

# **2022 Community Health Needs Assessment**

















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### Overview of the 2022 CHNA

Since 2011, the hospital members of the Hospital Association of Rhode Island (HARI) have collaborated every three years on a statewide community health needs assessment (CHNA). The goal of this collaboration is to identify common and unique challenges across Rhode Island to inform community health initiatives and ultimately advance health equity for all residents.

The CHNA findings continue to guide healthcare services and health improvement efforts, as well as serve as a community resource for grant making, advocacy, and to support the many programs provided by health and social service partners.

#### **CHNA Leadership**

The 2022 CHNA was convened by HARI and overseen by steering committee of HARI staff and representatives from each of its member hospitals as listed below. These individuals served as liaisons to their organizations and the communities served by their entities.

#### 2022 CHNA Steering Committee Members

Jean Marie Rocha, Hospital Association of Rhode Island, Vice President, Clinical Affairs
Gail Robbins, Care New England, Senior Vice President of Planning & Finance
Holly Walton, Care New England, Senior Planning Analyst
Otis Brown, CharterCARE, Vice President, Marketing & External Affairs
Lynne Driscoll, South County Health, Assistant Vice President of Community Health
Laurel Holmes, Westerly Hospital, Director of Community Partnerships & Population Health
Carolyn Kyle, Landmark Medical Center, Director of Public Relations, Marketing & Physician Relations
Donna Rubinate, CharterCARE, Chief Operating Officer

#### **Our Research Partner**

HARI and its member hospitals contracted with Community Research Consulting to conduct the CHNA in collaboration with community partners across the state. CRC is a woman-owned business that specializes in conducting stakeholder research to illuminate disparities and underlying inequities and transform data into practical and impactful strategies to advance health and social equity. Our interdisciplinary team of researchers and planners have worked with hundreds of health and human service providers and their partners to reimagine policies and achieve measurable impact. Learn more about our work at <u>buildcommunity.com</u>.

#### **Community Engagement**

Community engagement is a key component to assessing and responding to community health needs. CHNA research included participation by representatives from the Rhode Island Department of Health, the Health Equity Zones (HEZ), health and social service providers, advocacy agencies, and other community partners. These individuals provided wide perspectives on health trends, expertise about existing community resources available to meet those needs, and insights into service delivery gaps that contribute to health disparities.



#### **CHNA Methodology**

The 2022 CHNA was conducted from July 2021 to May 2022 and included quantitative and qualitative research methods to determine health trends and disparities within the hospital service areas compared to health indicators across Rhode Island and the nation. Input was collected from community stakeholders, which was compared to analyses of statistical demographic and health trends. Specific CHNA study methods included:

- An analysis of existing secondary data sources, including public health statistics, demographic and social measures, and health care utilization
- Community conversations and interviews with stakeholders

Women & Infants Hospital is part of the Care New England (CNE) health system. To foster collective health improvement and leverage the shared resources of the health system, CNE conducted a systemwide CHNA and supporting three-year Community Health Improvement Plan.

#### **Community Health Priorities**

It is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within our community. In determining the issues on which to focus efforts over the next three-year cycle, CNE collected feedback from community partners and sought to align with internal population health management strategies. Care New England will focus efforts on the following community health priorities over the next three-year cycle:

- Behavioral Health
- Chronic Disease
- Maternal and Child Health

#### **Board Approval**

The CHNA was conducted in a timeline to comply with IRS Tax Code 501(r) requirements to conduct a CHNA every three years as set forth by the Affordable Care Act (ACA).

The CHNA Final Report and corresponding Community Health Improvement Plan were reviewed and approved by the CNE Board of Directors in August 2022. The report and plan are available for review and comment at <u>carenewengland.org</u>. The findings will be used to guide the health system's community benefit initiatives and engage local partners to collectively address identified health needs.



## Service Area Description

For purposes of the CHNA, the Hospital Association of Rhode Island (HARI) and its member hospitals analyzed health and social trends for all of Rhode Island. Quantitative and qualitative data indicators for each of the state's five counties are included throughout the report. The member hospitals further defined their primary service area based on the zip codes of residence for the majority of patients seen at their facilities.

As one of the nation's leading specialty hospitals for women and newborns, Women & Infants Hospital serves residents across Rhode Island. The hospital identified its primary service area (PSA) as 64 zip codes spanning all of Providence County and portions of Bristol, Kent, and Washington counties. Throughout the data report, findings for all Rhode Island counties are highlighted in comparison to the state overall and the nation. Based on Women & Infants' location within the City of Providence and a PSA that encompasses all of Providence County, special focus was placed on assessing health and social risk factors within the four core cities compared to the remainder of Rhode Island.

#### **Women & Infants Hospital Primary Service Area** Mansfield Woonsocket 395 eborough Attleboro (146) (44) Putnam **Providence** (44) County Johnston Prov ence 6 Killingly Cranston 195 Some Bristol (79 County Sterling West Warwick Warwick Fall Rive (14A) Coventry nfield Bristol **Kent County** 403 Portsmouth old Voluntown Newport Washington County County Richmond (138) (1A) Narragansett North Charlestown (1) (1)

Women & Infants Hospital 2022 CHNA

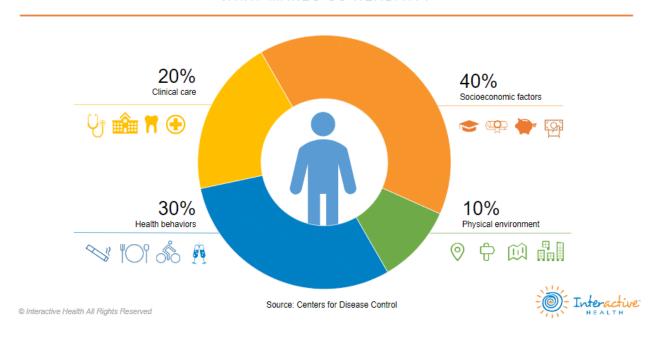


# Social Determinants of Health: The connection between our communities and our health

Social determinants of health (SDoH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health risks and outcomes. Healthy People 2030, the CDC's national benchmark for health, recognizes SDoH as central to its framework, naming "social and physical environments that promote good health for all" as one of the four overarching goals for the decade. Healthy People 2030 outlines five key areas of SDoH: economic stability, education access and quality, healthcare access and quality, neighborhood and built environment, and social and community context.

The mix of ingredients that influence each person's overall health profile include individual behaviors, clinical care, environmental factors, and social circumstance. While health improvement efforts have historically targeted health behaviors and clinical care, as this graph shows, **50% of every person's health profile is determined by a combination of socioeconomic factors and physical environment.** Therefore, the portions of our communities that have positive socioeconomic factors and a health-promoting physical environment tend to be healthier than those who have negative socioeconomic factors and a poor physical environment. This difference results in disparity.

#### WHAT MAKES US HEALTHY?





#### **Understanding Health Equity**

As a whole, the state of Rhode Island compares favorably to national averages for socioeconomic and health indicators. However, not all people in our community experience these positive health outcomes. A closer look at health and socioeconomic indicators by geography and population illuminates wide disparities among racial and ethnic populations and those with lower incomes. The data illustrate the critical importance of **social determinants of health** as root causes of health disparities.

The impact of SDoH is evident among distinct communities, as shown in the table below. In the Women & Infants Hospital PSA, issues of health and social inequities are most evident in the core city zip codes of 02907 and 02909 in Providence and 02863 in Central Falls. Within these zip codes, residents experience significant disparate socioeconomic and health outcomes that disproportionately affect people of color.

Health and Social Inequities in the Women & Infants Hospital PSA

| Health and Social mequities in the Women & infants hospital FSA |                        |                     |                     |                      |                 |  |  |  |
|---|------------------------|---------------------|---------------------|----------------------|-----------------|--|--|--|
|   | Central<br>Falls 02863 | Providence<br>02907 | Providence<br>02909 | Providence<br>County | Rhode<br>Island |  |  |  |
| Demographic & Socioeconomic Indicators (2015-2019)              |                        |                     |                     |                      |                 |  |  |  |
| Non-White population  | 51.5%                  | 63.1%               | 52.4%               | 27.1%                | 19.5%           |  |  |  |
| People in poverty   | 30.2%                  | 28.3%               | 29.9%               | 15.2%                | 12.4%           |  |  |  |
| No high school diploma  | 35.1%                  | 28.4%               | 24.3%               | 14.2%                | 11.2%           |  |  |  |
| Uninsured   | 17.1%                  | 10.6%               | 10.2%               | 5.4%                 | 4.5%            |  |  |  |
| Housing stock built pre-1980                                    | 86.8%                  | 78.7%               | 86.3%               | 78.5%                | 73.5%           |  |  |  |
| Health Indicators   |                        |                     |                     |                      |                 |  |  |  |
| Adults with recent dental care (2018)                           | 48.4%                  | 53.6%               | 54.6%               | 67.0%                | 71.8%           |  |  |  |
| Adult obesity (2018)  | 37.0%                  | 35.4%               | 33.8%               | 29.6%                | 27.5%           |  |  |  |
| Youth overweight/obesity* (2019)                                | 50.0%                  | 33.0%               | 33.0%               | NA                   | 31.0%           |  |  |  |
| Adult diabetes (2018)   | 14.7%                  | 14.6%               | 12.2%               | 10.7%                | 9.6%            |  |  |  |
| Children with lead poisoning* (2020)                            | 7.2%                   | 6.7%                | 6.7%                | NA                   | 3.8%            |  |  |  |
| COVID-19 fully vaccinated*<br>(May 4, 2022)                     | 72.5%                  | 69.2%               | 69.2%               | NA                   | 82.4%           |  |  |  |
| Overdose death rate* (2014-2020)                                | 35.3                   | 39.79               | 39.79               | NA                   | NA              |  |  |  |

<sup>\*</sup>Data are reported by city/town and may not align with zip code boundaries.

#### **COVID-19 Demonstrated Inequities**

The COVID-19 pandemic both highlighted and deepened socioeconomic and health inequities. Across Rhode Island, COVID-19 case rates were highest among Black/African American and Latinx residents. The COVID-19 death rate was nearly two times higher for Latinx than Whites, and nearly 50% higher for Black/African Americans. In addition to health impact, economic indicators, including unemployment and food insecurity, skyrocketed as a result of the pandemic. Average unemployment was 9.4% in Rhode Island and 10.2% in Providence County in 2020 compared to a national average of 8.1%. The percentage of food insecure residents statewide increased from 9.5% in 2019 to 13.1% in 2020. While 2021 data indicate Rhode Island communities are recovering economically from the pandemic, the long-term financial and psychological implications for residents should continue to be monitored.



## Priority Health Needs

It is imperative to prioritize resources and activities toward the most pressing and cross-cutting health needs within our community. In determining the issues on which to focus efforts over the next three-year cycle, CNE collected feedback from community partners and sought to align with internal population health management strategies. Care New England will focus efforts on the following community health priorities over the next three-year cycle:

- Behavioral Health
- Chronic Disease
- Maternal and Child Health

#### **Behavioral Health**

Rhode Island overall has better access to mental health providers compared to the national average. As of 2020, the rate of mental health providers across the state exceeded the national rate by more than 160 points. Providence County has the highest rate of providers in the state, although low-income residents continue to be underserved.

In 2019, the Rhode Island Executive Office of Health and Human Services conducted a review of the behavioral health system to determine gaps in services and access in the state. The review found that the state has several capacity challenges to address including both gaps in key service lines and a shortage of linguistically and culturally competent providers, that together disproportionately negatively impact communities of color. Service gaps, indicating the service does not exist in the state, include mobile mental health crisis treatment and mobile MAT for adults, and community step down, transition age youth services, and residential treatment for eating disorders for children. Moderate and significant service shortages exist across the care continuum for adults and children.

The growth of existing mental health providers in Rhode Island reflects an increase in demand for services. Consistent with the nation, more than 1 in 10 adults across Rhode Island report frequent mental distress. Kent and Providence counties report the highest proportion of adults with frequent mental distress in the state. Rhode Island youth also have greater demand for mental health services. Statewide, from 2016 to 2020, the number of youths awaiting psychiatric inpatient admission increased from 212 to 795. The number of ED visits and hospitalizations due to suicide attempts also increased. As of 2019, 14.7% of Rhode Island high school students reported an attempted suicide compared to 8.9% nationally.

Rhode Island has a higher prevalence of substance use disorder, including alcohol and opioid use disorder, than the nation. Consistent with the state, approximately 1 in 5 adults in Kent and Providence counties report heavy or binge drinking. From 2017 to 2019, the accidental drug overdose death rate for Rhode Island was nearly 10 points higher than the national death rate, with the highest reported death rates in Kent and Providence counties. Since the COVID-19 pandemic, there has been an increase in accidental drug overdose deaths statewide, from 308 in 2019 to 384 in 2020.



Among youth, the use of e-cigarettes continues to be of concern. In 2019, 30% of Rhode Island high school students reported currently using e-cigarettes, a 10-point increase from 2017, and a similar proportion as the nation overall (32.7%).

#### **Chronic Disease**

All Rhode Island counties meet the HP2030 goal of 92.1% for insured residents, and adults are generally more likely to access preventative care services than the national average. These findings contribute to fewer health risk factors and better health status overall among Rhode Island residents, although health outcomes vary widely across the five counties and correlate with existing differences in socioeconomic factors.

Residents of Kent and Providence counties have increased risk factors for chronic disease, including lack of physical activity and tobacco use, and higher prevalence and/or death rates due to chronic disease, including obesity, diabetes, heart disease, cancer, and respiratory disease. Chronic disease prevalence and death rates are generally in line with national averages, with few exceptions.

Kent County residents experience notable cancer disparities in comparison to other Rhode Island residents. The county has the highest cancer incidence and death rates in the state and exceeds national rates. Analysis of common cancer types suggests that lung cancer is a top contributor to cancer morbidity and mortality in Kent County and is likely a result of both higher smoking rates among adults and potential exposure to radon. Prostate cancer death is also elevated in Kent County compared to other counties and should be further explored.

Rhode Island is an aging community, with a growing proportion of older adults that exceeds national averages. In both Kent and Providence counties, approximately three-quarters of older adult Medicare beneficiaries manage two or more chronic conditions. Consistent with the state, the percentage of older adults living alone is increasing, likely increasing social isolation and impeding effective chronic illness management. Financial strains also impact the health of Kent and Providence county older adults and their ability to effectively manage chronic health conditions. Approximately 9% of Kent County older adults and 12% of Providence County older adults live in poverty, the highest proportions in the state.

#### **Maternal and Child Health**

Consistent with overall population demographics, the majority (68.4%) of births in Rhode Island in 2020 occurred to people residing in Providence County. Kent County had the second highest proportion of births at 14%. Approximately 65% of newborns in 2020 screened positive for one or more risk factors associated with poor developmental outcomes. Infants born in the core cities experience more risk factors, with nearly 75% born to low-income families, 60% born to single mothers, and 22% born to mothers without a high school diploma.

Rhode Island overall reports better birth outcomes than the nation, but these outcomes are not consistent across counties or racial and ethnic groups. Consistent with having higher reported risk factors, Providence County and the core cities experience more negative birth outcomes compared to other areas of the state. Notably, 79.5% of pregnant people in the core cities receive first trimester prenatal care and 77% report breastfeeding compared to 87% and 77% respectively in other areas of the state. Across Rhode Island, in both core cities and the remainder of the state, the percentage of



pregnant people receiving first trimester prenatal care and/or breastfeeding declined in recent years; breastfeeding declined nearly 10 percentage points in the core cities from 2012-2016 to 2015-2019.

Across Rhode Island, Black/African Americans experience notable birth disparities related to prenatal care and premature and low birth weight births. These disparities have contributed to higher infant and maternal mortality rates among Black/African Americans. From 2015-2019, the infant mortality rate for Black/African Americans statewide was nearly three times higher than for Whites. Nationally, Black/African Americans have a maternal death rate that is 2.5 times higher than for Whites.

A full summary of statistical data findings for the Women & Infants Hospital primary service area follows.

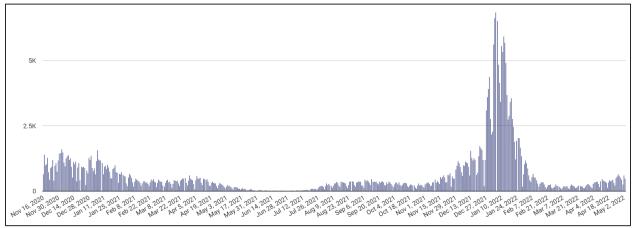


### COVID-19 Impact on Rhode Island Communities

COVID-19 is the name of the disease caused by the SARS-CoV-2 virus. "CO" stands for corona, "VI" for virus, and "D" for disease. The number "19" refers to the year 2019 when the first case of COVID-19 was identified. Some refer to COVID-19 as simply "COVID." COVID infection and presence in a community is typically measured by case incidence, which looks at the number of daily new cases per 100,000.

When calculating case incidence, an important part of understanding how COVID is affecting certain communities is to analyze the demographics of the community. The COVID pandemic has highlighted health disparities along racial, ethnic, and economic lines in the United States. As reported by the CDC, "COVID-19 data shows that Black/African American, Hispanic/Latino, American Indian and Alaska Native persons in the United States experience higher rates of COVID-19-related hospitalization and death compared with non-Hispanic White populations. These disparities persist even when accounting for other demographic and socioeconomic factors."

Rhode Island was hit early by the COVID-19 pandemic but was able to quickly recover due to social distancing mandates, intensive testing, and contract tracing efforts. In summer 2020, Rhode Island was leading the nation for testing. Despite its early success, Rhode Island was not spared from the wave of new COVID cases in fall 2020. The Delta variant of COVID initiated a new wave of COVID cases in summer 2021 despite readily accessible vaccines. The Omicron variants added to the community spread, and while more easily spread, have caused less fatalities and severe cases than previous variants.



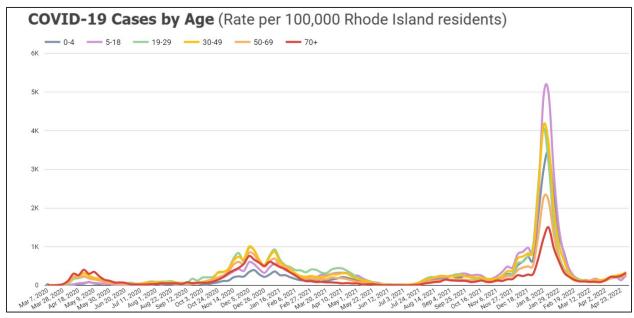
Source: Rhode Island Department of Health

COVID has affected all age groups. While older adults were among the earliest and hardest hit by COVID, more recent data shows that youth and young adults are leading new cases. Youth and younger adults have been less likely to be fully vaccinated for COVID than older adults.

The US Food and Drug Administration authorized the Pfizer-BioNTech COVID Vaccine for children aged 5-11 on October 29, 2021. As of May 4, 2022, 38% of youth aged 5-9, 60% of youth aged 10-14, and 70% of youth aged 15-18 were fully vaccinated.



COVID will be a leading cause of death for Rhode Islanders in 2020. As of May 4, 2022, more than 3,500 Rhode Islanders had died from COVID. Older adults aged 70 or older accounted for 77% of deaths.



Source: Rhode Island Department of Health

Statewide COVID-19 Cases and Deaths by Age Group

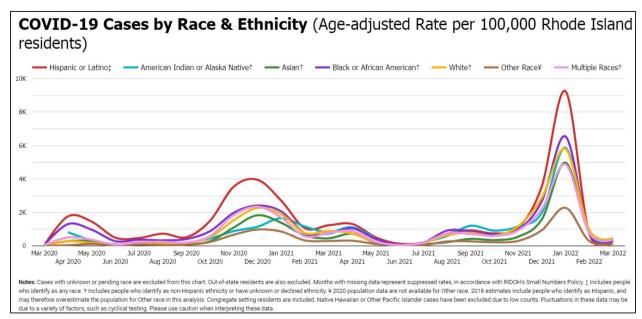
|           |        | ses<br>354,294   | Deaths<br>Total = 3,540 |                  |  |
|-----------|--------|------------------|-------------------------|------------------|--|
| Age Group | Count  | Percent of Total | Count                   | Percent of Total |  |
| 0-4       | 15,050 | 4%               | <5                      |                  |  |
| 5-9       | 21,218 | 6%               | 0                       | 0%               |  |
| 10-14     | 22,772 | 6%               | <5                      |                  |  |
| 15-18     | 20,855 | 6%               | 0                       | 0%               |  |
| 19-24     | 37,591 | 11%              | <5                      |                  |  |
| 25-29     | 30,609 | 9%               | 8                       | <1%              |  |
| 30-39     | 57,584 | 16%              | 28                      | 1%               |  |
| 40-49     | 45,808 | 13%              | 70                      | 2%               |  |
| 50-59     | 44,718 | 13%              | 220                     | 6%               |  |
| 60-69     | 30,931 | 9%               | 487                     | 14%              |  |
| 70-79     | 15,260 | 4%               | 819                     | 23%              |  |
| 80+       | 11,843 | 3%               | 1,902                   | 54%              |  |

Source: Rhode Island Department of Health, May 4, 2022

Consistent with national trends, COVID-19 cases and death rates were disproportionately higher among Black/African American and Latinx Rhode Islanders. The COVID-19 death rate was nearly two times higher for Latinx than Whites, and nearly 50% higher for Black/African Americans. Across Rhode Island, Black/African American residents were the least likely of any racial or ethnic group to be fully



vaccinated, estimated at 65% of the population. This trend is consistent across the nation and is reflective of systemic inequities in access to care, as well as mistrust in healthcare systems.



Source: Rhode Island Department of Health

Statewide COVID-19 Cases and Deaths by Race and Ethnicity

|  |         | ses<br>354,294                      | Deaths<br>Total = 3,540 |                                  |  |
|--|---------|-------------------------------------|-------------------------|----------------------------------|--|
| Race or Ethnicity                            | Count   | Count Age-Adjusted Rate per 100,000 |                         | Age-Adjusted<br>Rate per 100,000 |  |
| White  | 166,738 | 23,261                              | 2,490                   | 188                              |  |
| Latinx origin (any race)                     | 70,581  | 38,978                              | 297                     | 301                              |  |
| Black or African American                    | 18,927  | 27,981                              | 154                     | 269                              |  |
| Asian  | 6,658   | 16,936                              | 63                      | 227                              |  |
| Multiple race                                | 5,301   | 22,075                              | <5                      |                                  |  |
| Other race                                   | 5,110   | 8,911                               | 9                       | 28                               |  |
| American Indian or Alaska<br>Native          | 1,012   | 22,439                              | 6                       | 116                              |  |
| Native Hawaiian or Other<br>Pacific Islander | 225     | NA                                  | 0                       | 0                                |  |

Source: Rhode Island Department of Health, May 4, 2022



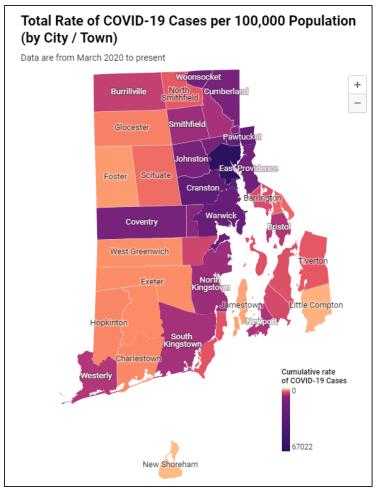
## Statewide COVID-19 Vaccination by Age and Race and Ethnicity

|   | Fully Vaccinated |
|---|------------------|
| Age Group                                 |                  |
| 5-9                                       | 38%              |
| 10-14                                     | 60%              |
| 15-18                                     | 70%              |
| 19-24                                     | 62%              |
| 25-29                                     | 63%              |
| 30-39                                     | 74%              |
| 40-49                                     | 76%              |
| 50-59                                     | 81%              |
| 60-69                                     | 94%              |
| 70-79                                     | 100%             |
| 80+                                       | 83%              |
| Race and Ethnicity                        |                  |
| Native Hawaiian or Other Pacific Islander | 100%             |
| American Indian or Alaska Native          | 80%              |
| Asian                                     | 77%              |
| Latinx origin (any race)                  | 70%              |
| White                                     | 67%              |
| Black or African American                 | 65%              |

Source: Rhode Island Department of Health, May 4, 2022

Providence County communities, particularly the core cities, have been among the most impacted by COVID-19. Central Falls had the highest rate of COVID-19 cases of any city or town in the state. As of May 4, 2022, approximately 72.5% of Central Falls residents had been fully vaccinated compared to the statewide average of 82%. Of note, while Central Falls had the highest COVID case rate in the state, it had one of the lowest death rates. This finding should be explored to better understand protective factors among Central Falls residents.





