KENT HOSPITAL

2016 Community Health Needs Assessment

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Our Commitment to Community Health

Kent Hospital, the second largest hospital in Rhode Island, provides a full spectrum of primary and acute care services including: weight loss surgery program; emergency department with rapid assessment and virtually no wait; the Breast Health Center at Kent, a collaboration with Women & Infants Hospital; cardiology services, The Inpatient Rehabilitation Center at Kent, the state's only 24-hour emergency hyperbaric oxygen facility; the Stroke Center; and an ambulatory surgery center. Kent Hospital is an affiliate of the University of New England College of Osteopathic Medicine (UNECOM) for medical education.

Care New England Health System, the not-for-profit parent organization**,** founded in 1996**,** is a trusted organization that fuels the latest advances in medical research, attracts the nation's top specialty-trained doctors, hones renowned services and innovative programs, and engages in the important discussions people need to have about their health and end-of-life wishes. Care New England is helping to transform the future of health care, providing a leading voice in the ongoing effort to ensure the health of the individuals and communities we serve.

Backed by a broad range of care—primary care, surgery, cardiovascular care, oncology, psychiatry, behavioral health, newborn pediatrics and the full spectrum of women's health services—CNE is reinventing the way health care is delivered, partnering with our patients to provide the best care possible while working to create a community of healthier people.

Care New England prides itself in its on-going efforts to assess community need and has always strived to respond with programs and interventions geared toward addressing these needs. Through targeted efforts, Care New England has worked to improve public health and the quality of life for the state and region. From staff involvement in community organizations to the role we play as educators for those aspiring to careers in health, from the sponsorship of community events to the everyday commitment of our health educators who lead a rich array of classes and programs at our institutions, we embrace our roles as advocates, teachers and good neighbors.

In support of Care New England's community benefit activities and to guide community health improvement efforts across the system, Care New England participated in a statewide comprehensive Community Health Needs Assessment (CHNA), led by the Hospital Association of Rhode Island (HARI), and its member hospitals. The CHNA was conducted from June 2015 to June 2016. The 2016 CHNA builds upon our hospital's previous CHNA conducted in 2013. The assessment was conducted in a timeline to comply with requirements set forth in the Affordable Care Act (ACA), as well as to further the hospital's commitment to community health and population health management.

Mission

To be your partner in health.

Vision

To create a community of healthier people.

Values

Care New England's organizational values emphasize individual contributions and a team approach that foster:

Accountability • Caring • Teamwork

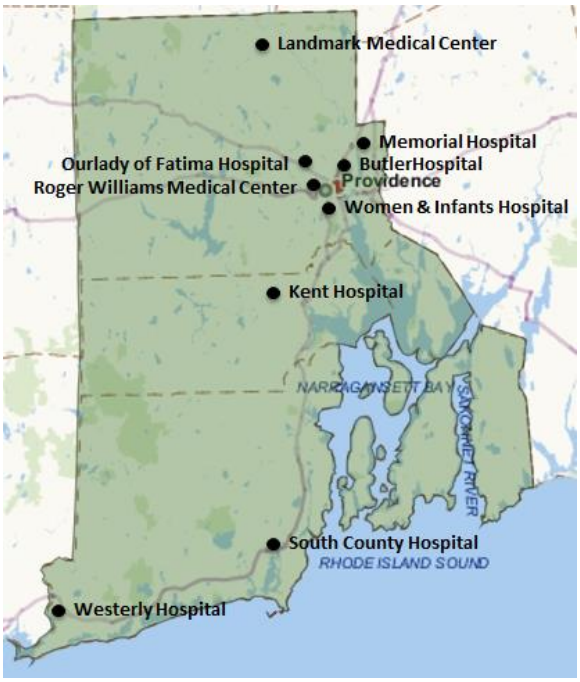
2016 CHNA Overview: A Statewide Approach to Community Health Improvement

Kent Hospital participated in a statewide Community Health Needs Assessment (CHNA) led by the Hospital Association of Rhode Island (HARI) and its member hospitals. Through a coordinated statewide effort, HARI and its hospital members worked with the Rhode Island Department of Health and local community partners to collect health data, gather feedback on regional and local health needs, and develop coordinated plans to address priority health needs across the state.

2016 CHNA Partners:

- The Hospital Association of Rhode Island
- Care New England Health System: Butler Hospital; Kent Hospital; Memorial Hospital of Rhode Island; Women & Infants Hospital of Rhode Island
- CharterCARE: Our Lady of Fatima Hospital; Roger Williams Medical Center
- Landmark Medical Center
- South County Hospital
- Westerly Hospital

Map of Rhode Island CHNA Partner Hospitals



Research Methodology

Quantitative and qualitative methods, representing both primary and secondary research, were used to illustrate and compare health trends and disparities across Rhode Island and within individual hospital service areas. Primary research methods were used to solicit input from key community stakeholders representing the broad interests of the community, including experts in public health and individuals representing medically underserved, low-income, and minority populations. Secondary research methods were used to gather existing statistical data to identify community health trends across geographic areas and populations.

Specific research methods:

- A Secondary Data Profile comprising indicators for each county and hospital service area compared to state and national benchmarks
- An analysis and comparison of Hospital Discharge Data including emergency room, observation, and inpatient usage
- Partner Forums with key representatives in each of the three counties served by the CHNA partners
- Focus Groups with behavioral health consumers and English and Spanish-speaking Latino/a residents

Leadership

The 2016 HARI CHNA was overseen by a Steering Committee of representatives from HARI and each member hospital as follows:

Liz Almanzor, Finance Director, Hospital Association of Rhode Island
Otis Brown, CharterCARE
Laurel Holmes, Westerly Hospital
Carolyn Kyle, Landmark Medical Center
Gina Rocha, Hospital Association of Rhode Island
Alex Speredelozzi, Care New England
Kellie Sullivan, Care New England
Stephany Valente, Care New England
Cynthia Wyman, South County Hospital

Ex officio: Michael Souza, President, Hospital Association of Rhode Island
Ana Novais, Rhode Island Department of Health

Research Partner

Baker Tilly assisted in all phases of the CHNA including project management, quantitative and qualitative data collection, report writing, and development of the Implementation Strategy.

Project Manager: Colleen Milligan, MBA, Baker Tilly
Lead Researcher: Catherine Birdsey, MPH, Baker Tilly

Alignment with Public Health

The CHNA Steering Committee actively sought feedback and coordinated research and planning efforts with the Rhode Island Department of Health (RI DOH) to ensure statewide efforts for community health improvement were aligned. In addition to cross-communication between the RI DOH and the CHNA Steering Committee, efforts were made to coordinate local research with the RI DOH Health Equity Zones (HEZ). Health Equity Zones receive funding through a RI DOH initiative with the CDC to address health disparities. Partner forums, focus groups and planning were conducted in coordination with and inclusion of the HEZ partners.

Community Engagement

Community engagement was a key component of the 2016 HARI CHNA. The CHNA included wide participation of public health experts and representatives of medically underserved, low income, and minority populations. The RI DOH and HEZ partners were included throughout the process to collect insights and provide access to underserved populations. A full listing of agencies represented in the CHNA research and planning is listed in Appendix A.

Prioritization of Community Health Needs

The Steering Committee correlated quantitative and qualitative data from the 2016 CHNA and compared with findings from the 2013 CHNA and RI DOH Community Health Improvement Plan to define statewide health priorities. In line with the 2013 CHNA and the RI DOH, the following community health priorities were identified as priorities across the state.

- Behavioral Health
- Chronic Disease: Diabetes & Heart Disease
- Maternal & Child Health

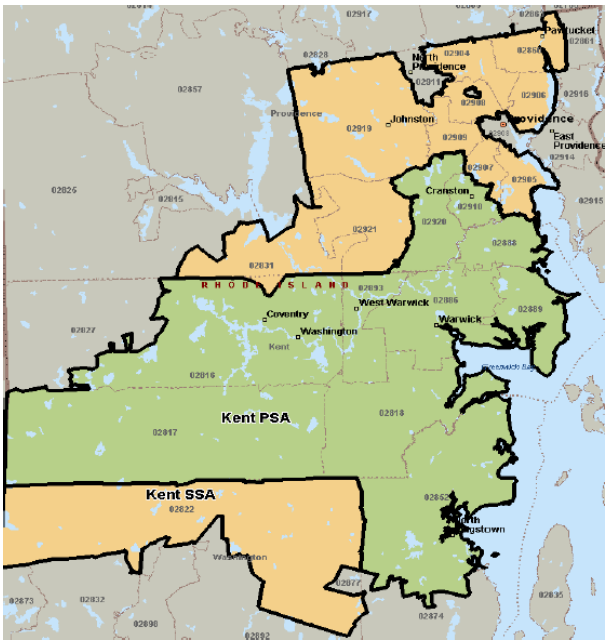
Development of a Community Health Improvement Plan

Each CHNA partner hospital developed an Implementation Plan that outlined the priority areas the hospital/health system would address and a three year action plan to align community benefit activities with community health needs.

Board Approval and Adoption

The Care New England Board of Director adopted the 2016 CHNA Final Report and Implementation Plan on September 22, 2016. The documents are widely available to the public via the Kent Hospital website and the HARI RhodeIslandHealthcarematters.org portal.

Kent Hospital Service Area



Kent Hospital serves the following zip codes, primarily in Kent County, RI:

02886 Warwick	02852 North Kingstown	02921 Cranston	02908 Providence
02816 Coventry	02920 Cranston	02906 Providence	02904 Providence
02893 West Warwick	02910 Cranston	02905 Providence	02822 Exeter
02889 Warwick	02817 West Greenwich	02909 Providence	
02888 Warwick	02860 Pawtucket	02831 Scituate	
02818 East Greenwich	02919 Johnston	02907 Providence	

Population Overview

The population across Kent Hospital's service area is primarily White; however, 27.6% of the population identifies as another race and 19.9% of the population identifies as Hispanic/Latino. The median age of residents is lower than the state, as is the median household income. In aggregate, Black/African American and Hispanic/Latino residents have a lower median income than Asian or White residents.

2015 Population Overview

	Kent Hospital Service Area	Rhode Island
White	72.4%	79.8%
Asian	4.1%	3.3%
Black or African American	8.4%	5.9%
Hispanic or Latino (of any race)	19.9%	14.1%
Median Age	38.6	40.1
Median Income	**$51,832**	**$56,945**

Source: The Nielsen Company, 2015

Kent Hospital Service Area Demographics

The following section outlines key demographic indicators related to the social determinants of health within the Kent Hospital service area. Social determinants of health are factors within the environment in which people live, work, and play that can affect health and quality of life, and are often the root cause of health disparity. Healthy People 2020 defines a health disparity as "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage." All reported demographic data are provided by © 2015 The Nielsen Company.

Language Spoken at Home

The languages spoken in the service area mimic the racial characteristics. Approximately 73% of residents speak English and 16.2% speak Spanish as their primary language. Another 6.8% of residents speak an Indo-European language.

Financial and Occupation Demographics

Kent Hospital's service area encompasses 207,100 housing units, 57.8% are owner-occupied and 42.2% are renter-occupied. The median home value for owner-occupied units is $225,610, which is lower when compared to Rhode Island ($252,604).

The median household income in Kent Hospital's service area is $51,832; however, income varies notably by race and ethnicity. The median income for Blacks or African Americans and Hispanics or Latinos is $36,305 and $32,483 respectively.

2015 Population by Median Household Income

	Kent Hospital Service Area	Rhode Island
White	$57,630	$61,419
Black or African American	$36,305	$36,627
Asian	$53,431	$55,406
Hispanic or Latino (of any race)	$32,483	$33,970
Total Population	**$51,832**	**$56,945**

Approximately 66% of residents age 16 years or over are in the workforce and 7.5% are unemployed, which is higher than the state and national averages (6.4% and 5.5% respectively). The majority of residents in the workforce are for-profit private workers (67.8%) and hold white collar positions (59.4%). Residents are most likely to work in office/administrative support (14.3%), sales (10.4%) and management (8.2%).

Education Demographics

Education is the largest predictor of poverty and one of the most effective means of reducing inequalities. In Kent Hospital's service area, 16.3% of residents 25 years or over have less than a high school diploma and 28.9% have at least a bachelor's degree. Hispanic/Latino residents have notably lower educational attainment. Approximately 37% have less than a high school diploma and only 9.5% have a bachelor's degree or higher.

2015 Population by Educational Attainment

	Kent Hospital Service Area		Rhode Island	
	Overall Population	Hispanic/Latino Population	Overall Population	Hispanic/Latino Population
Less than a high school diploma	16.3%	36.8%	14.5%	37.1%
High school graduate	28.3%	32.0%	27.5%	29.3%
Some college or associate's degree	26.5%	21.8%	26.8%	22.2%
Bachelor's degree or higher	28.9%	9.5%	31.2%	11.4%

*Educational attainment is not available for Blacks/African Americans or other racial groups

Poverty

The percentage of all families and families with children living in poverty (12.1% and 9.5% respectively) is higher when compared to the state (9.4% and 7.3% respectively). Poverty rates vary by zip code within Kent Hospital's service area; most notably 31.1% of families in 02907 (Providence) live in poverty.

Social Determinants of Health by Zip Code

Social determinants impact health for all individuals within a community, but populations most at risk for health disparities are highlighted below by zip code to allow Kent Hospital to focus its health improvement efforts where it can have the greatest impact.

Social Determinants of Health Indicators by Zip Code (ordered by highest poverty levels)

	Black/ African American	Hispanic/ Latino	English Speaking	Families in Poverty	Families w/ Children in Poverty	Single Female Households w/ Children	Unemploy-ment	Less than HS Diploma
02907 Providence	21.9%	61.1%	31.6%	31.1%	24.9%	29.6%	13.1%	32.0%
02909 Providence	14.0%	59.5%	35.8%	27.4%	21.5%	27.1%	11.1%	35.3%
02905 Providence	17.6%	40.1%	51.0%	22.6%	20.1%	22.9%	12.0%	21.4%
Total Service Area (SA)	**8.4%**	**19.9%**	**73.2%**	**12.1%**	**9.5%**	**14.2%**	**7.5%**	**16.3%**
Rhode Island	**5.9%**	**14.1%**	**79.0%**	**9.4%**	**7.3%**	**12.1%**	**6.4%**	**14.5%**

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	Black/ African American	Hispanic/ Latino	English Speaking	Families in Poverty	Families w/ Children in Poverty	Single Female Households w/ Children	Unemploy-ment	Less than HS Diploma
02860 Pawtucket	20.0%	26.7%	53.2%	21.2%	16.8%	22.9%	7.9%	27.0%
02908 Providence	18.2%	39.4%	58.9%	20.7%	17.6%	24.1%	8.2%	23.4%
02904 Providence	12.2%	17.8%	76.0%	12.7%	10.3%	15.1%	7.4%	15.6%
02920 Cranston	6.5%	16.0%	79.7%	8.6%	5.9%	10.9%	6.7%	15.2%
02893 West Warwick	2.5%	6.4%	86.7%	8.1%	7.1%	12.6%	6.6%	13.3%
02910 Cranston	6.6%	16.4%	73.9%	8.1%	5.4%	13.0%	7.2%	15.6%
02919 Johnston	2.4%	7.5%	84.9%	7.6%	4.9%	8.5%	5.4%	15.4%
02816 Coventry	0.7%	2.6%	94.2%	7.2%	6.2%	8.2%	8.7%	10.5%
02852 North Kingstown	1.1%	3.3%	92.5%	7.1%	5.8%	9.3%	4.9%	6.6%
02889 Warwick	1.8%	4.5%	91.4%	6.4%	3.6%	8.3%	6.6%	11.2%
02906 Providence	5.0%	6.8%	81.6%	6.0%	4.6%	9.8%	4.7%	5.9%
02886 Warwick	1.8%	4.8%	88.6%	4.3%	2.5%	7.5%	5.6%	11.4%
02888 Warwick	2.3%	5.4%	88.2%	4.1%	2.9%	8.9%	7.1%	7.8%
02817 West Greenwich	1.0%	3.2%	95.1%	3.7%	2.9%	5.5%	8.0%	4.9%
02822 Exeter	1.4%	3.5%	96.1%	3.7%	3.5%	5.0%	4.8%	7.7%
02818 East Greenwich	0.9%	2.5%	91.6%	3.5%	2.4%	5.9%	3.5%	4.2%
02831 Scituate	0.6%	2.1%	93.2%	3.5%	2.5%	5.7%	6.3%	7.6%
02921 Cranston	1.3%	3.3%	88.4%	3.4%	1.7%	4.7%	5.9%	8.1%
Total Service Area (SA)	**8.4%**	**19.9%**	**73.2%**	**12.1%**	**9.5%**	**14.2%**	**7.5%**	**16.3%**
Rhode Island	**5.9%**	**14.1%**	**79.0%**	**9.4%**	**7.3%**	**12.1%**	**6.4%**	**14.5%**

Source: The Nielsen Company, 2015

Color Coding Guide
Within 2% points of the Total SA Exception: Unemployment cells are within 1% point of the Total SA
More than 2% points higher than the Total SA Exception: English Speaking cells are more than 2% points lower than Total SA & Unemployment cells are more than 1% point higher than Total SA

Statistical Health Data for the Kent Hospital Service Area

Background

Publicly reported health statistics were collected and analyzed to display health trends and identify health disparities across the service area. The following analysis primarily uses data available on the Rhode Island Healthcare Matters portal, an interactive data site developed through collaboration of the Hospital Association of Rhode Island, its members, and the Rhode Island Department of Health. A full listing of public health indicators available through the portal can be found at www.rihealthcarematters.org. A full listing of all public health data sources can be found in Appendix B.

Given the HARI CHNA collaboration and that much of Kent Hospital's service area is located in Kent County, RI, public health data focuses on Kent County, RI. State and national standards, when referenced, are drawn from the same source as the county statistic to which it is compared. Data from Kent Hospital's 2013 CHNA, including Behavioral Risk Factor Surveillance System (BRFSS) data, are also incorporated to provide trending analysis. Note that BRFSS data represent Kent Hospital's specific Rhode Island service area, not all of Kent County.

