2020* Target	County Health Rankings Benchmark	New 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 *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 Union County's or Robert Wood Johnson University Hospital Rahway's 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 Union County's or in Robert Wood Johnson University Hospital Rahway's 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

ASSETS

- Between 2015 and 2017, the percentage of adults and children receiving WFNJ/TANF benefits declined.
- In 2016, 51.7% of Cranford residents earned a bachelor's degree or higher, compared to 33.4% of Union County residents, and 37.5% of New Jersey residents.

GAPS

- In 2016, the median household income in Union County was $70,476, more than $3,000 below the State median of $73,702
- Between 2014 and 2016, unemployment throughout New Jersey declined. In 2016, the Union County unemployment rate was 5.8%, a decrease of 1.6% from 2014, but higher than the New Jersey unemployment rate of 5.2%.
- The 2016 median household income of Rahway residents ($66,435) was less than the statewide figure ($73,702).
- In 2016, the percent of families living in poverty in Union County (8.4%) was higher than the State (8.1%).
- In 2016, Carteret's unemployment rate was 7.4%, a decrease from 9.5% in 2014, but higher than the Union County rate of 5.8%, and the State rate of 5.2%.
- Union County reported a 7-percentage point increase in students eligible for free lunch from 40% during the 2012-2013 school years to 47% in 2015-2016 school years
- In 2016, 14.2% of Union County residents did not graduate from high school, 3.1 percentage points higher than New Jersey at 11.1%.

Health and Health Care

ASSETS

- Since 2013, the non-elderly population without health insurance in Union County has trended downward, decreasing from 18.5% in 2013 to 13.0% in 2015.
- In 2016, Union County (15.21/1,000) had a lower rate of ACSC Inpatient admissions than the State (16.99/1,000).
- In 2016, Rahway's Service Area inpatient use rate for ACSC was lower than the State rate.

- County wide women with a VBAC trended upward from 2013 through 2016, increasing from 93% to 10.6%.

GAPS

- Between 2013 and 2015, the ratio of population to physicians in Union County increased from 1,450:1 to 1,502:1.
- In 2016, Union County's ACSC ED visits for children age 0-17 (at 103.62/1,000) was 26.4% higher than the statewide rate (81.95/1,000)
- The 2016 Union County's adult ED ACSC rate (55.42/1,000) is higher than the statewide rate (52.13).

Neighborhood and Built Environment

ASSETS

- Union County experienced a 3.6% reduction in fine particulate matter in between 2011 (11.1 per cubic meter) and 2012 (10.7 per cubic meter).
- In 2015, 0.5% of Union County children had elevated blood lead levels compared to 0.52% statewide.
- The violent crime rate in Union County decreased from 379/100,000 in 2014 to 318/100,000 in 2017.
- In 2010-2016, Union County (5.51/100,000) had 16.4% fewer motor vehicle crash deaths than New Jersey (6.59/100,000).
- In 2016, Union County (14.6/100,000) had a lower death rate due to accidental poisoning and exposure to noxious substances than statewide (22.5/100,000).

GAPS

- In 2016, 40.1% of Union County housing units were built before 1950, 55.4% higher than New Jersey overall at 25.8%.
- Between 2014 and 2017, the violent crime rate in Union County (568/100,000) was higher than the State and all competitive counties.

B. HEALTH FACTORS

Clinical Care Measures

ASSETS

- Union County's 2016 inpatient utilization rate (145.50/1,000) was lower than the State (160.22/1,000).
- The 2016 Union County primary C-section rate (25.2%) was lower than the Middlesex (26.1%) and Essex (27.5%) County rates.
- County-wide women with a VBAC trended upward from 2013 through 2016, increasing from 9.3% in 2013 to 10.6% in 2016.

GAPS

- Union County's 2016 ED visit rate (361.22/1,000) was slightly higher than the State rate (352.20/1,000).
- In 2016, Roselle's ED visit rate (457.42/1,000) was higher than the State rate (352.2/1,000).
- Union County's 2016 VBAC rate (10.6%) is lower than the State rate (11.9%).

Health Behaviors

ASSETS

- The 2012-2016 Union County teen birth rate for Blacks was lower relative to New Jersey and Essex County.
- In 2016, Union County's (68.0/100,000) gonorrhea rate was lower than New Jersey rate (91.4/100,000).
- County-wide HIV/AIDS prevalence rates declined between 2013 (628.5/100,000) and 2015 (550.8/100,000).

GAPS

- Union County women enrolled in first trimester prenatal care declined from 79.5% in 2010 to 67.9% in 2016.
- The percent of Union County women without prenatal care ranged from a low of 1.0% in 2010 to a high of 1.9% in 2016.
- The 2010-2016 Union County (17.0/1,000) birth rate among teens aged 15-19 was 11.1%, higher than the State rate (15.3/1,000).
- Chlamydia is the most prevalent STI. In 2016, Union County (391.8/1,000) was higher than the New Jersey rate (386.4/1,000).
- The rate of chlamydia in Union County (391.8/1,000) was higher the CHR National benchmark (145.1/1,000).

Individual Behaviors

ASSETS

- In 2016, Union County had fewer adult smokers (13%) than neighboring Essex County (14.5%) and fewer than New Jersey (14%).
- Alcohol impaired driving deaths in Union County have decreased from 30.5% in 2010-2014 to 28.5% in 2012-2016.
- In 2016, Union County had a lower percentage of residents reporting no leisure time physical activity than the State and comparison counties.

GAPS

- Binge drinkers, those men that consume more than 5 drinks and women that consume more than 4 drinks in one occasion, increased from 14.8% in 2014, to 15.2% in 2016.
- In 2016, Union County had the second highest percent of residents reporting heavy drinking, relative to the State and the surrounding counties.
- The percent of Union County residents with a Body Mass Index (BMI) >=30 trended upward from 23.6% in 2012, to 25.6% in 2016.

Health Screenings and Immunizations

ASSETS

- In 2016, 76.1% of Union County women over age 40 had a mammography within the past two years, up 19.6 percentage points since 2012.
- Between 2014 and 2016, Union County women who had a pap test within the past three years increased over 1.1 percentage points from 76.3% to 77.4%.
- In 2016, 93.0% of first grade students in Union County had received all required immunizations compared to 92.7% statewide.
- Between 2011 and 2016, the percentage of Union County adults who had a flu shot fluctuated with an overall increase of 9.5 percentage points.

GAPS

- In 2016, fewer Union County adults (58.7%) over age 50 had a colonoscopy/sigmoidoscopy than in 2012 (59.1%). Union County was below the *Healthy People 2020* target of 70.5% of adults (50+) ever having colon-rectal screening in 2016.
- In 2014, fewer Union County diabetic Medicare enrollees (83.61%) were screened than the CHR national benchmark (91%).
- The percent of 2016 Union County adults who received the flu shot in the past year (66.6%) was lower than the *Healthy People 2020* target of 90.0%.
- The percent of Union County adults age 65+ who had a pneumonia vaccine decreased from 2011 through 2016, from 73.7% to 63.6%.

Behavioral Health Utilization

ASSETS

- In 2016, inpatient hospitalizations for mental/behavioral health for Rahway's Service Area (4.09/1,000) was lower than the New Jersey rate (4.81/1,000) and the Union County rate (4.93/1,000).
- Inpatient hospitalization to general hospitals for substance abuse in the Rahway Service Area (1.66/1,000) was lower than the County rate (1.72/1,000), and the State (2.22/1,000).

GAPS

- Union County had slightly more patient hospitalizations for mental/behavioral health conditions in 2016 (4.93/1,000) than in 2012 (4.56/1,000).
- In 2016, Union County adults 18-64 (10.16/1,000) had the highest rate of ED visits compared to children (9.20/1,000) and older adults 65+ (5.84/1,000).
- Between 2012 and 2016, ED visit rate for substance abuse in Union County increased from 6.95/1,000 to 9.78/1,000.
- Between 2015 and 2016, the number of Naloxone administrations increased statewide; and in Union, Middlesex and Essex Counties. In Union County, Naloxone administrations increased from 276 administrations to 438.

C. HEALTH OUTCOMES

Mortality

ASSETS

- Since 2013, five out of the top ten causes of death declined with the greatest decrease in Influenza and Pneumonia (22.2%) and Chronic Lower Respiratory Diseases (20.3%)
- Union County heart disease mortality rates fluctuated with an overall decrease from 183.7/100,000 in 2007, to 152.6/100,000 in 2016.
- The mortality rate due to heart disease among Whites decreased overall from 2007 (185.2) to 2016 (167.7).
- Union County Cancer mortality rates fluctuated with an overall decrease from 179.9/100,000 in 2007, to 141.6/100,000 in 2016.
- The mortality rate for malignant neoplasm deaths among Blacks decreased from 2007 (221.3/100,000) to 2016 (167.7/100,000).
- Union County stroke mortality rates fluctuated with an overall decrease from 37.6/100,000 in 2007, to 30.8/100,000 in 2016.
- Union County septicemia mortality rates fluctuated with an overall decrease from 23.3/100,000 in 2007, to 21.4/100,000 in 2016.
- The Union County YPLL rate decreased from 5,284.8/100,000 for the period 2010-2012, to 5,034.8/100,000 for the period from 2014-2016. The Union County YPLL rate (5,034.8/100,000) was lower than the statewide rate (5,469.35/100,000).
- The overall infant mortality rate declined statewide from the period 2007-2009 (5.3/100,000) to 2013-2015 (4.7/100,000).

GAPS

- Since 2013, among the top ten causes of death increased, Alzheimer's disease (52.5%), Unintentional Injuries (38.8%), and Septicemia (17.6%) had the greatest increase.
- Union County's heart disease rate for the year 2016 is in the bottom performing quartile according to the *Healthy People 2020* target.

- Union County unintentional injury mortality rates fluctuated with an overall Increase from 24.3/100,000 in 2007, to 31.1/100,000 in 2016.
- Overall there has been increase in the mortality rate for unintentional injury amongst Whites in Union County from the year 2007 (24.4/100,000) to 2016 (36.7/100,000).
- The mortality rate for stroke among Blacks has been fluctuating since 2007 with overall increase in mortality rate from 2007 (37.3/100,000) to 2016 (38.9/100,000).
- In Union County, the mortality rate for Septicemia amongst Blacks has historically been higher than Whites.
- Between 2014 and 2016, the rate of drug overdose deaths in Union County increased from 8.7/100,000 to 15.1/100,000. Drug overdose deaths in Union County increased from 48 to 84 or nearly doubled.

Maternal and Child Health

ASSETS

- In 2016, Union County had a lower percentage of low birth weight babies than Middlesex County (8.0%), Essex County (9.7%), and the State (8.1%).
- By race, between 2011 and 2016, the percentage of very low birthweight babies: decreased for Whites from 1.3% to 0.7%; decreased from 3.5% to 2.9% for Blacks; and decreased from 1.7% to 1.2% for Hispanics.

GAPS

- The percentage of Union County low birthweight babies was higher among Blacks (11.6%) than for Whites (5.6%) and Hispanics (6.9%) in 2016.
- The 2016 percent of very low birth weight babies in Union County was higher than the rate in Middlesex County (1.3%), but lower than the rate in Essex County (2.0%).

Health Status and Behavioral Health Status

ASSETS

- County-wide, adults who report 14 or more of the past 30 days with “not good” mental health status decreased from 9.8% in 2014, to 9.1% in 2016. The 2016 Union County report of 14+/30 days with “not good” mental health was lower than New Jersey at 10.7%.
- Between 2014 and 2016, the percent of Union County residents reporting a history of depression decreased from 12.1% to 10.4%.