Source: Rhode Island Department of Health, May 4, 2022

**COVID-19 Cases, Deaths, and Vaccination within the Core Cities** 

|               | Total Cases | Case Rate per<br>100,000 | ' Lotal Deaths |     | Population<br>Fully<br>Vaccinated |
|---------------|-------------|--------------------------|----------------|-----|-----------------------------------|
| Central Falls | 9,492       | 48,973                   | 35             | 181 | 72.5%                             |
| Pawtucket     | 27,071      | 37,726                   | 182            | 254 | 66.4%                             |
| Providence    | 67,022      | 37,352                   | 678            | 378 | 69.2%                             |
| Woonsocket    | 14,230      | 34,257                   | 266            | 640 | 59.1%                             |

Source: Rhode Island Department of Health, May 4, 2022



## Service Area Population Trends

#### **Demographics**

Since 2010, Rhode Island saw a smaller increase in population (+4.3%) than the US overall (+7.4%). Population growth occurred in all Rhode Island counties, with the largest growth in Providence County.

Based on 2015-2019 population estimates, the Women & Infants Hospital PSA saw moderate population growth of +0.6% from 2010. Across the PSA, 27 out of 50 zip codes with reportable data experienced population growth. Providence zip codes 02905, the location of Women & Infants Hospital, saw population growth of 3.8%.

**2020 Total Population** 

|                   | Total Population | Percent Change Since 2010 |
|-------------------|------------------|---------------------------|
| Bristol County    | 50,793           | +1.8% 👚                   |
| Kent County       | 170,363          | +2.5% 👚                   |
| Newport County    | 85,643           | +3.3% 👚                   |
| Providence County | 660,741          | +5.4% 👚                   |
| Washington County | 129,839          | +2.3% 👚                   |
| Rhode Island      | 1,097,379        | +4.3%                     |
| United States     | 331,449,281      | +7.4%                     |

Source: US Census Bureau, Decennial Census

2015-2019 Total Population within Women & Infants Hospital's PSA, and Top Zip Codes with Highest Population Growth or Decline

| Zip Code (County)                    | Total Population | Percent Change Since 2010 |
|--------------------------------------|------------------|---------------------------|
| Total PSA                            | 870,239          | +0.6% 👚                   |
| 02858, Burrillville (Providence)     | 774              | +35.8% 👚                  |
| 02815, Scituate (Providence)         | 367              | +32.0% 👚                  |
| 02907, Providence (Providence)       | 31,294           | +14.0% 👚                  |
| 02916, East Providence (Providence)  | 9,238            | +13.5% 👚                  |
| 02839, Burrillville (Providence)     | 2,098            | +10.3% 👚                  |
| 02825, Foster (Providence)           | 5,768            | +7.3% 👚                   |
| 02888, Warwick (Kent)                | 18,687           | -6.2% 🖊                   |
| 02909, Providence (Providence)       | 40,809           | -6.3% 🖊                   |
| 02831, Scituate (Providence)         | 3,277            | -6.8% 🖊                   |
| 02802, Lincoln (Providence)          | 723              | -8.0% 🖊                   |
| 02876, North Smithfield (Providence) | 353              | -17.9% 🖶                  |
| 02826, Burrillville (Providence)     | 418              | -47.2% 🖶                  |



Health needs change as individuals age. Therefore, the age distribution of a community impacts its social and healthcare needs. The age distribution of Rhode Island is older than the nation in all counties except Providence. The median age of Providence County is approximately 37 years compared to 44-45 years in other counties. In all counties except Providence, 1 in 5 residents are age 65 or older, a higher proportion than both the state overall and the nation.

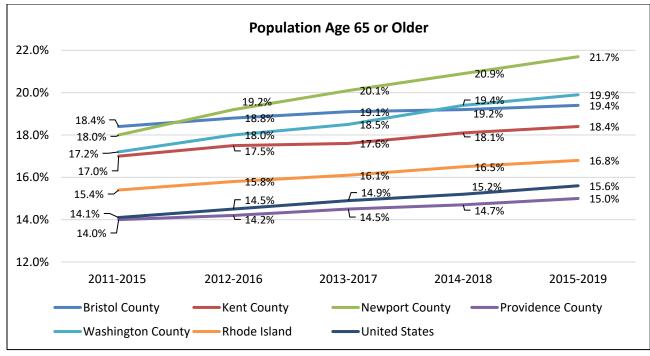
The proportion of older adult residents increased across the state, with the largest increase in Newport County, followed by Washington County. Among older adults age 65 or older, the 65-74 age category saw the greatest increase in recent years, largely due to the aging of the baby boomer generation. This finding supports that the need for older adult health and support services is likely to continue in the coming years.

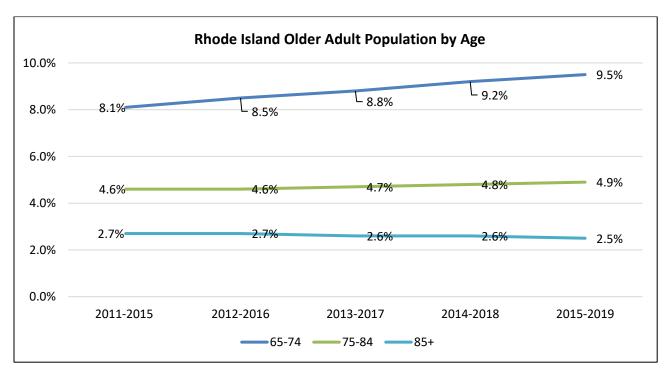
The Women & Infants Hospital PSA encompasses all of Providence County and is generally younger than the rest of the state. Out of the 50 PSA zip codes with reportable data, 21 zip codes, including all Providence City zip codes 02903-02909, have a lower median age than the state. Older adult populations are concentrated in non-core city zip codes, with the highest proportions in North Smithfield 02896 (23.6%), Smithfield 02828 (23.3%), and Burrillville 02826 (23.0%).

2015-2019 Population by Age

|                   | Gen Z/<br>Gen C | Gen Z | Millennial | Millennial/<br>Gen X | Gen X | Boomers | Boomers/<br>Silent | Median |
|-------------------|-----------------|-------|------------|----------------------|-------|---------|--------------------|--------|
|                   | Under 18        | 18-24 | 25-34      | 35-44                | 45-54 | 55-64   | 65 years           | Age    |
|                   | years           | years | years      | years                | years | years   | and over           |        |
| Bristol County    | 19.1%           | 10.9% | 10.3%      | 10.4%                | 14.4% | 15.6%   | 19.4%              | 44.3   |
| Kent County       | 19.0%           | 7.2%  | 13.1%      | 12.1%                | 14.7% | 15.6%   | 18.4%              | 43.9   |
| Newport County    | 17.1%           | 9.4%  | 12.6%      | 10.7%                | 13.6% | 14.9%   | 21.7%              | 45.2   |
| Providence County | 20.7%           | 10.9% | 15.2%      | 12.2%                | 13.1% | 12.9%   | 15.0%              | 37.4   |
| Washington County | 16.8%           | 14.6% | 9.3%       | 9.6%                 | 13.6% | 16.1%   | 19.9%              | 44.6   |
| Rhode Island      | 19.6%           | 10.7% | 13.7%      | 11.7%                | 13.5% | 13.9%   | 16.8%              | 39.9   |
| United States     | 22.6%           | 9.4%  | 13.9%      | 12.6%                | 13.0% | 12.9%   | 15.6%              | 38.1   |









2015-2019 Age Characteristics within Women & Infants Hospital's PSA: Top Zip Codes with Highest Proportion of Youth or Older Adults

| Zip Code (County)                        | Youth (under 18) Population | Older Adult (65+) Population |
|--|-----------------------------|------------------------------|
| Zip Codes with Highest Proportion of You | th Residents                |                              |
| 02907, Providence (Providence)           | 28.4%                       | 9.2%                         |
| 02863, Central Falls (Providence)        | 27.9%                       | 7.2%                         |
| 02802, Lincoln (Providence)              | 27.4%                       | 1.9%                         |
| 02806, Barrington (Bristol)              | 26.8%                       | 16.6%                        |
| 02909, Providence (Providence)           | 26.7%                       | 8.9%                         |
| 02876, North Smithfield (Providence)     | 25.8%                       | 0.0%                         |
| 02838, Lincoln (Providence)              | 25.1%                       | 15.9%                        |
| Zip Codes with Highest Proportion of Old | er Adult Residents          |                              |
| 02896, North Smithfield (Providence)     | 19.1%                       | 23.6%                        |
| 02828, Smithfield (Providence)           | 17.4%                       | 23.3%                        |
| 02826, Burrillville (Providence)         | 13.6%                       | 23.0%                        |
| 02818, East Greenwich (Kent)             | 22.0%                       | 21.1%                        |
| 02885, Warren (Bristol)                  | 16.3%                       | 21.1%                        |
| 02857, Scituate (Providence)             | 16.4%                       | 20.9%                        |
| 02886, Warwick (Kent)                    | 18.7%                       | 20.8%                        |

Outside of Providence County, Rhode Island is less racially and ethnically diverse than the nation overall. In all counties except Providence, Whites comprise 90% or more of the population, a higher proportion than the nation (72.5%). Within Providence County, proportionately more residents identify as Black/African American, multi-racial, and/or Latinx compared to both Rhode Island and the nation.

Racial and ethnic diversity is increasing statewide, particularly for multi-racial and Latinx groups. **From 2011-2015 to 2015-2019**, **the proportion of the population identifying as multi-racial increased 18.3% and the proportion identifying as Latinx increased 13.5%.** The largest increase in multi-racial residents was seen in Providence County (+26%), followed by Bristol and Washington counties (+16%). The largest increase in Latinx residents was seen in Bristol County (+28%), followed by Kent County (+25%).

2015-2019 Population by Prominent Racial and Ethnic Groups

|                   | White | Black or<br>African<br>American | Asian | Some Other<br>Race* | Two or<br>More Races | Latinx<br>origin<br>(any race) |
|-------------------|-------|---------------------------------|-------|---------------------|----------------------|--------------------------------|
| Bristol County    | 94.2% | 1.3%                            | 2.1%  | 0.6%                | 1.8%                 | 3.0%                           |
| Kent County       | 91.3% | 1.9%                            | 2.7%  | 1.4%                | 2.3%                 | 5.0%                           |
| Newport County    | 89.0% | 4.0%                            | 2.0%  | 1.0%                | 2.5%                 | 5.7%                           |
| Providence County | 72.9% | 9.9%                            | 4.2%  | 8.3%                | 4.1%                 | 22.8%                          |
| Washington County | 92.9% | 1.4%                            | 1.9%  | 1.1%                | 2.0%                 | 3.2%                           |
| Rhode Island      | 80.5% | 6.8%                            | 3.4%  | 5.5%                | 3.3%                 | 15.4%                          |
| United States     | 72.5% | 12.7%                           | 5.5%  | 4.9%                | 3.3%                 | 18.0%                          |

<sup>\*&</sup>quot;Some other race" has historically captured ethno-racially mixed individuals, as well as Latinx individuals who do not consider ethnicity as separate or distinct from race.

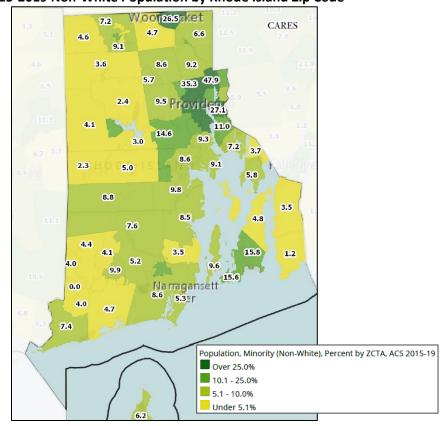


Population Change by Race and Ethnicity, 2011-2015 to 2015-2019

|                   | White   | Black or<br>African<br>American | Asian   | Some Other<br>Race | Two or<br>More Races | Latinx<br>origin<br>(any race) |
|-------------------|---------|---------------------------------|---------|--------------------|----------------------|--------------------------------|
| Bristol County    | -2.0%   | +4.5%                           | +24.8%  | +135.2%            | +16.0%               | +27.7%                         |
| Kent County       | -2.0%   | +36.8%                          | +12.7%  | -3.0%              | +9.6%                | +24.6%                         |
| Newport County    | +0.5%   | +14.2%                          | +12.4%  | -33.9%             | -27.4%               | +10.7%                         |
| Providence County | +0.1%   | +3.5%                           | +2.7%   | -5.8%              | +26.3%               | +13.0%                         |
| Washington County | -0.9%   | -6.4%                           | +7.4%   | +33.2%             | +15.9%               | +12.3%                         |
| Rhode Island      | -0.5% 🖊 | +4.9% 👚                         | +5.1% 👚 | -5.4% 🖊            | +18.3% 👚             | +13.5% 👚                       |
| United States     | +1.0%   | +3.3%                           | +10.4%  | +20.1%             | +13.9%               | +7.8%                          |

Racial and ethnic diversity in Rhode Island is concentrated in the core cities. For example, in Providence, 63.1% of residents in zip code 02909 and 52.4% of residents in zip code 02907 identify as non-White. Approximately 60% or residents in these two zip codes identify as Latinx and 15%-21% identify as Black/African American. Within Central Falls and Pawtucket, a similar percentage (48%-52%) of residents identify as non-White. In Central Falls, 66.4% of residents identify as Latinx. In Pawtucket, a similar percentage of residents identify as Latinx (30.6%) and/or Black/African American (23.1%). Woonsocket is less diverse than other core cities, but more diverse than the state overall with approximately 19% of residents identifying as Latinx and 10% identifying as Black/African American.

2015-2019 Non-White Population by Rhode Island Zip Code





#### Many Roads Lead to Home

Rhode Island is home to proportionately more immigrants than the nation overall. While most residents were born in the US, a higher proportion were born in Puerto Rico or US Island Areas or are naturalized citizens. These findings are largely isolated to Providence County, where 1 in 10 residents is a naturalized citizen and approximately 8% are not a US citizen.

Within Providence County, nearly 1 in 4 residents identify as Latinx. Approximately half of foreign-born residents migrate from Latin American countries. In all other Rhode Island counties, the dominant regions of origin for foreign-born residents are Europe and Asia.

Nearly one-third of Providence County residents speak a primary language other than English. Providence County zip codes previously identified as benefiting from greater racial and ethnic diversity are more at-risk for being linguistically isolated. Approximately 1 in 4 households in Providence zip codes 02907 and 02909 and Central Falls zip code 02863 are considered linguistically isolated, defined as persons who cannot speak English at least 'very well' or who do not live in a household where an adult speaks English 'very well'. In other core city zip codes, approximately 1 in 10 households are considered linguistically isolated.

2015-2019 Nativity and Citizenship Status

|                   | US citizen,<br>born in the US | US citizen,<br>born in Puerto<br>Rico or US<br>Island Areas | US citizen,<br>born abroad<br>of American<br>parent(s) | US citizen by naturalization | Not a<br>US citizen | Speak Primary<br>Language<br>Other Than<br>English |
|-------------------|-------------------------------|---|--|------------------------------|---------------------|--|
| Bristol County    | 90.1%                         | 0.0%  | 0.6%   | 6.9%                         | 2.4%                | 11.6%  |
| Kent County       | 92.9%                         | 0.3%  | 0.6%   | 4.0%                         | 2.2%                | 9.1%   |
| Newport County    | 90.6%                         | 0.6%  | 1.6%   | 3.9%                         | 3.3%                | 9.5%   |
| Providence County | 78.5%                         | 2.1%  | 1.0%   | 10.1%                        | 8.4%                | 31.7%  |
| Washington County | 94.0%                         | 0.2%  | 1.1%   | 3.1%                         | 1.7%                | 6.2%   |
| Rhode Island      | 84.0%                         | 1.4%  | 1.0%   | 7.7%                         | 5.9%                | 22.4%  |
| United States     | 84.9%                         | 0.6%  | 1.0%   | 6.7%                         | 6.8%                | 21.6%  |

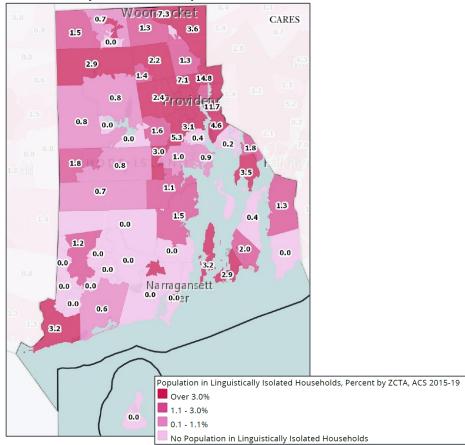
Source: US Census Bureau, American Community Survey

2015-2019 Foreign-Born Population by Region of Birth

|                   | Latin America | Europe | Asia  | Africa | Other |
|-------------------|---------------|--------|-------|--------|-------|
| Bristol County    | 8.0%          | 67.1%  | 20.0% | 1.1%   | 3.8%  |
| Kent County       | 21.9%         | 33.8%  | 32.8% | 7.6%   | 4.0%  |
| Newport County    | 27.6%         | 43.1%  | 19.9% | 4.3%   | 5.1%  |
| Providence County | 50.1%         | 16.6%  | 17.5% | 14.3%  | 1.5%  |
| Washington County | 18.3%         | 37.5%  | 34.6% | 4.8%   | 4.7%  |
| Rhode Island      | 44.5%         | 21.4%  | 19.4% | 12.6%  | 2.0%  |
| United States     | 50.6%         | 10.8%  | 31.0% | 5.1%   | 2.5%  |



2015-2019 Population in Linguistically Isolated Households by Rhode Island Zip Code



#### Income and Work

Rhode Island overall has a higher median household income and lower poverty than the nation, but these factors vary widely by community, with notable disparities. The state's high median household income is due in part to excess wealth in Bristol and Washington counties, where the median household income exceeds \$83,000 compared to a national median of approximately \$63,000. In contrast, the median household income in Providence County is less than \$60,000, and approximately 15% of all residents and 22% of children live in poverty.

Excluding Providence County, Rhode Island children are less likely to live in poverty compared to their peers nationally. However, it is worth noting that approximately 1 in 10 children in Kent, Newport, and Washington counties live in poverty. In Washington County, 9.2% of children live in poverty, the third highest in the state, despite 56% of households earning \$75,000 or more annually. This finding indicates a potential wealth gap, largely impacting families.

Consistent with the nation, poverty declined in Rhode Island and its five counties for both the overall population and youth. However, wide disparities in wealth continue to exist. In Providence zip codes 02903, 02907, and 02909 and Central Falls zip code 02863, approximately 30% of the total population



lives in poverty, double the county-wide percentage. Pawtucket zip code 02860 and Woonsocket zip code 02895 also have elevated poverty at approximately 1 in 5 individuals. Areas of higher poverty are consistent with communities with greater racial and ethnic diversity. While poverty largely declined among racial and ethnic minorities from the 2019 CHNA, it continues to be higher in comparison to Whites. In Providence County, approximately twice as many Black/African American and Latinx residents live in poverty as White residents.

Of note, the Asian population increased 5.1% across Rhode Island over the past five years, and it was the only reported demographic to see higher poverty rates from the 2019 CHNA. Approximately 16% of Asians living in Rhode Island live in poverty compared to 13% reported at the time of the 2019 CHNA.

The COVID-19 pandemic had a significant impact on unemployment rates in Rhode Island, particularly in Providence County. The 2020 average unemployment rate for Rhode Island and Providence County was 9.4% and 10.2% respectively, compared to a national average of 8.1%. The state has since largely recovered, but long-term financial and psychological implications for residents should continue to be monitored.

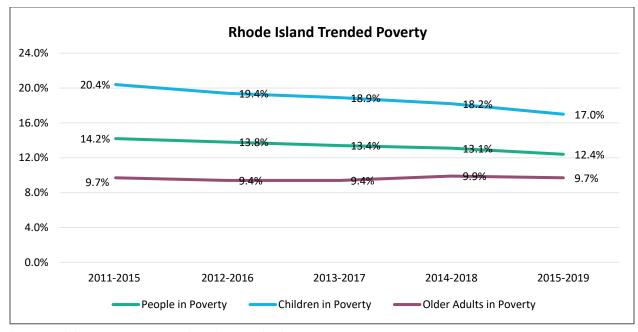
#### **Economic Indicators**

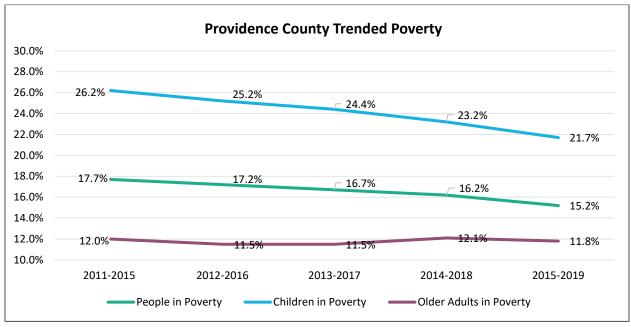
|                                | Bristol      | Kent     | Newport  | Providence | Washington | Rhode    | United   |  |  |  |
|--------------------------------|--------------|----------|----------|------------|------------|----------|----------|--|--|--|
|                                | County       | County   | County   | County     | County     | Island   | States   |  |  |  |
| Income and Poverty (2015-2019) |              |          |          |            |            |          |          |  |  |  |
| Median household income        | \$83,092     | \$73,521 | \$79,454 | \$58,974   | \$85,531   | \$67,167 | \$62,843 |  |  |  |
| People in poverty              | 7.5%         | 7.6%     | 8.7%     | 15.2%      | 8.6%       | 12.4%    | 13.4%    |  |  |  |
| Children in poverty            | 6.6%         | 8.8%     | 10.6%    | 21.7%      | 9.2%       | 17.0%    | 18.5%    |  |  |  |
| Older adults (65+) in poverty  | 5.4%         | 9.3%     | 7.2%     | 11.8%      | 5.7%       | 9.7%     | 9.3%     |  |  |  |
| Households with SNAP* Benefits | 8.2%         | 11.7%    | 9.1%     | 19.4%      | 7.6%       | 15.3%    | 11.7%    |  |  |  |
| Unemployment                   | Unemployment |          |          |            |            |          |          |  |  |  |
| 2020 average                   | 7.6%         | 8.7%     | 8.2%     | 10.2%      | 7.8%       | 9.4%     | 8.1%     |  |  |  |
| May 2021                       | 4.1%         | 4.9%     | 4.3%     | 5.1%       | 4.1%       | 5.5%     | 5.5%     |  |  |  |

Source: US Census Bureau, American Community Survey & US Bureau of Labor Statistics

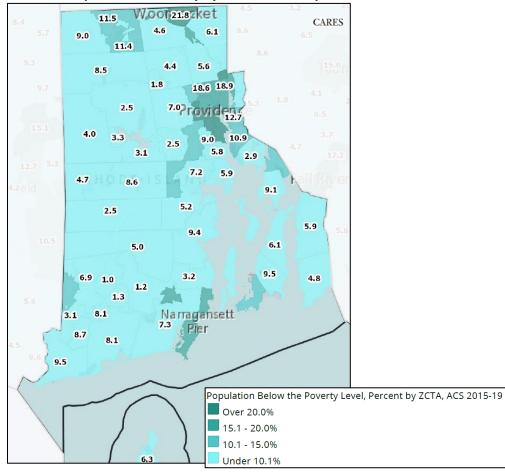
<sup>\*</sup>Supplemental Nutrition Assistance Program.