Healthy People 2020 (HP 2020) goals are national goals created by the U.S. Department of Health and Human Services to set a benchmark for all communities to strive towards. Healthy People goals are updated every ten years and progress is tracked throughout the decade. Comparisons to Healthy People 2020 goals are included where applicable.

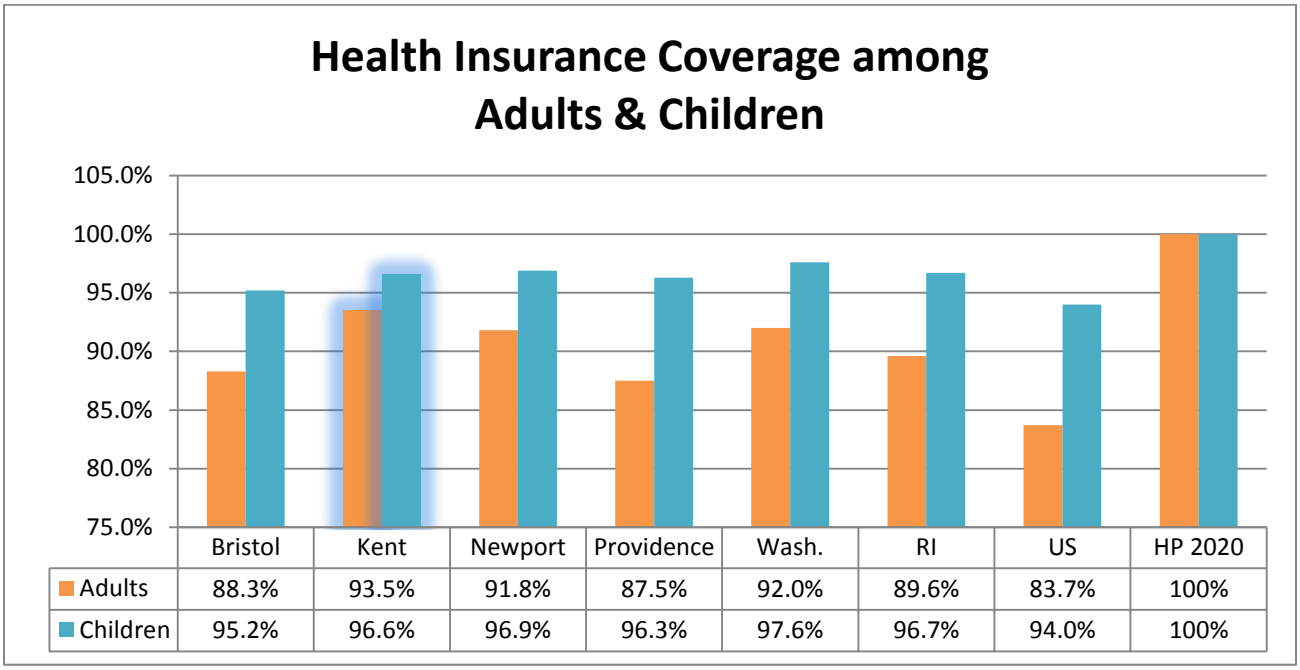
Access to Health Services

Approximately 94% of Kent County adults (ages 18 to 64 years) have health insurance. The percentage is higher than both the Rhode Island average (89.6%) and the national average (83.7%), and represents an increase from 2013 (88.7%). Adults ages 25 to 34 years are the least likely to be insured (91%).

Healthy People 2020 Goal = 100% of adult and children insured

Kent County = 93.5% adults; 96.6% children insured

The percentage of Kent County children with health insurance (96.6%) is equal to the state average (96.7%) and above the national average (94%). The percentage decreased from 2013 (97.9%). The Healthy People 2020 goal is 100% of all adults and children be insured by 2020.



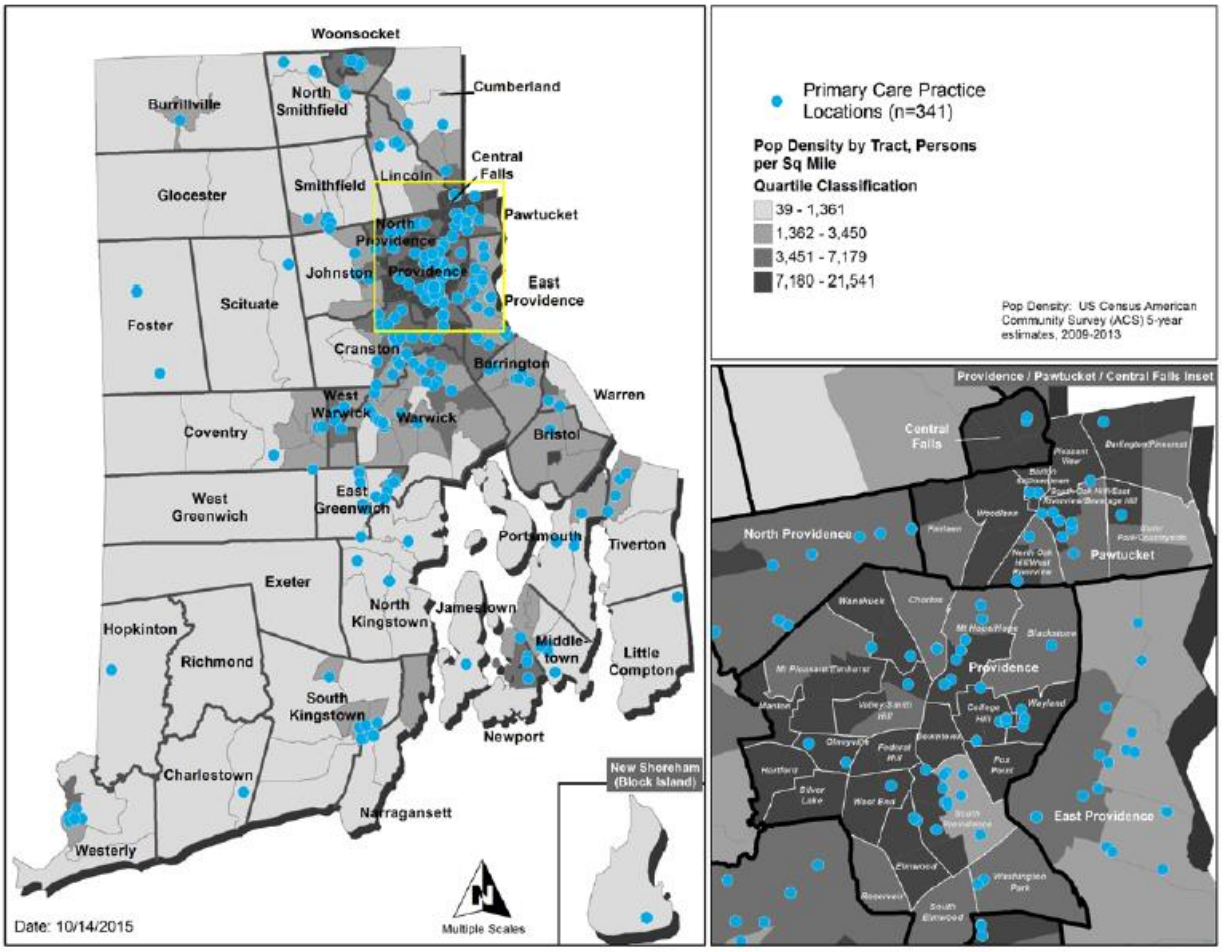
	Bristol	Kent	Newport	Providence	Wash.	RI	US	HP 2020
Adults	88.3%	93.5%	91.8%	87.5%	92.0%	89.6%	83.7%	100%
Children	95.2%	96.6%	96.9%	96.3%	97.6%	96.7%	94.0%	100%

Source: American Community Survey, 2014*
*Bristol data represents a 2011-2013 average due to availability

Kent Hospital's 2013 CHNA BRFSS study found that 14.8% of adults in the service area could not see a doctor due to cost barriers. The state and national percentages were 15.8% and 17% respectively.

Access to Primary Care

A total of 803 primary care physicians were identified in Rhode Island in 2014; however, based on their total number of hours worked per week, full-time equivalents equated to 602.7 physicians and a ratio of one physician for every 1,718.1 Rhode Islanders. The following figure and table illustrate the location of primary care practices (n=341) layered over population density and the primary care physician ratio by town.



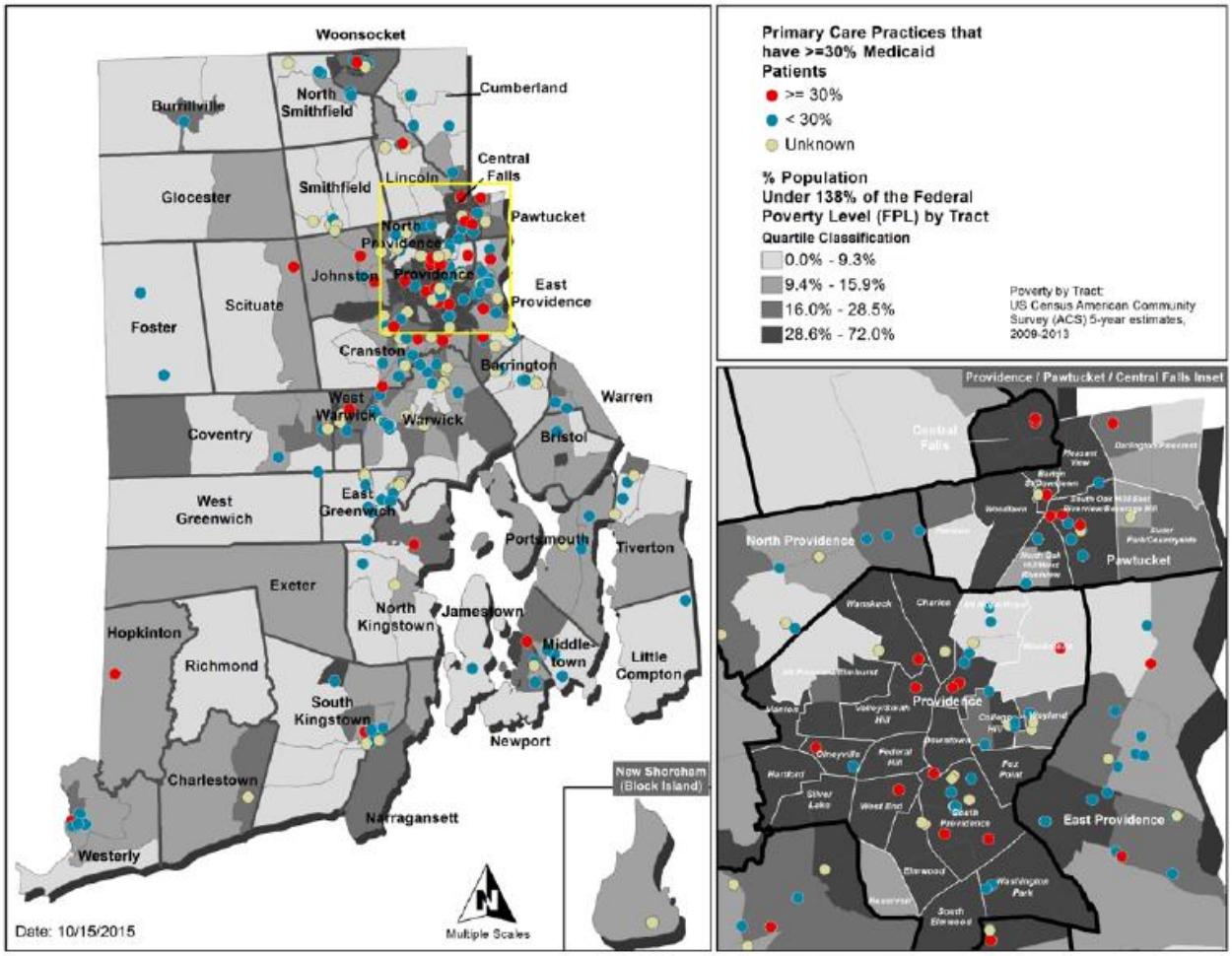
Source: Rhode Island Department of Health Statewide Health Inventory, 2015

Primary Care Physician Ratio by Kent County Town

Town	Ratio
West Warwick	3,663.3
Coventry	2,999.4
Warwick	1,808.3
East Greenwich	290.1

Source: Rhode Island Department of Health Statewide Health Inventory, 2015

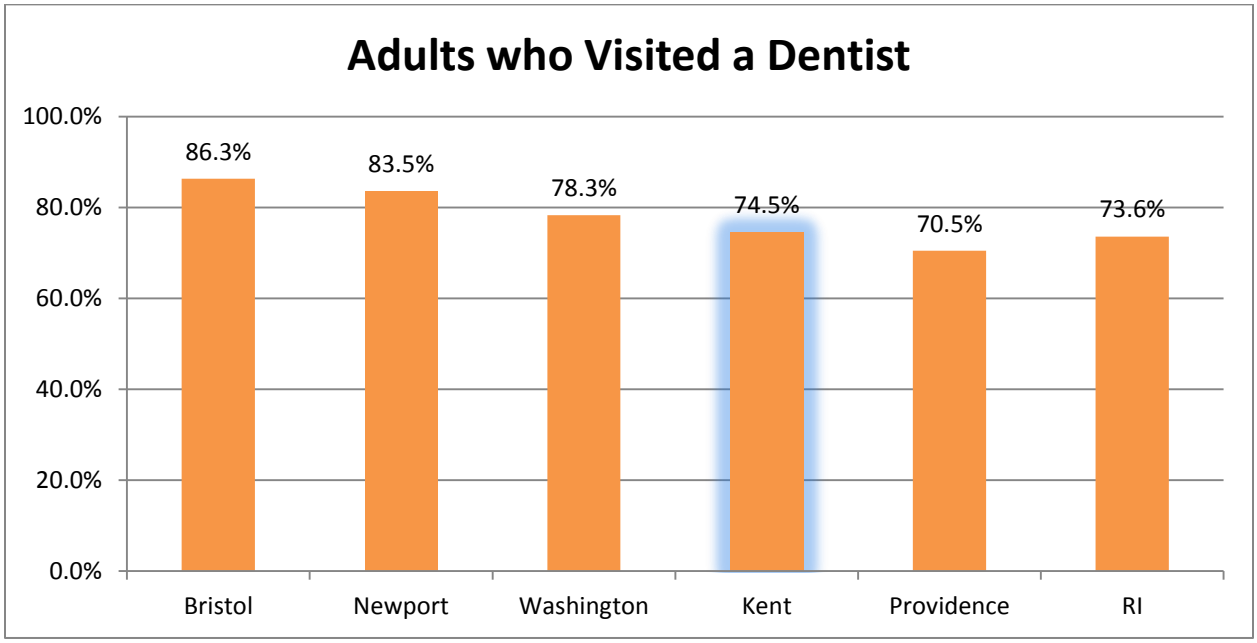
In Rhode Island in 2014, 81% of primary care practices saw at least one Medicaid patient, but less than 20% of practices had a patient population that was at least 30% covered by Medicaid. The following figure displays primary care practices with 30% or more their patient population covered by Medicaid layered over the percent of the population under 138% of the federal poverty level.



Source: Rhode Island Department of Health Statewide Health Inventory, 2015

Access to Dental Care

The dental provider rate in Kent County (71 per 100,000) is higher than the state rate (61 per 100,000) and second only to Newport County (90 per 100,000). However, only 74.5% of adults in Kent County report visiting a dentist, the second lowest in the state. The percentage is not comparable to past years of data due to changes in methodology.

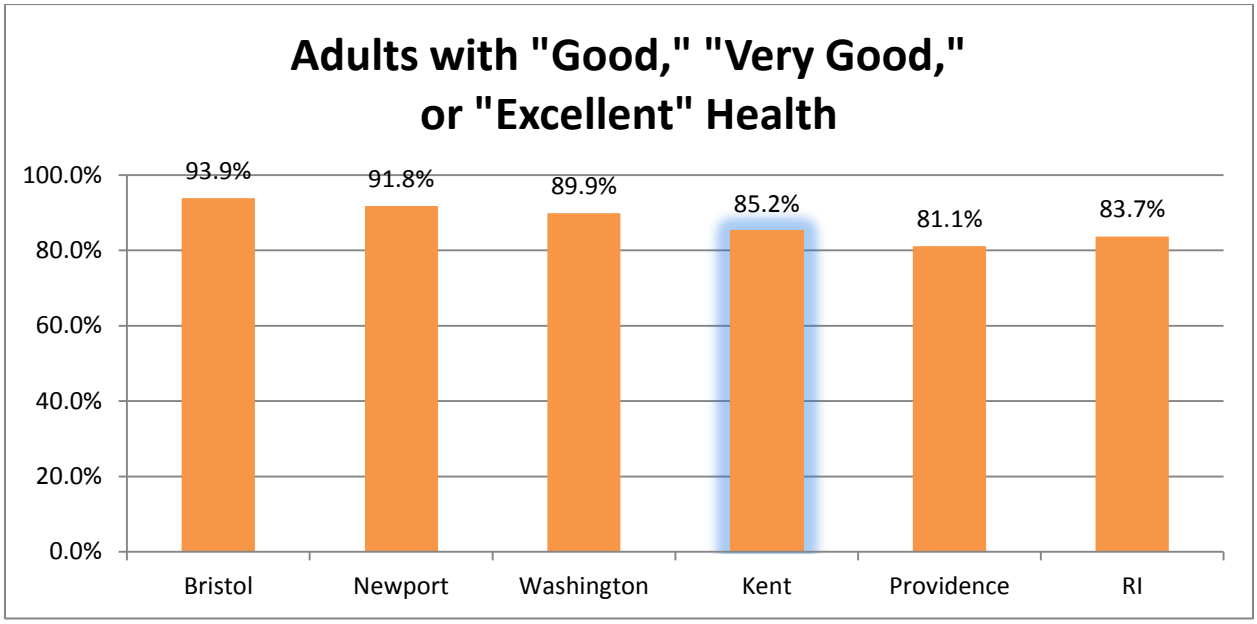


Source: Behavioral Risk Factor Surveillance System, 2010 & 2012

Overall Health Status

Overall health status is measured by self-reported indicators, life expectancy, and premature death. Approximately 85% of Kent County adults report having good, very good, or excellent health. The percentage is higher than the state average, but decreased from 86.3% in 2011. Adults report an average of 3.8 days of poor physical health and 4.0 days of poor mental health over a 30 day period, which is higher than the state and the nation. The average number of poor mental health days is the highest in the state and surpasses the nation by 0.6 days.