GAPS

- Between 2012 and 2016, BRFSS data reported an increase in the percent of Union County residents who indicate their health as “poor or fair,” from 15.9% to 19.7%.
- NJBRFSS reports that the number of Union County adults with 14 or more physically unhealthy days (in the last 30 days) increased 5.8 percentage points between 2012 (8.8%) and 2016 (14.6%).

Morbidity

ASSETS

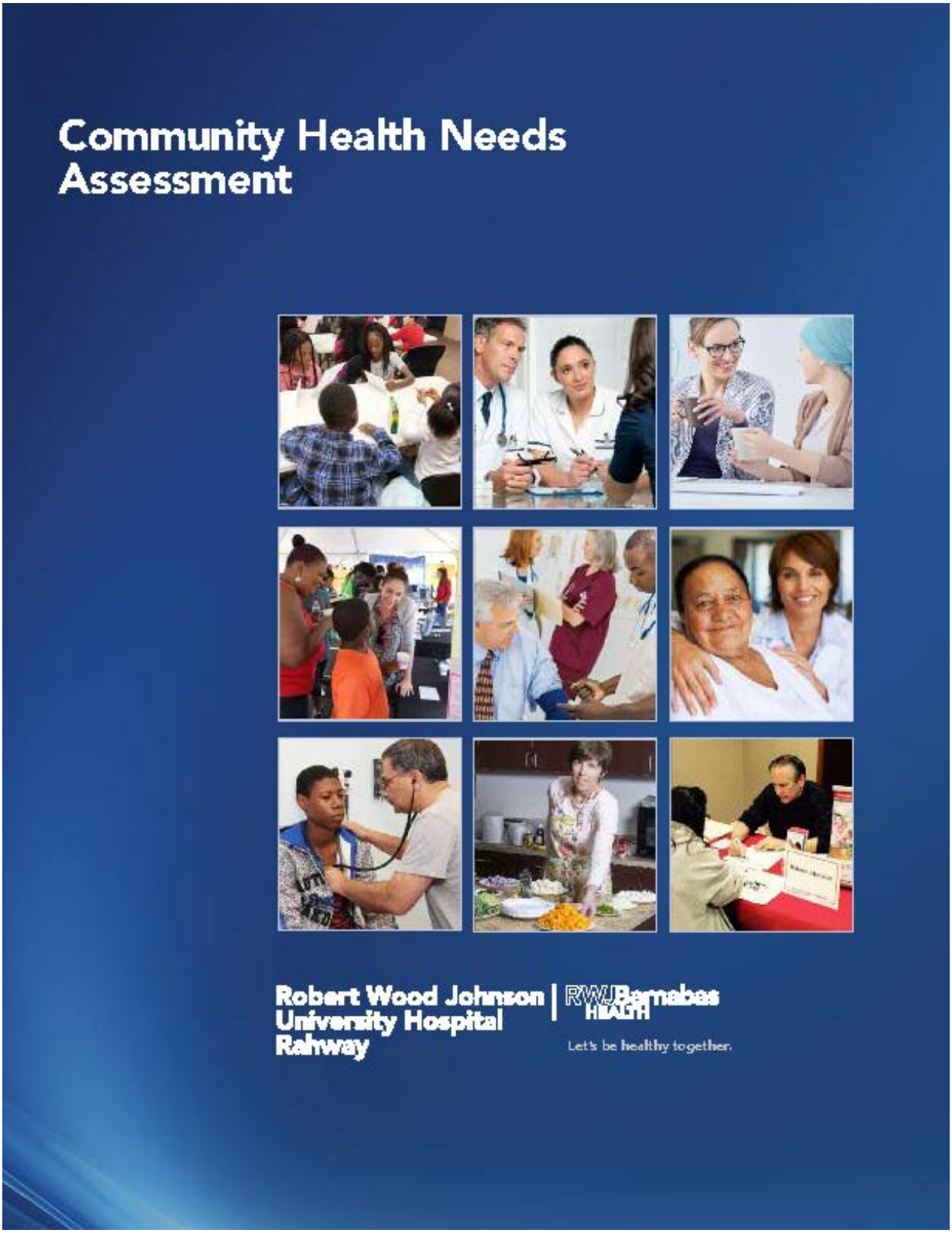
- Incidence of overall invasive cancer in Union County decreased from 456.3/100,000 in 2007, to 444.0/100,000 in 2015.
- The percent of Union County residents with asthma (10.4%) is lower than the State (12.4%), and the comparative counties.
- Between 2013 and 2016, the percentage of Union County residents reporting arthritis remained nearly the same from 22.8% in 2013 to 22.7% in 2016. The percentage of Union County residents reporting arthritis was lower than the State (23.2%) and Essex County (23.70/1,000).

GAPS

- According to BRFSS, the percent of Union County residents told they have angina or coronary heart disease increased from 4.2% in 2014, to 5.3% in 2016.
- In 2016, Union County (3.4%) reported a higher rate of strokes than the State (2.8%), Essex (3.0%), and Middlesex County (2.20%).
- In 2015, Union County (30.4%) had a higher percent of adults with high blood pressure than the *Healthy People 2020* target (26.9%).
- In the 2015 BRFSS, 39.7% of Union County adults who had their cholesterol checked were told it was high. This was higher than the percent (35.4%) of New Jersey adults with high cholesterol.
- Diabetes is increasing among Union County residents. Between 2014 (8.2%) and 2016 (12.2%), the rate increased by 48.8%.
- According to BRFSS, the percent of Union County residents told they have had a heart attack increased 1.9 percentage point from 3.3% in 2012 to 5.2% in 2016. In 2016, BRFSS indicated 4.4% of New Jersey respondents were told they had a heart attack.

APPENDICES

APPENDIX A: RAHWAY CHNA IMPLEMENTATION PLAN RESULTS



Introduction

In 2016, Robert Wood Johnson University Hospital Rahway ("RWJUH Rahway") conducted and adopted its Community Health Needs Assessment ("CHNA") which consisted of a community needs survey of residents in our service area, a detailed review of secondary source data, a survey and meetings with local health officials and a Public Health Symposium made up of county public health officers and community representatives. The Plan can be accessed at https://www.rwjbh.org/rwj-university-hospital-rahwayabout/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 population it serves. The Implementation Plan addresses the manner in which RWJUH Rahway will address each priority need and the expected outcome for the evaluation of its efforts. The implementation plan which follows is based on the three selected priority areas*:

- Behavioral Health (Mental health and substance abuse)
- Cancer (Focus on lung cancer screening and early treatment)
- Chronic Disease Prevention (Focus on diabetes control and prevention, hypertension and obesity)

**The three 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.*

Goal #1: Improve behavioral health through prevention and by ensuring access to appropriate health services

Key CHNA Findings:

- Behavioral health diagnoses encompass both mental health and substance abuse conditions.
- Union County has 92 inpatient psychiatric beds for residents requiring a behavioral health admission from Emergency Departments (ED).
- The number of behavioral health admission from the ED rose from 8.267 in 2010 to 9.287 in 2014.
- In 2014, 59% of ED visits due to behavioral health were among Medicaid – HMO and Fee for Service Charity Care or uninsured patients.
- County residents are generally unaware of community resources and don't know where to turn for help when crisis occurs.

Strategy/Initiative 1.1

Partner with local behavioral health providers to provide support, education and identification screenings to the community.

Indicator/Metric

- Hold at least two informational programs on depression, drug use.
- Provide community education and outreach through collaboration with partner agencies on alcohol and drug addiction.
- Reduce service gap outside of Emergency Department for behavioral services.

Tracking/Outcome

Built partnerships with:

- National Alliance on Mental Illness (NAMI); have hosted nine family meetings offering speakers, resource guides.
- Mental Health Association of New Jersey; hosted one program on mental health
- Prevention Links; hosted one Narcan Event and event on drug trends with plans to hold two more community events
- Narcotics Anonymous & Alcoholics Anonymous groups; spoke at two community events, including Narcan event

Strategy/Initiative 12

Provide community education and outreach through collaboration with partner agencies regarding alcohol and drug addiction.

Indicator/Metric

- Hold at least one program on drug and alcohol dependence
- Hold at least one Narcan education and kit distribution
- Promote NA and AA groups at all community health events. Increase the groups' participation in at least three of RWJ Rahway/community programs.
- Increase the number of stress management programs per year with a target of two per year
- Increase the number of participants in monthly bereavement support groups with a target of 10 to 12
- Provide at least one depression screening at community event.

Tracking/Outcome

2016 Baseline:

Held one Narcan Distribution program, one program on drug trends and one program on depression and drug use

NA and AA groups invited and participated in at least four health fairs

Hosted at least 10 meetings for NAMI Union County on topics involving mental/behavioral health

Held at least two programs on grief and grieving

Held 12 bereavement groups, groups average 10 participants per month

Held 12 caregiver support groups, groups averaging 15 to 25 participants per month

2017 Results:

Hosted 10 meetings for NAMI on behavioral health, grief, depression; 300 attendees

Held one Narcan event for 20 attendees and one program on drug use/trends for 20 attendees

Held two grief/grieving programs, averaging 25 attendees

Held 14 bereavement support groups, averaging 12 people per group

Held 12 caregiver support groups, averaging 25 people

2018 Goal:

Incorporate and promote the Peer Recovery program to patients reversed by Narcan and those presenting with alcohol and drug use disorder; recovery specialists will help provide navigator services for those seeking treatment

Strategy/Initiative 1.3

Collaborate with community partners to develop a behavioral health referral guide for available inpatient and outpatient services.

Indicator/Metric

• Create a guide with descriptions of programs, phone numbers and contact information

Tracking/Outcome

Using NAMI as framework for guide; in process of collecting system information on programs/services

Strategy/Initiative 1.4

Collaborate with RWJBarnabas Health Behavioral Network to support early intervention efforts through maximizing use of existing services, coordination among providers, and education of community agencies and individuals.

Indicator/Metric

• Create a guide

Tracking/Outcome

In process of collecting materials to use for guide

Strategy/Initiative 1.5

Continue to provide more information on bereavement, caregiver support groups for adults and spouses.

Indicator/Metric

• Increase membership in groups by 20%

• Use all internal/external communication to encourage participation

Tracking/Outcome

2016 Baseline: 14 groups per year; 8-10 members per group

2017 Results: 14 bereavement groups per year, 10 to 11 per group; 12 caregiver groups, 20 to 23 members (closed to new members); two additional programs on grief and grieving led by mental health professionals

Strategy/Initiative 1.6

Explore the potential for Opioid Overdose Recovery Program (OORP) in the Emergency Department and increase community understanding.

Indicator/Metric

• Increase number of Narcan events, programs

Tracking/Outcome

2016 Baseline: Held one Narcan event

2017 Results: Held one Narcan event and one drug trends program, 30 total participants

2017 Results: Instituted OORP program in Emergency Department

2018 Goal: Expand OORP services and patient navigation services to inpatients; increase awareness among staff and public about outreach services

Goal #2: Increase early detection and appropriate screening for lung cancer

Strategy/Initiative 2.1

Increase community education efforts on the importance of lung screening as part of essential screenings.

Indicator/Metric

• Programs conducted and/or articles written on importance of lung screening

Tracking/Outcome

2016 Baseline: 10 programs/articles

2017 Results: Three articles written for community newsletters and senior publications

2017 Results: Three community outreach events to promote lung screening

Strategy/Initiative 2.2

Encourage physicians to promote lung screenings for current and former smokers.

Indicator/Metric

- Hold one CME program on lung screening.
- Create a prescription pad that makes it easy for doctors to recommend/refer screenings

Tracking/Outcome

2017 Results: Held one program on lung screening to RWJ Rahway MDs
2018 Results: Creation and distribution of prescription pad to encourage lung screening. 100 distributed

Strategy/Initiative 2.3

Host nutrition classes and cooking demonstrations to promote eating for the prevention and management of cancer.