2015-2019 Population in Poverty by Rhode Island Zip Code



2015-2019 People in Poverty by Race and Ethnicity with 2019 CHNA Comparison (2012-2016)

|                   | White   | Black / African<br>American | Asian      | Latinx origin<br>(any race) |
|-------------------|---------|-----------------------------|------------|-----------------------------|
| Bristol County    | 10.0%   | 45.8%                       | 19.8%      | 8.0%                        |
| 2019 CHNA         | 6.4%    | 47.6%                       | 1.0% (n=8) | 11.2%                       |
| Kent County       | 7.3%    | 6.9%                        | 6.7%       | 9.8%                        |
| 2019 CHNA         | 8.2%    | 8.2%                        | 6.0%       | 11.7%                       |
| Newport County    | 7.8%    | 24.3%                       | 6.0%       | 19.9%                       |
| 2019 CHNA         | 8.0%    | 23.0%                       | 3.9%       | 20.8%                       |
| Providence County | 12.2%   | 22.2%                       | 18.6%      | 26.6%                       |
| 2019 CHNA         | 13.8%   | 25.4%                       | 15.7%      | 32.8%                       |
| Washington County | 7.6%    | 33.2%                       | 7.6%       | 20.2%                       |
| 2019 CHNA         | 9.0%    | 33.9%                       | 11.2%      | 17.3%                       |
| Rhode Island      | 10.0% 🛡 | 22.0% 🖶                     | 15.8%      | 25.3%                       |
| 2019 CHNA         | 11.2%   | 25.1%                       | 13.3%      | 31.0%                       |
| United States     | 11.1%   | 23.0%                       | 10.9%      | 19.6%                       |
| 2019 CHNA         | 12.4%   | 26.2%                       | 12.3%      | 23.4%                       |



While overall poverty is lower in Rhode Island compared to the US, poverty among older adults is slightly higher (9.7% vs. 9.3%). This finding is of note due to the large and growing proportion of Rhode Island residents age 65 or older. In response to the continued growth of older residents, communities will be challenged to expand older adult health and social services for populations with fewer financial resources. This trend should be monitored in Kent County, where older adult poverty increased over the past five years, from 7.3% to 9.3%, and is the second highest in the state behind Providence County.

The 2020 Rhode Island Healthy Aging Data Report provides a comprehensive picture of the health and socioeconomic status of older adults statewide. According to data report findings, the economic situation of older adults in Rhode Island had worsened even before the impact of COVID-19, including higher poverty rates, increased receipt of food benefits, and more older adults in the workforce. The following table depicts annual cost of living for older adults, as provided by the Elder Index Measure of Economic Security, with comparisons to 2016 data report findings.

Rhode Island Annual Cost of Living for Older Adults, 2016 vs. 2020

|   | 2016     | 2020     | Change from 2020 to 2016 |
|---|----------|----------|--------------------------|
| Single, homeowner without mortgage, good health | \$22,188 | \$23,484 | +\$1,296                 |
| Single, renter, good health                     | \$23,544 | \$25,560 | +\$2,016                 |
| Couple, homeowner without mortgage, good health | \$32,252 | \$33,984 | +\$1,732                 |
| Couple, renter, good health                     | \$33,708 | \$36,060 | +\$2,252                 |

Source: Tufts Health Plan Foundation, Rhode Island Healthy Aging Data Report

#### Food Insecurity

Food insecurity is defined as not having reliable access to a sufficient amount of nutritious, affordable food. Food insecurity is associated with lower household income and poverty, as well as poorer overall health status. Consistent with higher poverty levels, Providence County has historically had the highest food insecurity rates in Rhode Island, but all communities are affected. In 2019, approximately 1 in 10 children in Bristol, Kent, Newport, and Washington counties were food insecure.

Similar to unemployment rates, COVID-19 had a profound impact on food insecurity. The Rhode Island Community Food Bank reported a pre-pandemic average of 3.1 million pounds of food distributed every quarter. More than 4 million pounds were distributed in the second quarter of 2020, at the onset of the pandemic. Projected food insecurity rates for 2020 and 2021 for Rhode Island demonstrate persistent food insecurity needs. All counties saw an increase in food insecurity from 2019 to 2020, including a 6-to 8-point increase among children. Prior to 2020, food insecurity percentages were declining in all counties.

The core cities continue to be areas of opportunity for improving access to nutritious, affordable foods, particularly among youth. Approximately half of students in Central Falls and Providence participate in the school breakfast program. Low-income student participation, estimated at 24% outside of the core cities, should be explored.



**Trended and Projected Food Insecurity** 

|                  | Bristol | Kent   | Newport | Providence | Washington | Rhode  | United |
|------------------|---------|--------|---------|------------|------------|--------|--------|
|                  | County  | County | County  | County     | County     | Island | States |
| All Residents    |         |        |         |            |            |        |        |
| 2021 (projected) | 9.6%    | 10.7%  | 10.6%   | 13.3%      | 9.3%       | 11.4%  | 12.9%  |
| 2020 (projected) | 10.8%   | 12.4%  | 12.0%   | 15.2%      | 10.7%      | 13.1%  | 13.9%  |
| 2019             | 7.6%    | 8.6%   | 8.6%    | 11.0%      | 7.4%       | 9.5%   | 10.9%  |
| 2018             | 8.1%    | 9.2%   | 9.0%    | 12.0%      | 7.8%       | 11.4%  | 11.5%  |
| 2017             | 9.5%    | 9.7%   | 10.6%   | 12.6%      | 9.7%       | 11.4%  | 12.5%  |
| Children         |         |        |         |            |            |        |        |
| 2021 (projected) | 12.4%   | 15.4%  | 15.0%   | 20.4%      | 13.7%      | 17.1%  | 17.9%  |
| 2020 (projected) | 14.7%   | 18.8%  | 17.9%   | 24.0%      | 16.5%      | 20.5%  | 19.9%  |
| 2019             | 9.0%    | 12.0%  | 11.7%   | 16.4%      | 10.6%      | 13.9%  | 14.6%  |
| 2018             | 12.0%   | 14.8%  | 13.6%   | 17.8%      | 13.3%      | 17.8%  | 15.2%  |
| 2017             | 13.8%   | 14.8%  | 15.2%   | 18.4%      | 14.9%      | 17.3%  | 16.1%  |

Source: Feeding America

October 2019 Children Participating in School Breakfast by Core City School District

|                           | Total Student<br>Enrollment | Percent of All Students Participating in School Breakfast | Low-Income<br>School<br>Enrollment | Percent of Low-Income<br>Students Participating<br>in School Breakfast |
|---------------------------|-----------------------------|---|------------------------------------|--|
| Central Falls             | 2,877                       | 53%   | NA*                                | NA*  |
| Pawtucket                 | 8,657                       | 29%   | NA*                                | NA*  |
| Providence                | 22,958                      | 50%   | NA*                                | NA*  |
| Woonsocket                | 5,884                       | 41%   | 4,397                              | 44%  |
| Four Core Cities          | 40,376                      | 44%   | NA*                                | NA*  |
| Remainder of Rhode Island | 89,337                      | 11%   | 26,681                             | 24%  |

Source: 2021 Rhode Island Kids Count Factbook

#### Education

High school graduation is one of the strongest predictors of longevity and economic stability. Adult residents of Rhode Island are generally very well educated compared to the US. Providence County education indicators are less favorable than the US. Approximately 14% of Providence County adults have not completed high school compared to 9% or less in other counties. Educational attainment disparities mirror other reported socioeconomic disparities in Providence County, largely affecting the core cities. In Providence zip codes 02907 and 02909, Central Falls zip code 02863, and Pawtucket zip code 02860, approximately one-quarter to one-third of adults have not completed high school.

Consistent with having the highest reported household incomes in the state, nearly 50% of adults in Bristol, Newport, and Washington counties have completed graduate studies. Kent County has the

<sup>\*</sup>NA indicates that data was not available because some or all schools in this district were using the Community Eligibility Provision and therefore not collecting data on the incomes of students' families.

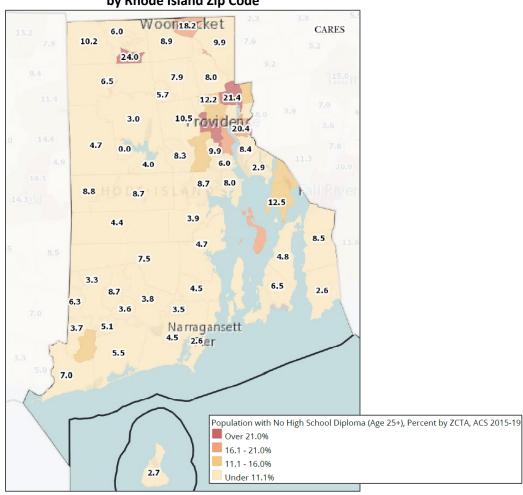


second lowest median household income in the state. Consistent with this finding, residents are more likely to conclude their education with a high school diploma or associate's degree.

2015-2019 Population (Age 25 or Older) by Educational Attainment

|                   | Less than high school diploma | High school<br>graduate<br>(includes GED) | Some college<br>or associate's<br>degree | Bachelor's<br>degree | Graduate or professional degree |
|-------------------|-------------------------------|---|--|----------------------|---------------------------------|
| Bristol County    | 9.0%                          | 19.4%                                     | 22.5%                                    | 25.4%                | 23.6%                           |
| Kent County       | 7.8%                          | 28.0%                                     | 30.9%                                    | 20.9%                | 12.3%                           |
| Newport County    | 6.0%                          | 22.1%                                     | 23.8%                                    | 28.5%                | 19.5%                           |
| Providence County | 14.2%                         | 31.0%                                     | 25.8%                                    | 17.5%                | 11.5%                           |
| Washington County | 5.1%                          | 22.8%                                     | 25.9%                                    | 26.1%                | 20.0%                           |
| Rhode Island      | 11.2%                         | 28.3%                                     | 26.4%                                    | 20.4%                | 13.8%                           |
| United States     | 12.0%                         | 27.0%                                     | 28.9%                                    | 19.8%                | 12.4%                           |

2015-2019 Population with No High School Diploma by Rhode Island Zip Code





Educational attainment disparities also exist between different racial and ethnic populations. Consistent with state and national trends, adults of Asian descent in Rhode Island are the most likely of any other population group to have completed higher education. Black/African American and Latinx adults, outside of Providence County, are generally more likely to attain higher education than their peers nationally, although less likely than White adults residing in the same communities. Notably, in Providence County, where approximately 23% of residents identify as Latinx, only 12% of Latinx adults have attained a bachelor's degree or higher compared to 31% of White adults.

2015-2019 Population with a Bachelor's Degree by Race and Ethnicity with 2019 CHNA Comparison (2012-2016)

|                       |         | •                           | •       |                             |
|-----------------------|---------|-----------------------------|---------|-----------------------------|
|                       | White   | Black / African<br>American | Asian   | Latinx origin<br>(any race) |
| <b>Bristol County</b> | 48.9%   | 22.4%                       | 63.6%   | 51.2%                       |
| 2019 CHNA             | 46.2%   | 43.1%                       | 65.2%   | 45.3%                       |
| Kent County           | 32.8%   | 34.4%                       | 63.1%   | 27.8%                       |
| 2019 CHNA             | 31.4%   | 33.3%                       | 52.0%   | 28.8%                       |
| Newport County        | 48.9%   | 20.8%                       | 74.9%   | 37.7%                       |
| 2019 CHNA             | 46.1%   | 34.3%                       | 56.3%   | 33.8%                       |
| Providence County     | 31.0%   | 20.2%                       | 47.8%   | 12.0%                       |
| 2019 CHNA             | 29.3%   | 18.4%                       | 45.0%   | 10.8%                       |
| Washington County     | 46.7%   | 31.3%                       | 57.8%   | 34.0%                       |
| 2019 CHNA             | 45.3%   | 30.1%                       | 51.0%   | 37.6%                       |
| Rhode Island          | 35.9% 👚 | 21.2% 👚                     | 52.1% 👚 | 14.4% 👚                     |
| 2019 CHNA             | 34.2%   | 20.2%                       | 47.3%   | 13.1%                       |
| United States         | 33.5%   | 21.6%                       | 54.3%   | 16.4%                       |
| 2019 CHNA             | 31.6%   | 20.0%                       | 52.1%   | 14.7%                       |

Source: US Census Bureau, American Community Survey

#### Housing

Housing is the largest single expense for most households and should represent 30% of a household's monthly income. The median home value for Rhode Island is more expensive than the median home value across the US, and more homeowners are considered housing cost burdened compared to the US benchmark. Median home value is highest in the areas of Bristol, Newport, and Washington counties, although Newport is the only county with a higher percentage of cost burdened homeowners in comparison to the state or nation.

**Despite having the lowest median home value in the state, only 54% of Providence County households own their home, a lower proportion than the state or nation.** This disparity is likely due to in part to financial barriers. The county has higher poverty rates and nearly one-third of homeowners are cost burdened. Lack of homeownership in Providence County perpetuates financial insecurity, as renters generally experience less stable housing costs and nearly half are considered cost burdened. Renters are also more vulnerable to substandard housing conditions like overcrowding, poor ventilation, pests, or allergens that are associated with poor health.



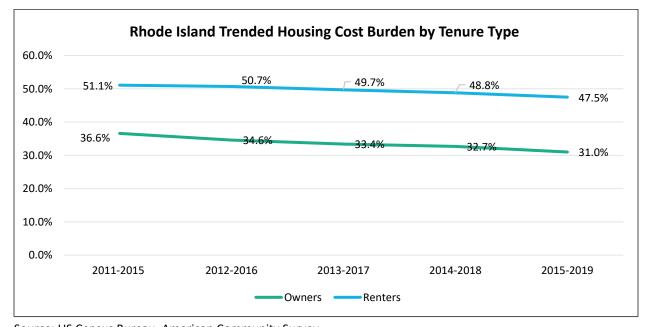
Rhode Island housing affordability slowly improved from 2011-2015 to 2015-2019 with a declining proportion of cost burdened homeowners and renters, but the economic impact of COVID-19 and historic increases in the cost of housing in 2020 and 2021 created new affordability strains on residents. Housing Works RI reported that, "Across Rhode Island, housing markets continued to tighten. Rhode Island had a mere 1.3-month supply of sales housing stock at the end of Q1-2021, a 50 percent drop from Q1-2020; the vacancy rate in rental housing fell to 2.2 percent, compared to what is considered a healthy range of five to eight percent. Given these tight markets, it is not surprising that the rental market experienced a four percent increase at the end of Q1-2021, but that is outstripped by the double-digit increases in the median single family home prices, which increased by more than 12 percent over 2020, and more than 22 percent measured year-over-year by Q2-2021."

2015-2019 Housing Indicators

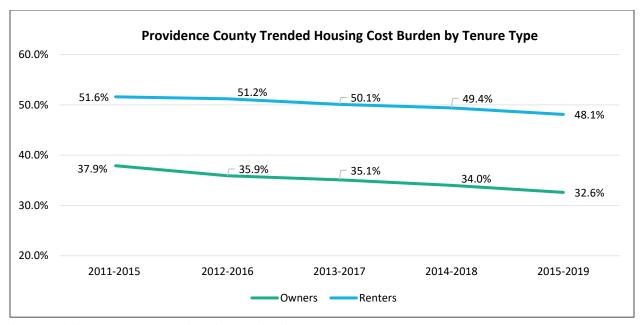
|                   | Owners            |                      |                                | Renters           |                |                                |  |
|-------------------|-------------------|----------------------|--------------------------------|-------------------|----------------|--------------------------------|--|
|                   | Occupied<br>Units | Median<br>Home Value | Cost-<br>Burdened <sup>*</sup> | Occupied<br>Units | Median<br>Rent | Cost-<br>Burdened <sup>*</sup> |  |
| Bristol County    | 70.7%             | \$358,100            | 27.6%                          | 29.3%             | \$1,037        | 49.1%                          |  |
| Kent County       | 70.1%             | \$236,300            | 29.7%                          | 29.9%             | \$1,079        | 46.2%                          |  |
| Newport County    | 63.2%             | \$387,900            | 33.7%                          | 36.8%             | \$1,285        | 44.3%                          |  |
| Providence County | 54.2%             | \$233,500            | 32.6%                          | 45.8%             | \$967          | 48.1%                          |  |
| Washington County | 74.0%             | \$343,000            | 26.6%                          | 26.0%             | \$1,133        | 46.8%                          |  |
| Rhode Island      | 60.8%             | \$261,900            | 31.0%                          | 39.2%             | \$1,004        | 47.5%                          |  |
| United States     | 64.0%             | \$217,500            | 27.8%                          | 36.0%             | \$1,062        | 49.6%                          |  |

Source: US Census Bureau, American Community Survey

<sup>\*</sup>Defined as spending 30% or more of household income on rent or mortgage expenses.



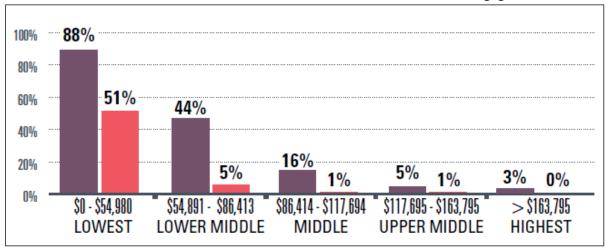




As reported in the HousingWorks RI 2021 Factbook, Rhode Island households earning \$30,000 or less cannot affordably buy a median priced single-family home or rent an average priced two-bedroom apartment in any Rhode Island city or town. For the first time since HousingWorks RI started to measure housing affordability, there are no towns or cities in Rhode Island where a household earning the state's median household income (\$67,167) can affordably buy a single-family home.

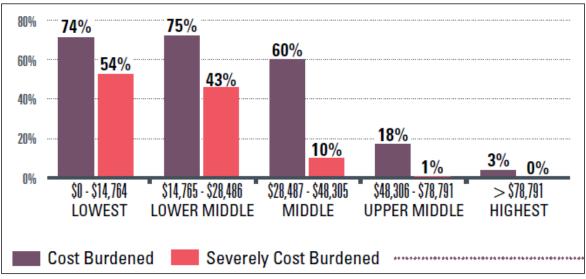
The following graphs depict cost burden and severe cost burden\* by income group for homeowners with a mortgage and renters. In total for the reporting years 2015-2019, more than 140,000 Rhode Island households were cost burdened. Among the lowest income group, 88% of homeowners with a mortgage and 74% of renters were cost burdened. \*Severe cost burden is defined as spending 50% or more of income on housing expenses.

2015-2019 Cost Burdened Homeowner Households with a Mortgage



Source: HousingWorks RI 2021 Housing Fact Book

2015-2019 Cost Burdened Renter Households



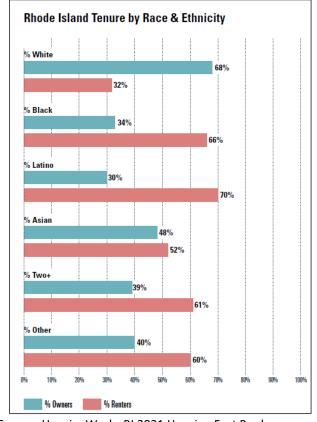
Source: HousingWorks RI 2021 Housing Fact Book

Redlining and other forms of racial segregation led to a multi-generational loss of wealth. In Rhode Island, Black residents have a homeownership rate that is half the rate for White residents, and Latinx residents have the lowest homeownership rate of all racial and ethnic categories at 30%.

Homeownership rates among Black, Latinx, and Asian residents of Rhode Island are 10-19 percentage points lower than national homeownership rates for these populations.

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2015-2019 Rhode Island Tenure by Race and Ethnicity

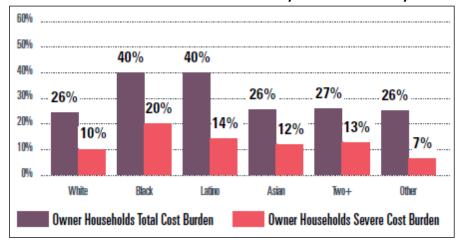


Source: HousingWorks RI 2021 Housing Fact Book

Renter cost burden is largely consistent among White, Black, and Latinx Rhode Islanders, with approximately 1 in 2 households cost burdened and 1 in 4 households severely cost burdened.

Homeowner cost burden is not consistent among racial and ethnic groups. Approximately 40% of Black and Latinx households are cost burdened compared to 26% of White households.

2015-2019 Homeowner Cost Burden by Race and Ethnicity

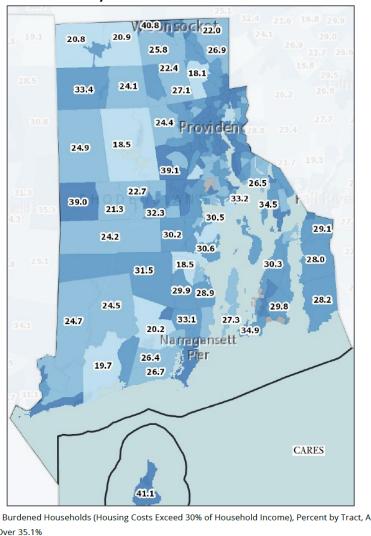


Source: HousingWorks RI 2021 Housing Fact Book



The following map depicts the percentage of cost burdened households by Rhode Island census tract. Housing cost burden is concentrated in the core cities, areas of greater racial and ethnic diversity and higher socioeconomic disparity. Of note, as many as half of households in census tracts comprising Central Falls, Pawtucket, Providence, and Woonsocket are cost burdened.





Cost Burdened Households (Housing Costs Exceed 30% of Household Income), Percent by Tract, ACS 2015-19

Over 35.1% 28.1 - 35.0%

21.1 - 28.0%

Under 21.1%

No Data or Data Suppressed

#### Rhode Island is tied with Massachusetts for the third oldest housing stock in the nation.

Approximately 73.5% of housing units in Rhode Island were built before 1980 compared to 53.6% nationwide; less than 2% of units have been built since 2014. Providence County has the oldest housing stock in Rhode Island with 78.5% of units built before 1980. Washington County has the newest housing stock in the state, primarily due to new development between 1980 and 2009.

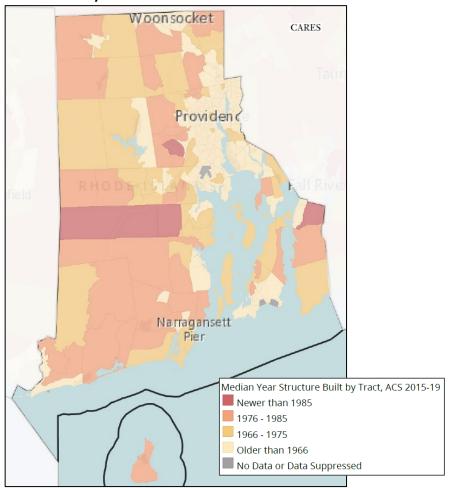


2015-2019 Housing by Year Built

|                   | Before 1980 | 1980-1999 | 2000-2009 | 2010-2013 | 2014 or Later |
|-------------------|-------------|-----------|-----------|-----------|---------------|
| Bristol County    | 73.7%       | 19.4%     | 5.1%      | 1.4%      | 0.4%          |
| Kent County       | 72.3%       | 20.8%     | 5.5%      | 0.6%      | 0.8%          |
| Newport County    | 67.5%       | 20.9%     | 8.9%      | 1.3%      | 1.4%          |
| Providence County | 78.5%       | 15.6%     | 4.7%      | 0.8%      | 0.4%          |
| Washington County | 57.6%       | 28.9%     | 11.0%     | 1.6%      | 1.0%          |
| Rhode Island      | 73.5%       | 18.9%     | 6.1%      | 0.9%      | 0.7%          |
| United States     | 53.6%       | 27.3%     | 14.0%     | 2.7%      | 2.5%          |

The following map depicts the median year that housing structures were built by Rhode Island census tract. In nearly all census tracts in and around Central Falls, Pawtucket, Providence, and Woonsocket, the median year for housing build was before 1966.

2015-2019 Median Year of Housing Build by Rhode Island Census Tract





Quality and affordable housing has a direct impact on health. HousingWorks RI states, "Homes built through 1978 predate safety regulations for contaminants like lead and asbestos, which may be present in paint and plumbing, contributing to the health risks of lead poisoning and unsafe drinking water."

As reported by HousingWorks RI, of the 73.5% of homes that were built before 1980, less than 10% are certified Lead Safe, having undergone a state certified inspection and mitigation process. While statewide the percentage of children entering kindergarten with a history of lead poisoning has decreased, lead poisoning exposure continues to be higher among children residing in areas with older housing, particularly in the four core cities.

Rhode Island adults and children have a higher prevalence of asthma than their peers nationwide. As of 2019, 11.2% of Rhode Island adults and 8.7% of children reported having a current asthma diagnosis compared to 9% of adults and 7.4% of children nationwide. As reported in the HousingWorks RI 2021 Fact Book, "40 percent of the triggers that cause asthma are fixable and found within the home."