The average number of self-reported poor mental health days per month, among Kent County adults, is the highest in the state



Source: Behavioral Risk Factor Surveillance System, 2010 & 2012

The areas of Pawtucket and Providence are noted for having greater health disparities due to poorer social determinants of health. The following table depicts the percentage of adults who were affected by poor physical and/or mental health on eight to 30 days during the past month.

Mental/Physical Health Affected 8 to 30 Days in Past Month

	Percentage
02907, Providence	30.2%
02909, Providence	28.6%
02860, Pawtucket	28.0%
02904, Providence	25.2%
02908, Providence	23.3%
02905, Providence	20.6%
02906, Providence	13.8%

Source: The Nielsen Company, 2015

Life expectancy is lower in Kent County than any other county in Rhode Island; however, it exceeds the nation. Life expectancy for males increased by 0.3 years, but life expectancy for females decreased 0.4 years.

Premature death measures the years of potential life lost or years of death before age 75. Kent County has the highest rate of premature death in Rhode Island; however, the rate is lower than the national average.

Kent County life expectancy exceeds the nation, but it is the lowest in Rhode Island

Life Expectancy & Premature Death per 100,000

	Bristol	Kent	Newport	Provid.	Wash.	**RI**	**US**
Life Expectancy							
Males	77.7	76.3	78.1	76.3	77.4	**76.7**	**75.0**
Females	82.6	80.6	82.9	81.2	82.6	**81.4**	**79.8**
Premature Death	3,890.9	6,458.2	4,729.9	6,124.2	4,939.3	**5,808**	**6,622**

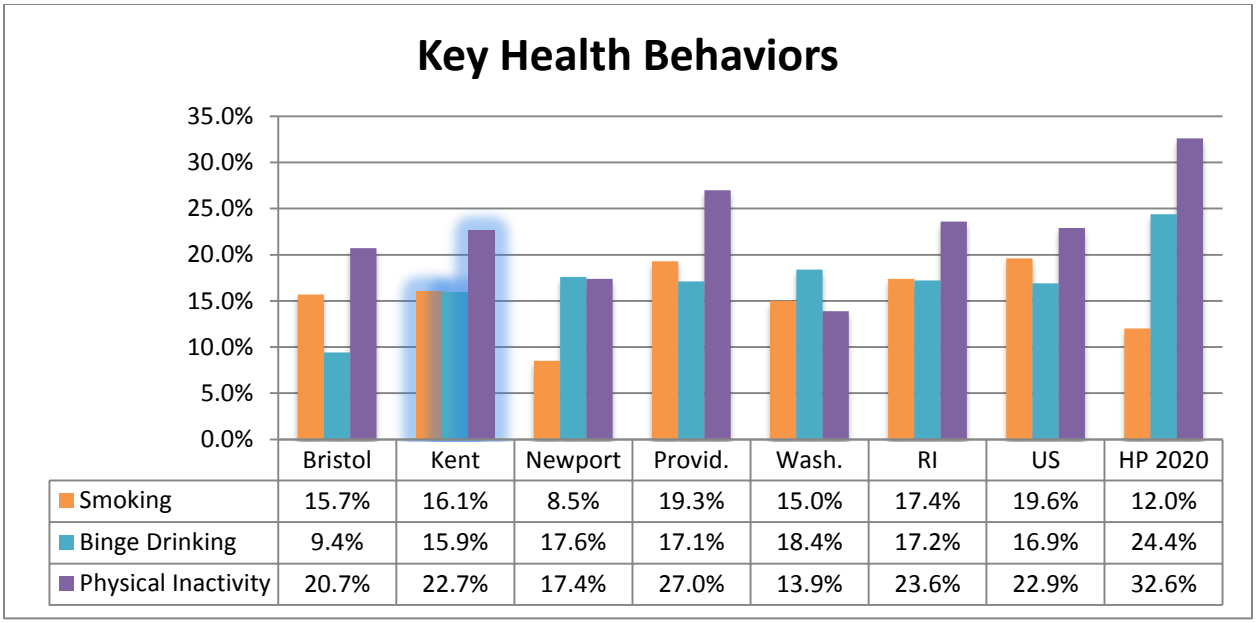
Source: Institute for Health Metrics and Evaluation, 2010 & County Health Rankings, 2010-2012

Health Behaviors

Individual health behaviors, including smoking, excessive drinking, physical inactivity, and obesity, have been shown to contribute to or reduce the chance of disease. The prevalence of these health behaviors is provided below, compared to Rhode Island and national averages and the Healthy People 2020 goals.

Kent County adults are less likely to smoke, binge drink, and be physically inactive when compared to Rhode Island and the nation. The percentage of smokers decreased by 4.6 points, binge drinkers decreased by 3.5 points, and physically inactive adults by 1.8 points, since 2011.

Kent County adults meet the HP 2020 goals for binge drinking and physical inactivity. Rates for smoking, binge drinking, and physical inactivity decreased from 2011.



	Bristol	Kent	Newport	Provid.	Wash.	RI	US	HP 2020
Smoking	15.7%	16.1%	8.5%	19.3%	15.0%	17.4%	19.6%	12.0%
Binge Drinking	9.4%	15.9%	17.6%	17.1%	18.4%	17.2%	16.9%	24.4%
Physical Inactivity	20.7%	22.7%	17.4%	27.0%	13.9%	23.6%	22.9%	32.6%

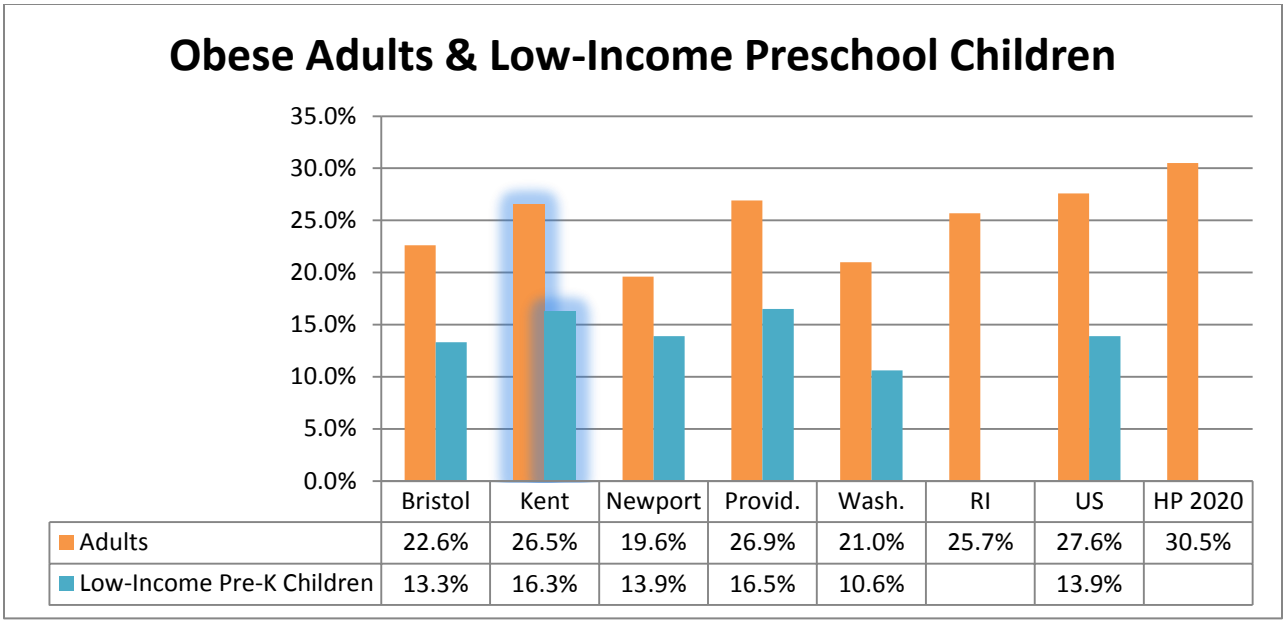
Source: Behavioral Risk Factor Surveillance System, 2010 & 2012

Overweight and Obesity

The percentage of overweight and obese adults and children is a national epidemic. In Kent County, 64.3% of adults are overweight or obese and 26.5% are obese. The percentages decreased by 1.5 and 0.5 points respectively. The percentage of obese adults is lower than the national average, but one of the highest in Rhode Island.

More adults and children are obese in Kent County compared to the state

Approximately 16% of low-income preschool children in Kent County are obese. The percentage is the second highest in the state and higher than the national average of 13.9%. The percentage remained steady from the last report (16.1%). The children represented by this indicator are ages 2 to 4 years and participate in federally funded health and nutrition programs. Data for this age group is not available for the state of Rhode Island or Healthy People 2020.



Source: Behavioral Risk Factor Surveillance System, 2010 & 2012 & US Department of Agriculture, 2009-2011
*Obesity data for low-income Pre-K children is not available for Rhode Island or Healthy People 2020

Overweight and obesity are also affected by access to nutritious food. In Kent County, 13% of all residents and 20% of children were food insecure in the last year. Food insecurity is defined as being without a consistent source of sufficient and affordable nutritious food. The percentages are lower when compared to Rhode Island and the nation, but increasing. The percentage of food insecure residents increased by 0.5 points, while the percentage of food insecure children increased by 2.5 points.

13% of all residents and 20% of children are food insecure

Kent County also has a notably higher rate of fast food restaurants (0.74 per 1,000 residents) compared to grocery stores (0.14 per 1,000 residents).

Percentage of Food Insecure Residents

	All Residents	Children
Bristol	11.9%	16.9%
Kent	13.0%	20.0%
Newport	13.5%	19.8%
Providence	15.8%	23.7%
Washington	12.1%	18.7%
Rhode Island	**14.4%**	**21.7%**
United States	**15.1%**	**23.7%**

Source: Feeding America, 2013

Chronic Diseases

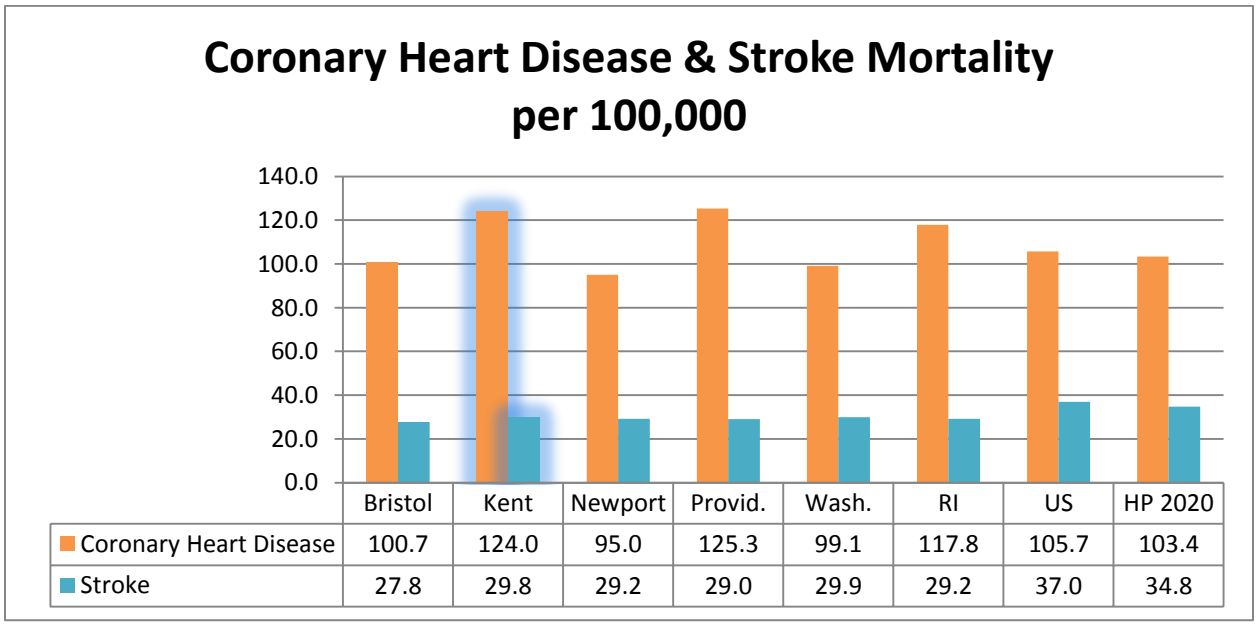
Chronic disease rates are increasing across the nation and are the leading causes of death and disability. Chronic diseases are often preventable through reduced health risk behaviors like smoking and alcohol use, increased physical activity and good nutrition, and early detection of risk factors and disease.

The heart disease death rate in Kent County is the second highest in the state

Heart Disease and Stroke

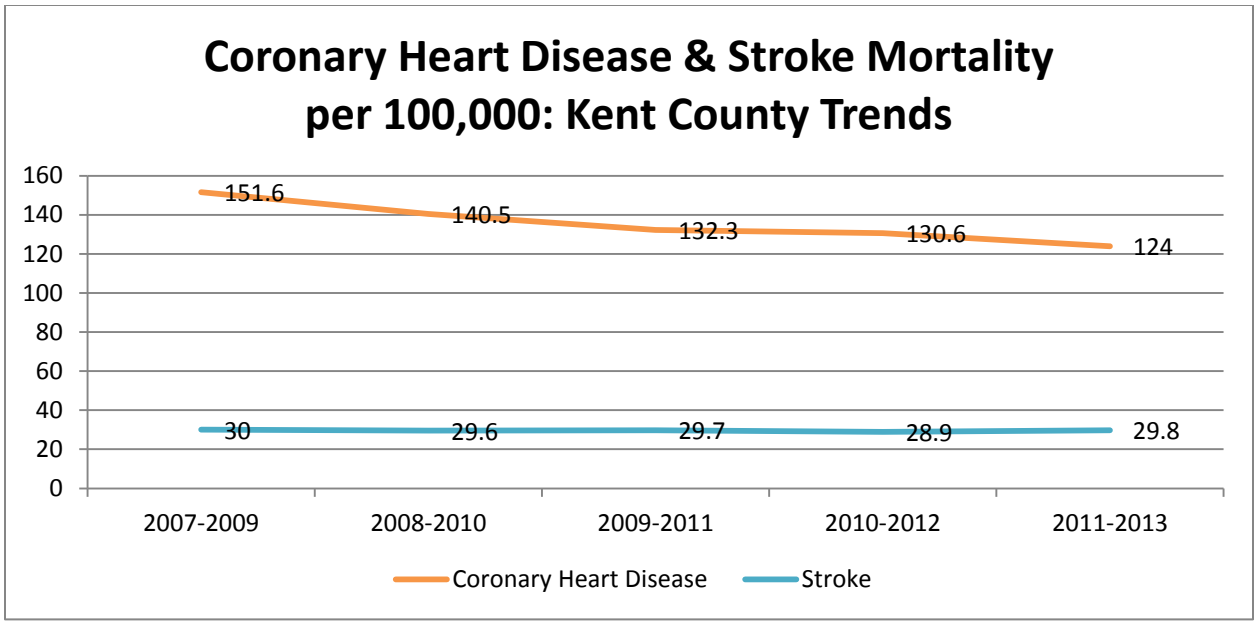
Heart disease is the leading cause of death in the nation. Kent County has the second highest mortality rate in the state for coronary heart disease (124 per 100,000). The rate exceeds the state, the nation, and the Healthy People 2020 goal, but is declining.

Kent County also has the second highest mortality rate in the state for stroke (29.8 per 100,000); however, the rate meets the Healthy People 2020 goal.



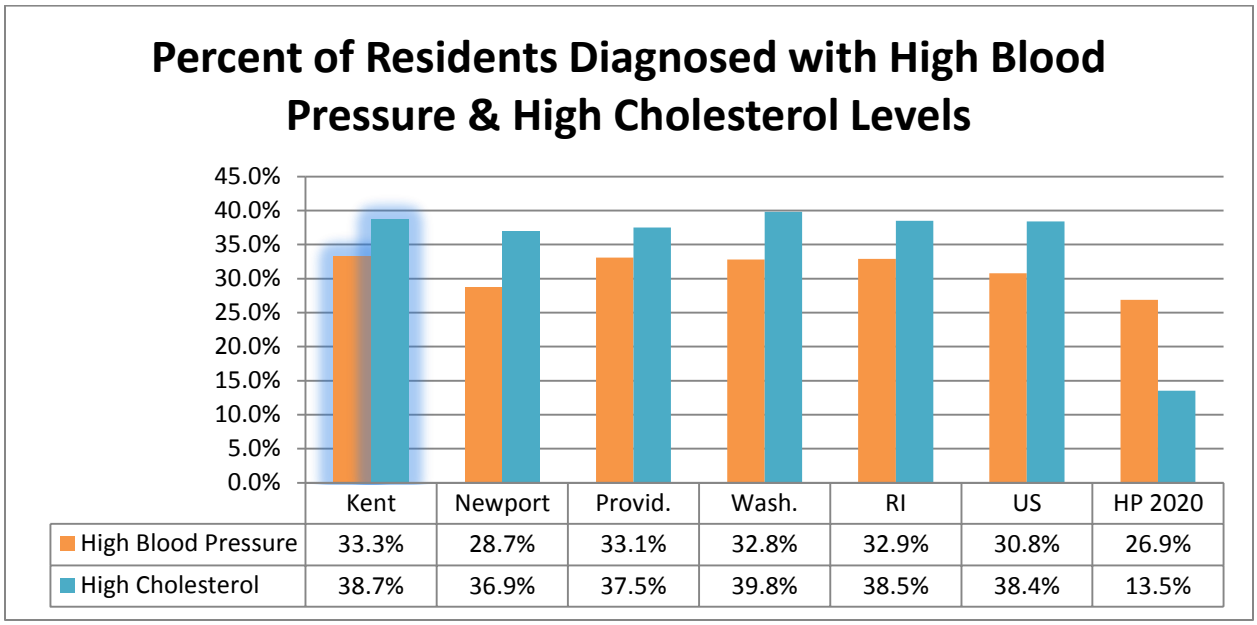
	Bristol	Kent	Newport	Provid.	Wash.	RI	US	HP 2020
Coronary Heart Disease	100.7	124.0	95.0	125.3	99.1	117.8	105.7	103.4
Stroke	27.8	29.8	29.2	29.0	29.9	29.2	37.0	34.8

Source: Centers for Disease Control and Prevention, 2011-2013



Source: Centers for Disease Control and Prevention

Heart Disease is often a result of high blood pressure and high cholesterol, which can result from poor diet and exercise habits. The table below shows that Kent County has the highest percentage of adults with high blood pressure and the second highest percentage of adults with high cholesterol levels. Both percentages exceed the state, the nation, and Healthy People 2020 goals.