Indicator/Metric

- Increase number of programs from four to eight focusing on food and diet in the prevention and management of cancer

Tracking/Outcome

2016 Baseline: Held four lectures and four cooking demonstrations on foods fighting cancer with approximately 100 total participants
2017 Results: Held 12 programs focusing on food and diet in cancer prevention with approximately 300 total participants

Strategy/Initiative 2.4

Host wellness programs to support the continued health of cancer survivors.

Indicator/Metric

- Increase participation in wellness programs, add new support group

Tracking/Outcome

2017 Results: Hosted three wellness programs for cancer survivors, including programs on nutrition, exercise, detection; helped create wellness exercise program for breast cancer survivors; added new breast cancer support group with 30 attendees

Strategy/Initiative 2.5

Offer free individual and group smoking cessation classes, based on an American Lung Association-approved curriculum.

Indicator/Metric

- Increase number of people enrolled in programs

Tracking/Outcome

2016 Baseline: 30 participants
2017 Results: 36 participants
2018 Results: (January-May): 40 participants

Strategy/Initiative 2.6

Partner with Rutgers Cancer Institute of New Jersey (CINJ) to increase awareness of cancer risk factors and prevention activities.

Indicator/Metric

- Increase number of community education programs

Tracking/Outcome

2017 Results: Held two programs with Rutgers CINJ faculty, including a program on immunotherapy

Strategy/Initiative 2.7

Promote lung cancer screenings, targeting low-income and underserved populations.

Indicator/Metric

- Increase number of lung cancer screenings

Tracking/Outcome

2017 Results: 36 screens (new program)

Strategy/Initiative 2.8

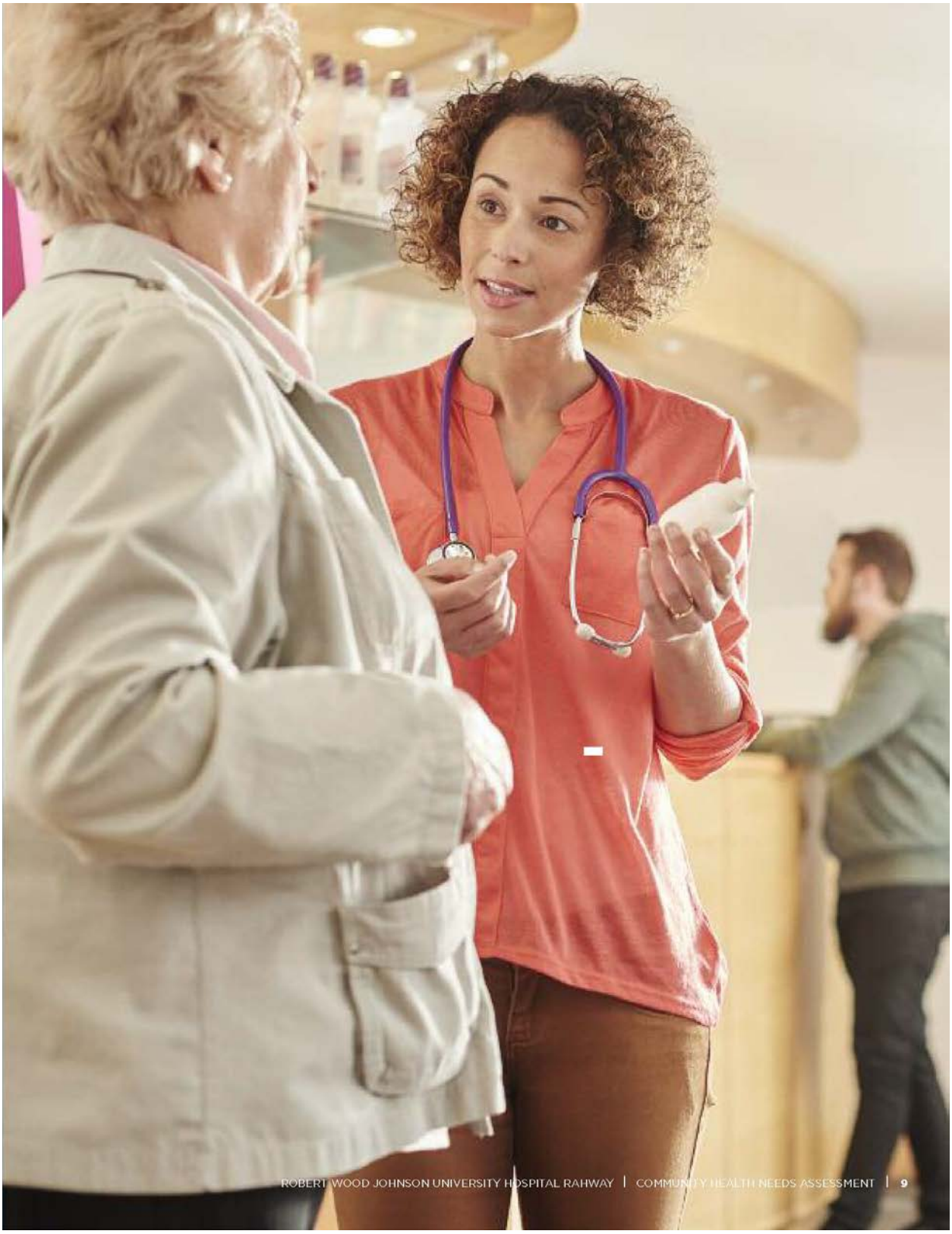
Provide community education specific to lung cancer to educate residents about risk factors and the benefits of screening, particularly among smokers.

Indicator/Metric

- Hold programs and submit at least two articles for community publication on benefits of lung screening

Tracking/Outcome

2017 Results: Hosted two programs on benefit of lung screening with 30 in attendance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Goal #3: Promote healthy lifestyles that reduce obesity, improve chronic disease awareness, and result in better management of chronic conditions (diabetes, hypertension and obesity)

Key CHNA Findings:

- Four percent of Union County adults have been diagnosed with heart disease, similar to the state and the nation.
- About two percent of adults in Union County have had a stroke, similar to the state rate. However, the stroke death rate in the county is higher than both the state and the Healthy People 2020 goal.
- Union County has a lower percentage of adults with high blood pressure and high cholesterol when compared to the state and the nation, but percentages account for about one quarter to one third of adults.
- A poor diet and nutrition contribute to diabetes, hypertension, heart disease and stroke. In Union County, 11.4 percent of all residents and 15.5% of children are food insecure.

Strategy/Initiative 3.1

Continue to offer support groups, lectures, cooking demonstrations, educational events at RWJUH Rahway locations for diabetes, stress, and obesity.

Indicator/Metric

- Increase monthly membership of diabetes support group and add two bariatric support groups (peer to peer and professionally led)
- Add nutrition counseling as free service to the RWJ Rahway Fitness Center
- Increase number of programs and participants in healthy cooking and wellness program for diabetes and obesity
- Increase number of free programs on nutrition/lifestyle to 45 from 36
- Introduce free Registered Dietitian services at food pantry once per month, serving about 50 people

Tracking/Outcome

Devoted 10 of 36 cooking programs and demonstrations per year focusing on diabetes and pre-diabetes; class sizes of approximately 40 per class

Devoted 9 of 12 nutrition lectures to focus on diabetes, obesity, pre-diabetes, heart disease; approximately 25 per class

Held two stress management programs; 50 participants

Continue to offer diabetes testing and counseling to food pantry once per month, serving approximately 180

Continue to offer diabetes support group, increase membership from 11 to 15 people

Strategy/Initiative 3.2

Continue to publish and distribute The Rose, a quarterly community newsletter providing chronic disease health education and information about healthy lifestyle programs and events hosted by the hospital.

Indicator/Metric

- Allocate an article per quarter on nutrition/lifestyle/prevention

Tracking/Outcome

Four articles written devoted to health screenings/benefits of exercise and diabetes

Strategy/Initiative 3.3

Host the Diabetes Smackdown program to provide free diabetes management techniques, counseling, and education.

Indicator/Metric

- Multidisciplinary program focusing on lifestyle, snacking, cooking, medication management

Tracking/Outcome

2017 Results: 25 participants for full day program on diabetes management
2018 Outcome: Offer free diabetes management program for uninsured people in various locations in Rahway

Strategy/Initiative 3.4

Offer pre-diabetes awareness lectures and programs in partnership with the YMCA.

Indicator/Metric

- Hold one lecture/program on prediabetes at YMCA
- Hold at least two programs on pre-diabetes awareness at RWJ Fitness Center

Tracking/Outcome

2016 Baseline: Held one talk at Local YMCA
2017 Results: Held two programs on pre-diabetes at RWJ Rahway Fitness Center

Strategy/Initiative 3.5

Participate in health fairs and other community events to provide education and screenings for health risk factors related to chronic disease, particularly among disparate populations.

Indicator/Metric

- Participated in ten health fairs at venues that included churches, senior centers, two elementary/high schools, three township-sponsored events
- Performed CPR demonstrations, healthy eating tables, blood pressure and diabetes screenings

Tracking/Outcome

Participated in five community programs with diverse constituencies including three evangelical churches, one day care center, elementary school

Strategy/Initiative 3.6

Provide free chronic disease prevention and management programs at the RWJ Fitness and Wellness Centers, including educational forums and cooking demonstrations.

Indicator/Metric

- Provide at least four chronic disease prevention programs, including a forum to ask the experts, such as cardiologist

Tracking/Outcome

Provided five programs on chronic disease prevention, including programs on weight management, heart disease, COPD and heart failure

Strategy/Initiative 3.7

Provide free diabetes testing and counseling, as well as nutritional counseling at RWJ Fitness and Wellness Centers and Rahway Food for Friends Food Pantry, and explore the potential for expanding services to other local food pantries.