Asthma is the most common chronic condition among children, and a leading cause of hospitalization and school absenteeism. From 2015 to 2019, Rhode Island saw a total of 1,075 child hospitalizations with a primary diagnosis of asthma for a rate of 1.0 per 1,000 children. Additionally, the state saw 6,919 child emergency department (ED) visits with a primary diagnosis of asthma for a rate of 6.2 per 1,000 children. Both hospitalizations and ED visits were more than twice as high in the four core cities as the remainder of the state.

Consistent with these findings, the core cities have the oldest housing stock and the highest prevalence of child lead poisoning and child ED visits due to asthma in the state. The prevalence of lead poisoning is particularly high in Central Falls, while the rate of child ED visits due to asthma is more than four times higher in Providence than the rest of Rhode Island (excluding the core cities).

**Housing and Health within the Core Cities** 

|                           |                  | ng Among Child<br>ergarten in Fall : | Ŭ                                 | 2015-2019 E<br>Primary Asth | Housing                       |                         |
|---------------------------|------------------|--------------------------------------|-----------------------------------|-----------------------------|-------------------------------|-------------------------|
|                           | Number<br>Tested | Number<br>with Lead<br>Poisoning     | Percent<br>with Lead<br>Poisoning | Child ED<br>Visits          | Rate per<br>1,000<br>Children | Stock Built<br>Pre-1980 |
| Central Falls             | 307              | 22                                   | 7.2%                              | 341                         | 12.1                          | 87%                     |
| Pawtucket                 | 848              | 53                                   | 6.3%                              | 714                         | 8.6                           | 86%                     |
| Providence                | 2,477            | 167                                  | 6.7%                              | 1,420                       | 16.8                          | 86%                     |
| Woonsocket                | 561              | 27                                   | 4.8%                              | 274                         | 13.0                          | 86%                     |
| Four Core Cities          | 4,193            | 269                                  | 6.4%                              | 4,080                       | 11.1                          | 86%                     |
| Remainder of Rhode Island | 6,094            | 123                                  | 2.0%                              | 2,833                       | 3.8                           | 67%                     |

Source: 2021 Rhode Island Kids Count Factbook



Black/African American and Latinx residents are more likely to rent their home and live in areas of Rhode Island with older housing. These trends, coupled with other social determinants of health barriers, contribute to a disproportionate rate of asthma compared to Whites and other races. In Rhode Island, the 2015-2019 rate of ED visits due to asthma for Black/African American and Latinx children under age five was more than triple the rate for White children.

All Races Black Hispanic\*\* White (# per 1,000 children) 30 30 25 25 19.7 20 17.2 20 15 15 12.1 10.5 9.4 10 10 5.3 5.1 5 5 2.7 1.0 8.0 Ages 0-4 Age 5-17 Ages 0-4 Ages 5-17 **Emergency Department Visit Rates** Hospitalization Rates

2015-2019 Asthma Emergency Department and Hospitalization Rates by Age and Race and Ethnicity

Source: 2021 Rhode Island Kids Count Factbook

The Point-in-Time (PIT) count is a count of sheltered and unsheltered homeless persons on a single night in January which is mandated by HUD in every community nationwide. Sheltered locations include emergency shelters and transitional housing. Unsheltered locations include cars, streets, parks, etc.

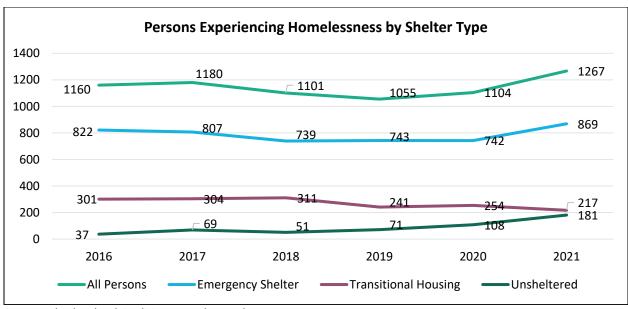
The Rhode Island Coalition to End Homelessness is responsible for conducting the PIT count in Rhode Island. The number of individuals experiencing homelessness in Rhode Island increased in both 2020 and 2021, likely due in part to the COVID-19 pandemic. From 2020 to 2021, the percentage of young adults experiencing homelessness doubled from 4% to 8%, and the percentage of chronic homeless increased from 20% to 28%. The number of unsheltered individuals more than doubled from 2019 to 2021.

2021 Rhode Island Statewide Point-in-Time Homeless Count

|                            | Persons Experiencing Homelessness |  |  |  |
|----------------------------|-----------------------------------|--|--|--|
| Total                      | 1,267                             |  |  |  |
| Household Type             |                                   |  |  |  |
| Individuals                | 793 (67%)                         |  |  |  |
| Families                   | 474 (37%)                         |  |  |  |
| Individual Characteristics |                                   |  |  |  |
| Chronic homeless           | 357 (28%)                         |  |  |  |
| Veterans                   | 97 (8%)                           |  |  |  |
| Young adults               | 96 (8%)                           |  |  |  |

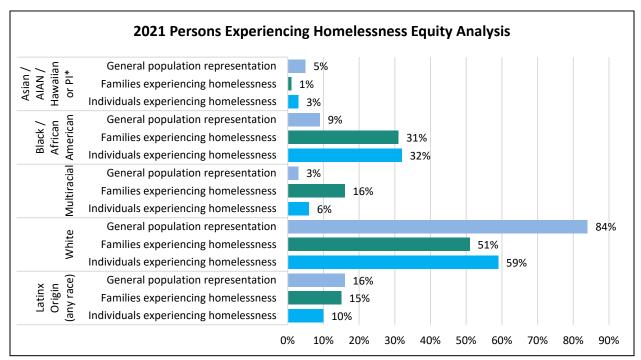
Source: Rhode Island Coalition to End Homelessness





Source: Rhode Island Coalition to End Homelessness

The Rhode Island Coalition to End Homelessness conducts an equity analysis to compare the percentage of people experiencing homelessness by race and ethnicity, relative to their representation in the general population. Black/African Americans are disproportionately represented among people experiencing homelessness. They represent 9% of the general population, but 31% of families and 32% of individuals experiencing homelessness in 2021. Multiracial individuals were also disproportionately represented, although not to the same degree as Black/African Americans.



Source: Rhode Island Coalition to End Homelessness

<sup>\*</sup>American Indian or Alaska Native, Pacific Islander



Homeless children are at greater risk for health and developmental problems and are more likely to experience food insecurity and trauma, among other issues. Approximately 1.6% of core city children experienced homelessness during the 2019-2020 school year, nearly double the percentage for the remainder of the state. Children in Woonsocket and Central Falls are particularly at risk for experiencing homelessness.

2019-2020 School Year Children Experiencing Homelessness by Core City School District

|                           | Total Student Enrollment | Students Identified as Homeless |
|---------------------------|--------------------------|---------------------------------|
| Central Falls             | 2,878                    | 73 (2.5%)                       |
| Pawtucket                 | 8,784                    | 98 (1.1%)                       |
| Providence                | 23,836                   | 304 (1.3%)                      |
| Woonsocket                | 6027                     | 194 (3.2%)                      |
| Four Core Cities          | 41,525                   | 669 (1.6%)                      |
| Remainder of Rhode Island | 91,104                   | 803 (0.9%)                      |

Source: 2021 Rhode Island Kids Count Factbook

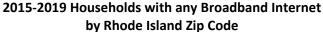
Related to housing issues, is access to computers and internet. Termed the "digital divide," there is a growing gap between the underprivileged members of society, especially the poor, rural, elderly, and handicapped portion of the population, who do not have access to computers or the internet and the wealthy, middle-class, and young Americans living in urban and suburban areas who have access.

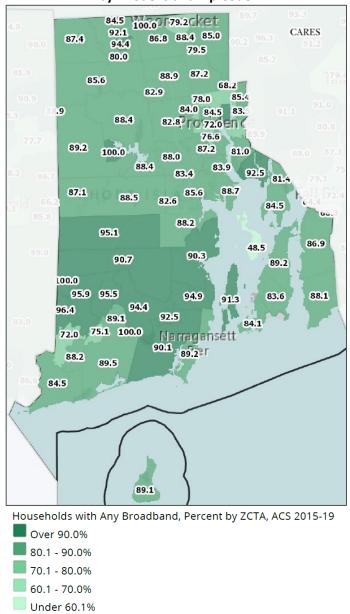
Rhode Island overall has comparable digital access as the nation, and these findings are generally consistent across all counties except Providence. While a similar proportion of Providence County residents have a computer device and/or internet subscription compared to the state, fewer residents own a computer or have broadband internet. This disparity is of particular concern in Central Falls, where only 68% of households have broadband internet.

2015-2019 Households by Digital Access

|                   | With Computer Access |                     |            | With Inter               | net Access            |
|-------------------|----------------------|---------------------|------------|--------------------------|-----------------------|
|                   | Computer<br>Device   | Desktop /<br>Laptop | Smartphone | Internet<br>Subscription | Broadband<br>Internet |
| Bristol County    | 89.8%                | 83.4%               | 78.5%      | 86.9%                    | 86.2%                 |
| Kent County       | 90.7%                | 81.7%               | 78.0%      | 86.7%                    | 86.5%                 |
| Newport County    | 91.3%                | 82.3%               | 77.9%      | 86.4%                    | 86.1%                 |
| Providence County | 87.6%                | 73.8%               | 76.3%      | 81.9%                    | 81.6%                 |
| Washington County | 92.9%                | 85.8%               | 80.0%      | 89.6%                    | 89.4%                 |
| Rhode Island      | 89.1%                | 77.7%               | 77.3%      | 84.2%                    | 84.0%                 |
| United States     | 90.3%                | 77.8%               | 79.9%      | 83.0%                    | 82.7%                 |







### Illuminating Health Inequities

Health inequities refer to the systematic differences in opportunities that population groups have to achieve optimal health, which lead to unfair and avoidable differences in health outcomes. Without addressing inequities and supporting initiatives aimed at providing a healthy start, access to opportunity for improvement, and a tangible pathway to a better life, interventions focused only on individual behavior change often do not have enough social and environmental soil to take root and create lasting positive change. By addressing inequities in our communities, we can more effectively work towards a healthier community for all people now and in the future.



### **Rhode Island (RI) Life Index**

The RI Life Index, begun in 2019 as an initiative of Brown University's School of Public Health and Blue Cross & Blue Shield of Rhode Island, captures Rhode Islander's perceptions of SDoH to help drive community investment in meeting people's basic needs and achieving more equitable health outcomes. The topic areas comprising the RI Life Index focus on community life and quality of community elements, including affordable housing, quality education, and good jobs.

The following graphics illustrate a composite score of health and well-being drivers, as defined by the RI Life Index, as well as summary scores for community life and quality of community elements. Scores are further summarized by core city versus non-core city residents and by race, ethnicity, and age. All indices indicate a disparity in the perceived quality of SDoH for core city residents and people of color, particularly Black/African Americans. As reported in the 2021 RI Life Index report, "In virtually all topic areas from 2019 through 2020, BIPOC Rhode Islanders living in core cities perceived social factors such as access to affordable housing and cost of living as much greater impediments to health and well-being than have white Rhode Islanders living in non-core areas."

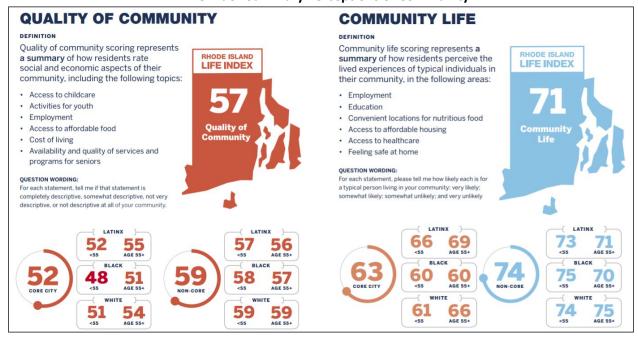
The 2021 RI Life Index findings largely align with those of 2020 and 2019. The most notable trend in 2021 was a significant perceived declined in programs and services for children, including access to quality education, youth activities, and places to raise children. Additionally, there was a significant decrease in perceptions of the availability of services for older adults among core city residents and those identifying as Latinx.

# RHODE ISLAND LIFE INDEX Topics include access to affordable housing, childcare and activities for youth, quality education, affordable and nutritious food, good jobs, medical care, programs for seniors, transportation services, feeling safe at home, and cost of living. See Community Sample Data RI Life Index See Community Sample Data

**RI Life Index Composite Score** 



### **RI Life Index Summary Perceptions of Community**



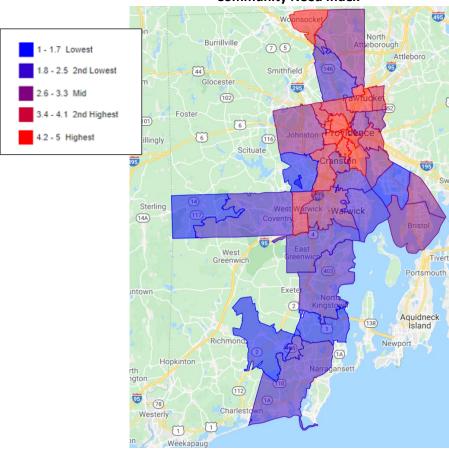
### Tools for Identifying Disparity at the Community-Level

The following data visualizations illustrate the potential for health disparities and inequities at the community-level based on social determinants of health barriers. A description of each data visualization tool is provided below:

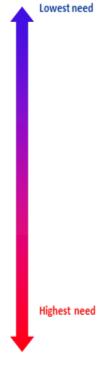
- Community Need Index (CNI): The CNI scores zip codes on a scale of 1.0 to 5.0, with 1.0 indicating a zip code with the least need and 5.0 indicating a zip code with the most need compared to the US national average of 3.0. The CNI is a zip code-based index of community need calculated nationwide, regarding healthcare. The CNI is weights, indexes and scores zip codes by socioeconomic barriers, including income, culture, education, insurance, and housing.
- Vulnerable Population Footprint: The Vulnerable Population Footprint identifies areas where high concentrations of people living in poverty and people living without a high school diploma overlap. Areas are reported by census tract. Census tracts are statistical subdivisions of a county that have roughly 4,000 inhabitants.
- Area Deprivation Index (ADI): The ADI provides a census block group measure of socioeconomic disadvantage based on income, education, employment, and housing quality. ADI scores are displayed at the block group level on a scale from 1 (least disadvantaged) to 10 (most disadvantaged). A block group is a subdivision of a census tract and typically contains between 250 and 550 housing units.



### **Community Need Index**

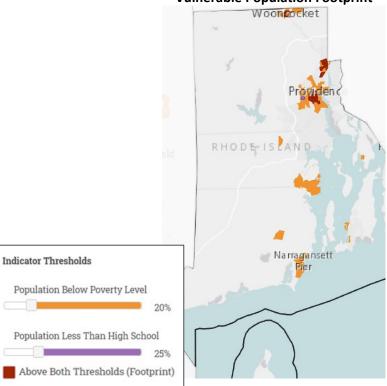


| Zip Code | Town             | CNI Score | Zip Code | Town            | CNI Score |
|----------|------------------|-----------|----------|-----------------|-----------|
| 02827    | Coventry         | 1.2       | 02892    | South Kingstown | 1.4       |
| 02874    | North Kingstown  | 1.2       | 02921    | Cranston        | 1.6       |
| 02806    | Barrington       | 1.4       |          |                 |           |
| 02816    | Coventry         | 1.8       | 02888    | Warwick         | 2.2       |
| 02818    | East Greenwich   | 2.0       | 02889    | Warwick         | 2.2       |
| 02865    | Lincoln          | 2.0       | 02852    | North Kingstown | 2.4       |
| 02802    | Lincoln          | 2.2       | 02881    | South Kingstown | 2.4       |
| 02879    | South Kingstown  | 2.2       |          |                 |           |
| 02919    | Johnston         | 2.8       | 02916    | East Providence | 3.0       |
| 02809    | Bristol          | 3.0       | 02838    | Lincoln         | 3.2       |
| 02864    | Cumberland       | 3.0       | 02906    | Providence      | 3.2       |
| 02885    | Warren           | 3.0       | 02910    | Cranston        | 3.2       |
| 02886    | Warwick          | 3.0       | 02915    | East Providence | 3.2       |
| 02893    | West Warwick     | 3.4       | 02920    | Cranston        | 3.6       |
| 02912    | Providence       | 3.4       | 02904    | Providence      | 3.8       |
| 02861    | Pawtucket        | 3.6       | 02914    | East Providence | 4.0       |
| 02911    | North Providence | 3.6       |          |                 |           |
| 02908    | Providence       | 4.2       | 02903    | Providence      | 4.6       |
| 02895    | Woonsocket       | 4.4       | 02863    | Central Falls   | 4.8       |
| 02905    | Providence       | 4.4       | 02907    | Providence      | 4.8       |
| 02860    | Pawtucket        | 4.6       | 02909    | Providence      | 4.8       |

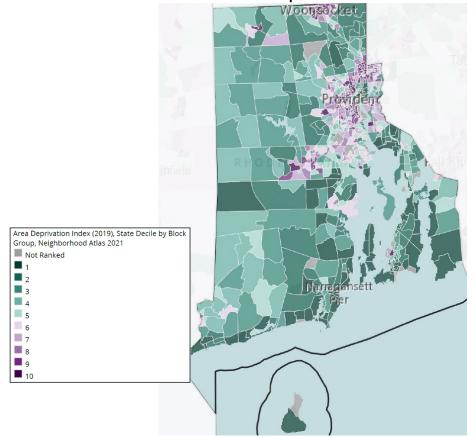








### **Area Deprivation Index**





Core city zip codes, including Providence zip codes 02903, 02907, and 02908; Central Falls zip code 02863; and Pawtucket zip code 02860 have the highest CNI scores in the state of 4.6 or higher out of 5.0. The CNI scores for these zip codes are consistent with those reported at the time of the 2019 CHNA, and correlate with known areas of vulnerability, deprivation, and previously identified disparities related to poverty, housing cost burden, educational attainment, and language barriers, among others. Across Women & Infants Hospital PSA zip codes, West Warwick zip code 02893 is the only zip code outside of Providence County to have a CNI score of 3.4 or higher.

Providence zip codes 02907 and 02908 and Central Falls zip code 02863 have a CNI score of 4.8. Within these zip codes, approximately 30% of all residents and 40% of children live in poverty and nearly 70% speak a primary language other than English, proportions that are double to triple state and national averages. Central Falls zip code 02863 has the largest proportion of Latinx residents in the state. Consistent with known disparities among Latinx residents, Central Falls reports the lowest educational attainment and highest uninsured percentages in Rhode Island.

Comparing health indicators with population statistics demonstrates the adverse impact of social determinants on populations that historically and continually experience inequities. **The areas with the highest CNI scores are also among the most diverse populations in the state.** In this way we can begin to see how inequities perpetuate persistent disparities in health and social outcomes.

2015-2019 Social Determinants of Health by Zip Code with a CNI Score of 3.4 or Higher

| 2013 2013 300101       | Population<br>in Poverty | Children in<br>Poverty | Primary<br>Language<br>Other Than<br>English | Less than HS<br>Diploma | Without<br>Health<br>Insurance | CNI<br>Score |
|------------------------|--------------------------|------------------------|--|-------------------------|--------------------------------|--------------|
| 02893, West Warwick    | 12.6%                    | 16.2%                  | 11.1%  | 10.2%                   | 4.2%                           | 3.4          |
| 02912, Providence      | NA                       | NA                     | 28.2%  | NA                      | 4.0%                           | 3.4          |
| 02861, Pawtucket       | 9.5%                     | 13.7%                  | 27.5%  | 14.4%                   | 5.1%                           | 3.6          |
| 02911, Providence      | 10.3%                    | 10.8%                  | 21.0%  | 8.9%                    | 2.4%                           | 3.6          |
| 02920, Cranston        | 10.4%                    | 12.5%                  | 24.8%  | 11.9%                   | 3.1%                           | 3.6          |
| 02904, Providence      | 18.6%                    | 20.9%                  | 30.8%  | 12.2%                   | 5.5%                           | 3.8          |
| 02914, East Providence | 12.7%                    | 16.8%                  | 35.1%  | 20.4%                   | 6.3%                           | 4.0          |
| 02908, Providence      | 19.9%                    | 30.5%                  | 46.7%  | 12.3%                   | 5.1%                           | 4.2          |
| 02895, Woonsocket      | 21.8%                    | 35.2%                  | 26.7%  | 18.3%                   | 7.2%                           | 4.4          |
| 02905, Providence      | 23.0%                    | 30.8%                  | 48.2%  | 16.9%                   | 6.7%                           | 4.4          |
| 02860, Pawtucket       | 18.9%                    | 29.1%                  | 50.3%  | 21.4%                   | 6.8%                           | 4.6          |
| 02903, Providence      | 33.4%                    | 14.5%                  | 32.4%  | 17.6%                   | 5.5%                           | 4.6          |
| 02863, Central Falls   | 30.2%                    | 39.8%                  | 67.4%  | 35.1%                   | 17.1%                          | 4.8          |
| 02907, Providence      | 28.3%                    | 37.9%                  | 69.7%  | 28.4%                   | 10.6%                          | 4.8          |
| 02909, Providence      | 29.9%                    | 43.3%                  | 62.9%  | 24.3%                   | 10.2%                          | 4.8          |
| Rhode Island           | 12.4%                    | 17.0%                  | 22.4%  | 11.2%                   | 4.5%                           | NA           |
| United States          | 13.4%                    | 18.5%                  | 21.6%  | 12.0%                   | 8.8%                           | NA           |



2015-2019 Population by Race and Ethnicity

|                        | White | Black or<br>African<br>American | Asian | Some<br>Other Race | Two or<br>More<br>Races | Latinx<br>origin<br>(any race) |
|------------------------|-------|---------------------------------|-------|--------------------|-------------------------|--------------------------------|
| 02893, West Warwick    | 88.2% | 4.0%                            | 3.0%  | 2.2%               | 2.6%                    | 7.4%                           |
| 02912, Providence      | 71.4% | 5.4%                            | 15.7% | 2.6%               | 4.8%                    | 10.7%                          |
| 02861, Pawtucket       | 79.2% | 7.5%                            | 3.0%  | 5.6%               | 4.2%                    | 15.6%                          |
| 02911, Providence      | 82.9% | 8.2%                            | 3.7%  | 3.0%               | 2.0%                    | 15.6%                          |
| 02920, Cranston        | 78.4% | 6.1%                            | 6.2%  | 4.3%               | 4.3%                    | 16.8%                          |
| 02904, Providence      | 64.7% | 19.1%                           | 2.3%  | 8.7%               | 4.5%                    | 22.6%                          |
| 02914, East Providence | 72.9% | 10.9%                           | 3.7%  | 4.9%               | 7.4%                    | 10.2%                          |
| 02908, Providence      | 64.1% | 17.6%                           | 3.3%  | 10.3%              | 4.4%                    | 39.9%                          |
| 02895, Woonsocket      | 73.5% | 9.6%                            | 5.8%  | 4.7%               | 5.4%                    | 18.8%                          |
| 02905, Providence      | 58.9% | 18.4%                           | 4.2%  | 13.0%              | 4.8%                    | 43.6%                          |
| 02860, Pawtucket       | 52.1% | 23.1%                           | 2.1%  | 15.6%              | 6.3%                    | 30.6%                          |
| 02903, Providence      | 66.3% | 9.9%                            | 12.3% | 4.6%               | 5.5%                    | 19.2%                          |
| 02863, Central Falls   | 48.5% | 12.7%                           | 0.6%  | 29.6%              | 7.1%                    | 66.4%                          |
| 02907, Providence      | 36.9% | 21.3%                           | 7.0%  | 26.0%              | 6.3%                    | 62.0%                          |
| 02909, Providence      | 47.6% | 15.4%                           | 4.5%  | 27.2%              | 4.1%                    | 60.1%                          |
| Rhode Island           | 80.5% | 6.8%                            | 3.4%  | 5.5%               | 3.3%                    | 15.4%                          |
| United States          | 72.5% | 12.7%                           | 5.5%  | 4.9%               | 3.3%                    | 18.0%                          |

Source: US Census Bureau, American Community Survey

Life expectancy is another measure of adverse social determinants of health. Overall life expectancy in Kent and Providence counties is the lowest in Rhode Island, falling more than two years below Newport County with the highest life expectancy. Within the core cities, life expectancy is lower than 78 years in the majority of census tracts, and lower than 72 years in select census tracts.