	Kent	Newport	Provid.	Wash.	RI	US	HP 2020
High Blood Pressure	33.3%	28.7%	33.1%	32.8%	32.9%	30.8%	26.9%
High Cholesterol	38.7%	36.9%	37.5%	39.8%	38.5%	38.4%	13.5%

Source: Behavioral Risk Factor Surveillance System, 2009 & 2011
*Data for Bristol County is not available.

Cancer

Cancer is the second leading cause of death in the nation behind heart disease. Cancer incidence rates are declining in Kent County for colorectal, lung, and prostate cancer. Incidence rates for breast, colorectal, and lung cancer in Kent County are among the highest in the state, while the incidence rate for prostate cancer incidence rate is among the lowest in the state.

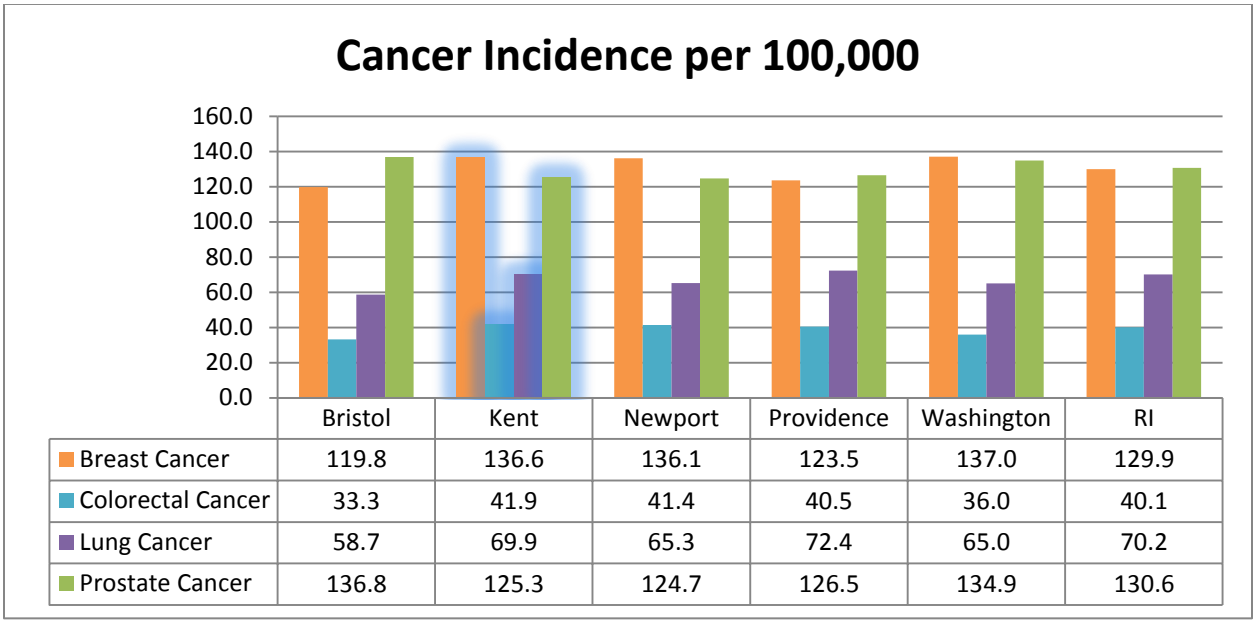
Cancer screenings are essential for early diagnosis and preventing mortality. Colorectal cancer screenings are recommended for adults age 50 years or over. In Kent County, 79.3% of adults have had a colorectal cancer screening, which is higher than the state (74.7%). Mammograms are recommended for women age 50 years or over to detect breast cancer. Approximately 83% of women in Kent County had a mammogram in the past two years. Screening rates are not comparable to past years of data due to changes in methodology.

Cancer Screenings

	Colorectal Cancer Screening	Mammogram in Past Two Years
Bristol	79.8%	87.2%
Kent	79.3%	82.6%
Newport	74.6%	83.4%
Providence	69.6%	83.2%
Washington	84.7%	83.5%
Rhode Island	**74.7%**	**83.5%**

Source: Behavioral Risk Factor Surveillance System, 2010 & 2012

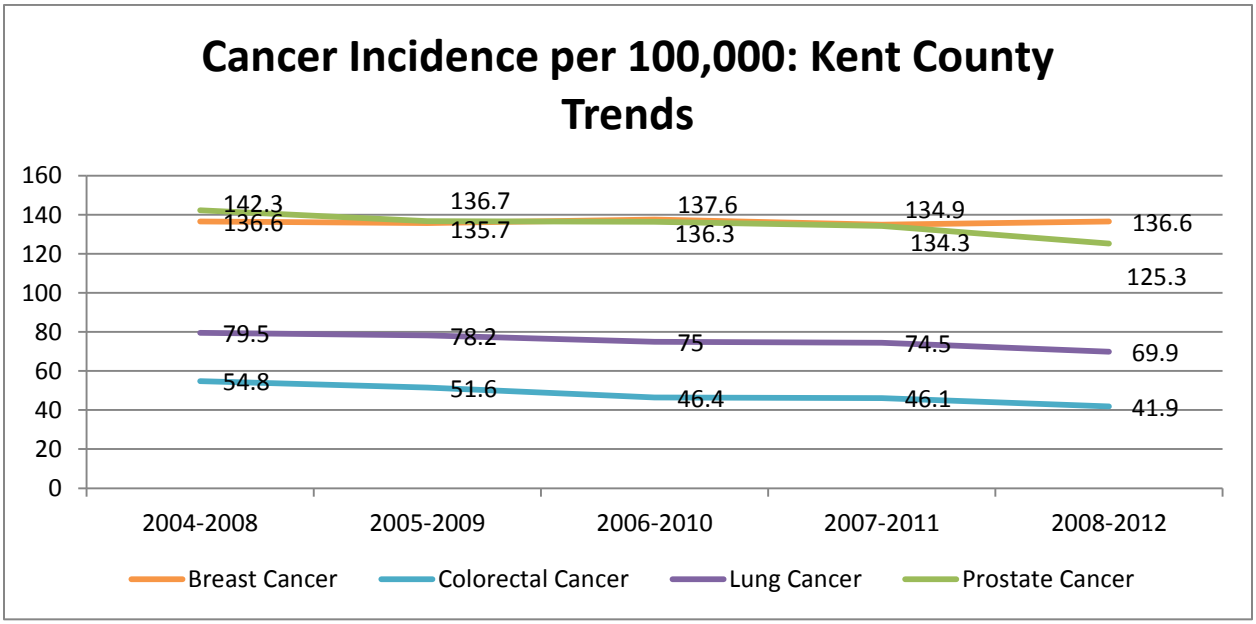
Presented below are the incidence and death rates for the most commonly diagnosed cancers: breast (female), colorectal, lung, and prostate (male).



	Bristol	Kent	Newport	Providence	Washington	RI
Breast Cancer	119.8	136.6	136.1	123.5	137.0	129.9
Colorectal Cancer	33.3	41.9	41.4	40.5	36.0	40.1
Lung Cancer	58.7	69.9	65.3	72.4	65.0	70.2
Prostate Cancer	136.8	125.3	124.7	126.5	134.9	130.6

Source: National Cancer Institute, 2008-2012

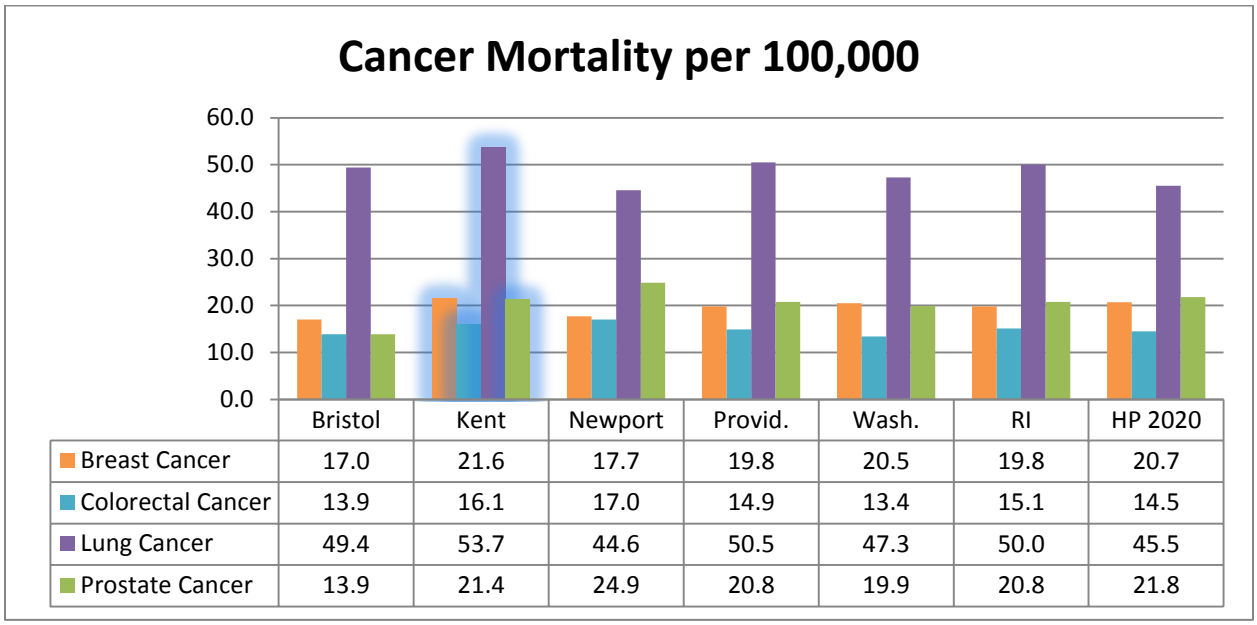
Higher incidence rates can be linked to increased screenings. Breast cancer incidence is higher in Kent County although a similar percentage of women receive mammography screenings across the state. Colorectal cancer incidence is also higher in Kent County; the percentage of adults receiving colorectal cancer screenings exceeds the state by 4.6 points.



Source: National Cancer Institute

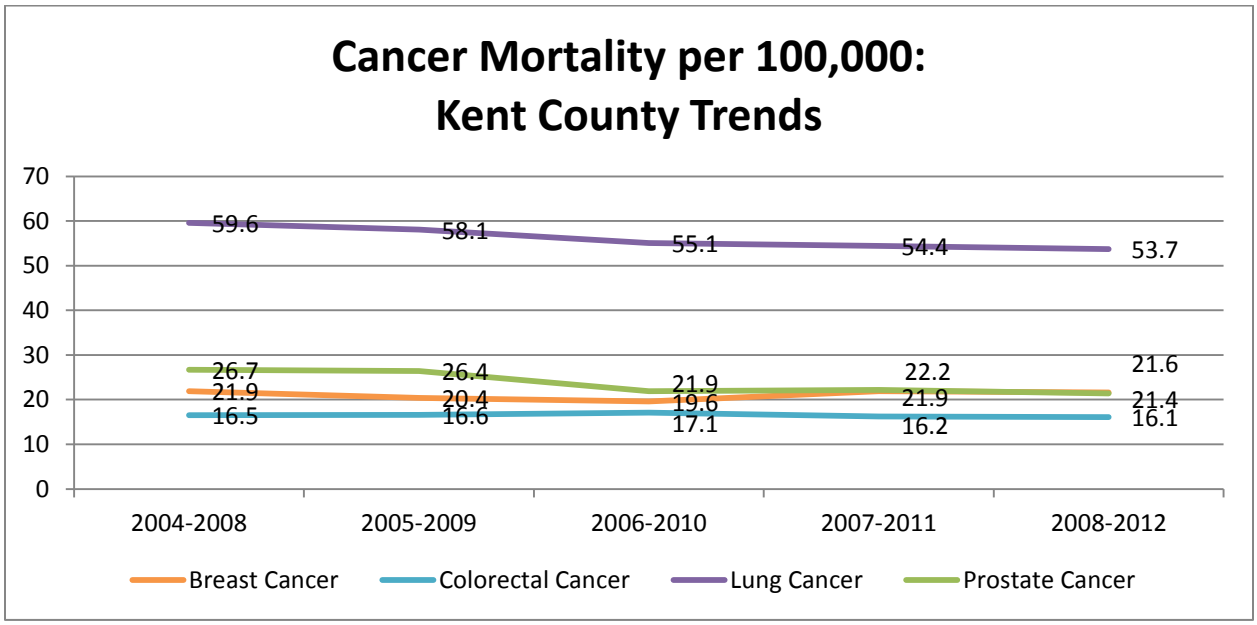
Kent County is a primarily White population; minority racial and ethnic data is limited to lung and prostate cancer incidence among the Hispanic/Latino population. The lung and prostate cancer incidence rates among Hispanics/ Latinos (181.5 per 100,000 and 348 per 100,000 respectively) exceed overall county rates (69.9 per 100,000 and 125.3 per 100,000 respectively).

Mortality rates for breast, colorectal, lung, and prostate cancer in Kent County are among the highest in the state; however, rates for breast, colorectal, and prostate cancer either meet or are within reach of Healthy People 2020 goals. In addition, mortality rates for colorectal, lung, and prostate cancer are declining.



	Bristol	Kent	Newport	Provid.	Wash.	RI	HP 2020
Breast Cancer	17.0	21.6	17.7	19.8	20.5	19.8	20.7
Colorectal Cancer	13.9	16.1	17.0	14.9	13.4	15.1	14.5
Lung Cancer	49.4	53.7	44.6	50.5	47.3	50.0	45.5
Prostate Cancer	13.9	21.4	24.9	20.8	19.9	20.8	21.8

Source: National Cancer Institute, 2008-2012



Source: National Cancer Institute

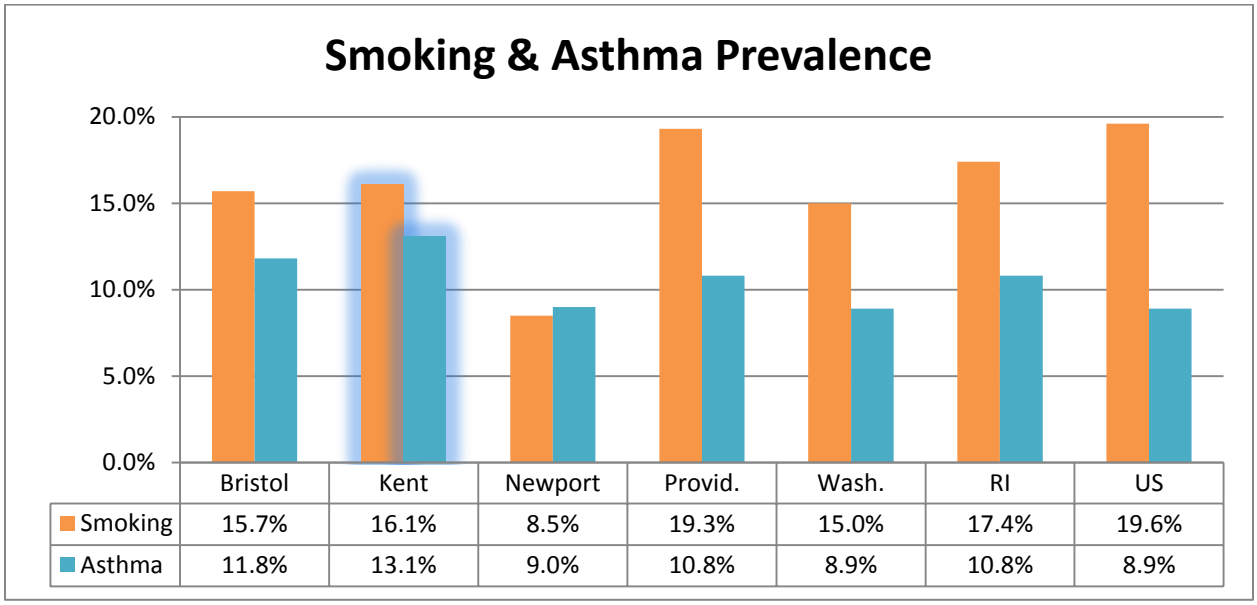
Chronic Lower Respiratory Disease

Chronic lower respiratory disease (CLRD) is the third most common cause of death in the nation. CLRD encompasses diseases like chronic obstructive pulmonary disorder, emphysema, and asthma.

A higher percentage of Kent County adults have asthma (13.1%) compared to the state and the nation. The percentage increased from the 2013 CHNA (11.4%).

A higher percentage of adults and children in Kent County have asthma compared to the state and the nation

Kent Hospital's 2013 CHNA BRFSS study also found that 18% of children have asthma. The percentage is higher than the national comparison (13.4%).