Indicator/Metric

- Approximately 200 people received free diabetes testing and counseling at RWJ Rahway Fitness Centers in Carteret and Scotch Plains
- About 150 people received nutritional counseling at RWJ Fitness and Wellness Center in Scotch Plains, Carteret
- About 225 people received nutritional counseling at Rahway Food for Friends Pantry
- 2018 Goal: Hold healthy food drive for Food for Friends participants

Tracking/Outcome

Held 12 diabetes testing and counseling sessions at RWJ Rahway Fitness Centers in Cartaret and Rahway, up from nine the previous year

More than 100 people received free nutritional counseling at RWJ Rahway Fitness Center (new service)

About 30 people received nutritional counseling at Food for Friends Food Pantry (new service)

Provided 12 diabetes testing and counseling sessions at Food for Friends Food Pantry, up from 11 previous year

2018 Goal: Hold free Lunch and Learn at Rahway Food for Friends Food Pantry on controlling blood sugar with food

2018 Goal: Hold free diabetes management program for uninsured people in Rahway

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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, New Jersey Drug and Alcohol Abuse Treatment	http://www.state.nj.us/humanservices/dmhas/home/
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; Division of HIV/AIDS Prevention	http://www.cdc.gov/hiv
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 Registry	http://www.nj.gov/health/vital/
New Jersey State Health Assessment Data Complete Indicator Profile of Risk Factor for Childhood Lead Exposure: Pre-1950 Housing	https://www26.state.nj.us/doh-shad
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 Census Bureau, American Community Survey	http://www.njsp.org/ucr/crime-reports.shtml
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 Healthcare Research and Quality Understanding Quality Measurement 2016	http://www.ahrq.gov
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 Child Health Bureau	http://mchb.hrsa.gov
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 UNION COUNTY 2018

Over seventy-five percent of RWJ-Rahway's cancer inpatients, and over 62% of the hospital's cancer outpatients originated from the hospital's Primary Service Area. In total, 71.7% of inpatients and 84.5% of outpatients served in the hospital's cancer programs resided in Union County. Rahway (07065) and Linden (07036) represent the largest segment of RWJ-Rahway's inpatient cancer patients. Westfield (07090) and Linden (07036) represent the largest segments of RWJ-Rahway'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	2018 RWJ RAH IP PATIENTS	%	2018 RWJ RAH OP PATIENTS	%
Union County	355	71.7%	49	84.5%
Primary Service Area	375	75.8%	36	62.1%
Secondary Service Area	69	13.9%	18	31.0%
Out of Service Area (NJ)	47	9.5%	4	6.9%
Out of State	4	0.8%	0	0.0%
TOTAL	**495**	**100.0%**	**58**	**100.0%**
Rahway (07065)	108	21.8%		0.0%
Linden (07036)	83	16.8%	11	19.0%
Westfield (07090)			14	24.1%

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)

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APPENDIX C2: CANCER INCIDENCE RATE REPORT: UNION COUNTY 2012-2016

INCIDENCE RATE REPORT FOR UNION COUNTY 2012-2016				
Cancer Site	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend
All Cancer Sites	452	2773	falling	-8.8
Bladder	19.9	124	falling	-4.7
Brain & ONS	5.9	35	falling	-1.2
Breast	135.4	449	stable	-5
Cervix	9.3	29	falling	-1.6
Colon & Rectum	39.6	244	stable	-9
Esophagus	3.5	22	falling	-1.9
Kidney & Renal Pelvis	14.4	89	stable	0.7
Leukemia	15.6	92	rising	1
Liver & Bile Duct	6.1	39	stable	-10.7
Lung & Bronchus	45.6	274	stable	-11.3
Melanoma of the Skin	15.3	94	stable	0.8
Non-Hodgkin Lymphoma	21.6	132	stable	-0.6
Oral Cavity & Pharynx	9.2	58	stable	-0.6
Ovary	9.8	33	falling	-2.7
Pancreas	12.6	77	stable	-8.7
Prostate	129.5	367	falling	-7.7
Stomach	9.6	58	falling	-1.7
Thyroid	17	100	falling	-8.3
Uterus (Corpus & Uterus, NOS)	31.5	108	stable	0.2

The Source for C, and the following tables C3, C4, C5 and C6 is:
Source: https://statecancerprofiles.cancer.gov

APPENDIX C3: CANCER INCIDENCE DETAILED RATE REPORT: UNION COUNTY 2012-2016
SELECT CANCER SITES: RISING INCIDENCE RATE

		Leukemia
INCIDENCE RATE REPORT FOR UNION COUNTY 2012-2016 All Races (includes Hispanic), All Ages	Age-Adjusted Incidence Rate - cases per 100,000	15.6
	Average Annual Count	92
	Recent Trend	rising
	Recent 5-Year Trend in Incidence Rates	1
White Non-Hispanic, All Ages	Age-Adjusted Incidence Rate - cases per 100,000	17.4
	Average Annual Count	56
	Recent Trend	rising
	Recent 5-Year Trend in Incidence Rates	1.3
Black (includes Hispanic), All Ages	Age-Adjusted Incidence Rate - cases per 100,000	11
	Average Annual Count	14
	Recent Trend	stable
	Recent 5-Year Trend in Incidence Rates	0.1
Asian or Pacific Islander (includes Hispanic), All Ages	Age-Adjusted Incidence Rate - cases per 100,000	*
	Average Annual Count	3 or fewer
	Recent Trend	*
	Recent 5-Year Trend in Incidence Rates	*
Hispanic (any race), All Ages	Age-Adjusted Incidence Rate - cases per 100,000	13.9
	Average Annual Count	18
	Recent Trend	*
	Recent 5-Year Trend in Incidence Rates	*
MALES	Age-Adjusted Incidence Rate - cases per 100,000	19.4
	Average Annual Count	50
	Recent Trend	stable
	Recent 5-Year Trend in Incidence Rates	-9.3
FEMALES	Age-Adjusted Incidence Rate - cases per 100,000	12.7
	Average Annual Count	42
	Recent Trend	rising
	Recent 5-Year Trend in Incidence Rates	1.1

** 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: UNION COUNTY 2012-2016

MORTALITY RATE REPORT FOR UNION COUNTY 2012-2016					
Cancer Site	Met Healthy People Objective	Age-Adjusted Death Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend
All Cancer Sites	Yes	147.6	908	falling	-1.9
Bladder	***	4.1	26	stable	-0.8
Brain & ONS	***	3.8	24	falling	-1.3
Breast	No	22.5	79	falling	-2.2
Cervix	Yes	2	7	falling	-3
Colon & Rectum	Yes	13.6	85	falling	-3.1
Esophagus	***	2.4	15	falling	-2.7
Kidney & Renal Pelvis	***	2.6	16	falling	-2.6
Leukemia	***	6	37	falling	-1.1
Liver & Bile Duct	***	5.1	32	rising	2
Lung & Bronchus	Yes	32.2	196	falling	-2.1
Melanoma of the Skin	Yes	2.4	14	stable	-0.9
Non-Hodgkin Lymphoma	***	5.6	33	falling	-2
Oral Cavity & Pharynx	Yes	2.2	14	falling	-2.4
Ovary	***	6.7	24	falling	-2.3
Pancreas	***	10.3	63	stable	-0.4
Prostate	Yes	18.8	44	falling	-3.5
Stomach	***	4.6	28	falling	-3.3
Thyroid	***	0.6	3	*	*
Uterus (Corpus & Uterus, NOS)	***	6.9	23	stable	1

**** No Healthy People 2020 Objective for this cancer*

** 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: UNION COUNTY 2012-2016

		Liver & Bile Duct
MORTALITY RATE REPORT FOR UNION COUNTY 2012-2016 All Races (includes Hispanic), All Ages	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	5.1
	Average Annual Count	32
	Recent Trend	rising
	Recent 5-Year Trend in Death Rates	2
White Non-Hispanic, All Ages	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	5.3
	Average Annual Count	19
	Recent Trend	rising
	Recent 5-Year Trend in Death Rates	2.5
Black (includes Hispanic), All Ages	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	5.1
	Average Annual Count	7
	Recent Trend	stable
	Recent 5-Year Trend in Death Rates	2.4
Asian or Pacific Islander (includes Hispanic), All Ages	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	*
	Average Annual Count	3 or fewer
	Recent Trend	*
	Recent 5-Year Trend in Death Rates	*
Hispanic (any race), All Ages	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	5.2
	Average Annual Count	5
	Recent Trend	*
	Recent 5-Year Trend in Death Rates	*
MALES	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	7
	Average Annual Count	18
	Recent Trend	stable
	Recent 5-Year Trend in Death Rates	-0.2
FEMALES	Met Healthy People Objective	***
	Age-Adjusted Death Rate - cases per 100,000	3.9
	Average Annual Count	14
	Recent Trend	rising
	Recent 5-Year Trend in Death Rates	2.5

** 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 2012-2016

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
ALL SITES: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	448	1,638,110	falling	-0.9
New Jersey	483.3	50,921	falling	-7.9
Cape May County	561.5	878	stable	-0.3
Salem County	556.5	460	stable	-0.1
Gloucester County	539.5	1,813	falling	-8.4
Burlington County	529.6	2,931	falling	-7.8
Ocean County	519.8	4,455	falling	-7.5
Camden County	519.8	3,061	stable	-0.2
Monmouth County	517.4	4,054	falling	-7.5
Cumberland County	512.5	891	stable	-6.2
Sussex County	506.9	909	falling	-0.7
Mercer County	506.2	2,136	falling	-7.7
Warren County	501.5	688	stable	-7.3
Atlantic County	492.3	1,673	falling	-10.2
Morris County	488.8	3,003	falling	-6.6
Hunterdon County	479.8	784	stable	-0.5
Bergen County	467.7	5,482	falling	-1
Somerset County	467.1	1,819	falling	-8.8
Middlesex County	458.6	4,233	falling	-7.7
Essex County	457.4	3,858	falling	-1.2
Union County	452	2,773	falling	-8.8
Passaic County	450.4	2,489	falling	-0.8
Hudson County	391.6	2,519	falling	-1.3
Bladder: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	20.1	73,697	falling	-2.1
New Jersey	23.2	2,469	falling	-11.3
Cape May County	31.1	52	stable	-9
Salem County	29.3	25	stable	-19.2
Hunterdon County	28.3	46	rising	1
Warren County	28.2	38	stable	-0.9
Gloucester County	27.8	90	falling	-12.7
Atlantic County	27.3	93	falling	-20.2
Burlington County	27.3	153	stable	-0.3

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Sussex County	26.4	47	stable	-0.7
Cumberland County	25.5	44	stable	0.7
Monmouth County	25.4	200	stable	-0.4
Camden County	25.2	147	stable	-0.3
Morris County	24.8	154	stable	-12
Ocean County	23.9	229	falling	-13.3
Middlesex County	22.5	204	stable	-0.7
Bergen County	22.4	272	falling	-14.1
Passaic County	21.6	120	falling	-0.9
Mercer County	21.5	91	falling	-9.6
Somerset County	20.1	79	falling	-10.3
Union County	19.9	124	falling	-4.7
Essex County	18.5	152	falling	-0.7
Hudson County	17.6	107	falling	-1.7
Brain & ONS: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	6.5	22,497	falling	-1.3
New Jersey	6.9	679	falling	-6.6
Warren County	10.1	13	stable	1.2
Salem County (7)	9.4	7	*	*
Hunterdon County	8.4	11	stable	-0.6
Burlington County	7.9	39	stable	0.3
Sussex County	7.8	12	stable	-0.7
Cumberland County	7.8	13	stable	-0.7
Bergen County	7.7	82	stable	-0.6
Morris County	7.7	43	stable	-0.1
Gloucester County	7.6	24	stable	-0.5
Ocean County	7.5	53	stable	-11.4
Camden County	7.5	41	stable	-0.2
Monmouth County	7.2	54	stable	0.2
Atlantic County	6.9	21	stable	0.1
Mercer County	6.8	27	falling	-0.6
Passaic County	6.7	35	falling	-1.1
Middlesex County	6.5	58	falling	-1
Cape May County	6.4	8	stable	-0.4
Union County	5.9	35	falling	-1.2
Somerset County	5.7	20	stable	-0.7
Hudson County	5.5	37	falling	-1.3

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Essex County	5.3	44	falling	-1.5
Breast: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	125.2	239,297	stable	0
New Jersey	134.2	7,510	falling	-3.9
Morris County	148.9	482	falling	-0.4
Hunterdon County	146.7	128	stable	-0.3
Gloucester County	145.9	267	stable	-0.1
Monmouth County	144.6	602	stable	-0.2
Burlington County	143	420	stable	-0.2
Somerset County	142.8	300	stable	0.2
Mercer County	141.4	315	falling	-0.6
Camden County	137.9	439	stable	-6.5
Sussex County	136.5	129	stable	-0.3
Bergen County	135.9	835	falling	-0.8
Union County	135.4	449	stable	-5
Essex County	134.7	628	falling	-0.6
Atlantic County	133	239	stable	-0.3
Salem County	132.5	57	stable	-0.5
Ocean County	129.7	568	falling	-0.8
Cape May County	128.6	100	falling	-0.8
Middlesex County	126.8	625	falling	-0.7
Warren County	125.3	90	stable	-0.5
Passaic County	122.3	363	falling	-0.5
Cumberland County	119.7	107	falling	-0.8
Hudson County	104.4	367	falling	-0.6
Cervix: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	7.6	12,695	stable	0.8
New Jersey	7.5	377	falling	-2.6
Cumberland County	13.4	10	falling	-3.8
Cape May County	11.7	5	stable	-0.3
Atlantic County	9.5	15	falling	-3.4
Hudson County	9.5	33	falling	-2.7
Union County	9.3	29	falling	-1.6
Essex County	9.1	40	falling	-3.7
Ocean County	8.8	29	falling	-2.3
Passaic County	8.2	22	falling	-2.3
Somerset County	7.9	14	stable	-1.4