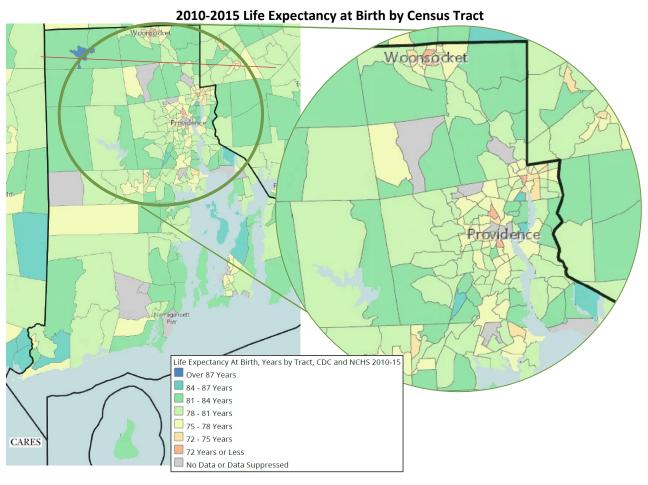
Life expectancy also varies widely by racial and ethnic group. In Rhode Island, life expectancy is highest for Latinx and Asian residents. The state differs from national trends with higher life expectancy among Black/African Americans than Whites. This trend is consistent across all counties except Newport and is largely reflected in mortality data presented in this report. For example, in all counties except Newport, Black/African Americans have a similar or lower all-cause death rate compared to Whites. Nationally, the all-cause death rate is 130 points higher for Black/African Americans than Whites.

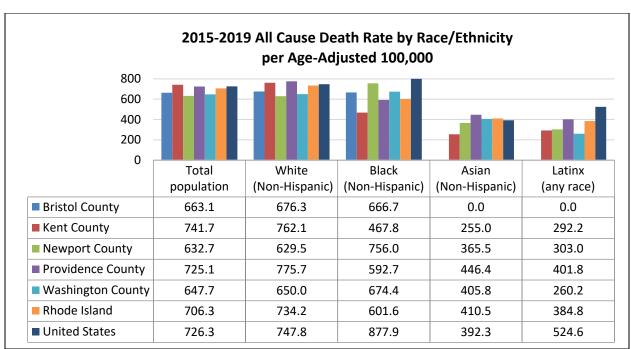
2017-2019 Life Expectancy by Race and Ethnicity

|                   | Overall Life<br>Expectancy | White | Black | Asian | Latinx origin<br>(any race) |
|-------------------|----------------------------|-------|-------|-------|-----------------------------|
| Bristol County    | 81.5                       | NA    | NA    | NA    | NA                          |
| Kent County       | 79.2                       | 78.7  | 87.5  | 93.2  | 91.1                        |
| Newport County    | 81.6                       | 81.7  | 77.1  | 89.5  | 98.0                        |
| Providence County | 79.4                       | 78.5  | 82.8  | 85.9  | 91.3                        |
| Washington County | 81.0                       | 81.0  | 81.9  | 89.0  | 89.9                        |
| Rhode Island      | 79.8                       | 79.4  | 82.1  | 87.4  | 91.7                        |

Source: National Vital Statistics System







Source: Centers for Disease Control and Prevention



## Our Health Status as a Community

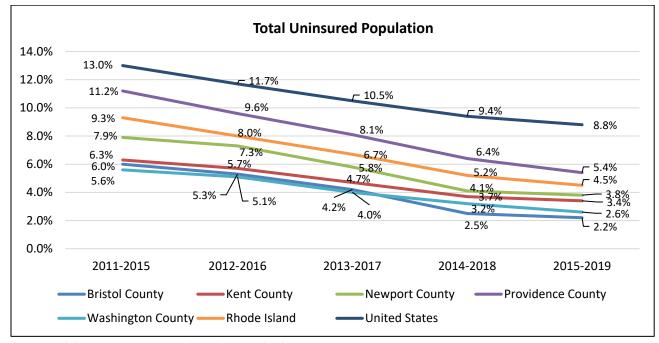
### Access to Healthcare

All Rhode Island counties meet the HP2030 goal of 92.1% insured residents. Rhode Island residents are more likely to be insured than their peers nationally, and the uninsured percentage continues to decline in all counties. When considered by age, it is worth noting an elevated uninsured percentage among young adults age 19-25 and adults age 26-44 in Newport and Providence counties, in comparison to other counties. Approximately 1 in 10 residents in these age groups are uninsured in both counties.

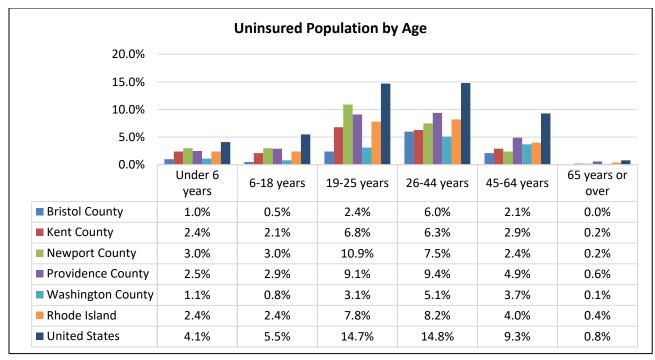
Among individuals with health insurance living in Rhode Island, the majority are covered by employer-based insurance. Medicare and Medicaid coverage rates are also higher in Rhode Island in comparison to the nation. Medicaid coverage is particularly high in Providence County, covering 27% of individuals. Across the state, the percentage of Medicaid insured residents increased in nearly all zip codes.

The percent uninsured declined in all Women & Infants Hospital PSA zip codes with a CNI score of 3.4 or higher from the 2019 CHNA. While Providence zip codes 02907 and 02909 and Central Falls zip code 02863 continue to have a higher uninsured percentage than both the state and nation, they saw the largest decline in uninsured residents from the 2019 CHNA of approximately 8-10 percentage points. The percentage of Medicaid insured residents increased in all but two zip codes, East Providence 02914 and Providence 02912. In Providence zip code 02907, the percentage of Medicaid insured residents increased by 10 percentage points, consistent with the decline in the uninsured percentage.

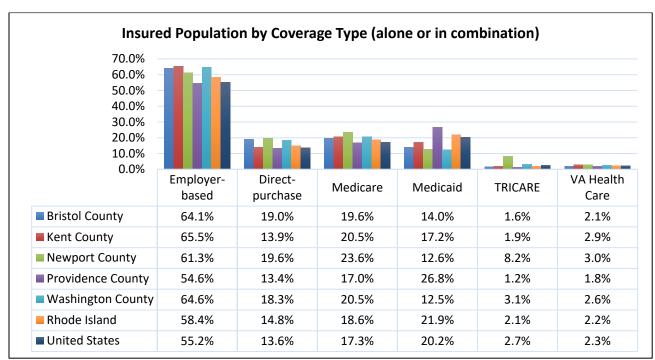
Statewide, the uninsured percentage declined for all racial and ethnic groups, but individuals of color continue to be disproportionately uninsured compared to Whites. The uninsured percentage for Black/African Americans (7%) and Latinx (10.7%) is double or more than the White percentage (3.5%).







Source: US Census Bureau, American Community Survey

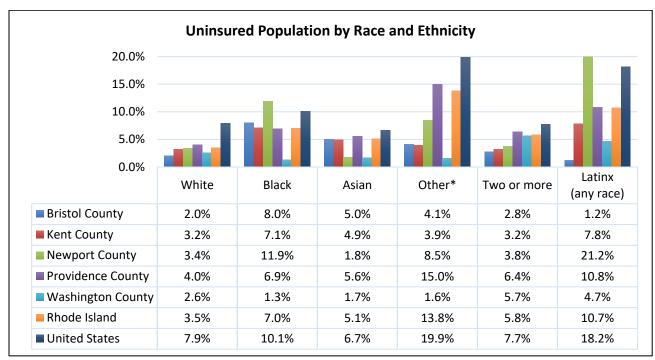




Health Insurance Coverage Trends among PSA Zip Codes with a CNI Score of 3.4 or Higher

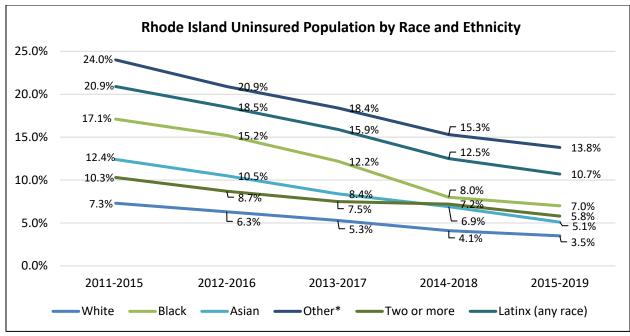
| ricular madrance covera |                          | sured                    | Medicai                  | d Insured<br>Combination) |
|-------------------------|--------------------------|--------------------------|--------------------------|---------------------------|
|                         | 2022 CHNA<br>(2015-2019) | 2019 CHNA<br>(2012-2016) | 2022 CHNA<br>(2015-2019) | 2019 CHNA<br>(2012-2016)  |
| 02863, Central Falls    | 17.1%                    | 25.1%                    | 49.8%                    | 42.9%                     |
| 02907, Providence       | 10.6%                    | 20.3%                    | 55.2%                    | 45.7%                     |
| 02909, Providence       | 10.2%                    | 20.7%                    | 46.3%                    | 44.5%                     |
| 02895, Woonsocket       | 7.2%                     | 9.4%                     | 36.9%                    | 31.4%                     |
| 02860, Pawtucket        | 6.8%                     | 13.4%                    | 36.3%                    | 35.3%                     |
| 02905, Providence       | 6.7%                     | 12.7%                    | 37.1%                    | 36.3%                     |
| 02914, East Providence  | 6.3%                     | 10.9%                    | 22.9%                    | 26.5%                     |
| 02903, Providence       | 5.5%                     | 11.2%                    | 22.8%                    | 21.2%                     |
| 02904, Providence       | 5.5%                     | 8.5%                     | 32.9%                    | 27.3%                     |
| 02861, Pawtucket        | 5.1%                     | 8.9%                     | 24.6%                    | 20.5%                     |
| 02908, Providence       | 5.1%                     | 11.5%                    | 36.2%                    | 32.9%                     |
| 02893, West Warwick     | 4.2%                     | 7.2%                     | 26.4%                    | 22.8%                     |
| 02912, Providence       | 4.0%                     | 7.4%                     | 2.8%                     | 3.5%                      |
| 02920, Cranston         | 3.1%                     | 6.9%                     | 21.4%                    | 20.4%                     |
| 02911, Providence       | 2.4%                     | 4.6%                     | 23.2%                    | 20.4%                     |
| Rhode Island            | 4.5%                     | 8.0%                     | 21.9%                    | 19.9%                     |
| United States           | 8.8%                     | 11.7%                    | 20.2%                    | 19.1%                     |

Source: US Census Bureau, American Community Survey



<sup>\*</sup>Includes American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and other unidentified race.





Source: US Census Bureau, American Community Survey

Availability of healthcare providers also impacts access to care and health outcomes. **Rhode Island overall continues to have more primary care providers than the nation**, as indicated by the rate of primary care physicians per 100,000 population. The distribution of providers is largely consistent across the state, excluding a higher rate in Bristol County, and a similar, higher percentage of adults have received a recent physical checkup in comparison to the nation.

Rhode Island has fewer dentists than the nation overall, but adults in all counties are more likely to receive regular dental care, likely due in part to higher insured rates. Despite this overall positive finding, wide differences in dental care access exist across the state, demonstrating the negative impact of social determinants of health. In Bristol County, the rate of dental providers per 100,000 (39.2) is nearly half the statewide rate (65.7), but 77% of Bristol County adults have had recent dental care compared to 72% statewide. In Providence County, the rate of dental providers (60.6) is similar to the statewide rate, but only 67% of adults have had recent dental care. Lower adult dental care access in Kent County (70%) should also be explored.

Health Professional Shortage Areas (HPSAs) are measured by the Federal Department of Health and Human Services, and can be geographic areas, populations, or facilities. These designated areas have a shortage of primary or dental providers. Low-income individuals residing in the core cities live in a primary and dental HPSA. While adult primary care access is generally consistent across core city zip codes, dental care access disparities are stark, particularly among residents experiencing higher socioeconomic disparity. As few as 48% of adults in Central Falls zip code 02863, 61% in Pawtucket zip code 02860, and 54%-55% in Providence zip codes 02907 and 02909 have had recent dental care compared to a statewide average of 72%.

<sup>\*</sup>Includes American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and other unidentified race.

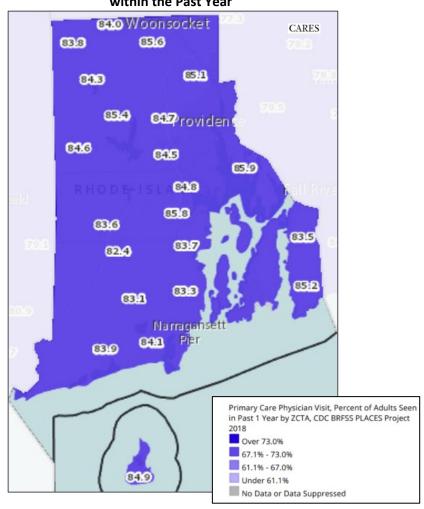


**Primary and Dental Provider Rates and Adult Healthcare Access** 

|                   | Primar   | y Care   | Dental Care                                  |  |  |
|-------------------|--|--|--|--|--|
|                   | Physicians per<br>100,000 Population<br>(2018) | Routine Checkup<br>within Past Year<br>(2018)* | Dentists per<br>100,000 Population<br>(2019) | Dental Visit within<br>Past Year (2018)* |  |
| Bristol County    | 199.4  | 83.0%  | 39.2   | 76.5%                                    |  |
| Kent County       | 87.3   | 82.8%  | 76.7   | 70.0%                                    |  |
| Newport County    | 90.9   | 81.4%  | 104.8  | 77.0%                                    |  |
| Providence County | 97.9   | 83.5%  | 60.6   | 67.0%                                    |  |
| Washington County | 89.6   | 81.7%  | 62.1   | 75.7%                                    |  |
| Rhode Island      | 99.4   | 82.4%  | 65.7   | 71.8%                                    |  |
| United States     | 75.8   | 75.1%  | 71.4   | 66.2%                                    |  |

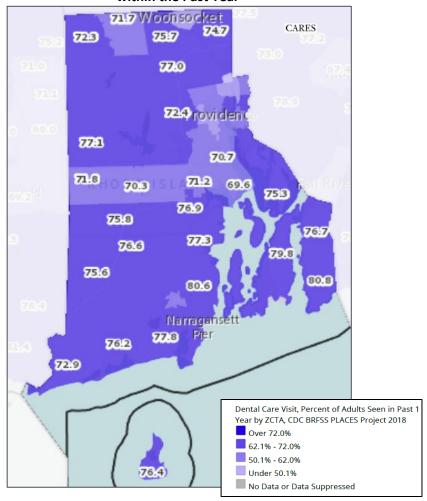
Source: Health Resources and Services Administration & Centers for Disease Control and Prevention, PLACES & BRFSS \*Data are reported as age-adjusted percentages.

Rhode Island Adults with a Routine Checkup within the Past Year





# Rhode Island Adults with a Dental Visit within the Past Year



### Health Risk Factors and Chronic Disease

Routine preventative care contributes to fewer health risk factors and better health status. Consistent with having better overall access to care, Rhode Islanders as a whole are healthier than their peers nationally, with fewer reported health risk factors and lower prevalence and mortality due to chronic disease.

While the state overall is healthier than the nation, health outcomes vary widely across the five counties. Residents of Kent and Providence counties have increased risk factors for chronic disease, including lack of physical activity and tobacco use. These health disparities correlate with existing differences in socioeconomic factors and physical environment, including lower income, higher poverty, and/or lower educational attainment.

Consistent with having increased health risk factors, residents of Kent and Providence counties have a higher prevalence of chronic disease, including obesity, diabetes, heart disease, cancer, and respiratory



disease. The following report sections further explore these health issues and their connection to underlying social determinants of health. Social determinants of health not only lead to poorer health outcomes and the onset of disease, but are also likely to impede disease management and treatment efforts, further exacerbating poorer health outcomes

2018 Age-Adjusted Adult (18+) Physical Health Outcomes

|                   | Physical Health Not Good for    | No Leisure-Time Physical Activity |
|-------------------|---------------------------------|-----------------------------------|
|                   | 14 or More Days in Past 30 Days | in Past 30 Days                   |
| Bristol County    | 10.7%                           | 20.9%                             |
| Kent County       | 11.9%                           | 23.2%                             |
| Newport County    | 10.3%                           | 19.3%                             |
| Providence County | 13.8%                           | 27.9%                             |
| Washington County | 11.0%                           | 19.0%                             |
| Rhode Island      | 11.5%                           | 24.5%                             |
| United States     | 11.8%                           | 23.6%                             |

Source: Centers for Disease Control and Prevention, PLACES & BRFSS

2018 Age-Adjusted Adults (18+) Who Are Current Smokers\*

|                   | Percentage |  |  |  |
|-------------------|------------|--|--|--|
| Bristol County    | 14.4%      |  |  |  |
| Kent County       | 18.5%      |  |  |  |
| Newport County    | 14.9%      |  |  |  |
| Providence County | 17.6%      |  |  |  |
| Washington County | 16.2%      |  |  |  |
| Rhode Island      | 15.2%      |  |  |  |
| United States     | 15.9%      |  |  |  |

Source: Centers for Disease Control and Prevention, BRFSS

### Obesity and Diabetes

Rhode Island adults overall have historically had lower prevalence of obesity and diabetes compared to national benchmarks, but prevalence largely increased in recent years. From 2013 to 2017, all counties except Bristol saw an increase in adult obesity. Currently, approximately 1 in 4 adults in all counties are considered obese. From 2016 to 2017, all counties except Bristol also saw an increase in adult diabetes.

Kent and Providence counties have the highest prevalence of adult obesity and diabetes in the state, estimated at nearly 30% and 10% respectively in both counties. Adult diabetes prevalence in Kent County increased annually from 2014 to 2017. Kent and Providence counties also have the highest rates of diabetes death in the state and saw the largest death rate increase from 2010 to 2019. Consistent with national trends, diabetes death rates are disproportionately higher among Black/African

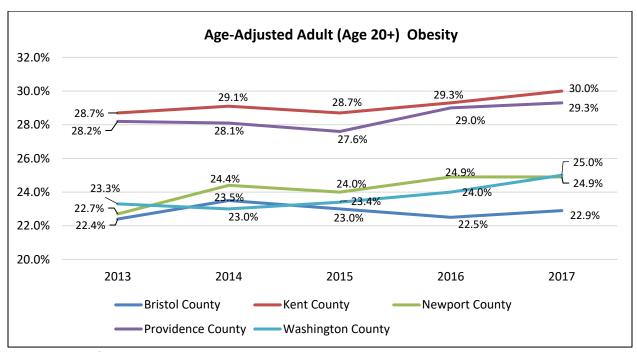
<sup>\*</sup>A change in reporting methodology occurred in 2018 providing age-adjusted county percentages. Data prior to 2018 were reported as crude percentages and are not comparable.



**American Rhode Islanders compared to other racial and ethnic groups.** This disparity also holds true in Providence County; racial and ethnic data are not reported for other counties due to unreliable rates.

A change in data methodology occurred in 2018 providing obesity and diabetes prevalence for adults age 18 or older versus age 20 or older at the county-level. Of note, based on the new methodology, the prevalence of adult diabetes in Providence County is estimated at 10.7%, a 1-point increase from previous reporting, and a potential indicator of higher diabetes prevalence among young adults.

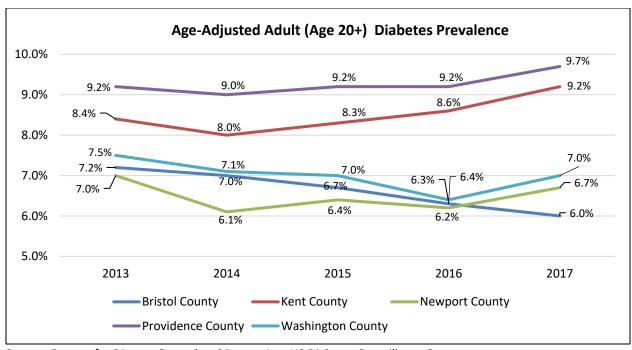
Consistent with social determinants of health barriers captured by the area deprivation index (ADI), communities with a higher ADI, including the core cities, have a higher prevalence of both obesity and diabetes. Of note, adult diabetes prevalence in Providence zip code 02907 and Central Falls zip codes 02863 is approximately 15% compared to a statewide average of 10%.



Source: Centers for Disease Control and Prevention, US Diabetes Surveillance System & BRFSS

<sup>\*</sup>State and national data are reported as a percentage of adults age 18+ and are excluded.





Source: Centers for Disease Control and Prevention, US Diabetes Surveillance System

2018 Age-Adjusted Adult (Age 18+) Health Outcome Indicators\*

|                   | Obese | Diabetes Diagnosis |
|-------------------|-------|--------------------|
| Bristol County    | 24.8% | 7.4%               |
| Kent County       | 29.6% | 9.0%               |
| Newport County    | 26.5% | 7.4%               |
| Providence County | 29.6% | 10.7%              |
| Washington County | 25.6% | 7.7%               |
| Rhode Island      | 27.5% | 9.6%               |
| United States     | 30.9% | 10.0%              |

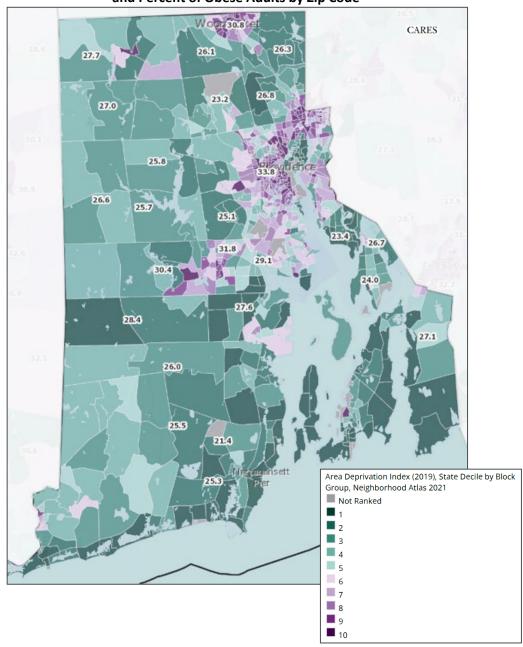
Source: Centers for Disease Control and Prevention, PLACES & BRFSS

<sup>\*</sup>State and national data are reported as a percentage of adults age 18+ and are excluded.

<sup>\*</sup>Data are not comparable to previously trended indicators due to differences in age composition (age 18+ vs. age 20+) at the county-level.