	Bristol	Kent	Newport	Provid.	Wash.	RI	US
Smoking	15.7%	16.1%	8.5%	19.3%	15.0%	17.4%	19.6%
Asthma	11.8%	13.1%	9.0%	10.8%	8.9%	10.8%	8.9%

Source: Behavioral Risk Factor Surveillance System, 2010 & 2012

Smoking cigarettes contributes to the onset of CLRD. Adults in Kent County are less likely to smoke compared to the state and the nation. The percentage of youth smokers varies; most notably 13% of Coventry High School students report smoking.

2013-2014 Youth Cigarette Use in Kent County School Districts

	Cigarette Use	
School District	Middle School	High School
Coventry	2%	13%
East Greenwich	1%	6%
Exeter-West Greenwich	4%	6%
Warwick	3%	12%
West Warwick	4%	7%
Rhode Island	**2%**	**9%**

Source: Rhode Island Kids Count Factbook, 2015

Diabetes

Diabetes is caused either by the body's inability to produce insulin or effectively use the insulin that is produced. Diabetes can cause a number of serious complications. Type II diabetes, the most common form, is largely preventable through diet and exercise.

In Kent County, 11.6% of adults have been diagnosed with diabetes, which is higher than the state and the nation, and represents an increase from 7.9% in the 2013 CHNA.

Kent County has the highest prevalence of diabetes and the second highest diabetes mortality rate in the state, and the rates are increasing

The diabetes mortality rate in Kent County (16.1 per 100,000) is the second highest in the state and also represents an increase from the 2013 CHNA report of 15 per 100,000.

Diabetes Prevalence & Mortality

	Diabetes Prevalence	Diabetes Mortality per 100,000
Bristol	3.6%	11.3
Kent	11.6%	16.1
Newport	7.0%	11.9
Providence	10.0%	17.0
Washington	7.3%	14.1
Rhode Island	**9.8%**	**15.7**
United States	**9.7%**	**21.3**

Source: Behavioral Risk Factor Surveillance System, 2010 & 2012 & Centers for Disease Control and Prevention, 2011-2013

Senior Health

Seniors face a number of challenges related to health and well-being as they age. They are more prone to chronic disease, social isolation, and disability. The following table notes the percentage of Medicare Beneficiaries 65 years or over who have been diagnosed with a chronic condition.

Chronic Conditions

The percentage of Medicare Beneficiaries with a chronic condition is typically higher than the state and the nation.

Chronic Conditions among Medicare Beneficiaries 65 Years or Over

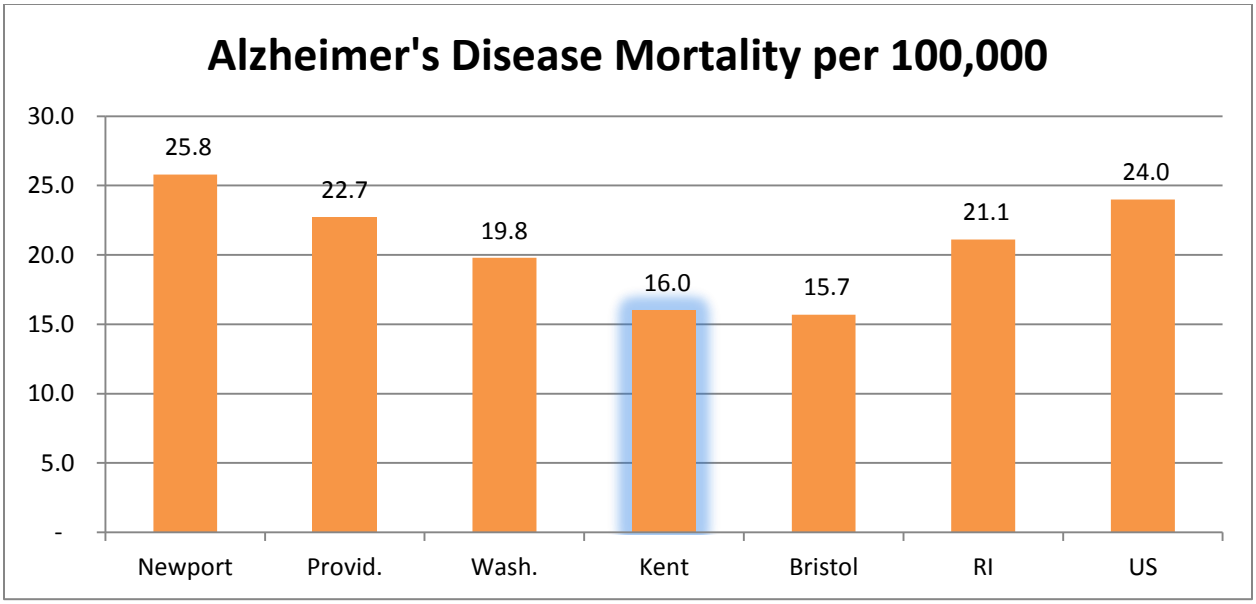
	Bristol	Kent	Newport	Provid.	Wash.	**RI**	**US**
Alzheimer's Disease	11.6%	12.1%	10.7%	13.4%	12.1%	**12.5%**	**11.4%**
Asthma	5.1%	6.1%	4.3%	6.2%	4.9%	**5.7%**	**4.3%**
Cancer	10.9%	11.2%	10.8%	10.4%	10.4%	**10.6%**	**9.1%**
Depression	13.4%	16.1%	13.3%	16.0%	12.1%	**15.0%**	**12.7%**
Diabetes	24.0%	27.2%	23.4%	28.7%	22.4%	**26.6%**	**27.4%**
Hypertension	60.8%	65.2%	60.4%	65.4%	61.4%	**63.9%**	**59.1%**
High Cholesterol	54.8%	56.5%	51.6%	55.1%	52.8%	**54.5%**	**48.0%**
Coronary Heart Disease	26.5%	34.3%	27.0%	31.3%	30.3%	**30.9%**	**31.1%**
Stroke	3.6%	4.5%	4.6%	4.1%	3.6%	**4.1%**	**4.1%**

Source: Centers for Medicare & Medicaid Services, 2012

Alzheimer's Disease

According to the National Institute on Aging, "Although one does not die of Alzheimer's disease, during the course of the disease, the body's defense mechanisms ultimately weaken, increasing susceptibility to catastrophic infection and other causes of death related to frailty."

The age-adjusted death rate due to Alzheimer's disease among Kent County residents (16 per 100,000) is lower when compared to both the state and the nation. The rate decreased from 17.2 per 100,000.

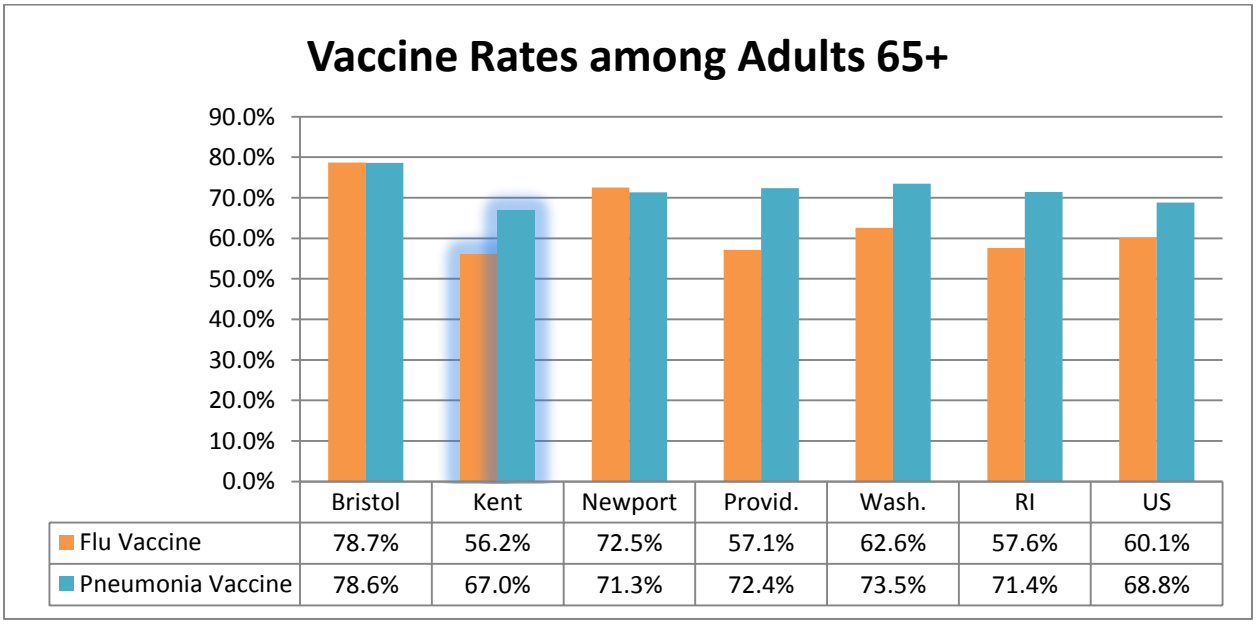


Source: Centers for Disease Control and Prevention, 2011-2013

Immunizations

The Advisory Committee on Immunization Practices recommends all individuals age six months or older receive the flu vaccine. However, the vaccine is a priority for older adults. Kent County has the lowest senior flu vaccine rate among all counties in Rhode Island (56.2%). The percentage decreased from the last CHNA (59.1%). The pneumonia vaccine is also recommended for adults age 65 years or older. The percentage of pneumonia vaccinated seniors in Kent County is the lowest in the state (67%) and decreased from the last CHNA (79.2%).

Kent County has the lowest flu and pneumonia vaccination rates among adults age 65 years or older; both rates declined



	Bristol	Kent	Newport	Provid.	Wash.	RI	US
Flu Vaccine	78.7%	56.2%	72.5%	57.1%	62.6%	57.6%	60.1%
Pneumonia Vaccine	78.6%	67.0%	71.3%	72.4%	73.5%	71.4%	68.8%

Source: Behavioral Risk Factor Surveillance System, 2008, 2010, & 2012

Behavioral Health

Behavioral health encompasses both mental health and substance abuse conditions. Diagnosis, treatment, and comorbidity with chronic diseases are having an increasing impact on residents, patients, and the healthcare system. According to the September 2015 *Rhode Island Behavioral Health Project Report* by Truven Health Analytics, Rhode Island children and adults experience poorer mental health and substance abuse outcomes than residents in other New England states. Adult residents in Rhode Island are more likely to be hospitalized for mental health and substance use disorders. The following section analyzes measures related to feelings of depression, mental health diagnoses, mental health deaths, and provider access in Rhode Island.

Mental Health

Kent County adults report an average of 4.0 poor mental health days per 30-day period. The average is the highest in the state, surpasses the nation by 0.6 days, and represents an increase of 0.2 days from the 2013 CHNA. In addition, the 2013 CHNA found that 32.7% of adults felt "down, depressed, or hopeless" on at least one day over a two week period and 24.4% of adults have been diagnosed with a depressive disorder; both percentages exceed state and national averages.

Kent County adults report the highest average for poor mental health days, but one of the lowest suicide rates. The suicide rate decreased 2 points from the 2013 CHNA.

Despite reporting poorer mental health, Kent County residents are less likely to commit suicide. The suicide rate decreased from 12.6 per 100,000 during the 2013 CHNA and nearly meets the Healthy People 2020 goal of 10.2 per 100,000.

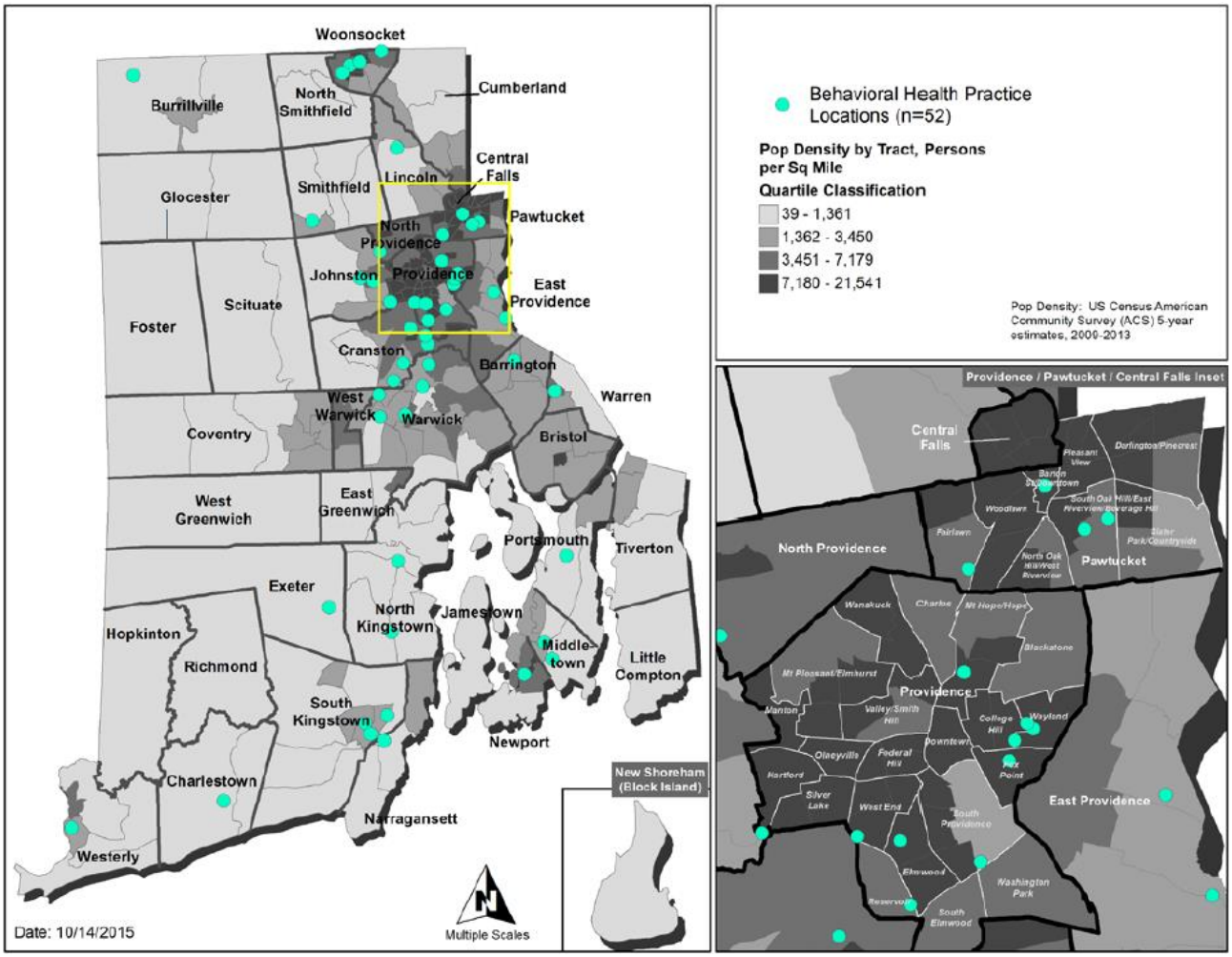
Mental Health Measures

	Poor Mental Health Days	Suicide per 100,000	Mental Health Provider Ratio
Bristol	2.9	N/A	541:1
Kent	4.0	10.5	397:1
Newport	3.0	11.0	354:1
Providence	3.7	9.1	257:1
Washington	3.2	13.9	366:1
Rhode Island	**3.6**	**10.2**	**298:1**
United States	**3.4**	**12.5**	**529:1**
HP 2020	**N/A**	**10.2**	**N/A**

Source: Behavioral Risk Factor Surveillance System, 2010 & 2012 & Centers for Disease Control and Prevention, 2011-2013 & County Health Rankings, 2012

Behavioral Health Providers

There are 52 licensed behavioral health clinics in Rhode Island. In 2014, the median number of patients seen across all clinics was 566. The following figure illustrates the location of the clinics layered over population density. Behavioral health providers are most available in Providence and Kent Counties.



Source: Rhode Island Department of Health Statewide Health Inventory, 2015

Substance Abuse

Substance abuse includes both alcohol and drug abuse. In Kent County, 15.9% of adults report binge drinking, 47.3% of driving deaths are due to alcohol-impaired driving, and the drug poisoning death rate is 18.9 per 100,000. The percentage of binge drinkers is lower than the state, the nation, and the Healthy People 2020 goal, and decreased from the 2013 CHNA (19.4%). The percentage of deaths due to alcohol-impairment also decreased from the 2013 CHNA (48.3%), but still exceeds the state and the nation. The rate of drug poisoning deaths exceeds the state and increased 3.3 points from 15.6 per 100,000 (2004-2010 reporting cycle).

The drug poisoning death rate in Kent County is the highest in the state and is increasing

Substance Abuse Measures

	Binge Drinking	Percent of Driving Deaths due to DUI	Drug Poisoning Deaths per 100,000
Bristol	9.4%	28.6%	11.7
Kent	15.9%	47.3%	18.9
Newport	17.6%	50.0%	10.3
Providence	17.1%	38.0%	17.5
Washington	18.4%	43.8%	13.2
Rhode Island	**17.2%**	**41.4%**	**16.4**
United States	**16.9%**	**30.6%**	**N/A**
HP 2020	**24.4%**	**N/A**	**N/A**

Source: Behavioral Risk Factor Surveillance System, 2010 & 2012 & County Health Rankings, 2006-2012 & 2009-2013

The *Rhode Island Behavioral Health Project Report* reported that Rhode Island residents have the highest rate of death due to narcotics and hallucinogens in comparison to other New England states. The rate is also higher than the national average. In addition, residents are more likely to be hospitalized for mental and substance use disorders and have unmet mental health care needs in comparison to other New England states. The hospitalization rate is 26% higher than Massachusetts (second highest in NE) and 150% higher than Vermont.