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Camden County	7.8	22	falling	-2.6
Warren County(7)	7.4	5	*	*
Middlesex County	6.9	32	falling	-2.2
Gloucester County	6.9	11	falling	-2.7
Bergen County	6.4	34	falling	-2.2
Monmouth County	6.2	22	falling	-2.8
Sussex County	6	5	falling	-3.1
Mercer County	5.9	12	falling	-3.2
Morris County	5.8	17	falling	-2.4
Burlington County	5.6	14	stable	-9.9
Hunterdon County	5	3	falling	-2.1
Salem County(7)	*	3 or fewer	*	*
Colon & Rectum: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	38.7	140,982	falling	-1.3
New Jersey	41.1	4,353	falling	-7.2
Salem County	49	41	falling	-2.3
Cape May County	47.1	75	falling	-2.9
Cumberland County	47.1	82	falling	-1.6
Burlington County	45.8	253	falling	-2.4
Gloucester County	45.1	149	falling	-6.2
Ocean County	44.7	401	falling	-3.2
Warren County	43.8	61	falling	-3
Camden County	43.5	254	falling	-3.4
Essex County	42.8	359	stable	-6.5
Monmouth County	41.8	330	falling	-3.8
Sussex County	40.9	70	falling	-3
Hunterdon County	40.7	66	falling	-2.9
Middlesex County	40.4	374	falling	-2.7
Atlantic County	39.9	137	falling	-3
Union County	39.6	244	stable	-9
Hudson County	39.5	254	falling	-2.7
Mercer County	39	164	falling	-5.6
Passaic County	38.6	214	falling	-4
Bergen County	38.2	454	falling	-3.8
Morris County	37.2	231	falling	-3.1
Somerset County	36.1	141	falling	-2.6

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Esophagus: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	4.5	17,084	stable	-0.8
New Jersey	4.3	468	falling	-8
Gloucester County	6.4	23	stable	0.9
Warren County	6.1	8	stable	0.9
Sussex County	6.1	12	stable	0.5
Cape May County	5.8	9	stable	-1.1
Ocean County	5.7	51	stable	0.5
Cumberland County	5.6	10	stable	0.3
Burlington County	5.2	30	stable	-0.4
Camden County	5	31	falling	-1.1
Morris County	4.8	30	stable	0.2
Monmouth County	4.5	37	stable	-0.6
Mercer County	4.5	19	falling	-1.6
Atlantic County	4.4	15	falling	-2.7
Hunterdon County	4.3	7	stable	-0.8
Salem County	4.2	4	stable	-2.2
Passaic County	4.1	23	falling	-1.4
Middlesex County	3.9	36	falling	-1.4
Essex County	3.7	31	falling	-3.2
Union County	3.5	22	falling	-1.9
Somerset County	3.3	13	falling	-1.4
Bergen County	3.2	38	falling	-1.4
Hudson County	3.1	20	falling	-3.1
Kidney & Renal Pelvis.: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	16.6	60,674	rising	0.9
New Jersey	16.1	1,705	falling	-7.4
Cumberland County	21.8	37	rising	3.7
Burlington County	20.4	114	rising	2.1
Camden County	19.6	114	rising	1.7
Gloucester County	19.3	67	stable	-13.3
Atlantic County	18.2	62	rising	1.2
Salem County	18	15	stable	0.7
Cape May County	17.7	28	rising	1.6
Ocean County	17.7	145	stable	-7.9
Mercer County	17.1	72	rising	1.8
Monmouth County	16.7	132	rising	1

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Bergen County	16.4	193	stable	0.7
Warren County	16.3	21	stable	0.8
Passaic County	16.1	88	rising	1.3
Sussex County	15.6	31	stable	-0.1
Middlesex County	15.1	139	stable	0.6
Morris County	15.1	93	stable	0.7
Union County	14.4	89	stable	0.7
Somerset County	14.2	56	stable	1.2
Hunterdon County	13.3	22	stable	1.4
Essex County	12.7	109	stable	0.5
Hudson County	11.8	77	stable	0.3
Leukemia: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	14.1	50,013	stable	-2.1
New Jersey	15.4	1,575	stable	0.3
Sussex County	18.6	30	stable	0.8
Gloucester County	17	56	stable	-15.8
Cape May County	16.4	24	stable	0.8
Morris County	16.4	98	stable	0.3
Monmouth County	16.4	124	rising	0.8
Ocean County	16.2	136	stable	0
Mercer County	16.1	67	stable	0.4
Passaic County	16.1	86	stable	-0.1
Bergen County	16	184	stable	0.5
Cumberland County	15.8	27	stable	0.6
Burlington County	15.7	84	stable	-15.7
Union County	15.6	92	rising	1
Camden County	15.3	87	stable	0.6
Warren County	15.2	20	stable	-26.5
Middlesex County	15.1	136	falling	-11.4
Somerset County	15	56	stable	0.2
Salem County	14.6	11	stable	0.4
Hunterdon County	14.3	22	stable	-0.8
Atlantic County	14.1	46	stable	0.1
Essex County	13.4	110	stable	-0.5
Hudson County	12.3	76	falling	-1
Liver & Bile Duct: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	8.3	32,027	stable	1.2

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
New Jersey	7.7	846	falling	-6.5
Cumberland County	11.1	20	rising	6.2
Salem County	10.3	9	rising	4
Cape May County	9.4	16	rising	4.7
Camden County	9.4	59	rising	3.4
Mercer County	8.6	37	rising	3.7
Gloucester County	8.5	30	rising	3.5
Passaic County	8.4	48	rising	2.5
Hudson County	8.3	54	rising	1.9
Ocean County	8.3	74	stable	-8.8
Atlantic County	8	29	rising	2.7
Burlington County	8	46	rising	2.9
Warren County	8	11	stable	0.7
Essex County	7.7	69	stable	-9.5
Monmouth County	7.4	62	rising	1.8
Middlesex County	7.4	71	rising	2.6
Sussex County	7.2	13	stable	1.6
Bergen County	6.9	84	rising	1.2
Somerset County	6.2	26	rising	2.7
Union County	6.1	39	stable	-10.7
Morris County	6	39	stable	1.1
Hunterdon County(7)	5.7	10	*	*
Lung & Bronchus: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	59.2	219,533	falling	-2.3
New Jersey	56.1	5,951	falling	-9.1
Salem County	82	70	stable	-0.6
Cape May County	81.4	136	stable	-0.5
Gloucester County	75.5	251	falling	-8.7
Ocean County	70.1	656	falling	-2.8
Camden County	68.9	407	falling	-0.9
Cumberland County	68.1	119	falling	-7
Atlantic County	67.1	232	falling	-13.3
Warren County	63.8	89	falling	-1.1
Sussex County	63.2	113	falling	-1.3
Burlington County	61.9	344	falling	-1.1
Monmouth County	60.2	477	falling	-8.1
Mercer County	57	241	falling	-1.2

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Hunterdon County	51.8	84	falling	-1.7
Middlesex County	50.7	461	stable	-8
Bergen County	49.8	596	falling	-1.5
Morris County	47.9	298	falling	-1.7
Passaic County	47.6	264	falling	-12.6
Essex County	47.5	392	stable	-10.3
Somerset County	46.2	177	stable	-12.7
Union County	45.6	274	stable	-11.3
Hudson County	43.6	269	falling	-2.2
Melanoma of the Skin: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	21.8	77,698	rising	2.2
New Jersey	21.9	2,276	stable	-2.1
Cape May County	46.5	70	rising	3.5
Hunterdon County	38.9	64	rising	4.4
Salem County	36.8	28	rising	4.8
Ocean County	34.3	284	rising	3.2
Monmouth County	31.6	241	stable	-15.7
Sussex County	29	51	rising	2.4
Gloucester County	27.3	89	stable	-1.3
Morris County	26.4	160	stable	-1.1
Burlington County	26	142	falling	-15.3
Atlantic County	24.8	83	stable	-2.9
Somerset County	24.5	96	stable	-2.3
Warren County	24.3	32	stable	1.3
Mercer County	22.3	93	falling	-14
Camden County	20.3	120	stable	-1.8
Middlesex County	17.9	164	stable	-11.5
Bergen County	17.8	207	falling	-2.9
Cumberland County	17.6	30	rising	1.6
Union County	15.3	94	stable	0.8
Passaic County	13.9	76	rising	1.4
Essex County	12.3	102	rising	1.2
Hudson County	7.7	50	stable	-1
Non-Hodgkin Lymphoma: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	19.2	69,092	stable	-1.3
New Jersey	21.6	2,231	falling	-0.7
Warren County	23.8	32	stable	0.5

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Monmouth County	23.6	181	falling	-0.9
Bergen County	23.2	270	stable	-0.3
Morris County	23.1	139	stable	-0.9
Ocean County	23.1	199	stable	0.3
Gloucester County	22.7	74	stable	0.4
Middlesex County	22.3	202	stable	0.3
Somerset County	22.3	86	stable	0.6
Cumberland County	22.2	38	stable	0.2
Atlantic County	22	73	stable	-0.6
Sussex County	21.9	37	stable	0.1
Mercer County	21.6	90	stable	0.1
Union County	21.6	132	stable	-0.6
Burlington County	20.9	114	stable	0.3
Camden County	20.4	120	falling	-4.3
Hunterdon County	20.1	33	stable	0.1
Passaic County	19.4	103	stable	0.2
Salem County	18.9	15	stable	0.3
Essex County	18.7	156	falling	-9
Cape May County	18.6	29	stable	-0.4
Hudson County	17.1	110	falling	-1.2
Oral Cavity & Pharynx: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	11.7	43,864	stable	0.5
New Jersey	10.7	1,153	falling	-0.4
Salem County	16.6	14	stable	1.1
Atlantic County	14.7	52	stable	0.2
Cumberland County	13.2	23	stable	0.5
Sussex County	13.2	25	stable	0.3
Cape May County	13	20	stable	0.2
Warren County	12.4	18	stable	0.1
Ocean County	12.4	106	stable	0.2
Camden County	12.3	74	stable	0.2
Monmouth County	11.9	97	stable	0
Burlington County	11.4	65	stable	-0.1
Gloucester County	11.3	41	stable	0.7
Hunterdon County	10.7	20	stable	0.7
Middlesex County	10.4	97	stable	0
Morris County	10.3	67	stable	0