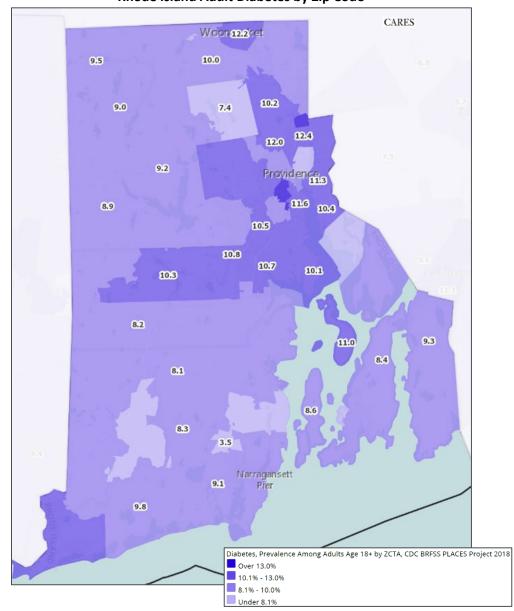


# Rhode Island Area Deprivation Index by Block Group and Percent of Obese Adults by Zip Code

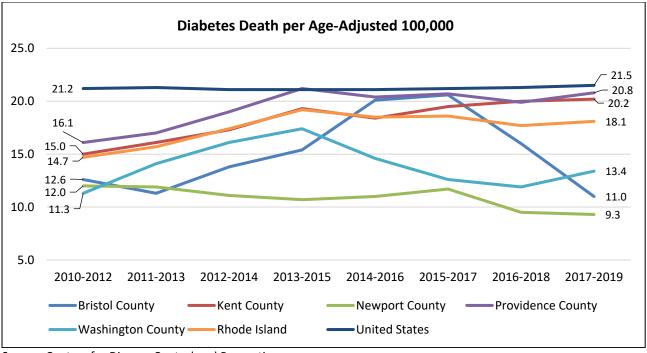




### **Rhode Island Adult Diabetes by Zip Code**







Source: Centers for Disease Control and Prevention

2017-2019 Diabetes Death Rate per Age-Adjusted 100,000, by Race and Ethnicity\*

|   | Providence County | Rhode Island | United States |
|---|-------------------|--------------|---------------|
| Total Population                        | 20.8              | 18.1         | 21.5          |
| White, Non-Hispanic                     | 20.2              | 17.3         | 18.9          |
| Black or African American, Non-Hispanic | 29.8              | 29.0         | 38.5          |
| Asian, Non-Hispanic                     | NA                | NA           | 16.5          |
| Latinx origin (any race)                | 17.6              | 17.9         | 25.2          |

Source: Centers for Disease Control and Prevention

### **Heart Disease**

Heart disease is the leading cause of death nationally. High blood pressure and cholesterol are two of the primary causes of heart disease and can be preventable. Across Rhode Island counties, more than 1 in 4 adults have high blood pressure and/or high cholesterol, a consistent proportion as the nation overall. Kent and Providence counties have the highest proportion of adults with high blood pressure and/or high cholesterol, and the highest death rates due to heart disease.

Rhode Island overall has historically had a lower heart disease death rate than the nation, although the rates are more similar now due to an increase in the statewide death rate from 2016 to 2019. At the county-level, heart disease death rates have been variable over the past decade with the exception of Newport County, which saw a 40-point decline from 2010 to 2019. Rhode Island and Providence County differ from the nation with a higher heart disease death rate among Whites than Black/African

<sup>\*</sup>Data are not reportable for other counties due to low death counts.

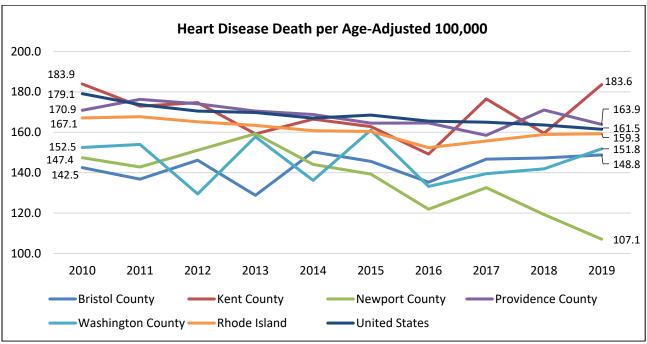


Americans; racial and ethnic data are not reported for other Rhode Island counties due to unreliable rates.

2017 Age-Adjusted Adult (Age 18+) Heart Disease Risk Factors Prevalence

|                   | Adults with High Blood Pressure | Adults with High Cholesterol |
|-------------------|---------------------------------|------------------------------|
| Bristol County    | 25.6%                           | 26.8%                        |
| Kent County       | 30.6%                           | 27.4%                        |
| Newport County    | 26.4%                           | 25.7%                        |
| Providence County | 32.0%                           | 29.0%                        |
| Washington County | 27.1%                           | 27.4%                        |
| Rhode Island      | 29.9%                           | 28.9%                        |
| United States     | 29.7%                           | 29.3%                        |

Source: Centers for Disease Control and Prevention, PLACES & BRFSS



Source: Centers for Disease Control and Prevention

2017-2019 Heart Disease Death Rate per Age-Adjusted 100,000, by Race and Ethnicity\*

|   | Providence County | Rhode Island | United States |
|---|-------------------|--------------|---------------|
| Total Population                        | 164.4             | 158.0        | 163.4         |
| White, Non-Hispanic                     | 178.7             | 165.3        | 167.4         |
| Black or African American, Non-Hispanic | 123.1             | 127.0        | 207.6         |
| Asian, Non-Hispanic                     | 83.1              | 81.5         | 84.3          |
| Latinx origin (any race)                | 67.6              | 64.5         | 112.5         |

Source: Centers for Disease Control and Prevention

<sup>\*</sup>Data are not reportable for other counties due to low death counts.



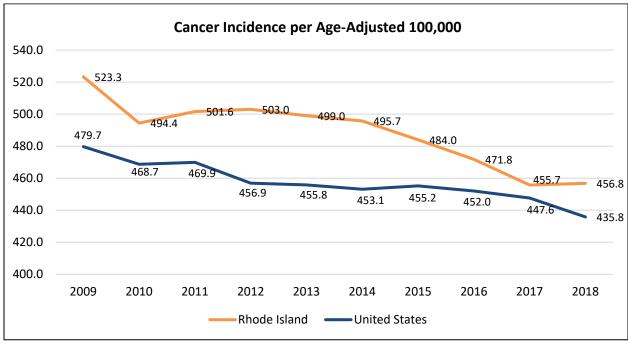
### Cancer

Cancer is the second leading cause of death nationally. Approximately 7% of adults in Rhode Island counties have ever been diagnosed with cancer compared to 6% nationwide. As of 2018, the statewide cancer incidence rate was approximately 20 points higher than the national rate. Despite having higher cancer incidence, the statewide cancer death rate is similar to the national rate. This finding is likely reflective of better cancer screening practices in Rhode Island and earlier detection and treatment. With few exceptions, Rhode Island counties report a higher percentage of adults who receive cancer screenings in comparison to the nation.

2018 Age-Adjusted Adult Cancer Prevalence and Screening Practices

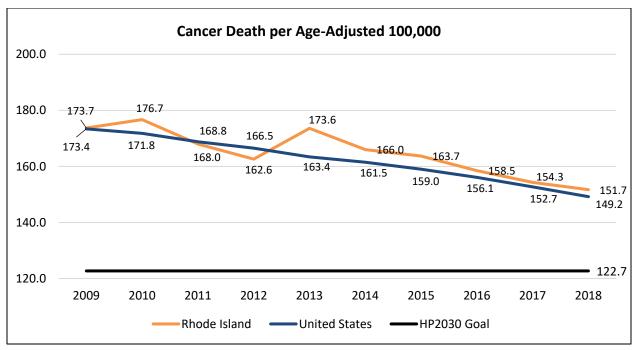
|                   | Adults with Cancer (ever, excluding skin) | Mammogram in<br>the Past 2 Years<br>(50-74 years) | Cervical Cancer<br>Screening<br>(21-65 years) | Colon Cancer<br>Screening<br>(50-74 years) |
|-------------------|---|---|---|--|
| Bristol County    | 6.6%                                      | 76.6%   | 88.0%   | 73.6%                                      |
| Kent County       | 6.7%                                      | 78.3%   | 87.9%   | 72.9%                                      |
| Newport County    | 6.8%                                      | 76.7%   | 88.8%   | 74.4%                                      |
| Providence County | 6.3%                                      | 78.8%   | 86.8%   | 68.1%                                      |
| Washington County | 7.0%                                      | 75.1%   | 87.5%   | 70.5%                                      |
| United States     | 6.0%                                      | 77.8%   | 85.5%   | 65.0%                                      |

Source: Centers for Disease Control and Prevention, PLACES & BRFSS



Source: Centers for Disease Control and Prevention, United States Cancer Statistics: Data Visualizations





Source: Centers for Disease Control and Prevention, United States Cancer Statistics: Data Visualizations

No Rhode Island counties meet the HP2030 overall cancer death rate goal of 122.7 per 100,000. Based on 2014-2018 aggregate data, Bristol County has the lowest overall death rate at 140.1. Of note, Bristol County has a higher incidence of common cancer types, including female breast and prostate cancer, but the death rates for these cancers meet HP2030 goals, suggesting cancers are being identified earlier and treated effectively in the county.

Kent County residents experience notable cancer disparities in comparison to other Rhode Island residents. The county has the highest cancer incidence and death rates in the state and exceeds national rates. Analysis of common cancer types suggests that lung cancer is a top contributor to cancer morbidity and mortality in Kent County and is likely a result of both higher smoking rates among adults and potential exposure to radon. Prostate cancer death is also elevated in Kent County compared to other counties and should be further explored.

Rhode Island overall has higher reported lung cancer incidence and death rates than the nation. A potential contributor is the prevalence of radon in homes. Radon is a colorless and odorless gas produced from the decay of radium in rocks, soil, and water. It is the second leading cause of lung cancer. The Environmental Protection Agency (EPA) recommends action to mitigate radon when indoor testing shows levels of 4.0 pCi/L or higher. As of 2016, it was estimated that 1 in 4 homes in Rhode Island had radon levels at or above 4.0 pCi/L compared to the national average of 1 in 15 homes.

The EPA distinguishes counties by radon zones, with Zone 1 indicating counties with predicted average indoor radon screening levels greater than 4.0 pCi/L. Within Rhode Island, Kent and Washington counties are designated as Zone 1, and both counties have elevated rates of lung cancer incidence and death, although Kent County rates far exceed Washington County rates.



**Providence County has the second highest rates of lung cancer incidence and death in the state, behind Kent County.** The county has a higher percentage of smoking adults and is designated as Zone 2 by the EPA for radon levels. Consistent with other morbidity and mortality statistics, Providence County reports the most robust cancer data by race and ethnicity. Available racial and ethnic data indicates that Whites experience higher cancer burden in Rhode Island.

Newport County has lower overall cancer incidence and death rates than the state and nation, as well lower incidence and death rates for all common cancer types except female breast. **The Newport County female breast cancer incidence rate is the lowest in the state, but the death rate is the highest in the state and exceeds the national death rate.** Newport County women are slightly less likely to receive mammogram screenings (76.7%) as women nationwide (77.8%); other potential access to care barriers should also be explored.

2014-2018 Age-Adjusted Cancer Incidence and Death per 100,000 Population by Race and Ethnicity

| 2014-2018 /                  | age-Adjusted      | Cancer Incide  | nce and Deal      | n per 100,000        | Population b         | y Race and Et   | nnicity          |
|------------------------------|-------------------|----------------|-------------------|----------------------|----------------------|-----------------|------------------|
|                              | Bristol<br>County | Kent<br>County | Newport<br>County | Providence<br>County | Washington<br>County | Rhode<br>Island | United<br>States |
| Cancer Incidence             |                   |                |                   |                      |                      |                 |                  |
| Total Population             | 470.4             | 507.4          | 460.0             | 459.4                | 496.2                | 472.8           | 449.0            |
| White                        | 470.6             | 506.5          | 461.9             | 461.4                | 493.0                | 474.1           | 451.3            |
| Black or African<br>American | NA                | 332.5          | 378.6             | 333.7                | NA                   | 338.4           | 445.4            |
| Asian                        | NA                | NA             | NA                | 271.6                | 392.6                | 276.8           | 291.5            |
| Latinx origin<br>(any race)  | NA                | 353.0          | NA                | 402.8                | NA                   | 397.2           | 345.5            |
| Cancer Death                 |                   |                |                   |                      |                      |                 |                  |
| Total Population             | 140.1             | 171.2          | 150.9             | 158.4                | 157.8                | 158.8           | 155.6            |
| White                        | 141.1             | 174.3          | 152.8             | 164.6                | 157.5                | 162.8           | 156.4            |
| Black or African<br>American | NA                | NA             | NA                | 103.3                | NA                   | 106.6           | 177.6            |
| Asian                        | NA                | NA             | NA                | 100.4                | NA                   | 92.9            | 97.4             |
| Latinx origin<br>(any race)  | NA                | NA             | NA                | 82.8                 | NA                   | 81.0            | 111.3            |

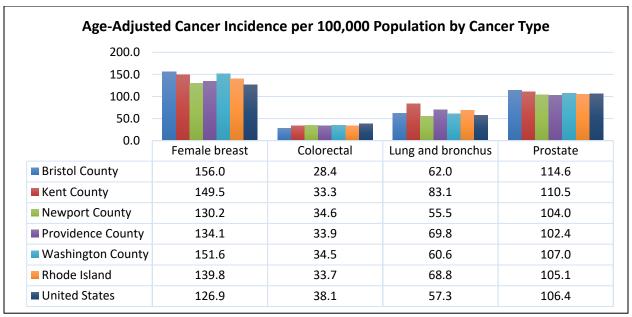
Source: Centers for Disease Control and Prevention, United States Cancer Statistics: Data Visualizations

2021 Radon Zones and Estimated Levels by County

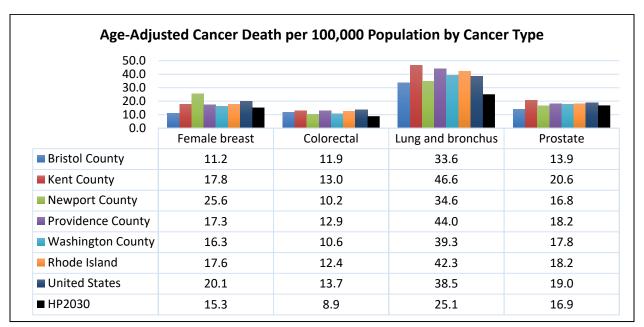
|                   | Radon Zone         |
|-------------------|--------------------|
| Bristol County    | Zone 3 (<2 pCi/L)  |
| Kent County       | Zone 1 (>4 pCi/L)  |
| Newport County    | Zone 2 (2-4 pCi/L  |
| Providence County | Zone 2 (2-4 pCi/L) |
| Washington County | Zone 1 (> 4 pCi/L) |

Source: Environmental Protection Agency





Source: Centers for Disease Control and Prevention, United States Cancer Statistics: Data Visualizations



Source: Centers for Disease Control and Prevention, United States Cancer Statistics: Data Visualizations

### **Respiratory Disease**

Chronic lower respiratory disease (CLRD) includes several chronic conditions of the respiratory tract, including asthma and chronic obstructive pulmonary disease (COPD). All Rhode Island counties have a higher prevalence of adult asthma compared to the national benchmark. This disparity is due in part to Rhode Island's older housing stock, which is more likely to contain hazardous materials that can trigger asthma. Rhode Island is tied with Massachusetts for the third oldest housing stock in the nation.



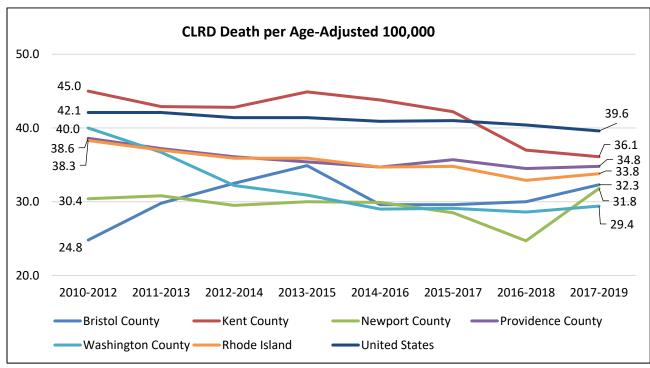
Approximately 73.5% of housing units in Rhode Island were built before 1980 compared to 53.6% nationwide. Providence County has the oldest housing stock in Rhode Island, and the highest prevalence of adult asthma. Adult COPD prevalence across Rhode Island is consistent with the nation.

The CLRD death rate has generally been declining in Rhode Island and across the nation. All Rhode Island counties have a lower CLRD death rate than the nation; Kent and Providence are the only counties to exceed the statewide death rate. Consistent with the nation, CLRD death rates are historically higher among Whites than other racial and ethnic groups.

2018 Age-Adjusted Adult (Age 18+) Respiratory Disease Prevalence

|                   | Adults with Current Asthma Diagnosis | Adults with COPD |
|-------------------|--------------------------------------|------------------|
| Bristol County    | 10.3%                                | 5.7%             |
| Kent County       | 11.3%                                | 6.4%             |
| Newport County    | 10.4%                                | 5.6%             |
| Providence County | 11.8%                                | 6.9%             |
| Washington County | 11.0%                                | 6.1%             |
| Rhode Island      | 11.9%                                | 6.2%             |
| United States     | 9.1%                                 | 6.2%             |

Source: Centers for Disease Control and Prevention, PLACES & BRFSS



Source: Centers for Disease Control and Prevention



2017-2019 CLRD Death Rate per Age-Adjusted 100,000, by Race and Ethnicity\*

|   | Rhode Island | United States |
|---|--------------|---------------|
| Total Population                        | 33.8         | 39.6          |
| White, Non-Hispanic                     | 36.6         | 45.0          |
| Black or African American, Non-Hispanic | 13.5         | 29.8          |
| Asian, Non-Hispanic                     | NA           | 11.3          |
| Latinx origin (any race)                | 8.3          | 16.8          |

Source: Centers for Disease Control and Prevention

### **Aging Population**

Rhode Island is an aging community, with a growing proportion of older adults that exceeds national averages. As of 2015-2019, 30.7% of Rhode Island residents were age 55 or older compared to 28.5% nationwide. Among older adults age 65 or older, the proportion age 65-74 saw the greatest increase in recent years, largely due to the entry of the baby boomer generation.

According to the 2020 Rhode Island Healthy Aging Data Report, the state saw an increase in the number of older adults with multiple chronic conditions and a decline in those with no chronic conditions from 2016, suggesting increased overall morbidity. Consistent with this finding, statewide inpatient hospital stays among older adults age 65 or older increased from 2016 to 2020.

According to Centers for Medicare & Medicaid Services data, **74.4% of Rhode Island Medicare** beneficiaries age 65 or older have two or more chronic conditions compared to **70.3% nationwide**. The proportion of Medicare beneficiaries with multiple chronic conditions is highest in Kent County (76.8%), followed by Providence County (75.1%). Kent and Providence counties also have the highest proportion of beneficiaries with six or more conditions, affecting 1 in 5 individuals.

**Poorer health among older adults may be due in part to declining economic situation.** As reported in earlier report sections, the economic situation of older adults in Rhode Island worsened even before the impact of COVID-19, including higher poverty and receipt of food benefits and more older adults engaged in the workforce. Kent and Providence counties have the highest proportion of older adults living in poverty at approximately 1 in 10; Kent County older adult poverty is increasing.

2018 Chronic Condition Comorbidities among Medicare Beneficiaries 65 Years or Older

|                   | 0 to 1 Condition | 2 to 3 Conditions | 4 to 5 Conditions | 6 or More<br>Conditions |
|-------------------|------------------|-------------------|-------------------|-------------------------|
| Bristol County    | 26.7%            | 32.6%             | 24.0%             | 16.8%                   |
| Kent County       | 23.2%            | 31.6%             | 24.9%             | 20.4%                   |
| Newport County    | 28.4%            | 33.1%             | 22.2%             | 16.3%                   |
| Providence County | 24.9%            | 30.5%             | 24.9%             | 19.7%                   |
| Washington County | 27.3%            | 34.6%             | 23.0%             | 15.0%                   |
| Rhode Island      | 25.6%            | 31.9%             | 24.2%             | 18.4%                   |
| United States     | 29.7%            | 29.4%             | 22.8%             | 18.2%                   |

Source: Centers for Medicare & Medicaid Services

<sup>\*</sup>Data are not reportable by county due to low death counts.



While chronic conditions are on the rise among Rhode Island older adults, medical utilization patterns and population statistics suggest improving care access and lower disability. The rate of physician visits per year increased from 2016 to 2020, while prescription refills and durable medical equipment claims decreased. According to 2015-2019 data, the proportion of older adults with a reported disability is similar to or lower than the national average in all Rhode Island counties. Kent and Providence counties report the highest proportion of disabled older adults at approximately one-third of individuals.

Rhode Island Statewide Older Adult Healthcare Utilization, 2016 vs. 2020

|  | 2016  | 2020  | Change from 2020 to 2016 |
|--|-------|-------|--------------------------|
| Dually eligible for Medicare and Medicaid              | 14.6% | 13.8% | -0.8%                    |
| Physician visits per year                              | 8.0   | 8.4   | 0.4                      |
| Inpatient hospital stays per 1,000 people 65+ per year | 284.1 | 295.2 | 11.1                     |
| Part D monthly prescription fills per person per year  | 2.0   | 1.7   | -0.3                     |
| Durable medical equipment claims per year              | 55.8  | 54.2  | -1.6                     |

Source: Tufts Health Plan Foundation, Rhode Island Healthy Aging Data Report

2015-2019 Older Adult Population by Disability Status

|                       | Bristol | Kent   | Newport | Providence | Washington | Rhode  | United |
|-----------------------|---------|--------|---------|------------|------------|--------|--------|
|                       | County  | County | County  | County     | County     | Island | States |
| Total population      | 10.2%   | 14.7%  | 12.2%   | 13.8%      | 11.4%      | 13.4%  | 12.6%  |
| 65 years or older     | 27.0%   | 34.1%  | 25.9%   | 34.4%      | 27.9%      | 32.2%  | 34.5%  |
| Ambulatory            | 15.4%   | 19.7%  | 15.3%   | 23.4%      | 13.8%      | 20.1%  | 21.9%  |
| Hearing               | 12.0%   | 15.9%  | 11.6%   | 12.8%      | 14.1%      | 13.3%  | 14.3%  |
| Independent<br>living | 11.6%   | 13.9%  | 10.7%   | 16.2%      | 8.8%       | 13.9%  | 14.2%  |
| Cognitive             | 6.1%    | 8.3%   | 6.5%    | 9.4%       | 5.6%       | 8.2%   | 8.6%   |
| Vision                | 4.2%    | 5.6%   | 3.4%    | 5.7%       | 4.4%       | 5.2%   | 6.3%   |

Source: US Census Bureau, American Community Survey

Across Rhode Island, there is opportunity to leverage increasing physician visits among older adults to ensure receipt of preventive services, such as recommended vaccines and cancer screenings. Across all counties, about one-quarter of older adult men and women are up to date on preventive services, a lower proportion than the nation overall. Older adult men residing in Providence County are at increased risk, with only 19.4% up to date on preventive services.



2018 Age-Adjusted Older Adult (65+) Clinical Preventive Services\*

|                   | Older Adult Men Who Are Up To Date On Clinical Preventive Services | Older Adult Women Who Are Up To<br>Date On Clinical Preventive Services |
|-------------------|--|---|
| Bristol County    | 27.2%  | 24.3%   |
| Kent County       | 24.4%  | 24.7%   |
| Newport County    | 23.6%  | 22.7%   |
| Providence County | 19.4%  | 24.3%   |
| Washington County | 26.3%  | 25.4%   |
| United States     | 32.7%  | 28.1%   |

Source: Centers for Disease Control and Prevention, PLACES & BRFSS

Older adult healthcare utilization and costs increase significantly with a higher number of reported chronic diseases. Tracking these indicators helps plan allocation of resources to best anticipate and serve need in the community. Rhode Island overall has lower per capita spending among older adult Medicare beneficiaries compared to the nation, regardless of the number of chronic conditions, but spending is still notable. Among beneficiaries with six or more conditions, per capita spending averages \$26,000 annually. Of note, healthcare spending is generally higher in Newport and Washington counties.

2018 Per Capita Standardized Spending\* for Medicare Beneficiaries Age 65 Years or Older

|                   | 0 to 1 Condition | Condition 2 to 3 Conditions 4 to 5 Conditions |          | 6 or More<br>Conditions |  |
|-------------------|------------------|---|----------|-------------------------|--|
| Bristol County    | \$1,970          | \$4,994                                       | \$9,977  | \$25,651                |  |
| Kent County       | \$2,000          | \$4,848                                       | \$9,432  | \$26,530                |  |
| Newport County    | \$2,188          | \$5,401                                       | \$10,528 | \$28,181                |  |
| Providence County | \$1,684          | \$4,761                                       | \$9,435  | \$26,354                |  |
| Washington County | \$2,218          | \$5,310                                       | \$10,360 | \$26,627                |  |
| Rhode Island      | \$1,923          | \$4,980                                       | \$9,749  | \$26,598                |  |
| United States     | \$1,944          | \$5,502                                       | \$10,509 | \$29,045                |  |

Source: Centers for Medicare & Medicaid Services

<sup>\*</sup>Includes a flu vaccine in the past year, pneumococcal pneumonia vaccine ever, colorectal cancer screening, and mammogram in the past two years (women).