Youth Behavioral Health

An increasing number of youth are affected by behavioral health issues. *Rhode Island Kids Count* reported that in 2013, 2,737 youth were hospitalized across five hospitals with a primary diagnosis of mental disorder. The number of hospitalizations represents an increase of 53% from 2003. The report identified the top diagnoses for inpatient care as depressive disorders (41%), bipolar disorders (38%), anxiety disorders (12%), and adjustment disorders (5%). Rhode Island adolescents age 12 to 17 years are more likely to have major depressive episodes, and young adults age 18 to 24 years are more likely to have serious psychological distress, when compared to other New England states and the nation.

Suicide is another concern among youth. In 2013, 14% of Rhode Island high school students reported attempting suicide and there were 916 emergency department visits and 406 hospitalizations among youth 13 to 19 years for suicide attempts. A total of 24 youth in Rhode Island died due to suicide between 2009 and 2013.

14% of Rhode Island high school students reported attempting suicide

Substance abuse is affecting more youth in Rhode Island. The following table depicts substance abuse data among middle school and high school students by town in Kent County. In general, adolescents age 12 to 17 years in Rhode Island have higher rates of illicit drug use when compared to other New England states and the nation.

2013-2014 Youth Substance Abuse by School District

	Alcohol Use		Marijuana Use		Prescription Drug Use		Cigarette Use	
School District	Middle School	High School	Middle School	High School	Middle School	High School	Middle School	High School
Coventry	4%	23%	4%	34%	2%	13%	2%	13%
East Greenwich	2%	30%	2%	27%	2%	10%	1%	6%
Exeter-West Greenwich	6%	13%	6%	16%	3%	6%	4%	6%
Warwick	5%	23%	6%	34%	3%	13%	3%	12%
West Warwick	5%	16%	7%	30%	3%	9%	4%	7%
Rhode Island	**6%**	**26%**	**7%**	**34%**	**3%**	**12%**	**2%**	**9%**

Source: Rhode Island Kids Count Factbook, 2015

Maternal and Child Health

Prenatal & Infant Health

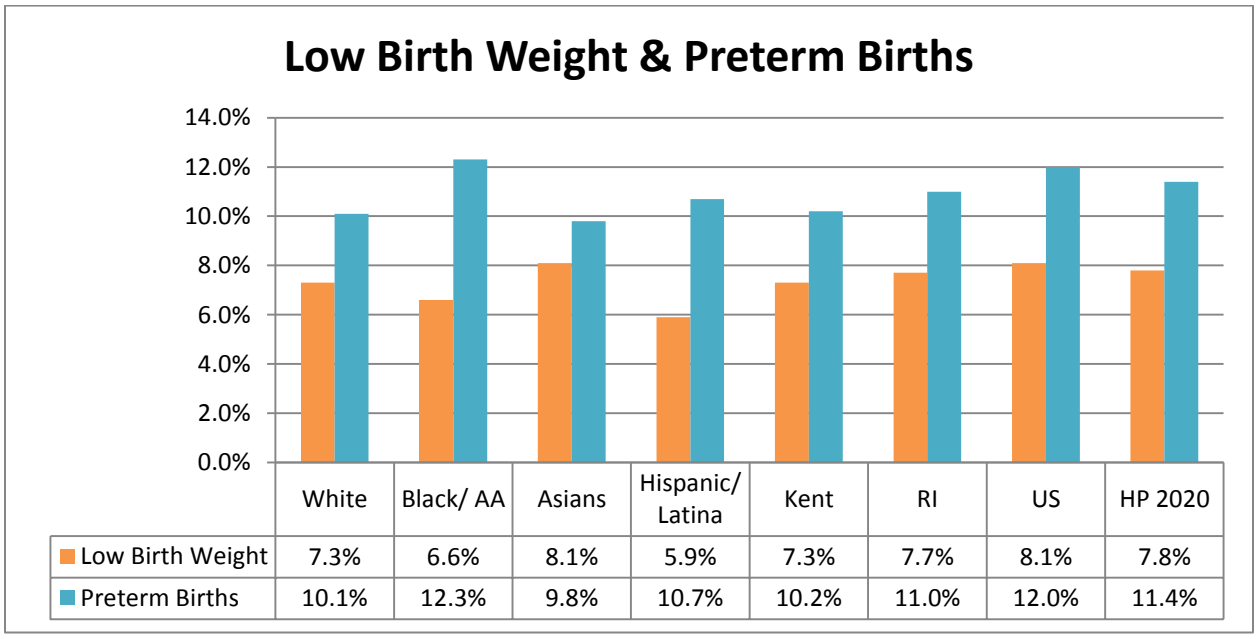
Maternal and child health is measured by a number of indicators, including low birth weight and preterm births. Low birth weight is defined as a birth weight of less than 5 pounds, 8 ounces. It is often a result of premature birth, fetal growth restrictions, or birth defects.

The percentage of low birth weight babies in Kent County is lower than the state and the nation, meets the Healthy People 2020 goal, and decreased from the last CHNA (7.5%).

Premature births are births that occur earlier than the 37th week of pregnancy. They often lead to infant death. The percentage of premature births in Kent County is lower than the state and the nation, meets the Healthy People 2020 goal, and decreased from the last CHNA (10.5%).

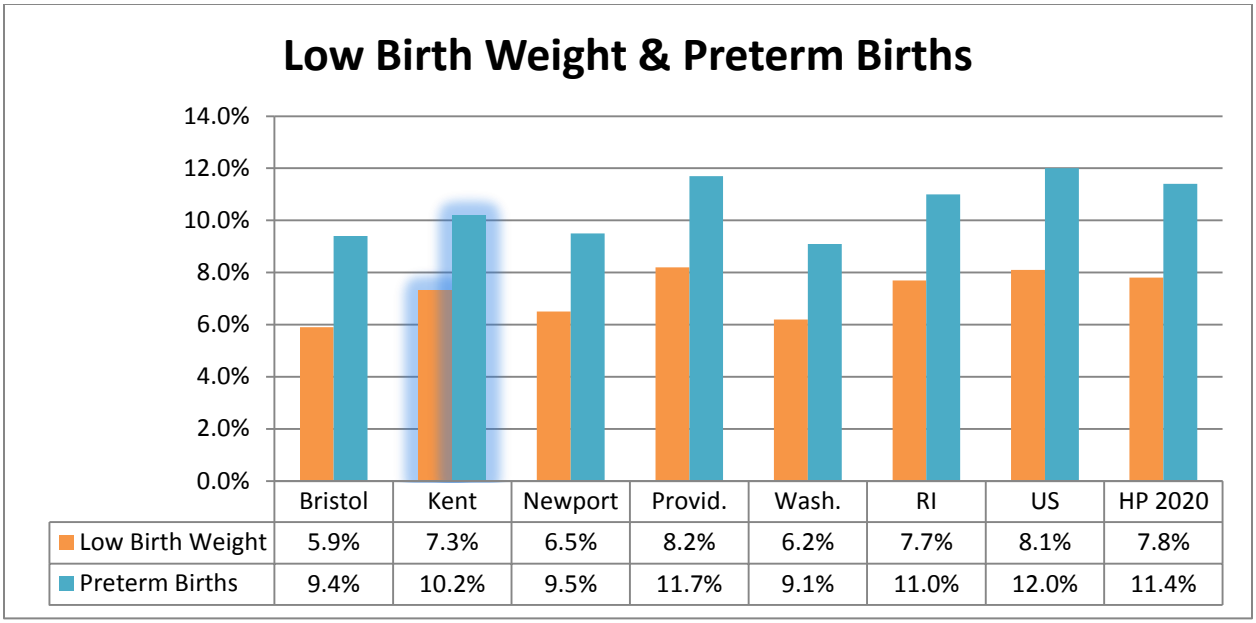
Asians have the highest low birth weight rate; Blacks/African Americans have the highest premature birth rate

White mothers in Rhode Island are less likely to have low birth weight and premature babies than mothers of other racial and ethnic groups. Asians have the highest low birth rate, while Blacks/African Americans have the highest premature birth rate.



	White	Black/ AA	Asians	Hispanic/ Latina	Kent	RI	US	HP 2020
Low Birth Weight	7.3%	6.6%	8.1%	5.9%	7.3%	7.7%	8.1%	7.8%
Preterm Births	10.1%	12.3%	9.8%	10.7%	10.2%	11.0%	12.0%	11.4%

Source: Health Indicators Warehouse, 2007-2013



Source: Health Indicators Warehouse, 2007-2013

Rhode Island Kids Count published additional indicators contributing to infant health. These indicators are presented below for towns within Kent County.

2009-2013 Infant Births by Maternal Characteristics and Town

	Total Births	Births per 1,000 Girls 15-19 years	Delayed Prenatal Care*	Exclusively Breast Fed	Preterm Births	Infant Mortality Rate per 1,000 Births
Coventry	1,444	11.5	10.7%	71%	10.0%	5.5
East Greenwich	524	5.4	10.5%	82%	10.7%	9.5
Warwick	3,888	14.2	10.6%	68%	9.9%	6.4
West Greenwich	240	7.2	NA	74%	NA (n=25)	NA**
West Warwick	1,843	40.9	14.2%	61%	9.6%	5.4
Rhode Island	**55,169**	**21.0**	**12.8%**	**64%**	**10.7%**	**6.6**

Source: Rhode Island Kids Count Factbook, 2015

*Percentage of mothers receiving initiating prenatal care in the second or third trimester

**The number of infant deaths is less than 5

In addition, *Rhode Island Kids Count* published that in 2013, 76 babies were diagnosed with Neonatal Abstinence Syndrome (NAS). The equivalent rate is 72 per 100,000 births and represents nearly double the reported rate in 2006 (37.2 per 100,000 births).

Immunizations

The Advisory Committee on Immunization Practices recommends that all individuals age six months or older receive the flu vaccine. However, the vaccine is considered a priority for children ages six months to four years. The 2013 CHNA found that 66.5% of all children under 18 years of age received a flu vaccine. The statewide average was 73.2%.

In addition, the Advisory Committee on Immunization Practice recommends a series of vaccinations for all children age 19 months to 35 months. The series includes diphtheria, tetanus, polio, measles, etc. *Rhode Island Kids Count* found that 82% of Rhode Island children received the full series of vaccinations, the best in the nation. The report also found that 95% to 98% of kindergarten students received the five immunizations required for school entry.

Kent Hospital Utilization Data Analysis

Background

Kent Hospital discharge data related to chronic diseases and behavioral health was analyzed across the emergency room, observation, and inpatient settings to determine usage trends related to key community health needs. The data were correlated with public health statistics and socio-economic measures to determine if there were utilization patterns among high risk populations and to improve outcomes for patients.

The claims data was provided by Truven Health Analytics and all analyses were performed by Baker Tilly. Due to availability, inpatient data is based on fiscal years 2013 and 2014 and observation and emergency room data are based on fiscal year 2014.

Inpatient Cases Combined visits FY 2013 and FY2014	Emergency Visits FY2014	Observation (not admitted) FY2014
27,611	53,922	4,062

The hospital utilization data was considered in conjunction with demographic data to more fully understand the needs of Kent Hospital's service area. It is important to consider public health data with the hospital utilization data as in a given year much of the population will not have contact with any of the hospital's departments. Therefore, their health concerns are not measured by health provider utilization data.

The following section reports utilization findings and compares local hospital data with a state average. The Rhode Island State Hospital average includes all hospitals in Rhode Island except specialty hospitals (Butler Hospital, Bradley Hospital, Hasbro Children's Hospital, and Women & Infants Hospital). After a careful review of the data it was decided a three percentage point difference from the Rhode Island average warranted hospital attention. This standard was used throughout all analyses.

Chronic Condition Prevalence

The following table illustrates the zip codes accounting for 50% or more of utilization across six chronic conditions: Asthma, Behavioral Health, Chronic Heart Failure, Chronic Obstructive Pulmonary Disorder, Diabetes, and Hypertension. The data represent the percentage of chronic disease cases originating from residents who reside in each zip code. The condition may not be the primary reason for the visit, or the primary diagnosis code, but it is listed on the patient's record as an existing condition. The data are presented in order of zip codes with the highest percentages of chronic disease usage.

Zip Codes Accounting for 50% or more of Chronic Condition Prevalence across Inpatient and Outpatient Settings

Zip Code	Asthma	BH	CHF	COPD	Diabetes	HTN
02893 West Warwick	23%	21%	15%	19%	19%	18%
02886 Warwick	16%	16%	21%	20%	19%	18%
02816 Coventry	16%	16%	20%	18%	17%	17%

Recognizing the relationship between social determinants of health and health status, the following table shows socioeconomic measures for the Kent Hospital service area zip codes accounting for 50% of more of chronic condition prevalence. However, the zip codes are not noted for having poorer socioeconomic measures in comparison to the total service area or the state. A contributing factor to utilization within these zip codes may be the location of Kent Hospital in 02886 (Warwick) and the proximity of the hospital to the other zip codes.

Social Determinants of Health Indicators by Zip Code

	Black/ African American	Hispanic/ Latino	English Speaking	Families in Poverty	Families w/ Children in Poverty	Single Female Households w/ Children	Unemploy-ment	Less than HS Diploma
02893 West Warwick	2.5%	6.4%	86.7%	8.1%	7.1%	12.6%	6.6%	13.3%
02816 Coventry	0.7%	2.6%	94.2%	7.2%	6.2%	8.2%	8.7%	10.5%
02886 Warwick	1.8%	4.8%	88.6%	4.3%	2.5%	7.5%	5.6%	11.4%
Total Service Area (SA)	**8.4%**	**19.9%**	**73.2%**	**12.1%**	**9.5%**	**14.2%**	**7.5%**	**16.3%**
Rhode Island	**5.9%**	**14.1%**	**79.0%**	**9.4%**	**7.3%**	**12.1%**	**6.4%**	**14.5%**

Source: The Nielsen Company, 2015

Color Coding Guide
Within 2% points of the Total SA Exception: Unemployment cells are within 1% point of the Total SA
More than 2% points higher than the Total SA Exception: English Speaking cells are more than 2% points lower than Total SA & Unemployment cells are more than 1% point higher than Total SA

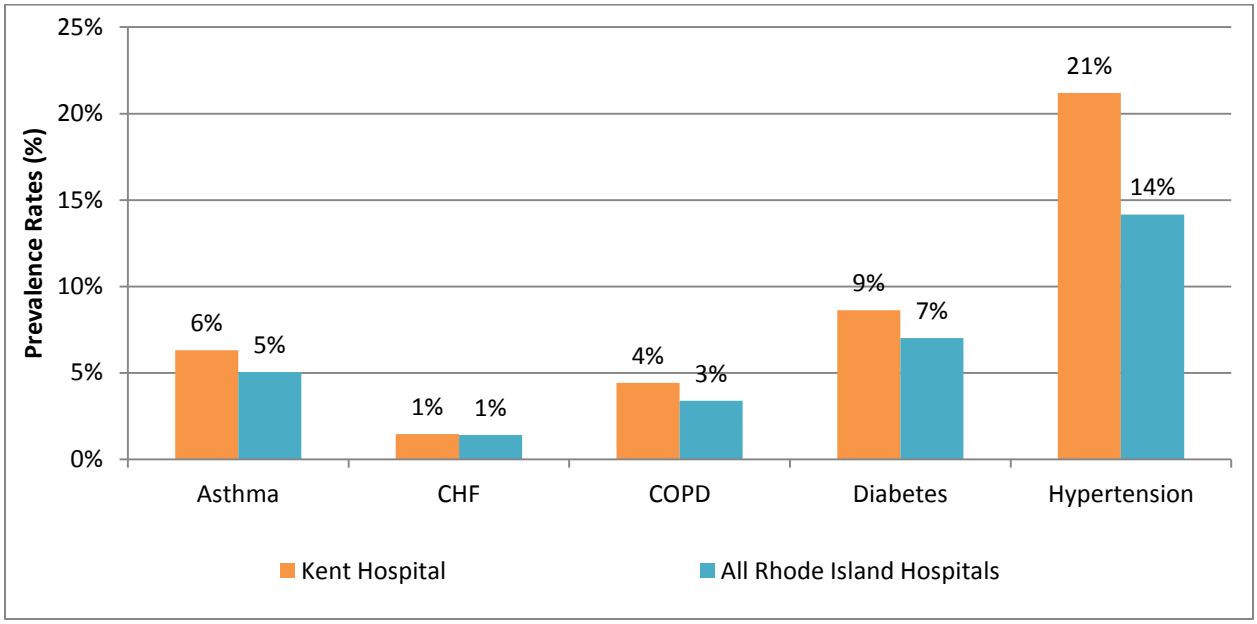
Chronic Condition Prevalence among Hospital Patients

The following graphs examine the prevalence of common chronic conditions among Kent Hospital emergency room and inpatient settings. A data set comprising an average of all Rhode Island Hospitals (excluding specialty hospitals) is provided as a benchmark. The data includes any patient with a diagnosis for the chronic condition, whether the condition was the admitting diagnosis or not.

Chronic Disease among Emergency Room Patients

Patients seen at Kent Hospital's emergency room have a higher prevalence of hypertension (21%) compared to the state average (14%). The prevalence of all other chronic conditions is equivalent to the state average.