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Somerset County	10.1	42	stable	0.7
Mercer County	9.5	41	falling	-1.7
Passaic County	9.5	54	falling	-1.3
Essex County	9.4	81	falling	-2
Bergen County	9.2	111	stable	-0.3
Union County	9.2	58	stable	-0.6
Hudson County	7.5	50	falling	-2.5
Ovary: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	11.1	21,404	falling	-2.5
New Jersey	12	687	falling	-2
Cape May County	16.1	13	stable	-0.6
Mercer County	14.8	34	stable	-0.8
Camden County	13.5	42	falling	-1.5
Burlington County	13.4	40	falling	-1.4
Somerset County	13	28	falling	-1.4
Ocean County	12.5	56	falling	-1.8
Essex County	12.3	58	falling	-2
Gloucester County	12.3	23	falling	-1.5
Warren County	12.2	9	stable	-1.3
Morris County	12.1	40	falling	-2
Middlesex County	12	60	falling	-1.9
Sussex County	11.9	12	falling	-26.1
Hunterdon County	11.9	11	falling	-3.2
Passaic County	11.7	36	falling	-2.1
Hudson County	11.5	41	falling	-2.2
Atlantic County	11.2	20	stable	-17.4
Monmouth County	11.2	49	falling	-2.1
Bergen County	11.1	70	falling	-2.8
Salem County	10.8	5	stable	-0.2
Union County	9.8	33	falling	-2.7
Cumberland County	9.2	8	falling	-2.4
Pancreas: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	12.8	47,197	stable	0.4
New Jersey	13.9	1,486	falling	-6.5
Burlington County	15.9	91	stable	0.7
Mercer County	15.7	66	rising	2
Warren County	15.5	22	stable	1.3

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Ocean County	15.2	141	rising	0.8
Hunterdon County	14.8	25	stable	1.1
Salem County	14.6	12	stable	1.3
Cape May County	14.6	24	stable	0.5
Gloucester County	14.6	49	rising	1.2
Camden County	14.4	86	stable	0.4
Cumberland County	14.3	25	rising	1.3
Monmouth County	14	113	stable	0.3
Morris County	13.9	88	stable	-7.4
Essex County	13.7	114	stable	-9.1
Bergen County	13.3	162	stable	-0.1
Somerset County	13.3	52	stable	1
Hudson County	13.2	82	stable	0.1
Middlesex County	12.9	119	stable	-9.2
Passaic County	12.8	73	stable	0.1
Atlantic County	12.7	44	stable	-0.5
Union County	12.6	77	stable	-8.7
Sussex County	12.5	23	stable	-0.1
Prostate: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	104.1	187,184	stable	-2.2
New Jersey	129.6	6,511	falling	-11.2
Cape May County	158.3	124	falling	-1.8
Essex County	152.1	576	falling	-12.7
Mercer County	147.3	295	falling	-12.3
Burlington County	143.1	388	falling	-7.3
Camden County	140.3	389	falling	-5.9
Passaic County	137.5	355	falling	-1.7
Monmouth County	137.3	529	falling	-9.7
Salem County	136.9	56	falling	-1.2
Gloucester County	135.9	222	falling	-8
Morris County	129.8	390	falling	-7.8
Union County	129.5	367	falling	-7.7
Bergen County	126.9	709	falling	-4.7
Cumberland County	124.6	103	falling	-1.3
Middlesex County	122.9	540	falling	-10.5
Somerset County	121	225	falling	-9.6
Sussex County	116.8	113	falling	-8.3

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Ocean County	114.8	470	falling	-11.2
Atlantic County	114.7	195	falling	-10.6
Warren County	110.3	77	falling	-11.2
Hudson County	107.3	298	falling	-5.2
Hunterdon County	103.2	88	falling	-2.7
Stomach: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	6.6	23,871	falling	-1.3
New Jersey	7.9	837	falling	-1.8
Passaic County	10	55	falling	-0.9
Hudson County	9.6	60	falling	-1.1
Union County	9.6	58	falling	-1.7
Essex County	9	74	falling	-2.2
Bergen County	8.9	107	falling	-1.3
Camden County	8.9	52	stable	-0.7
Cumberland County	8.2	14	falling	-1.9
Mercer County	8.1	34	falling	-2.3
Atlantic County	7.7	26	falling	-1.7
Middlesex County	7.6	70	falling	-2.1
Ocean County	7.2	64	falling	-1.8
Somerset County	6.9	27	falling	-2
Warren County	6.8	10	falling	-2.1
Morris County	6.8	42	falling	-1.4
Burlington County	6.8	38	falling	-1.9
Sussex County	6.7	12	falling	-2.6
Salem County	6.4	5	stable	-1.6
Gloucester County	6.2	21	falling	-1.7
Monmouth County	6.2	51	falling	-2.4
Hunterdon County	5.2	9	falling	-3.6
Cape May County	5.1	9	stable	-0.8
Thyroid: All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	14.5	48,388	stable	-0.8
New Jersey	19.4	1,860	falling	-4.1
Monmouth County	25.9	177	stable	0.4
Mercer County	25.4	102	stable	0.8
Gloucester County	23.7	73	rising	3.4
Ocean County	23.4	143	stable	-2.8

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Camden County	22.1	119	rising	2.8
Somerset County	21.8	79	stable	-13.7
Burlington County	21.5	105	stable	-8.7
Morris County	20.1	108	stable	-3.5
Bergen County	19.8	204	falling	-3
Middlesex County	19.1	169	stable	-1.1
Salem County	18.6	13	rising	6.9
Sussex County	18.4	30	rising	6.4
Passaic County	17	88	stable	-6.7
Union County	17	100	falling	-8.3
Warren County	16.8	21	rising	4.5
Cumberland County	16.4	27	stable	-6.8
Hunterdon County	16.4	23	rising	4.1
Cape May County	16	17	stable	-3.7
Atlantic County	16	46	stable	-2.2
Hudson County	14.7	106	stable	-2
Essex County	13.2	110	rising	4.8
Uterus (Corpus & Uterus, NOS): All Races (includes Hispanic), Both Sexes, All Ages				
US (SEER+NPCR)	26.6	53,371	rising	1.4
New Jersey	31.6	1,872	stable	-3.5
Warren County	40	30	stable	-0.2
Cumberland County	37.7	36	rising	1
Salem County	36.8	18	stable	0.8
Sussex County	34.7	36	stable	-0.3
Camden County	34.5	116	rising	1.3
Mercer County	34.4	81	rising	0.7
Burlington County	34	105	rising	1
Atlantic County	33.7	63	stable	0.7
Morris County	33.2	114	stable	0.3
Hunterdon County	33.1	30	stable	-0.4
Essex County	32.9	160	rising	1.1
Cape May County	32.8	29	stable	0.8
Gloucester County	32.2	62	stable	0.8
Somerset County	31.8	71	stable	0.6
Union County	31.5	108	stable	0.2
Ocean County	31.5	145	stable	0.1

INCIDENCE RATE REPORT: ALL COUNTIES 2012-2016				
County	Age-Adjusted Incidence Rate - cases per 100,000	Average Annual Count	Recent Trend	Recent 5-Year Trend in Incidence Rates
Middlesex County	31.2	162	rising	0.6
Monmouth County	29.6	133	falling	-4.7
Bergen County	29.3	193	stable	0.2
Passaic County	27.9	87	stable	0.1
Hudson County	25.2	92	stable	-0.2

APPENDIX C7: RWJ RAHWAY - TUMOR REGISTRY SUMMARY

In 2017, RWJ Rahway's tumor registry data showed that 7.9% and 13.9% of overall oncology cases were diagnosed at the more advanced Stage 3 and Stage 4 of the disease, respectively. The following primary sites had more than 25% of cases diagnosed at Stage 4: Digestive System (26.1%), Respiratory System (39.1%), Female Genital System (100%), and Lymphoma (33.3%).

Compared to 2016, there was a decrease of 2 cases registered (-0.3%) in 2017. The three biggest decreases in overall cases occurred in the following sites: Respiratory System (-27, -46.6%), Urinary (-14, -18.9%) and Female Genital System (-14, -73.7%, respectively). Staging percentages are calculated on analytic cases only.

	Cases (both analytic and non-analytic)		2016			2017			2016 - 2017			
	2016	2017	% Stage III	% Stage IV	Total % Stage III & IV	% Stage III	% Stage IV	Total % Stage III & IV	Change in Case Volume	Change in % points for Stage III	Change in % points for Stage IV	Change in % points for Stage III & IV
Primary Site												
ORAL CAVITY & PHARYNX	**28**	**18**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**(10)**	**0.0**	**0.0**	**0.0**
DIGESTIVE SYSTEM	**226**	**258**	**15.0%**	**17.5%**	**32.5%**	**17.4%**	**26.1%**	**43.5%**	**32**	**2.4**	**8.6**	**11.0**
Select Digestive System:												
Esophagus	16	13	0.0%	0.0%	0.0%	0.0%	100.0 %	100.0 %	(3)	0.0	100.0	100.0
Stomach	34	41	0.0%	33.3%	33.3%	0.0%	0.0%	0.0%	7	0.0	(33.3)	(33.3)
Colon Excluding Rectum	99	103	20.0%	20.0%	40.0%	20.0%	35.0%	55.0%	4	0.0	15.0	15.0
Rectum & Rectosigmoid	53	64	25.0%	0.0%	25.0%	40.0%	20.0%	60.0%	11	15.0	20.0	35.0
Pancreas		18	0.0%	0.0%	0.0%	0.0%	33.3%	33.3%	11	0.0	33.3	33.3
RESPIRATORY SYSTEM	**58**	**31**	**20.7%**	**41.4%**	**62.1%**	**17.4%**	**39.1%**	**56.5%**	**(27)**	**(3.3)**	**(2.2)**	**(5.5)**
Select Respiratory System:												
Lung & Bronchus	46	22	19.2%	42.3%	61.5%	20.0%	45.0%	65.0%	(24)	0.8	2.7	3.5
BONES & JOINTS			**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%**	**(3)**	**0.0**	**0.0**	**0.0**
SKIN EXCLUDING BASAL & SQUAMOUS	**14**	**14**	**20.0%**	**0.0%**	**20.0%**	**0.0%**	**0.0%**	**0.0%**	**0**	**(20.0)**	**0.0**	**(20.0)**
Select Skin System:												
Melanoma -- Skin	11	14	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	3	(50.0)	0.0	(50.0)
BASAL & SQUAMOUS SKIN			**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0**	**0.0**	**0.0**	**0.0**
BREAST	**145**	**186**	**0.0%**	**7.7%**	**7.7%**	**21.4%**	**7.1%**	**28.6%**	**41**	**21.4**	**(0.5)**	**20.9**
Breast	145	186	0.0%	7.7%	7.7%	21.4%	7.1%	28.6%	41	21.4	(0.5)	20.9
FEMALE GENITAL SYSTEM	**19**		**0.0%**	**33.3%**	**33.3%**	**0.0%**	**100.0 %**	**100.0 %**	**(14)**	**0.0**	**66.7**	**66.7**

	Cases (both analytic and non-analytic)		2016			2017			2016 - 2017			
	2016	2017	% Stage III	% Stage IV	Total % Stage III & IV	% Stage III	% Stage IV	Total % Stage III & IV	Change in Case Volume	Change in % points for Stage III	Change in % points for Stage IV	Change in % points for Stage III & IV
MALE GENITAL SYSTEM	**113**	**124**	**0.0%**	**9.8%**	**9.8%**	**0.0%**	**8.3%**	**8.3%**	**11**	**0.0**	**(1.4)**	**(1.4)**
Select Male Genital System:												
Prostate	107	121	0.0%	10.5%	10.5%	0.0%	8.6%	8.6%	14	0.0	(2.0)	(2.0)
URINARY SYSTEM	**74**	**60**	**4.1%**	**4.1%**	**8.2%**	**0.0%**	**0.0%**	**0.0%**	**(14)**	**(4.1)**	**(4.1)**	**(8.2)**
Select Urinary System:												
Urinary Bladder	67	54	2.3%	0.0%	2.3%	0.0%	0.0%	0.0%	(13)	(2.3)	0.0	(2.3)
BRAIN & OTHER NERVOUS SYSTEM			**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0**	**0.0**	**0.0**	**0.0**
ENDOCRINE SYSTEM	**10**		**11.1%**	**11.1%**	**22.2%**	**100.0 %**	**0.0%**	**100.0 %**	**(9)**	**88.9**	**(11.1)**	**77.8**
LYMPHOMA	**36**	**28**	**9.1%**	**18.2%**	**27.3%**	**0.0%**	**33.3%**	**33.3%**	**(8)**	**(9.1)**	**15.2**	**6.1**
Select Lymphoma System:												
Non-Hodgkin Lymphoma	30	26	12.5%	25.0%	37.5%	0.0%	33.3%	33.3%	(4)	(12.5)	8.3	(4.2)
MYELOMA			**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**(1)**	**0.0**	**0.0**	**0.0**
LEUKEMIA	**13**		**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**(5)**	**0.0**	**0.0**	**0.0**
MISCELLANEOUS	**13**	**19**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**6**	**0.0**	**0.0**	**0.0**
Total	**768**	**766**	**7.4%**	**13.1%**	**20.5%**	**7.9%**	**13.9%**	**21.8%**	**(2)**	**0.5**	**0.8**	**1.3**