<sup>\*</sup>Standardized spending takes into account payment factors that are unrelated to the care provided (e.g. geographic variation in Medicare payment amounts).



2018 ED Visits per 1,000 Medicare Beneficiaries Age 65 Years or Older

|                   | 0 to 1 Condition | 2 to 3 Conditions | 4 to 5 Conditions | 6 or More<br>Conditions |
|-------------------|------------------|-------------------|-------------------|-------------------------|
| Bristol County    | 112.7            | 223.8             | 480.4             | 1,492.6                 |
| Kent County       | 106.6            | 276.3             | 602.8             | 1,800.9                 |
| Newport County    | 140.0            | 342.7             | 690.5             | 1,876.7                 |
| Providence County | 101.9            | 263.7             | 572.6             | 1,748.9                 |
| Washington County | 121.5            | 304.6             | 662.2             | 1,800.5                 |
| Rhode Island      | 112.4            | 282.0             | 601.9             | 1,767.9                 |
| United States     | 122.6            | 318.4             | 621.1             | 1,719.1                 |

Source: Centers for Medicare & Medicaid Services

Nationally, the most common chronic conditions among older adult Medicare beneficiaries, in order of prevalence, are hypertension, high cholesterol, and arthritis. This finding is consistent across Rhode Island and its five counties. In comparison to the nation, Rhode Island older adult Medicare beneficiaries have a higher prevalence of all reported chronic conditions, except Alzheimer's disease, chronic kidney disease, diabetes, heart failure, and ischemic heart disease. Higher statewide disease prevalence is largely due to disparities in Kent and Providence counties. Consistent with total population statistics, nearly all Rhode Island counties have a higher prevalence of cancer among older adults.

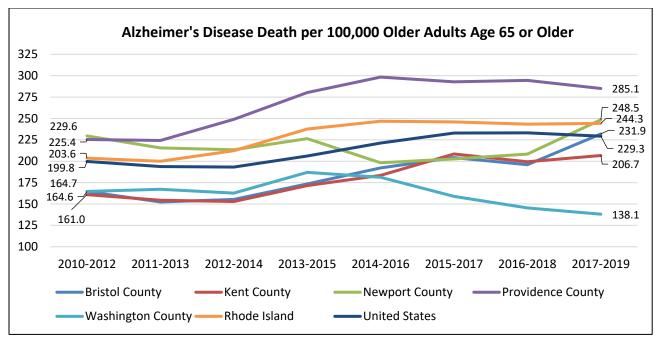
The death rate from Alzheimer's disease is higher in Rhode Island than the nation, largely due to a death rate in Providence County that exceeds the national death rate by more than 50 points. **The Alzheimer's disease death rate is generally increasing in all Rhode Island counties except Washington.** Washington County reports a lower prevalence of Alzheimer's disease among older adults and a declining death rate. Bristol County reports the highest prevalence of Alzheimer's disease in the state and saw the highest death rate increase over the past decade.

2018 Chronic Condition Prevalence among Medicare Beneficiaries Age 65 Years or Older

|                        | Bristol<br>County | Kent<br>County | Newport<br>County | Providence<br>County | Washington<br>County | Rhode<br>Island | United<br>States |
|------------------------|-------------------|----------------|-------------------|----------------------|----------------------|-----------------|------------------|
| Alzheimer's Disease    | 12.0%             | 10.9%          | 10.1%             | 11.6%                | 9.4%                 | 10.9%           | 11.9%            |
| Arthritis              | 34.4%             | 36.9%          | 32.8%             | 35.2%                | 36.7%                | 35.4%           | 34.6%            |
| Asthma                 | 6.4%              | 6.0%           | 6.1%              | 6.8%                 | 5.9%                 | 6.4%            | 4.5%             |
| Cancer                 | 11.2%             | 11.3%          | 11.4%             | 10.8%                | 11.2%                | 11.1%           | 9.3%             |
| Chronic Kidney Disease | 21.2%             | 25.6%          | 19.5%             | 25.7%                | 19.9%                | 23.6%           | 24.9%            |
| COPD                   | 9.8%              | 12.3%          | 11.2%             | 11.9%                | 10.7%                | 11.5%           | 11.4%            |
| Depression             | 17.8%             | 20.2%          | 18.2%             | 19.4%                | 16.8%                | 18.8%           | 16.0%            |
| Diabetes               | 22.9%             | 26.4%          | 21.2%             | 27.4%                | 20.8%                | 25.0%           | 27.1%            |
| Heart Failure          | 12.1%             | 14.3%          | 12.1%             | 14.4%                | 11.8%                | 13.5%           | 14.6%            |
| High Cholesterol       | 56.5%             | 59.4%          | 55.2%             | 57.8%                | 53.5%                | 56.9%           | 50.5%            |
| Hypertension           | 61.9%             | 66.0%          | 60.3%             | 64.6%                | 61.2%                | 63.6%           | 59.8%            |
| Ischemic Heart Disease | 26.7%             | 31.5%          | 24.8%             | 28.3%                | 25.1%                | 27.8%           | 28.6%            |
| Stroke                 | 4.3%              | 4.1%           | 4.0%              | 4.2%                 | 3.7%                 | 4.1%            | 3.9%             |

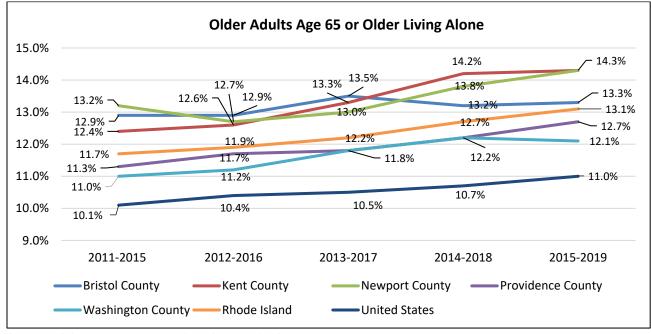
Source: Centers for Medicare & Medicaid Services





Source: Centers for Disease Control and Prevention

In older adults, chronic illness often leads to diminished quality of life and increased social isolation. Social isolation may also impede effective chronic illness management and accelerate the negative impact of chronic diseases. One indicator of social isolation among older adults is the percentage of adults ages 65 years or older who live alone. **Rhode Island older adults are more likely to live alone when compared to their peers across the US.** This trend holds true across all counties, where approximately 12-14% of older adults live alone compared to 11% nationwide.





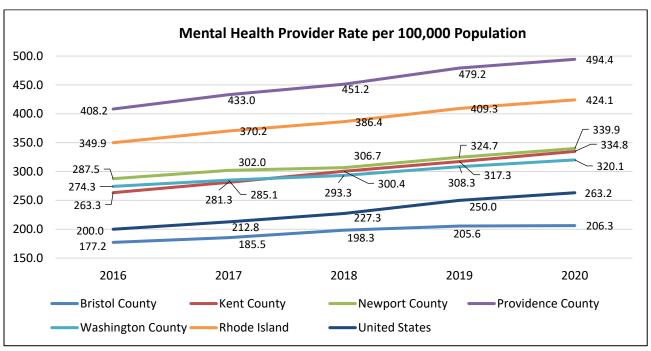
### Mental Health and Substance Use Disorder

### **Access to Services**

Rhode Island overall has better access to mental health providers than the nation, as indicated by the rate of mental health providers per 100,000 population. As of 2020, the rate of mental health providers across Rhode Island exceeded the national rate by more than 160 points. While providers are concentrated in Providence County, Bristol County is the only county to have a lower rate of providers than the nation.

Note: The mental health provider rate includes psychiatrists, psychologists, licensed clinical social workers, counselors, and mental health providers that treat alcohol and other drug abuse, among others. It does not account for potential shortages in specific provider types.

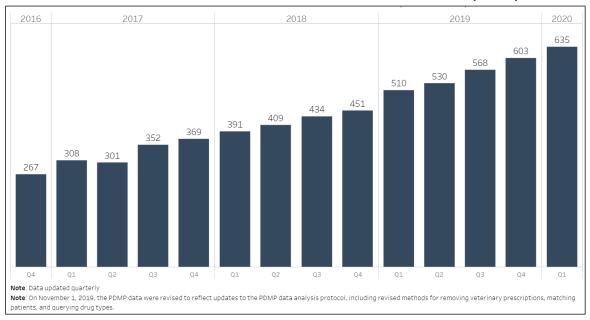
Despite higher and increasing mental health provider availability statewide, much of Rhode Island is a mental health HPSA and mental healthcare is not accessible to all residents. All of Newport and Washington counties are designated mental health HPSAs. Providence County is a HPSA for low-income individuals, despite having a mental health provider rate that is nearly double the national rate.



Source: Centers for Medicare and Medicaid Services

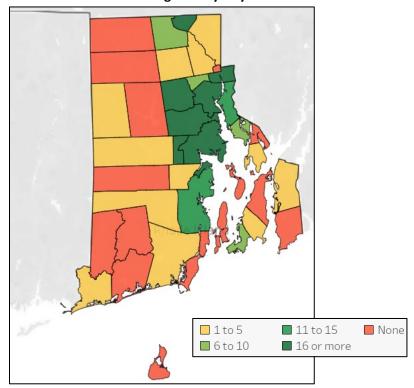
Rhode Island also saw a significant increase in the number of practitioners able to prescribe buprenorphine, from 267 at the end of 2016 to 635 in Q1 2020. Buprenorphine is the first medication-assisted treatment (MAT) for opioid use disorder that can be prescribed or dispensed in physician offices. MAT waivered providers and opioid treatment programs, including buprenorphine, are available across Rhode Island, but the largest concentration of providers is in and around Providence and Woonsocket.

2016-2020 Number of Trained and DATA-Waivered Practitioners for Buprenorphine



Source: Prevent Overdose RI

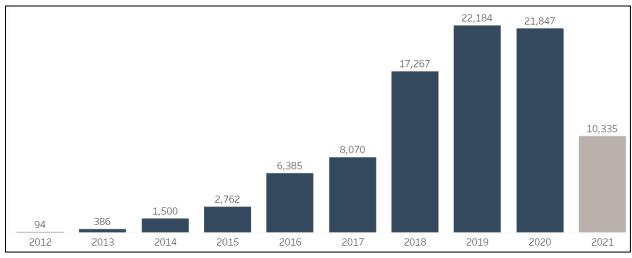
**MAT Providers and Programs by City or Town** 



Source: Prevent Overdose RI



Naloxone is an emergency use medicine that rapidly reverses an opioid overdose. Rhode Island has prioritized making naloxone kits available across the community, partnering with hospitals, pharmacies, and other community partners. In 2020, 21,847 naloxone kits were distributed in Rhode Island, a nearly 15-fold increase from 2014. The increase in distribution reflects both greater access and greater demand for Naloxone in the community.



2012-2021 Naloxone Kits Distributed in Rhode Island

Source: Prevent Overdose RI

In 2019, the Rhode Island Executive Office of Health and Human Services conducted a review of the behavioral health system in the state. The resulting Rhode Island Behavioral Health System Review included both quantitative and qualitative components, to determine gaps in services and access in the state. Key findings from the system review are highlighted below:

- Rhode Island has several behavioral health system capacity challenges to address including both gaps in key service lines and a shortage of linguistically and culturally competent providers, that together disproportionately negatively impact communities of color.
- Underlying drivers that perpetuate the challenges described above include:
  - Fragmentation in accountability both across state agencies and across providers, insufficient linkages between services to support care coordination and transitions of care, and a lack of integration between behavioral health and medical care.
  - Payments for behavioral health services largely rely on a fee-for-service chassis that does not account for quality or outcomes.
  - Lack of sufficiently modern infrastructure hinders providers of behavioral health services in Rhode Island, as well as creates barriers for Rhode Island to effectively and efficiently monitor the behavioral health system on an ongoing basis.

The following diagrams summarize identified gaps and shortages in the behavioral health continuum of care for children, adults, and older adults. Gaps indicate there was no evidence of the service existing



in Rhode Island. Shortages indicate that while some level of service exists it is not adequate to meet the need of Rhode Islanders with behavioral health conditions.

Behavioral Health Service Gaps and Shortages for Adults and Older Adults

|                          | Mental Health Services   |                          | Substance Use Services   |
|--------------------------|--|--------------------------|--|
| Status                   | Service Type   | Status                   | Service Type   |
| Gaps                     | Mobile Crisis Treatment  | Gaps                     | Mobile Medication Assisted Treatment   |
| Significant<br>Shortages | Community Step Down Hospital Diversion State Sponsored Institutional Services Nursing Home Residential   | Significant<br>Shortages | Indicated Prevention Correctional SUD Transitional Services Recovery Housing Residential—High & Low Intensity* |
| Moderate<br>Shortages    | Non-CMHC Outpatient Providers Intensive Outpatient Programs Dual Diagnosis Treatment Crisis/Emergency Care Inpatient Treatment Home Care Homeless Outreach | Moderate<br>Shortages    | Intensive Outpatient Services<br>Supported Employment  |
| Slight Shortage          | Licensed Community Mental Health<br>Center tied to accessibility statewide   |                          |  |

Source: 2021 Rhode Island Behavioral Health System Review

**Behavioral Health Service Gaps and Shortages for Children** 

| Status                | Service Type                                |  |  |  |  |  |
|-----------------------|---|--|--|--|--|--|
|                       | Community Step Down                         |  |  |  |  |  |
| Gaps                  | Transition Age Youth Services               |  |  |  |  |  |
|                       | Residential Treatment for Eating Disorders* |  |  |  |  |  |
|                       | Universal BH Prevention Services            |  |  |  |  |  |
|                       | Hospital Diversion                          |  |  |  |  |  |
| Significant Shortages | State Sponsored Institutional Services      |  |  |  |  |  |
|                       | Nursing Home                                |  |  |  |  |  |
|                       | Residential/Housing*                        |  |  |  |  |  |
|                       | SUD Treatment                               |  |  |  |  |  |
| Madarata Chartagas    | Enhanced Outpatient Services                |  |  |  |  |  |
| Moderate Shortages    | Home and Community Based Services           |  |  |  |  |  |
|                       | Mobile Crisis                               |  |  |  |  |  |
| Slight Shortage       | Emergency Services                          |  |  |  |  |  |

Source: 2021 Rhode Island Behavioral Health System Review

<sup>\*</sup>Between Aug-Dec. 2020, between 55-108 people were waiting for residential services.

<sup>\*</sup>Between May-Dec. 2020, between 5-31 children and adolescents were waiting for residential services.



#### Mental Health Incidence and Prevalence

More than 1 in 10 adults across Rhode Island and the nation report having poor mental health on 14 or more days during a 30-day period. This measure is an indicator of persistent, and likely severe, mental health issues, which may impact quality of life and overall wellness. A similar percentage of adults report frequent mental distress across Rhode Island counties, with slightly higher percentages in Kent and Providence counties.

2018 Age-Adjusted Adult (Age 18+) Poor Mental Health Days

|                   | Average Mentally Unhealthy Days per Month | Frequent Mental Distress: 14 or More<br>Poor Mental Health Days per Month |
|-------------------|---|---|
| Bristol County    | 4.2                                       | 12.8%   |
| Kent County       | 4.8                                       | 14.1%   |
| Newport County    | 4.0                                       | 12.3%   |
| Providence County | 4.4                                       | 13.9%   |
| Washington County | 4.2                                       | 12.8%   |
| Rhode Island      | 4.2                                       | 12.5%   |
| United States     | 4.1                                       | 12.9%   |

Source: Centers for Disease Control and Prevention, BRFSS

The following tables show statewide hospitalization and ED usage for a primary diagnosis of mental health condition among Rhode Island residents. Data are trended from 2016 to second quarter (Q2) 2021. The data demonstrate that while overall hospitalizations and ED visits were declining from 2016 to 2019, significant declines were seen in 2020. From 2019 to 2020, the number of ED visits and hospitalizations due to a primary diagnosis of mental health condition decreased by 5,116 and 1,442 respectively. This finding is likely due in part to delayed or avoided care during the COVID-19 pandemic. Data for the first half of 2021 suggest similar trends as 2020.

Provided percentages by gender, race/ethnicity, and age reflect the proportion of individuals with a hospitalization or ED visit due to a primary diagnosis of mental health condition relative to total hospitalizations or ED visits for that demographic. When viewed by gender and race and ethnicity, the proportion of residents accessing the ED for a mental health condition was generally consistent from 2019 to 2020. Of note, the proportion of Black or Other race individuals hospitalized for a mental health condition declined approximately 1-2 percentage points. When viewed by age group, the proportion of middle-aged adults 30-44 years hospitalized for a mental health condition declined nearly 2 percentage points from 2019 to 2020.



Number and Percent of Emergency Department Visits due to Primary Diagnosis of Mental Health Condition (excluding substance use)

|              | 20     | 16   | 20     | 17   | 20     | 18   | 20     | 19   | 20     | 20   | 2021 (C | (1-Q2)* |
|--------------|--------|------|--------|------|--------|------|--------|------|--------|------|---------|---------|
|              | N      | %    | N      | %    | N      | %    | N      | %    | N      | %    | N       | %       |
| Overall      | 26,506 | 5.8% | 25,785 | 5.6% | 23,808 | 5.4% | 22,889 | 5.2% | 17,773 | 5.1% | 8,990   | 4.9%    |
| Gender       |        |      |        |      |        |      |        |      |        |      |         |         |
| Male         | 12,440 | 6.0% | 12,247 | 5.9% | 11,270 | 5.7% | 11,352 | 5.7% | 8,903  | 5.6% | 4,287   | 5.2%    |
| Female       | 14,066 | 5.6% | 13,530 | 5.3% | 12,532 | 5.2% | 11,529 | 4.8% | 8,862  | 4.8% | 4,700   | 4.6%    |
| Race/Ethnici | ty     |      |        |      |        |      |        |      |        |      |         |         |
| White        | 19,202 | 6.4% | 17,788 | 6.2% | 16,670 | 6.0% | 15,876 | 5.7% | 12,305 | 5.6% | 6,069   | 5.2%    |
| Black        | 2,255  | 4.9% | 2,467  | 5.4% | 2,377  | 5.3% | 2,391  | 5.2% | 1,855  | 5.3% | 939     | 5.2%    |
| Hispanic     | 3,455  | 4.0% | 3,377  | 3.7% | 3,120  | 3.5% | 3,213  | 3.5% | 2,427  | 3.4% | 1,313   | 3.4%    |
| Other        | 1,101  | 6.6% | 1,185  | 6.7% | 1,143  | 6.1% | 1,154  | 6.1% | 912    | 6.1% | 534     | 6.4%    |
| Unknown      | 493    | 6.6% | 968    | 5.2% | 498    | 7.0% | 255    | 4.7% | 274    | 6.2% | 135     | 7.9%    |
| Age          |        |      |        |      |        |      |        |      |        |      |         |         |
| 0-17         | 3,779  | 5.2% | 3,939  | 5.3% | 3,637  | 5.2% | 3,603  | 5.2% | 2,707  | 6.4% | 1,771   | 8.3%    |
| 18-29        | 7,612  | 8.1% | 7,140  | 7.9% | 6,559  | 8.0% | 5,929  | 7.3% | 4,716  | 7.5% | 2,325   | 7.3%    |
| 30-44        | 6,360  | 7.1% | 6,315  | 7.0% | 6,029  | 7.1% | 6,241  | 7.1% | 4,881  | 6.7% | 2,342   | 5.9%    |
| 45-64        | 7,064  | 6.2% | 6,636  | 5.8% | 5,925  | 5.4% | 5,600  | 5.1% | 4,240  | 4.7% | 1,957   | 4.1%    |
| 65+          | 1,691  | 2.0% | 1,755  | 1.9% | 1,658  | 1.8% | 1,516  | 1.6% | 1,229  | 1.6% | 595     | 1.4%    |

Source: Rhode Island Department of Health

Number and Percent of Inpatient Admissions (hospitalizations) due to Primary Diagnosis of Mental Health Condition (excluding substance use)

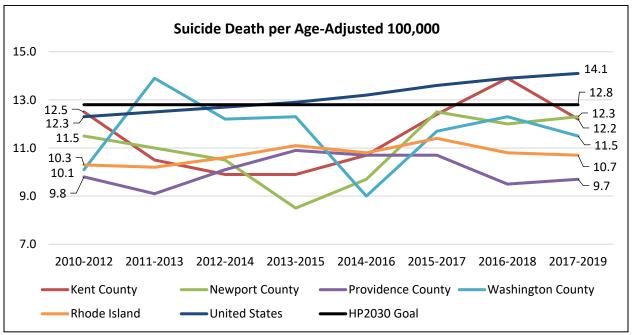
|              | 20             | 16    | 20     | 17    | 20     | 18    | , 20   | 19    | 20     | 20    | 2021 (Q1-Q2)* |       |
|--------------|----------------|-------|--------|-------|--------|-------|--------|-------|--------|-------|---------------|-------|
|              |                |       |        |       |        |       |        |       |        |       |               |       |
|              | N              | %     | N      | %     | N      | %     | N      | %     | N      | %     | N             | %     |
| Overall      | 14,312         | 12.0% | 13,742 | 11.1% | 12,144 | 10.1% | 12,252 | 10.3% | 10,810 | 10.2% | 5,210         | 9.9%  |
| Gender       |                |       |        |       |        |       |        |       |        |       |               |       |
| Male         | 7,221          | 13.7% | 6,878  | 12.5% | 6,112  | 11.5% | 6,473  | 12.0% | 5,575  | 11.5% | 2,536         | 10.5% |
| Female       | 7,090          | 10.7% | 6,858  | 10.0% | 6,030  | 9.0%  | 5,777  | 8.9%  | 5,230  | 9.0%  | 2,673         | 9.3%  |
| Race/Ethnici | Race/Ethnicity |       |        |       |        |       |        |       |        |       |               |       |
| White        | 10,314         | 11.5% | 9,500  | 10.7% | 8,492  | 9.5%  | 8,551  | 9.7%  | 7,590  | 9.8%  | 3,577         | 9.2%  |
| Black        | 1,235          | 15.3% | 1,345  | 15.8% | 1,198  | 14.3% | 1,242  | 14.3% | 1,044  | 13.4% | 471           | 12.7% |
| Hispanic     | 1,742          | 12.1% | 1,695  | 11.1% | 1,569  | 10.2% | 1,634  | 10.3% | 1,443  | 9.8%  | 803           | 11.2% |
| Other        | 706            | 18.0% | 681    | 18.1% | 568    | 14.5% | 643    | 15.7% | 541    | 13.6% | 290           | 13.0% |
| Unknown      | 315            | 9.0%  | 521    | 7.6%  | 317    | 9.3%  | 182    | 7.2%  | 192    | 8.0%  | 69            | 9.0%  |
| Age          |                |       |        |       |        |       |        |       |        |       |               |       |
| 0-17         | 2,173          | 13.5% | 2,263  | 14.6% | 1,867  | 12.2% | 1,855  | 12.6% | 1,948  | 14.2% | 1,203         | 17.6% |
| 18-29        | 3,302          | 25.6% | 3,076  | 24.4% | 2,794  | 23.3% | 2,721  | 23.6% | 2,343  | 23.3% | 1,138         | 24.1% |
| 30-44        | 3,568          | 20.8% | 3,343  | 19.1% | 3,044  | 17.9% | 3,228  | 18.4% | 2,778  | 16.8% | 1,185         | 14.5% |
| 45-64        | 4,359          | 14.1% | 4,068  | 12.6% | 3,557  | 11.6% | 3,544  | 11.7% | 2,942  | 11.2% | 1,313         | 10.0% |
| 65+          | 910            | 2.2%  | 992    | 2.2%  | 882    | 2.0%  | 904    | 2.0%  | 799    | 2.0%  | 371           | 1.9%  |

Source: Rhode Island Department of Health



Frequent mental distress is a risk factor for suicide. The suicide death rate steadily increased across the US over the past decade but remained relatively stable in Rhode Island. All Rhode Island counties except Bristol have a lower suicide death rate than the national death rate and meet the HP2030 goal of 12.8 suicides per 100,000 population. Bristol County had 21 suicide deaths from 2017 to 2019 for a rate of 14.3 per 100,000.