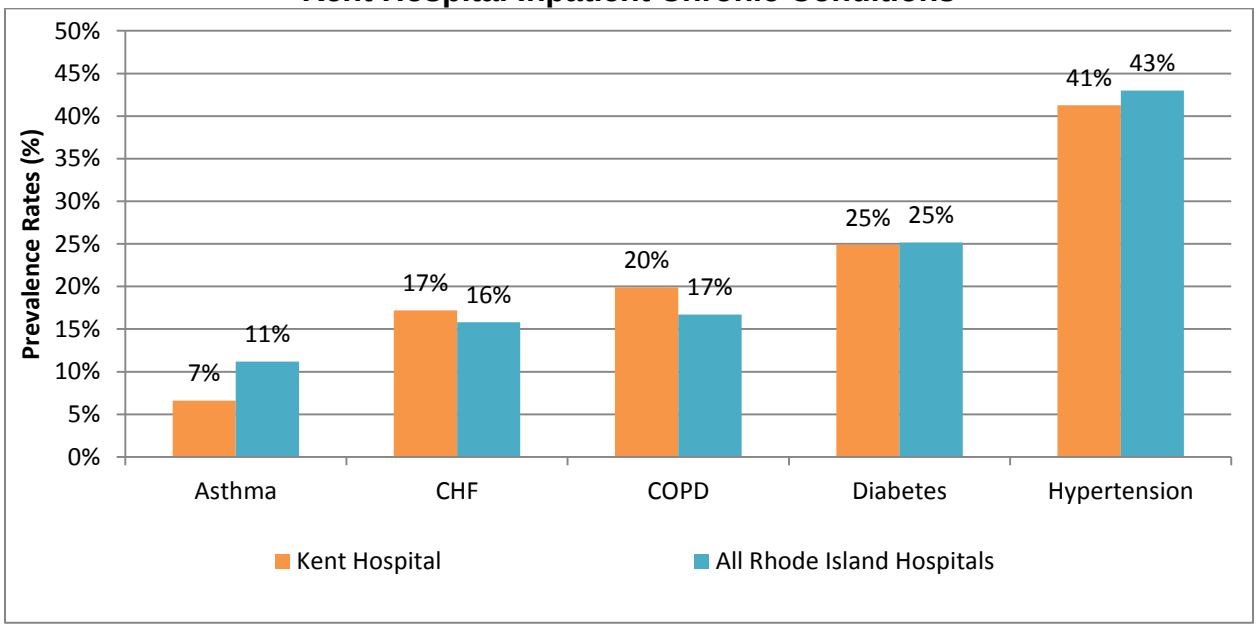
Kent Hospital Emergency Room Chronic Conditions



Chronic Conditions among Inpatient Admissions

Patients admitted to Kent Hospital have a lower prevalence of asthma (7%) and a higher prevalence of COPD (20%) when compared to the state average. The prevalence of all other chronic conditions is equivalent to the state average.

Kent Hospital Inpatient Chronic Conditions



Behavioral Health and Medical Comorbidities in the Inpatient Setting

Inpatient data for all Rhode Island hospitals were analyzed in aggregate to identify behavioral health admissions across the state and to demonstrate local needs related to behavioral health inpatient care.

Among Kent Hospital service area residents, during fiscal years 2013 and 2014, there were 11,902 inpatient admissions with behavioral health as the primary diagnosis. The following table identifies the number and percentage of total behavioral health admissions (may not be unique patient visits), by patient's zip code of residence. Behavioral health admissions include admissions to all hospitals within Rhode Island, not just Kent Hospital.

Residents from four zip codes (02908, 02909, 02860, and 02907) account for approximately 39% of all behavioral health admissions across the Kent Hospital service area. The zip codes rank among the top five zip codes in Kent Hospital's service area for higher poverty rates and lower educational attainment.

Behavioral Health Admissions Over Two Years (Oct 1, 2012-Sep 30, 2014)

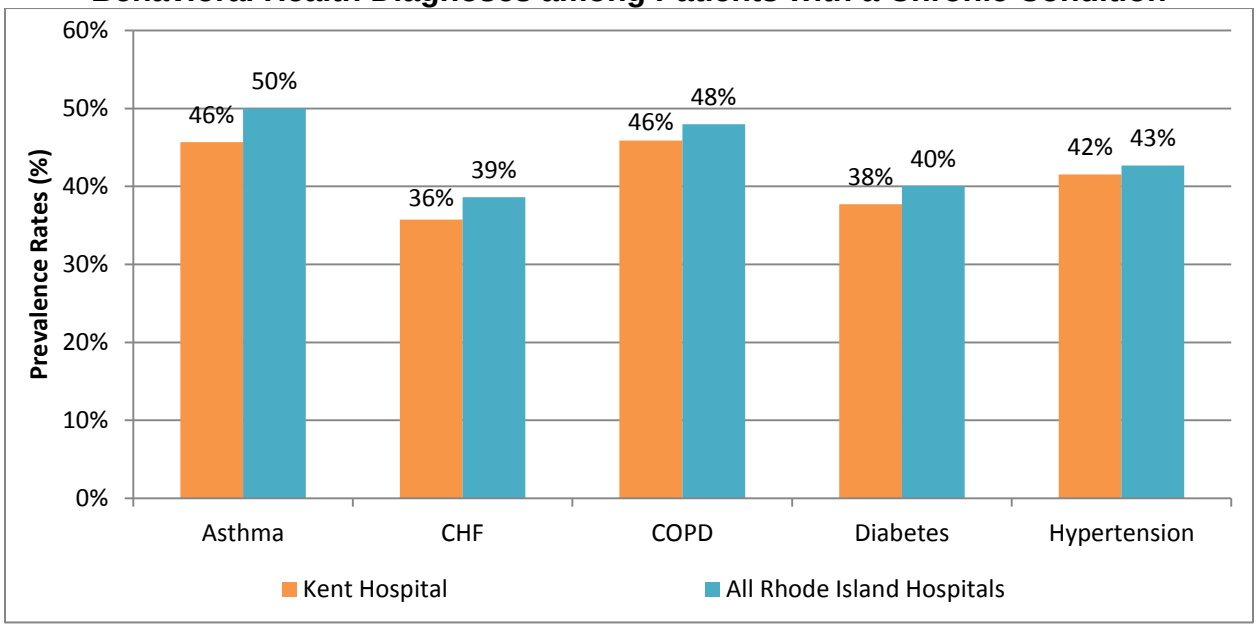
Patient Zip Code of Residence	Behavioral Health Admissions* within the Zip Code of Residence (not unique zip codes)	% of Total Behavioral Health Admissions in Kent Hospital's Service Area (11,902/2yrs)
02908, Providence	1,324	11.12%
02909, Providence	1,214	10.20%
02860, Pawtucket	1,180	9.91%
02907, Providence	963	8.09%
02904, Providence	791	6.65%
02919, Johnston	720	6.05%
02905, Providence	681	5.72%
02920, Cranston	671	5.64%
02893, West Warwick	624	5.24%
02889, Warwick	569	4.78%
02906, Providence	547	4.60%
02816, Coventry	542	4.55%
02886, Warwick	524	4.40%
02888, Warwick	369	3.10%
02910, Cranston	361	3.03%
02852, North Kingstown	322	2.71%
02818, East Greenwich	233	1.96%
02921, Cranston	108	0.91%
02817, West Greenwich	68	0.57%
02822, Exeter	54	0.45%
02831, Scituate	37	0.31%

*Admissions to any Rhode Island Hospital

Chronic conditions can be more difficult to manage if a patient also has a behavioral health and/or substance abuse diagnosis. The following charts show the prevalence of behavioral health and substance abuse diagnoses among patients admitted to the hospital with one or more of the top five chronic diseases: Asthma, CHF, COPD, Diabetes, and Hypertension.

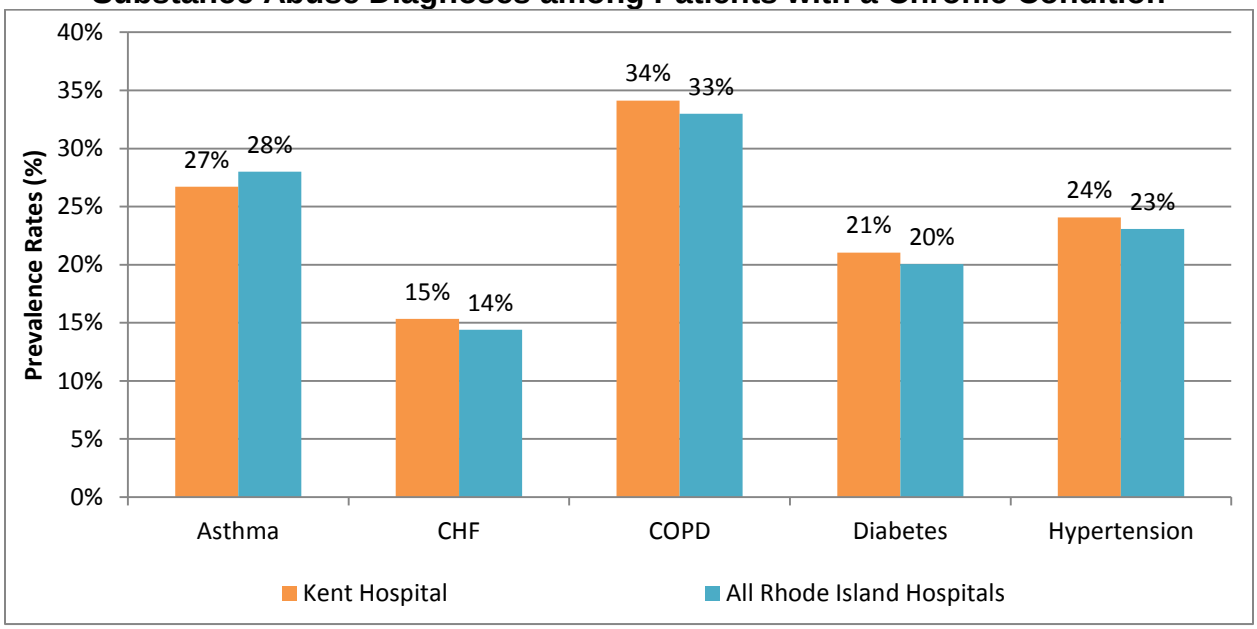
Consistent with the state average, nearly half of all patients with asthma and COPD, and approximately 40% of patients with CHF, diabetes, or hypertension, also have a behavioral health condition.

Behavioral Health Diagnoses among Patients with a Chronic Condition



Nearly one-third of patients with asthma or COPD, and about one-quarter of patients with diabetes or hypertension, have a substance abuse issue.

Substance Abuse Diagnoses among Patients with a Chronic Condition

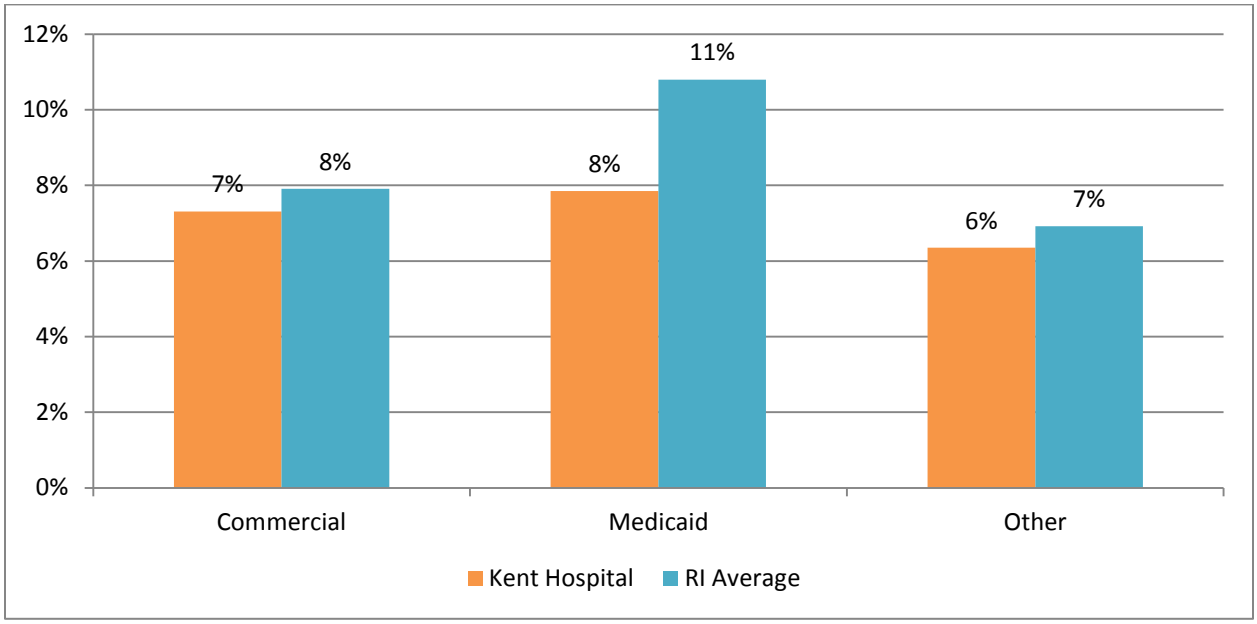


Premature Birth Rate

Approximately 8% of births (2,089) in Rhode Island occurred at Kent Hospital. Seventy-one percent of births (n=1,478) were to mothers with commercial insurance; 23% (n=484) were to mothers with Medicaid. The hospital wide premature rate (7%) is lower than the state average (9%) and rates for all insurance types are similar to or lower than the state average.

Public health data show that Kent County Asian mothers have the highest low birth rate (8.1%), while Blacks/African American mothers have the highest premature birth rate (12.3%).

Premature Birth Rate by Line of Business



West Warwick Partner Forum

October 22, 2015, 12-2:30 pm
West Warwick Health Equity Zone HUB, 1229 West Main Street, West Warwick

The objective of the forum was to solicit feedback from representatives of key stakeholder groups about priority health needs including identifying underserved populations, existing resources to address the priority needs, and barriers to accessing services. The forum also served to facilitate collaboration to address community health needs while aligning community health improvement efforts between the HARI CHNA, the Rhode Island Department of Health State Improvement Plan, and the local Health Equity Zones (HEZ).

Partner Forum Participants:

Clayton Chamberlain, South Pointe Christian Church

Joseph Coffey, Warwick Police

Elise George, Rhode Island Department of Health

Susan Jacobson, Thundermist Health Center/West Warwick HEZ

Chuck Jones, Thundermist Health Center

Tom Joyce, The Providence Center – Anchor

Jamie Lankford, South Pointe Christian Church

David Lauterbach, The Kent Center

Pam Masciarotte, West View Nursing Home

Shayla Minteer, Rhode Island Department of Health/Brown Medical School

Jennifer Olsen Armstrong, Rhode Island Department of Health

Fred Presley, Town of West Warwick

Bianca Silvestri, Kent County YMCA

David Spencer, SUMH Leadership Council

Thea Upham, Farm Fresh Rhode Island

Facilitation

An overview of the current CHNA research findings related to health needs and disparities in the community was presented to the partners. The partners were then grouped by priority area for small group discussion based on the services their organization provides and/or the populations they serve. The subgroups discussed underserved populations, barriers to optimal health for residents, existing community assets, service delivery gaps, and opportunities for collaboration around the priority needs.

The small group discussion began with identification of existing community assets to address the priority area. Partners named specific organizations, programs, and individuals in the community, populations served, and partners that provide services in support of the identified need. Group participants were then presented with a set of questions aimed at identifying gaps in services and opportunities for collaboration to address the priority area. The questions included:

An overview of participants' responses Partner Forum is outlined below.

Behavioral Health: Mental Health & Substance Abuse

Barriers to Accessing Programs/Services/Initiatives

Partners said that residents and providers are aware of some services that address behavioral health needs, but most do not know about all of the existing services. Partners stressed the need for accurate and updated information regarding available services as the lack of information has led to some necessary and available services being underutilized. Partners also listed the following barriers to accessing services in the community:

- Lack of transportation between health and mental health centers
- Lack of comprehensive insurance coverage
- Lack of care coordination
- Stigma associated with receiving care
- Previous bad experiences/trauma when seeking services
- Lack of resident engagement to create strong communities
- Lack of prevention or support groups
- Out-of-pocket costs (co-pays, deductibles, etc.)
- Lack of marketing/education regarding available services

Underserved or Most At-Risk Populations

The partners agreed that populations within the community are at higher risk for developing behavioral health issues and are less likely to receive necessary interventions. These populations include:

- Individuals who have experienced trauma
- The prison population
- Teenage mothers and their families

Recommendations to Improve Access for Underserved or At-Risk Populations

The partners recommended a number of services and initiatives to meet the chronic disease needs of underserved or at-risk populations:

- Behavioral health education outreach and psychological help for families, particularly new families
- Referrals for evidence-based behavioral health home visiting programs for new mothers
- Early intervention programs to prevent adverse childhood experiences and the potential for future mental health/substance abuse issues
- Trauma-informed education and services available in the community
- Greater availability of behavioral health prevention and treatment centers
- Treatment facilities that provide an alternative to hospitalization (e.g. family care homes)
- Behavioral health education aimed at specific community populations (e.g. schools, prisons, etc.)
- The use of electronic medical records to improve doctor/patient communication and coordinate care and referrals for both medical and social services
- Establishing a health care purchasing collective among the state and local municipalities to ensure quality health care at an affordable price
- Integrating behavioral health and primary care to treat the entire patient spectrum
- Improve cooperation and coordinator among health centers, hospitals, and primary care physicians to ensure appropriate care

Identifying Collaborative Partners to Address Behavioral Health Needs

A number of potential partners were identified in the community, including schools, the Rhode Island Scholastic League, churches, first responders, etc. In addition, a partnership opportunity between local behavioral health providers and first responders was provided by participants. The partnership would create a listing of available behavioral health services in the community. The list would then be available for first responders to share with the community and create a direct referral system.

Chronic Disease: Prevention & Management

Barriers to Accessing Programs/Services/Initiatives

Partners stated that residents are not aware of all of the services in the community. There is a need in the community for greater education regarding services, particularly among individuals who are experiencing adverse life situations for the first time and have never accessed services before. Many services in the community are underutilized due to lack of awareness.

Partners also listed a number of barriers to accessing the services that are available in the community:

- Transportation to get services
- Stigma around receiving federal nutrition benefits
- Lack of educational materials produced at an appropriate literacy level
- Lack of knowledge on how to effectively use the health care system
- Out-of-pocket costs for physical activity options (e.g. youth sports)
- Lack of multilingual providers

Underserved or Most At-Risk Populations

The partners agreed that populations within the community are at higher risk for developing chronic disease and are less likely to receive necessary interventions. They identified the low income/working poor and the homeless population as the most underserved or at-risk in the community.