APPENDIX D: RAHWAY RESOURCE INVENTORY

Provider Type	Provider Name	Street Address	Town	ZIP Code	Phone
Adult Day Health Care	2nd Home Sweet Home Operations, LLC	550 North Broad Street	Elizabeth	07208	(908) 994-0050
Adult Day Health Care	Circle Of Friends, LLC	40 Stern Avenue	Springfield	07081	(973) 376-4004
Adult Day Health Care	Aristacare At Norwood Terrace	40-44 Norwood Avenue	Plainfield	07060	(908) 769-1400
Adult Day Health Care	Cedar Harbor Medical Day Care Center	545 East 1st Avenue	Roselle	07203	(908) 298-8588
Adult Day Health Care	Daybreak Adult Daycare At Elizabeth	712 Newark Avenue	Elizabeth	07208	(908) 353-3530
Adult Day Health Care	Five Star Adult Medical Day Care Center	1201 Deerfield Terrace	Linden	07036	(908) 486-5750
Adult Day Health Care	Sage Spend A Day	290 Broad Street	Summit	07901	(908) 273-5550
Adult Day Health Care	Senior Spirit Of Roselle Park	430 East Westfield Avenue	Roselle Park	07204	(908) 241-9393
Adult Day Health Care	Town Square Adult Medical Day Care Center	1155 East Jersey Street	Elizabeth	07201	(908) 787-0980
Amb. Care-Hosp.-Based-Off-Site	Trinitas Regional Medical Center Sleep	2 Jackson Drive, Homewood Suites	Cranford	07016	(908) 994-5226
Amb. Care-Hosp.-Based-Off-Site	The Sleep Disorder Center	210 Williamson Street	Elizabeth	07207	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Adult Psychiatric Clinic	654 East Jersey Street	Elizabeth	07206	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Ambulatory Surgery Center	225 Williamson Street	Elizabeth	07202	(908) 994-8936
Amb. Care-Hosp.-Based-Off-Site	Trinitas Child And Adolescent Psychiatric Clinic	655 East Jersey Street	Elizabeth	07206	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Comprehensive Cancer Center	225 Williamson Street	Elizabeth	07202	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Health Center - Jefferson Avenue	65 Jefferson Avenue	Elizabeth	07201	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Hiv Clinic	655 Livingston Street	Elizabeth	07206	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Hospital Addiction Services	654 East Jersey Street	Elizabeth	07206	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Hospital Dorothy B Hersh Clinic	655 East Jersey Street	Elizabeth	07208	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Regional Medical Center Primary Care Satellite	654 East Jersey Street	Elizabeth	07206	(908) 994-7271
Amb. Care-Hosp.-Based-Off-Site	Trinitas Renal Dialysis Satellite	629 Livingston Street	Elizabeth	07206	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Trinitas Substance Abuse Clinic	655 East Jersey Street	Elizabeth	07206	(908) 994-5754
Amb. Care-Hosp.-Based-Off-Site	Renal Dialysis Satellite	10 North Wood Avenue	Linden	07036	(908) 862-7400
Amb. Care-Hosp.-Based-Off-Site	JFK Medical Center-Muhlenberg Campus	Park Avenue And Randolph Road	Plainfield	07061	(732) 321-7000
Amb. Care-Hosp.-Based-Off-Site	Overlook Health Services At One Springfield Avenue	1 Springfield Avenue	Summit	07901	(908) 934-6651
Amb. Care-Hosp.-Based-Off-Site	Overlook Medical Center-Union Campus	1000 Galloping Hill Road	Union	07083	(973) 522-6300
Amb. Care-Hosp.-Based-Off-Site	Wound Healing Program At Union Campus	1000 Galloping Hill Road	Union	07083	(908) 522-6300

Provider Type	Provider Name	Street Address	Town	ZIP Code	Phone
Amb. Surgical Ctr.	Summit Medical Group PA	1 Diamond Hill Road, Suite 1b-142	Berkeley Heights	07922	(908) 273-4300
Amb. Surgical Ctr.	Garden State Endoscopy And Surgery Center	1700 Galloping Hill Road	Kenilworth	07033	(908) 241-8900
Amb. Surgical Ctr.	Center For Ambulatory Surgery, LLC	1450 Route 22 West	Mountainside	07092	(908) 233-2020
Amb. Surgical Ctr.	Gastro-Surgi Center Of New Jersey, The	1132 Spruce Drive	Mountainside	07092	(908) 317-0071
Amb. Surgical Ctr.	Advanced Spine And Outpatient Surgery Center, LLC	855 Lehigh Avenue, Suite 203	Union	07083	(908) 557-9420
Amb. Surgical Ctr.	Union County Surgery Center, L.L.C.	950 West Chestnut Street	Union	07083	(908) 688-2700
Amb. Surgical Ctr.	Union Surgery Center, LLC	1000 Galloping Hill Road	Union	07083	(908) 258-7666
Ambulatory Care	Summit Medical Group	1 Diamond Hill Road, Suite LG-601	Berkeley Heights	07922	(908) 273-4300
Ambulatory Care	NJIN Of Cranford	25 South Union Avenue	Cranford	07016	(908) 709-1323
Ambulatory Care	Premier Urology Cancer Treatment Center	570 South Avenue	Cranford	07016	(908) 603-4200
Ambulatory Care	AQ Modern Diagnostic Imaging	315 Elmora Avenue	Elizabeth	07208	(856) 524-1559
Ambulatory Care	University Radiology At Trinitas, LLC	415 Morris Avenue	Elizabeth	07208	(908) 351-7600
Ambulatory Care	Linden Imaging LLC	210 W St Georges Avenue	Linden	07036	(908) 587-0035
Ambulatory Care	Rahway Regional Cancer Center	892 Trussler Place	Rahway	07065	(732) 382-5550
Ambulatory Care	Dynamic Medical Imaging L.L.C.	950 West Chestnut Street	Union	07083	(908) 687-2552
Ambulatory Care	NJIN Of Union	445 Chestnut Street	Union	07083	(908) 687-6054
Ambulatory Care	The Birth Center Of New Jersey, LLC	1945 Us 22 West	Union	07083	(908) 624-9665
Ambulatory Care	Women's Healthcare Imaging Center	1896 Morris Avenue	Union	07083	(908) 964-0004
Ambulatory Care	Summit Medical Group, P.A.	574 Springfield Avenue	Westfield	07091	(908) 673-7257
Ambulatory Care - Satellite	Planned Parenthood Of Northern, Central And Southern New Jersey, Inc.	1171 Elizabeth Avenue	Elizabeth	07201	(908) 353-0283
Ambulatory Care - Satellite	Neighborhood Health Center The Healthy Place	427 Darrow Avenue	Plainfield	07063	(908) 731-4288
Ambulatory Care - Satellite	Planned Parenthood Of Northern, Central And Southern New Jersey, Inc.	123 Park Avenue	Plainfield	07060	(908) 756-3736
Assisted Living Program	Center For Hope Hospice Inc.	1900 Raritan Road	Scotch Plains	07076	(908) 889-7780
Assisted Living Residence	Amber Court Of Elizabeth, LLC	1155 East Jersey Street	Elizabeth	07201	(908) 352-9200
Assisted Living Residence	The Chelsea At Fanwood	295 South Avenue	Fanwood	07023	(908) 654-5200
Assisted Living Residence	Arbor Terrace Mountainside	1050 Springfield Avenue	Mountainside	07092	(908) 760-0599
Assisted Living Residence	Brighton Gardens Of Mountainside	1350 Route 22 West	Mountainside	07092	(908) 654-4460

Provider Type	Provider Name	Street Address	Town	ZIP Code	Phone
Assisted Living Residence	Continuing Care At Lantern Hill	537 Mountain Avenue	New Providence	07974	(908) 516-9300
Assisted Living Residence	Spring Meadows Summit	41 Springfield Avenue	Summit	07901	(908) 522-8852
Assisted Living Residence	Sunrise Assisted Living Of Westfield	240 Springfield Avenue	Westfield	07090	(908) 317-3030
Comp. Outpatient Rehab	QualCare Therapy Center Inc & Sleep Diagnostics Of NJ	2333 Morris Avenue, Suite B-210	Union	07083	(908) 688-3366
Comp. Personal Home Care	AristaCare At Delaire	400 West Stimpson Avenue	Linden	07036	(908) 862-3399
Comp. Personal Home Care	Atria Cranford	10 Jackson Drive	Cranford	07016	(908) 709-4300
Comp. Personal Home Care	Birchwood Square At Cranford	205 Birchwood Avenue	Cranford	07016	(908) 272-6660
Comp. Personal Home Care	Father Hudson House	111 Dehart Place	Elizabeth	07202	(908) 353-6060
Comp. Personal Home Care	Peggy Coloney's House At Hope Village	1900 Raritan Road	Scotch Plains	07076	(908) 889-7780
End Stage Renal Dialysis	National Nephrology Associates, Inc	595 Division Street, Ste B	Elizabeth	07201	(908) 436-3007
End Stage Renal Dialysis	Hillside Dialysis	1529 North Broad Street	Hillside	07205	(973) 474-1199
End Stage Renal Dialysis	Fresenius Medical Care-Kenilworth	131 South 31st Street	Kenilworth	07033	(908) 241-0453
End Stage Renal Dialysis	Fresenius Medical Care Linden	630 West St Georges	Linden	07036	(908) 925-5161
End Stage Renal Dialysis	Summit Dialysis	1139 Spruce Drive	Mountainside	07092	(908) 232-7800
End Stage Renal Dialysis	Plainfield Dialysis	1200 Randolph Road	Plainfield	07060	(908) 757-6030
End Stage Renal Dialysis	Rahway Dialysis	800 Harrison Street	Rahway	07065	(732) 381-0973
End Stage Renal Dialysis	Bio-Medical Applications Of Hillside	879 Rahway Avenue	Union	07083	(908) 964-5606
FQHC	Neighborhood Health Services Corporation	178-184 First Street	Elizabeth	07206	(908) 355-4459
FQHC	Neighborhood Health Center Plainfield	1700 Myrtle Avenue	Plainfield	07063	(908) 753-6401
General Acute Care Hosp.	Trinitas Regional Medical Center	225 Williamson Street	Elizabeth	07207	(908) 994-5000
General Acute Care Hosp.	Robert Wood Johnson University Hospital At Rahway	865 Stone St	Rahway	07065	(732) 381-4200
General Acute Care Hosp.	Overlook Medical Center	99 Beauvoir Avenue	Summit	07902	(908) 522-2000
Home Health Agency	Hackensack Meridian Health JFK At Home	100 Walnut Avenue	Clark	07066	(732) 317-5777
Home Health Agency	Holy Redeemer Home Care	354 Union Avenue	Elizabeth	07208	(908) 352-5694
Hospice Care Branch	Holy Redeemer Hospice	354 Union Avenue	Elizabeth	07208	(908) 352-5694
Hospice Care Program	First Response Hospice Care, Inc.	57 Brant Avenue, Suite 100	Clark	07066	(917) 613-1585
Hospice Care Program	Homeside Hospice LLC	67 Walnut Avenue, Suite 205	Clark	07066	(732) 381-3444
Hospice Care Program	Ascend Hospice	1600 St George Avenue, Suite 312	Rahway	07065	(908) 931-9080

Provider Type	Provider Name	Street Address	Town	ZIP Code	Phone
Hospice Care Program	Center For Hope Hospice And Palliative Care	1900 Raritan Road	Scotch Plains	07076	(908) 889-7780
Long Term Care	The Woodlands	1400 Woodland Ave	Plainfield	07060	(908)753-1113
Long Term Care	Alaris Health At Riverton	1777 Lawrence Street	Rahway	07065	(732) 499-7927
Long Term Care	AristaCare At Delaire	400 W Stimpson Ave	Linden	07036	(908) 862-3399
Long Term Care	AristaCare At Norwood Terrace	40 Norwood Avenue	Plainfield	07060	(908) 769-1400
Long Term Care	Ashbrook Care & Rehabilitation Center	1610 Raritan Road	Scotch Plains	07076	(908) 889-5500
Long Term Care	Autumn Lake Healthcare At Berkeley Heights	35 Cottage Street	Berkeley Heights	07922	(908) 897-1000
Long Term Care	Care Connection Rahway	865 Stone Street	Rahway	07065	(732) 499-6460
Long Term Care	Children's Specialized Hospital	150 New Providence Road	Mountainside	07092	(908) 233-3720
Long Term Care	Clark Nursing And Rehabilitation Center	1213 Westfield Avenue	Clark	07066	(732) 396-7100
Long Term Care	Continuing Care At Lantern Hill	537 Mountain Avenue	New Providence	07974	(908) 516-9300
Long Term Care	Cornell Hall Care & Rehabilitation Center	234 Chestnut Street	Union	07083	(908) 687-7800
Long Term Care	Cranford Park Rehabilitation & Healthcare Center	600 Lincoln Park East	Cranford	07016	(908) 276-7100
Long Term Care	Cranford Rehab & Nursing Center	205 Birchwood Ave	Cranford	07016	(908) 272-6660
Long Term Care	Elizabeth Nursing And Rehab Center	1048 Grove Street	Elizabeth	07202	(908) 354-0002
Long Term Care	Elmora Hills Health & Rehabilitation Center	225 W Jersey Street	Elizabeth	07202	(908) 353-1220
Long Term Care	JFK Hartwyck At Cedar Brook	1340 Park Ave	Plainfield	07060	(908) 754-3100
Long Term Care	Manor Care Health Services Mountainside	1180 Route 22 West	Mountainside	07092	(908) 654-0020
Long Term Care	Plaza Healthcare & Rehabilitation Center	456 Rahway Avenue	Elizabeth	07202	(908) 354-1300
Long Term Care	Runnells Center For Rehabilitation & Healthcare	40 Watchung Way	Berkeley Heights	07922	(908) 771-5700
Long Term Care	South Mountain Healthcare & Rehabilitation	2385 Springfield Avenue	Vauxhall	07088	(908) 688-3400
Long Term Care	Spring Grove Rehabilitation And Healthcare Center	144 Gales Drive	New Providence	07974	(908) 464-8600
Long Term Care	Trinitas Hospital	655 East Jersey Street	Elizabeth	07206	(908) 994-7525
Long Term Care	Westfield Center	1515 Lamberts Mill Road	Westfield	07090	(908) 233-9700
Pediatric Community Trans. Home	Aids Resource Foundation For Children/St. Clare's Elizabeth	643 Pearl Street	Elizabeth	07202	(908) 351-8746
Pediatric Day Health Care	Aveanna Healthcare	316 West Westfield Avenue	Roselle Park	07204	(908) 259-3330
Psychiatric Hospital	Summit Oaks Hospital	19 Prospect St	Summit	07901	(908) 522-7027
Psychiatric Special Hospital	Cornerstone Behavioral Health Hospital Of Union County	40 Watchung Way	Berkeley Heights	07922	(908) 771-5857
Special Hospital	Care One At Trinitas	225 Williamson Street	Elizabeth	07207	(732) 324-6090
Special Hospital	Kindred Hospital New Jersey-Rahway	865 Stone Street	Rahway	07065	(732) 669-8200

Provider Type	Provider Name	Street Address	Town	ZIP Code	Phone
Surgical Practice	Linden Surgical Center, LLC	210 West St George Avenue	Linden	07036	(908) 587-1888
Surgical Practice	Springfield Surgery Center, L.L.C.	105 Morris Avenue, First Floor	Springfield	07081	(973) 718-5550
Surgical Practice	Westfield Plastic Surgical Center	955 So Springfield Avenue, Bldg A, Suite 105	Springfield	07081	(908) 654-6540
Surgical Practice	Med Fem Aesthetic Center	33 Overlook Road, Suite 302	Summit	07901	(908) 522-1777
Surgical Practice	Access Care Physicians Of NJ L.L.C.	2401 Morris Avenue, Suite W-112	Union	07083	(908) 686-0123
Surgical Practice	Endo-Surgi Center, Pa	1201 Morris Avenue	Union	07083	(908) 686-0066
Surgical Practice	New Jersey Interventional Associates LLC	2401 Morris Avenue, Suite W-111	Union	07083	(908) 686-1350
Surgical Practice	Cardiovascular Care Group, The	433 Central Avenue	Westfield	07090	(973) 759-9000

APPENDIX E: DISCHARGES AND POPULATION 18-64 FOR AMBULATORY CARE SENSITIVE CONDITIONS

ACSC Discharges from NJ Hospitals		Total ACS Discharges	ANGINA	ASTHMA	BACTERIAL PNEUMONIA	CELLULITIS	CONGESTIVE HEART FAILURE	CONVULSION	COPD	DEHYDRATION	DENTAL CONDITIONS	DIABETES	ENT
ALL RACES													
Statewide		55,565	603	3,780	6,170	6,230	5,260	963	6,355	2,923	761	7,624	533
RWJRAH PSA		1,041	15	66	114	112	118	14	109	54	7	145	6
WHITE													
Statewide		27,668	276	1,289	3,316	4,150	2,014	528	3,729	1,469	379	3,271	237
RWJRAH PSA		463	5	23	43	65	48	5	63	21	1	68	4
BLACK													
Statewide		15,535	160	1,363	1,578	892	2,180	242	1,792	740	186	2,603	134
RWJRAH PSA		340	7	25	43	20	44	3	27	19	2	56	1

ACSC Discharges from NJ Hospitals		Total ACS Discharges	GASTRO-INSTESTINAL OBSTRUCTION	GRAND MAL STATUS/OTHER EPILEPTIC CONVULSION	HYPERTENSION	HYPOGLYCEMIA	IMMUNIZATION RELATED PREVENTABLE	KIDNEY/URINARY INFECTION	NUTRITION DEFICIENCIES (til 12/14 DSCHG)	OTHER TUBERCULOSIS	PELVIC INFLAMMATORY DISEASE	PULMONARY TUBERCULOSIS	SKIN GRAFTS W CELLULITIS
ALL RACES													
Statewide		55,565	1,936	4,534	994	60	8	4,164	2,068	33	359	73	134
RWJRAH PSA		1,041	43	106	17			68	38	1	6	1	1
WHITE													
Statewide		27,668	969	2,226	346	25	3	2,051	1,203	4	110	6	67
RWJRAH PSA		463	20	49	3			27	17		1		
BLACK													
Statewide		15,535	437	1,293	427	26	2	841	462	10	118	16	33
RWJRAH PSA		340	15	33	11			17	11	1	3	1	1

ACSC 2016 Discharge Rate per 1,000 population	Est 2016 Population 18-64	Total ACS Discharges	ANGINA	ASTHMA	BACTERIAL PNEUMONIA	CELLULITIS	CONGESTIVE HEART FAILURE	CONVULSION	COPD	DEHYDRATION	DENTAL 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
RWJRAH PSA	122,566	8.493	0.122	0.538	0.930	0.914	0.963	0.114	0.889	0.441	0.057	1.183	0.049
Variance from Statewide		(1.410)	0.015	(0.135)	(0.170)	(0.197)	0.025	(0.057)	(0.243)	(0.080)	(0.079)	(0.176)	(0.046)
WHITE													
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
RWJRAH PSA	70,523	6.565	0.071	0.326	0.610	0.922	0.681	0.071	0.893	0.298	0.014	0.964	0.057
Variance from Statewide		(0.999)	(0.005)	(0.026)	(0.297)	(0.213)	0.130	(0.073)	(0.126)	(0.104)	(0.089)	0.070	(0.008)
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
RWJRAH PSA	27,338	12.437	0.256	0.914	1.573	0.732	1.609	0.110	0.988	0.695	0.073	2.048	0.037
Variance from Statewide		(7.394)	0.052	(0.825)	(0.441)	(0.407)	(1.173)	(0.199)	(1.300)	(0.250)	(0.164)	(1.274)	(0.134)
Variance Black from White													
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		5.87	0.19	0.59	0.96	-0.19	0.93	0.04	0.09	0.40	0.06	1.08	-0.02
Est Admissions Statewide		**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		160.52	5.06	16.08	26.33	-5.20	25.39	1.06	2.58	10.86	1.61	29.64	-0.55

ACSC 2016 Discharge Rate per 1,000 population	Est 2016 Population 18-64	Total ACS Discharges	GASTRO-INSTESTINAL OBSTRUCTION	GRAND MAL STATUS/OTHER EPILEPTIC CONVULSION	HYPERTENSION	HYPOGLYCEMIA	IMMUNIZATION RELATED PREVENTABLE	KIDNEY/URINARY INFECTION	NUTRITION DEFICIENCIES (til 12/14 DSCHG)	OTHER TUBERCULOSIS	PELVIC INFLAMMATORY DISEASE	PULMONARY TUBERCULOSIS	SKIN GRAFTS W 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
RWJRAH PSA	122,566	8.493	0.351	0.865	0.139	0.000	0.000	0.555	0.310	0.008	0.049	0.008	0.008
Variance from Statewide		(1.410)	0.006	0.057	(0.038)	(0.011)	(0.001)	(0.187)	(0.059)	0.002	(0.015)	(0.005)	(0.016)
WHITE													
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
RWJRAH PSA	70,523	6.565	0.284	0.695	0.043	0.000	0.000	0.383	0.241	0.000	0.014	0.000	0.000
Variance from Statewide		(0.999)	0.019	0.086	(0.052)	(0.007)	(0.001)	(0.178)	(0.088)	(0.001)	(0.016)	(0.002)	(0.018)
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
RWJRAH PSA	27,338	12.437	0.549	1.207	0.402	0.000	0.000	0.622	0.402	0.037	0.110	0.037	0.037
Variance from Statewide		(7.394)	(0.009)	(0.443)	(0.143)	(0.033)	(0.003)	(0.452)	(0.187)	0.024	(0.041)	0.016	(0.006)
Variance Black from White													
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		5.87	0.27	0.51	0.36	0.00	0.00	0.24	0.16	0.04	0.10	0.04	0.04
Est Admissions Statewide		**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		160.52	7.25	14.01	9.84	0.00	0.00	6.53	4.41	1.00	2.61	1.00	1.00