Recommendations to Improve Access for Underserved or At-Risk Populations

The partners recommended a number of services and initiatives to meet the chronic disease needs of underserved or at-risk populations:

- Engaging Kent Hospital to help individuals register for federal nutrition benefits while they are at the hospital
- Bringing all of the HEZ initiatives across Rhode Island together to enact policy change that promotes healthy lifestyles
- Creating more mobile food/farmer's markets to increase access to healthy foods
- Creating a program similar to Uber for health and wellness transportation
- The use of electronic medical records to improve doctor/patient communication and coordinate care and referrals for both medical and social services
- Establishing a health care purchasing collective among the state and local municipalities to ensure quality health care at an affordable price
- Improve cooperation and coordinator among health centers, hospitals, and primary care physicians to ensure appropriate care

Identifying Collaborative Partners to Address Chronic Disease Needs

West Warwick has a number of walking and biking paths available to community members. One of the partnership opportunities identified by participants included partnering schools and the city to create a walking school bus to promote physical activity to and from school. The program would also advertise the pathways to students for other recreational activities. Another identified partnership opportunity was the expansion of the CSA/Farm Fresh Veggie Boxes through private businesses and large employers to increase access to healthy foods.

Identified Community Assets

Behavioral Health: Mental Health & Substance Abuse	
Community Asset	**Target Population(s) as Applicable**
Anchor Recovery Community Centers	
Community Health Centers (e.g. Thundermist)	
First Responders (e.g. police and medical teams)	
Hillsgrove House	
Leadership Council	
Mental Health & Substance Abuse Treatment Centers (e.g. Ocean State Prevention)	
Police Department/Overdose Coalition	
Rhode Island Scholastic League	
School Districts	
Southpointe Christian Church	
The Kent Center	
Visiting Nurses Maternal & Child Health Program	
West Warwick Health Equity Zone	
YMCA	

Chronic Disease: Prevention & Management	
Community Asset	**Target Population(s) as Applicable**
Arctic Village Events	
Civic Center	
Farmer's Markets	Families, SNAP/WIC participants
Fruit and Veggie Prescription Program	At-Risk Youth, Families, SNAP/WIC Participants
Kent Hospital	
Police Department	
Rhode Island Department of Health	
Schools	
Senior Center	
Thundermist Health Center	
Visiting Nurses Association	
West View Nursing Home	Seniors
West Warwick Bike Paths/Walking Trails	
YMCA of Greater Providence Chronic Disease Prevention/Management Programs	Youth 6-12, Teens 13-17, Adults 18 or Over, Caregivers

Evaluation of Community Health Impact from 2013 CHNA Implementation Plan

Kent Hospital and other Care New England hospitals developed and implemented a system-wide plan to address community health needs that leverages resources across the system and employs the system's specialized services for behavioral health, women's and infants health, and cardiovascular and diabetes care.

Mental Health and Substance Abuse

Goal 1: Decrease morbidity from diabetes and heart disease among persons with mental illness, including substance abuse disorders.

Goal 2: Improve mental health by increasing access to appropriate, quality mental health services including substance abuse services.

Leveraging resources across the Care New England System, Butler Hospital focused on improving care coordination for patients with comorbid conditions. Our key initiatives included identifying and referring behavioral health patients without a primary care physician (PCP) to a PCP practice, including mental health screening as part of our coronary heart failure (CHF) program, and providing medication continuity in CNE emergency departments for psychiatric patients with diabetes and heart disease awaiting an inpatient psychiatric bed through our Safe Transitions program. Over the three year period, we were successful in referring 900 patients discharged from Butler Hospital to a PCP.

Other objectives included 1) expanding capacity to respond to patients awaiting psychiatric services in hospital emergency departments; 2) improving the transition for patients from emergency departments to inpatient care; 3) developing a partnership with a community provider to enhance continuum and improve access to community-based services; and 4) educating prenatal mothers and their families about risk factors for postpartum depression and resources available to assist with treatment.

Our key initiatives for this goal included providing online mental health screening; developing a patient-centered medical home model with integrated mental/physical health; and developing an affiliation agreement with The Providence Center to provide greater access to psychiatric care, including 24/7 presence in Care New England emergency departments.

Between January 1, 2013 and December 31, 2015, the online mental health screening tool hosted on Butler Hospital's website received 57,390 new visitors with an additional

1,737 people returning during this time period. Promotion of butler.org/healthscreening in communications and advertising brought 43,524 people directly to the page, and 13,866 visitors found the screening tool through another page on the web site. In all cases, the average period of time spent on the page (3:05) indicates visitors are completing the online mental health screening. The relevance and value of the tool to the community is proven with its ranking as the fourth highest traffic page on our website, only behind the homepage and employment opportunities.

Another key accomplishment is Care New England's work to improve youth behavioral health and postpartum depression among women. One initiative by Kent Hospital established a program within the City of Warwick to train city employees to be mentors for youth. The goal of the program is to increase youth confidence, self-esteem, and the desire to stay in school. Kent Hospital also provided school-based health education to instruct parents on the warning signs and treatment of substance abuse. CNE clinicians increased awareness of postpartum depression and provided information and education to residents as part of Rhode Island's Climb Out of Darkness event.

Care New England also hosted mental health support groups and education sessions and provided insurance enrollment assistance for uninsured patients to improve mental health wellbeing and access to care.

Heart Disease

Goal 1: Increase the number of women who are aware of their risk for heart disease.

Goal 2: Reduce heart disease through early identification, and early and appropriate treatment/management.

Our objectives included educating women about the benefits of healthy behavior and the risk factors for heart disease, increasing screenings for women who may be at higher risk for heart disease, and increasing the number of women who exclusively breastfeed their infants to impact the health of the infant and mother.

Community outreach, including education and screening, was conducted via activities across the Care New England System and communities, reaching hundreds of individuals. Initiatives included the Spirit of Women Day of Dance and the Women's Health Fair.

Other initiatives included support for the Rhode Island Free Clinic with physicians and allied health professionals, nutrition and weight management programs, and The Doctor Is In wellness lecture series at Memorial Hospital.

Care New England sought and received Baby Friendly designation for all birthing services at Women & Infants Hospital and Kent Hospital and increased efforts to encourage breastfeeding among mothers giving birth across the CNE system. A seven-day-a-week, nurse-staffed Warm Line supported the informational and educational needs of new and expectant mothers. A weekly peer support group facilitated by nurse educators and other staff for new parents and babies provided a safe nonjudgmental forum for women to bond with each other and their babies.

Fiscal Year 2013-2015 Warm Line Statistics

	FY 2013	FY 2014	FY 2015
Warm Line Calls	11,019	6,401	5,993
Spanish Language Calls	325	266	256
Post-Partum Call Backs	7,995	7,209	7,733
Physician Referrals	999	858	628
Warm Line Visits to Maternity Patients	2,889	7,029	7,763

To improve outcomes and self-management for patients with heart disease, we conducted congestive heart failure education and developed partnerships with PCPs and area skilled nursing facilities to reduce hospital readmissions.

Diabetes

Goal 1: Increase the number of people who are aware of the risk factors for diabetes.

Goal 2: Increase diabetes self-management education for people living with diabetes.

Our objectives were to 1) increase the proportion of persons with diabetes whose condition has been diagnosed; 2) increase community awareness of the risk factors for diabetes; and 3) lower readmissions rates for patients with diabetes-related complications.

The CNE Family Van served 1,800 clients to improve access to healthcare for medically underserved residents, including uninsured and under-insured. The van team provided education, screenings, and chronic disease self-management. Each client received applicable screenings for blood pressure, cholesterol, lipid profiles, body fat analysis, diabetes, and pregnancy testing, and follow-up education and referrals based on lab results. Efforts focused on populations that experience health disparities, including the Providence, Pawtucket, Central Falls, and Woonsocket communities.

The CNE Family Van also targeted senior Latino residents in subsidized housing units to provide diabetes education and support groups. The initiative aimed to identify undiagnosed individuals and improve self-management skills.

Care New England participates in community health fairs to promote health education and screenings. During the annual, two-day health fair for Electric Boat employees, all CNE hospitals participate, serving approximately 2,000 residents. Care New England also participates in the City of Warwick Health Fair, the WIH Family Van Health Fair, and others across the community.

Other accomplishments included creating standardized screening/testing across CNE facilities; sharing screening tests (with patients and primary care providers); educating women at-risk for or diagnosed with gestational diabetes; and developing a CIS initiative to measure patient outcomes. A pilot program included screening approximately 2,000 CNE employees for diabetes in 2013 and 2014.

Kent Hospital Implementation Plan for Community Health Improvement

Kent Hospital will employ the following goals, objectives, and strategies in working to meet its goals to improve the health of the communities it serves. Kent Hospital's full Implementation Plan for Community Health Improvement is available on request.

Priority Area: Behavioral Health

CNE Goals:

- Prevent opioid use addiction and opioid addiction in conjunction with other substances.
- Decrease morbidity and mortality from opioid use and opioid use with other substances.

Objectives:

- Increase awareness and knowledge among the public and health care professionals about opioid addiction, signs and symptoms of substance abuse, prevention, and existing addiction and recovery services.
- Increase the number of people who are identified with opioid addiction or are at-risk for opioid addiction and require treatment services.
- Increase the number of people who learn about the CNE Center of Excellence Addiction and Recovery Treatment Model and who seek out and are able to access treatment services.
- Improve staff cultural competence in delivering preventive and treatment services to those with opioid addiction or are at-risk for opioid addiction and in communicating with family members, significant others, friends, and the public about opioid addiction prevention and treatment, and related services and programs.
- Help reduce stigma associated with opioid addiction and other substance use disorders.

Strategies:

- Deliver education and outreach to build awareness in the multiple community audiences about opioid addiction to further prevention, improve care access, and lessen morbidity and mortality rates.

- Address opioid addiction in populations and communities where there is greatest disparity in outcomes and need.
- Align efforts the Governor's Overdose Prevention and Intervention Task Force Action Plan and 2016 Rhode Island opioid and substance use legislation.
- Increase awareness about Care New England's centralized intake for behavioral health.
- Continue to provide a free online screening tool and promote its use, particularly for substance use and opioid use disorder.
- Collaborate with Central Falls-Pawtucket HEZ in delivering Youth Mental Health First Aid training to students.
- Analyze and report on race and ethnicity in CNE emergency rooms of patients who present with overdose and substance use symptoms to identify disparities related to the opioid crisis.
- Assess need for expanding AnchorMORE and adding recovery coaches and develop further capacity as needed.
- Continue narcotics support groups and other self-help support groups, according to budget, and assess need for expansion.

Priority Area: Chronic Disease—Diabetes

Goals:

- Reduce the number of new cases of diabetes.
- Decrease morbidity and mortality from type 2 diabetes and diabetes-related conditions.

Objectives:

- Increase the public's awareness and knowledge of risk factors for prediabetes and diabetes.
- Increase the proportion of pre-diabetic people at risk for diabetes who have been screened and diagnosed.
- Increase the proportion of persons with diabetes whose condition has been diagnosed.
- Reduce disparities in screening, diagnosing, and treatment of diabetes.

- Promote healthy behaviors, including those related to diet and nutrition, to aide in reducing the risk factors for the development of diabetes among at-risk populations in underserved populations residing in CNE hospital service areas.

- Support persons at high risk for diabetes with modifying health behaviors, including healthy eating.

- Improve cultural competence among clinicians and staff in delivering preventive and treatment services to those at risk of acquiring type 2 diabetes or have type 2 diabetes and their families.

Strategies:

- Facilitate prediabetes and diabetes education, outreach, prevention, and screening in the community in CNE service areas through community events, health fairs, and related venues.

- Analyze and report on pre-diabetes and diabetes status of the CNE patient population over time.

- Facilitate increased prediabetes screening of CNE patients by CNE primary care providers.

- Perform outreach and education to CNE primary care providers on U.S. Preventive Services Task Force (USPSTF) Task Force recommendations for screening asymptomatic adults at risk for diabetes.

- Facilitate referral of patients with prediabetes to CDC approved diabetes prevention programs (DPP) that address risk factors such as diet and nutrition.

- Develop type 2 diabetes screening protocols or referral process for screening for at risk behavioral health inpatients and outpatients based on clinical criteria.

- Join the DPP Stakeholder Network.

- Continue Memorial Hospital collaboration with Pawtucket/Central Falls HEZ with regard to diabetes prevention and education, including activities related to health diet and nutrition.

- Assess the feasibility of offering the diabetes prevention program or similar programs to CNE employees.

- Partner with internal and/or external diabetes self-management programs for referral purposes for people with type 2 diabetes. Refer through the Community Health Network, RIDOH's centralized referral system, individuals eligible and

qualified for no-cost diabetes self-management programs and chronic disease self-management programs.

- Collaborate with Progreso Latino in establishing physical activity and other programs, such as healthy eating, designed to prevent diabetes.

- Support diabetes outreach and prevention activities by CNE hospitals, according to budget, such as the Family Van Program, the “Doctor Is In” wellness series, nutrition/weight management education, health fairs, and support groups.

- Evaluate and update diabetes outreach and educational materials, when necessary, to improve readability, comprehension, and cultural relevance.

Priority Area: Maternal Child Health

CNE Goals:

- Increase healthy pregnancies and improve birth outcomes for at-risk mothers and babies.

- Reduce the disparity in prenatal care, preterm births, low birthweight, and infant mortality among at-risk black/African American families.

Objectives:

- Increase the proportion of pregnant women who receive prenatal care during the first trimester of pregnancy and reduce barriers to accessing prenatal care services for at-risk women throughout pregnancy.

- Improve postpartum outcomes for mothers and babies, including infant mortality.

- Increase breastfeeding initiation and duration across all populations and work toward reducing barriers to breastfeeding.

- Improve the overall health of pregnant women.

Strategies:

Access

- Support continuity of health insurance coverage for postpartum women by facilitating referrals to health coverage navigators.

- Expand Family Van outreach services with pregnancy testing and related MCH education, information, and referral. Additionally, evaluate the prospect of adding breastfeeding support/education at Family Van sites.

- As feasible and beneficial, provide transportation to low-income pregnant women to and from prenatal care visits.

WIC Program

- Continue the WIC program at Women & Infants Hospital.
- Assess feasibility of partnership with WIC to develop and operate a Baby Café.
- Support established and new community-based WIC programming.

RIDOH and Community Collaboration

- Continue support for the Rhode Island Task Force on Premature Birth, a diverse coalition of community groups, government agencies, and health care partners working to reduce the rate of premature birth and the morbidity and mortality associated with premature birth in Rhode Island.
- Educate patients, families and communities about the importance of maternal child health, including prenatal and postnatal care.
- Increase referrals to and enrollment and retention in Rhode Island Department of Health evidence-based maternal child health programs, including the Nurse-Family Partnership Program and related evidence-based programs, for eligible women.
- Collaborate with the Department of Health to explore alternative financing opportunities that could support larger scale and saturation of maternal child health programs.

Breastfeeding

- Continue peer support group for new parents and babies, and provide breast feeding education.
- Continue supporting the Warm Line and RN/lactation consultants to new and expectant parents.
- Continue and further develop breastfeeding support groups for postpartum women in the hospital setting and in the community.
- Increase awareness of existing community resources for breastfeeding.

Screening

- Screen for tobacco, alcohol, and substance use and refer for services as appropriate.

Data

- Develop data resources to support goals and objectives.

Kent Hospital will employ its initiatives, services, and programs in working to meet its goals to improve the health of the communities it serves. Kent Hospital's full Implementation Strategy was attached to the Hospital's Form 990 and is available on the Hospital's website.

Board Approval and Adoption

The Care New England Board of Directors reviewed and approved the Kent Hospital report of the Community Health Needs Assessment and adopted the Implementation Plan to address the priority areas on September 22, 2016.

Care New England prides itself in its on-going efforts to assess community need and has always strived to respond with programs and interventions geared toward addressing these needs. Through targeted efforts, Care New England has worked to improve public health and the quality of life for the state and region. From staff involvement in community organizations to the role we play as educators for those aspiring to careers in health, from the sponsorship of community events to the everyday commitment of our health educators who lead a rich array of classes and programs at our institutions, we embrace our roles as advocates, teachers and good neighbors.

Care New England has more than 500 years of combined service to Rhode Island and southeastern Massachusetts, with three of its institutions each offering more than a century of service to this community. Care New England provides a wide range of complementary and coordinated programs and services, with multiple access points throughout the care continuum. Its strength is in the distinctive competencies of each of its member organizations, its affiliated partners, and in the relationships it has with the community.

Appendix A: Our Partners

HARI CHNA Steering Committee:

Liz Almanzor, Finance Director, Hospital Association of Rhode Island
Otis Brown, CharterCARE
Laurel Holmes, Westerly Hospital
Carolyn Kyle, Landmark Medical Center
Gina Rocha, Hospital Association of Rhode Island
Alex Speredelozzi, Care New England
Kellie Sullivan, Care New England
Stephany Valente, Care New England
Cynthia Wyman, South County Hospital

Ex officio: Michael Souza, President, Hospital Association of Rhode Island
Ana Novais, Rhode Island Department of Health

West Warwick Partner Forum Participants:

Clayton Chamberlain, South Pointe Christian Church
Joseph Coffey, Warwick Police
Elise George, Rhode Island Department of Health
Susan Jacobson, Thundermist Health Center/West Warwick HEZ
Chuck Jones, Thundermist Health Center
Tom Joyce, The Providence Center – Anchor
Jamie Lankford, South Pointe Christian Church
David Lauterbach, The Kent Center
Pam Masciarotte, West View Nursing Home
Shayla Minteer, Rhode Island Department of Health/Brown Medical School
Jennifer Olsen Armstrong, Rhode Island Department of Health
Fred Presley, Town of West Warwick
Bianca Silvestri, Kent County YMCA
David Spencer, SUMH Leadership Council
Thea Upham, Farm Fresh Rhode Island

Appendix B: Statistical Health Data References

County Health Rankings & Roadmaps. (2015). *Rhode Island*. Retrieved from http://www.countyhealthrankings.org/

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