The Rhode Island suicide death rate should continue to be monitored as deaths reflect pre-COVID pandemic rates. An analysis of demographic characteristics for suicide deaths occurring from 2017 to 2019 suggests that deaths are more prominent among males, middle-age adults, and White residents.



Source: Centers for Disease Control and Prevention

<sup>\*</sup>Bristol County data are not trended due to data gaps. From 2017-2019, Bristol County had 21 suicide deaths for a rate of 14.3 per 100,000, the highest of any Rhode Island county and higher than the nation.



2017-2019 Statewide Suicide Deaths, Demographic Characteristics

|                                      | Suicide Deaths | Age-Adjusted Rate per 100,000 |
|--------------------------------------|----------------|-------------------------------|
| Gender                               |                |                               |
| Female                               | 89             | 5.1                           |
| Male                                 | 269            | 16.6                          |
| Age*                                 |                |                               |
| 15-24                                | 28             | 6.3                           |
| 25-34                                | 60             | 13.6                          |
| 35-44                                | 61             | 16.4                          |
| 45-54                                | 72             | 17.2                          |
| 55-64                                | 76             | 17.0                          |
| 65-74                                | 31             | 10.0                          |
| 75-84                                | 24             | 15.5                          |
| Race and Ethnicity                   |                |                               |
| White, Non-Hispanic                  | 315            | 12.6                          |
| Black/African American, Non-Hispanic | 12             | NA                            |
| Asian, Non-Hispanic                  | NA             | NA                            |
| Latinx origin (any race)             | 17             | NA                            |

Source: Centers for Disease Control and Prevention

#### <u>Substance Use Disorder Incidence and Prevalence</u>

Substance use disorder affects a person's brain and behaviors and leads to an inability to control the use of substances which include alcohol, marijuana, and opioids, among others. Alcohol use disorder is the most prevalent addictive substance used among adults.

Across the US and Rhode Island, approximately 1 in 5 adults report heavy drinking and/or binge drinking. Among Rhode Island counties, **Newport and Washington counties have a higher prevalence of heavy drinking and binge drinking than the state or nation at approximately 1 in 4 adults. Consistent with the 2019 CHNA, Washington County also reports more driving deaths due to alcohol impairment than the state and nation.** Of note, Rhode Island as a whole reports more driving deaths due to alcohol impairment (41.6%) than the nation (27%).

**Alcohol Use Disorder Indicators** 

|                   | 2018 Adults Reporting Binge or Heavy<br>Drinking (age-adjusted) | 2015-2019 Driving Deaths due to<br>Alcohol Impairment (%, count) |  |  |  |  |
|-------------------|---|--|--|--|--|--|
| Bristol County    | 20.3%   | 40.0% (n=2)  |  |  |  |  |
| Kent County       | 20.4%   | 45.5% (n=25)   |  |  |  |  |
| Newport County    | 25.4%   | 21.4% (n=3)  |  |  |  |  |
| Providence County | 18.6%   | 38.7% (n=67)   |  |  |  |  |
| Washington County | 24.4%   | 54.2% (n=26)   |  |  |  |  |
| Rhode Island      | 19.7%   | 41.6%  |  |  |  |  |
| United States     | 19.0%   | 27.0%  |  |  |  |  |

Source: Centers for Disease Control and Prevention, BRFSS

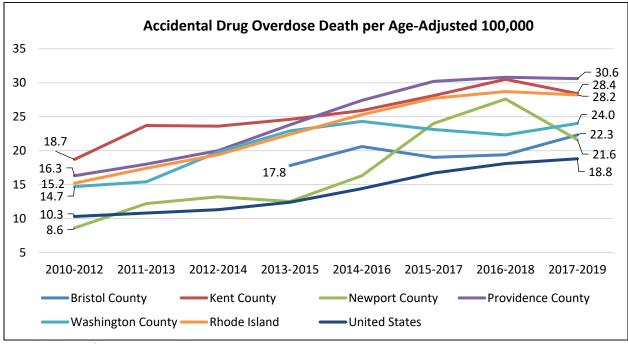
<sup>\*</sup>Rates are not age-adjusted.



The CDC reports that the number of accidental drug overdose deaths nationwide increased by nearly 5% from 2018 to 2019 and has quadrupled since 1999. Over 70% of the 70,630 overdose deaths in 2019 involved an opioid. Nationally, heroin- and prescription opioid-involved deaths are declining, while synthetic opioid-involved deaths are increasing. Synthetic opioids such as fentanyl are laboratory produced and have similar effects as natural opioids, but can have far greater potency, increasing the risk for overdose and death.

Rhode Island has more accidental drug overdose deaths than the nation, as indicated by the rate of deaths per 100,000 population. From 2017 to 2019, the accidental drug overdose death rate for Rhode Island was nearly 10 points higher than the national death rate. Kent and Providence counties have historically had the highest death rates in the state, although all counties saw increases over the past decade.

The overdose death rate leveled off in Rhode Island counties from 2015 to 2019, but increases are expected as a result of the COVID-19 pandemic. The total number of accidental drug overdose deaths in Rhode Island in 2020 was 384, an increase from 308 in 2019 and 314 in 2018. Within the core cities, from 2019 to 2020, the number of overdose deaths increased from 29 to 35 in Pawtucket, 59 to 93 in Providence, and 10 to 31 in Woonsocket. The number of overdose deaths in Central Falls declined from 10 in 2019 to 8 in 2020.



Source: Centers for Disease Control and Prevention

<sup>\*</sup>Data prior to 2013-2015 are not reportable for Bristol County due to low death counts (less than 20 during the three-year timespan).



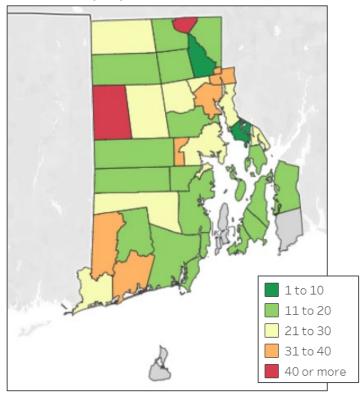
Total Accidental Drug Overdose Deaths in Rhode Island by Year

| 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021* |
|------|------|------|------|------|------|------|-------|
| 240  | 290  | 336  | 324  | 314  | 308  | 384  | 322   |

Source: Rhode Island Department of Health

The opioid epidemic has impacted all communities across the nation. The following map displays the aggregate overdose death rate from 2014 to 2020 by Rhode Island city or town. Foster and Woonsocket have the highest overdose death rates per 100,000 population in the state at 56.83 and 44.83 respectively. Overdose death rates are also higher in Providence (39.79), Central Falls (35.34), and Pawtucket (33.30) in comparison to other Rhode Island cities and towns.

2014-2020 Total Overdose Deaths per 100,000 by City or Town of Incident



Source: Prevent Overdose RI

<sup>\*</sup>Current as of November 2021.



Accidental Drug Overdose Deaths and Rate per 100,000 by Core City

|               |      | 2014-2020 |      |      |      |      |      |                     |
|---------------|------|-----------|------|------|------|------|------|---------------------|
|               | 2014 | 2015      | 2016 | 2017 | 2018 | 2019 | 2020 | Rate per<br>100,000 |
| Central Falls | 8    | 10        | <5   | 6    | <5   | 10   | 8    | 35.34               |
| Pawtucket     | 16   | 22        | 26   | 18   | 21   | 29   | 35   | 33.30               |
| Providence    | 55   | 75        | 73   | 72   | 72   | 59   | 93   | 39.79               |
| Woonsocket    | 11   | 16        | 26   | 24   | 12   | 10   | 31   | 44.83               |

Source: Rhode Island Department of Health

The percentage of overdose deaths due to illicit drugs continued to rise across Rhode Island, peaking at 72% in 2020. Fentanyl is a highly potent synthetic opioid with greater risk for overdose and death. According to the Rhode Island Department of Health, the number of overdose deaths related to illicit fentanyl increased 30-fold since 2019. In 2020, over 70% of overdose deaths involved illicit fentanyl.

275 180 214 (72%)197 171 (56%)213 (64%) 121 (68%)114 (59%)64 (49%)86 (27%)66 (25%) (22%) (20%)92 85 85 (20%)81 79 (28%)(21%)58 56 56 58 (53%)(62%)(46%)(34%) (53%)(24%)(19%) (17%)(18%)(11%)(9%) 2015 2017 2018 2019 2020 Note: Data updated biannually Note: Counts may not add to annual totals due to missing case information Note: Prescription medications include prescription opioids such as oxycodone, hydrocodone, and benzodiazepines. Illicit drugs include substances such as heroin, illicit fentanyl, and cocaine. Illicit Drugs Combination Prescription Drugs

2009-2020 Overdose Deaths by Drug Type

Source: Prevent Overdose RI

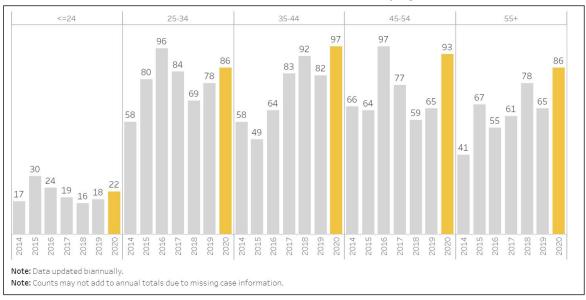
While the opioid epidemic has affected all genders and age groups, the largest proportion of overdose deaths has historically been among males and adults. In 2020, adults age 35-44 accounted for the largest proportion of overdose deaths (25.3%), followed by adults age 45-54 (24.2%). A similar proportion of deaths (22.4%) occurred among adults age 25-34 and 55+. Since 2018, males have accounted for more than 70% of overdose deaths.

In 2019 and 2020, Rhode Island saw an increase in overdose death rates for Black/African American and Latinx residents. As reported by the Rhode Island Department of Health, this trend is happening across the country and is rooted in systemic racism and related health inequities. These health



inequities are also demonstrated in access to treatment services. Despite having the highest rate of death due to overdose, Black/African American residents are the least likely to be receiving methadone, one of the three FDA-approved medications for the treatment of opioid use disorder.

Of note, methadone uptake declined among all racial and ethnic groups in 2020, following two years of growth. This finding is likely a direct result of the COVID-19 pandemic, which caused delays in care and treatment across the healthcare system.



2014-2020 Overdose Deaths by Age

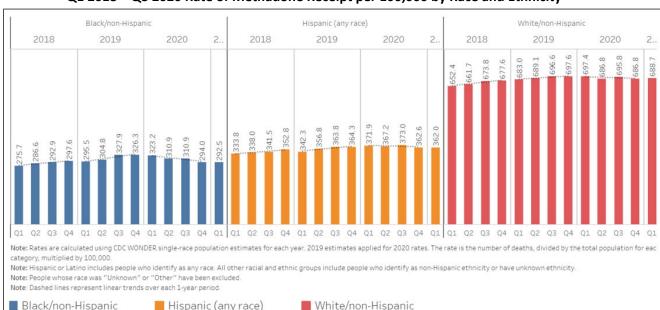
Source: Prevent Overdose RI

## Note: Due to approximately 7% of deaths missing ethnicity from 2016 to 2020, Hispanic deaths may be undercounted. Independent of Hispanic ethnicity status, the health disparities when comparing White and Black individuals remain. Black/African American (non-Hispanic or Hispanic or Latino White (non-Hispanic or unknown ethnicity) unknown ethnicity) 53.9 38.3\* 29.8\* lote: Rates are calculated using CDC WONDER single-race population estimates for each year. 2019 estimates applied for 2020 rates. The rate is the number of deaths, divided by the total population for each category, multiplied by 100,000. Note: Hispanic or Latino includes people who identify as any race. All other racial and ethnic groups include people who identify as non-Hispanic ethnicity or have unknown ethnicity

#### 2016-2020 Overdose Death Rate per 100,000 by Race and Ethnicity

Source: Prevent Overdose RI





Q1 2018 - Q3 2020 Rate of Methadone Receipt per 100,000 by Race and Ethnicity

Source: Prevent Overdose RI

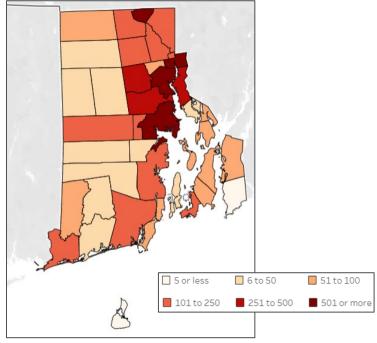
Opioid use disorder and overdoses have had a significant impact on local health resources. The following data depict Emergency Medical Services (EMS) response and ED visits for suspected overdoses.

The following map displays the aggregate number of EMS calls for suspected opioid overdose from 2016 to 2020 by Rhode Island city or town. While EMS calls were concentrated in Providence County, particularly the core cities, and Warwick in Kent County, communities in all counties were affected.

While the number of overdose deaths generally increased in the core cities from 2019 to 2020, the number of EMS calls declined, likely as a result of the COVID-19 pandemic. Fears surrounding the risk of going to the hospital and postponing care during COVID-19 contributed to a decline in EMS response nationwide. Lack of appropriate EMS response to overdose incidents likely contributed to increased overdose deaths across Rhode Island. Similar trends were seen in a decline in the provision of post-overdose counseling and naloxone services, particularly in the second quarter of 2020.



2016-2020 EMS Reports for Suspected Opioid Overdose by City or Town of Incident



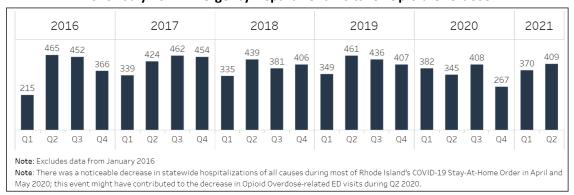
Source: Prevent Overdose RI

**EMS Reports for Suspected Opioid Overdose by Core City** 

|               |      | EMS 991 Calls (Count) |      |      |      |             |  |  |  |
|---------------|------|-----------------------|------|------|------|-------------|--|--|--|
|               | 2016 | 2017                  | 2018 | 2019 | 2020 | per 100,000 |  |  |  |
| Central Falls | 45   | 33                    | 51   | 67   | 41   | 1,223.0     |  |  |  |
| Pawtucket     | 159  | 148                   | 88   | 103  | 95   | 833.0       |  |  |  |
| Providence    | 568  | 433                   | 471  | 535  | 402  | 1,353.0     |  |  |  |
| Woonsocket    | 138  | 139                   | 94   | 152  | 135  | 1,598.0     |  |  |  |

Source: Prevent Overdose RI

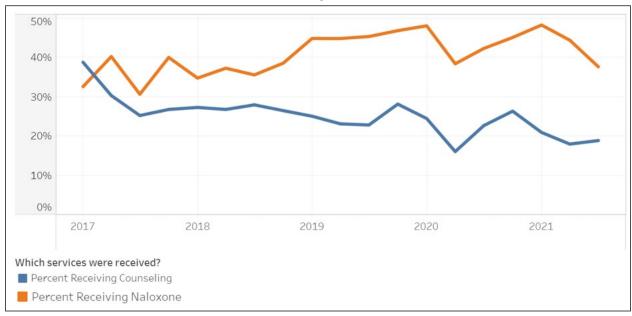
2016 - July 2021 Emergency Department Visits for Opioid Overdose



Source: Prevent Overdose RI



2017-2021 Emergency Department Visits for Opioid Overdose, Post-Overdose Counseling and Naloxone Services



Source: Prevent Overdose RI

The following tables show statewide hospitalization and ED usage for a primary diagnosis of substance use among Rhode Island residents. Data are trended from 2016 to second quarter (Q2) 2021. Substance use includes alcohol and opioid-related disorders, among other substances (e.g., marijuana, sedative, stimulant, tobacco).

The data demonstrate that while overall ED visits were increasing from 2016 to 2019, a significant decline was seen in 2020. From 2019 to 2020, the number of ED visits due to a primary diagnosis of substance use decreased by 3,115 visits. This finding is likely due in part to delayed or avoided care during the COVID-19 pandemic. Data for the first half of 2021 suggest similar trends as 2020. Hospitalizations due to substance use were generally stable from 2017 to 2019 and only a small decline of 86 hospitalizations was seen in 2020.

Provided percentages by gender, race/ethnicity, and age reflect the proportion of individuals with a hospitalization or ED visit due to a primary diagnosis of substance use relative to total hospitalizations or ED visits for that demographic. The proportion of residents hospitalized or seen in the ED for substance use was generally consistent from 2019 to 2020, with the largest increase of nearly 1 percentage point in hospitalizations among White and Black residents and adults age 30-64 years.



## Number and Percent of Emergency Department Visits due to Primary Diagnosis of Substance Use

|              | 20     | 16   | 20     | 17   | 20     | 18   | 20     | 19   | 20     | 20   | 2021 (Q1-Q2)* |      |
|--------------|--------|------|--------|------|--------|------|--------|------|--------|------|---------------|------|
|              | N      | %    | N      | %    | N      | %    | N      | %    | N      | %    | N             | %    |
| Overall      | 17,076 | 3.8% | 16,818 | 3.6% | 16,846 | 3.8% | 17,360 | 3.9% | 14,245 | 4.1% | 7,775         | 4.2% |
| Gender       | Gender |      |        |      |        |      |        |      |        |      |               |      |
| Male         | 12,181 | 5.9% | 11,757 | 5.7% | 11,834 | 6.0% | 12,051 | 6.0% | 10,200 | 6.4% | 5,633         | 6.9% |
| Female       | 4,894  | 2.0% | 5,056  | 2.0% | 5,011  | 2.1% | 5,309  | 2.2% | 4,043  | 2.2% | 2,141         | 2.1% |
| Race/Ethnici | ty     |      |        |      |        |      |        |      |        |      |               |      |
| White        | 12,417 | 4.2% | 11,562 | 4.0% | 11,720 | 4.2% | 12,274 | 4.4% | 10,104 | 4.6% | 5,138         | 4.4% |
| Black        | 1,594  | 3.5% | 1,532  | 3.3% | 1,674  | 3.7% | 1,547  | 3.4% | 1,206  | 3.4% | 641           | 3.5% |
| Hispanic     | 2,271  | 2.6% | 2,357  | 2.6% | 2,443  | 2.7% | 2,774  | 3.0% | 2,306  | 3.2% | 1,615         | 4.2% |
| Other        | 551    | 3.3% | 564    | 3.2% | 671    | 3.6% | 618    | 3.3% | 443    | 3.0% | 313           | 3.8% |
| Unknown      | 243    | 3.3% | 803    | 4.3% | 338    | 4.8% | 147    | 2.7% | 186    | 4.2% | 68            | 4.0% |
| Age          |        |      |        |      |        |      |        |      |        |      |               |      |
| 0-17         | 217    | 0.3% | 214    | 0.3% | 171    | 0.2% | 229    | 0.3% | 170    | 0.4% | 76            | 0.4% |
| 18-29        | 3,326  | 3.5% | 3,167  | 3.5% | 2,874  | 3.5% | 2,883  | 3.6% | 2,242  | 3.6% | 1,218         | 3.8% |
| 30-44        | 5,024  | 5.6% | 5,205  | 5.8% | 5,293  | 6.3% | 5,793  | 6.6% | 5,015  | 6.9% | 2,801         | 7.1% |
| 45-64        | 7,853  | 6.9% | 7,476  | 6.5% | 7,699  | 7.1% | 7,467  | 6.8% | 5,862  | 6.5% | 3,159         | 6.6% |
| 65+          | 656    | 0.8% | 756    | 0.8% | 809    | 0.9% | 988    | 1.1% | 956    | 1.2% | 521           | 1.2% |

Source: Rhode Island Department of Health

## Number and Percent of Inpatient Admissions (hospitalizations) due to Primary Diagnosis of Substance Use

|              |                |      |       |      | ,     |      |       |       |       |       |               |       |
|--------------|----------------|------|-------|------|-------|------|-------|-------|-------|-------|---------------|-------|
|              | 20             | 16   | 20    | 17   | 20    | 18   | 20    | 19    | 20    | 20    | 2021 (Q1-Q2)* |       |
|              | N              | %    | N     | %    | N     | %    | N     | %     | N     | %     | N             | %     |
| Overall      | 4,577          | 3.8% | 5,032 | 4.1% | 5,162 | 4.3% | 5,072 | 4.3%  | 4,986 | 4.7%  | 2,580         | 4.9%  |
| Gender       |                |      |       |      |       |      |       |       |       |       |               |       |
| Male         | 3,132          | 5.9% | 3,522 | 6.4% | 3,647 | 6.8% | 3,522 | 6.5%  | 3,513 | 7.3%  | 1,856         | 7.7%  |
| Female       | 1,442          | 2.2% | 1,505 | 2.2% | 1,514 | 2.3% | 1,550 | 2.4%  | 1,472 | 2.5%  | 724           | 2.5%  |
| Race/Ethnici | Race/Ethnicity |      |       |      |       |      |       |       |       |       |               |       |
| White        | 3,633          | 4.1% | 3,807 | 4.3% | 3,944 | 4.4% | 3,908 | 4.5%  | 3,924 | 5.1%  | 2,008         | 5.2%  |
| Black        | 274            | 3.4% | 303   | 3.6% | 322   | 3.9% | 311   | 3.6%  | 328   | 4.2%  | 136           | 3.7%  |
| Hispanic     | 426            | 3.0% | 543   | 3.6% | 567   | 3.7% | 646   | 4.1%  | 515   | 3.5%  | 296           | 4.1%  |
| Other        | 166            | 4.2% | 184   | 4.9% | 195   | 5.0% | 176   | 4.3%  | 162   | 4.1%  | 111           | 5.0%  |
| Unknown      | 78             | 2.2% | 195   | 2.8% | 134   | 3.9% | 31    | 1.2%  | 57    | 2.4%  | 29            | 3.8%  |
| Age          |                |      |       |      |       |      |       |       |       |       |               |       |
| 0-17         | 14             | 0.1% | 18    | 0.1% | 11    | 0.1% | 5     | 0.0%  | 18    | 0.1%  | 10            | 0.1%  |
| 18-29        | 652            | 5.1% | 671   | 5.3% | 754   | 6.3% | 663   | 5.8%  | 614   | 6.1%  | 279           | 5.9%  |
| 30-44        | 1,431          | 8.3% | 1,659 | 9.5% | 1,659 | 9.8% | 1,746 | 10.0% | 1,780 | 10.8% | 958           | 11.7% |
| 45-64        | 2,260          | 7.3% | 2,399 | 7.4% | 2,416 | 7.8% | 2,353 | 7.8%  | 2,249 | 8.5%  | 1,156         | 8.8%  |
| 65+          | 220            | 0.5% | 285   | 0.6% | 322   | 0.7% | 305   | 0.7%  | 325   | 0.8%  | 177           | 0.9%  |

Source: Rhode Island Department of Health

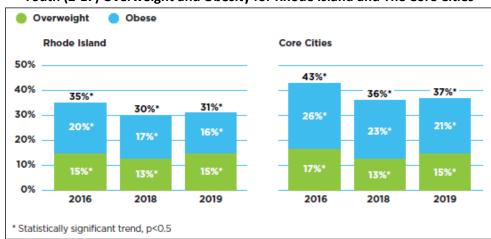


#### Youth Health

### Overweight and Obesity

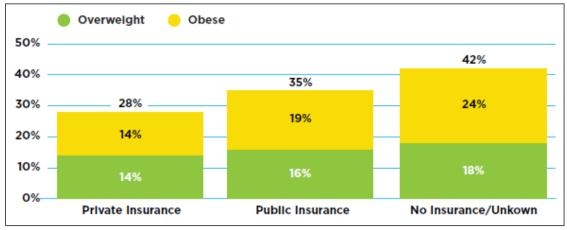
Childhood obesity is a persistent and significant threat to the long-term health of today's youth. The CDC reports that children who have obesity are more likely to have high blood pressure and high cholesterol, risk factors for heart disease; glucose tolerance, insulin resistance, and type 2 diabetes; breathing problems like asthma and sleep apnea; joint and musculoskeletal problems; and psychological and social problems, such as anxiety, depression, low self-esteem, and bullying; among other concerns.

Among Rhode Island children ages 2 to 27 in 2019, 15% were considered overweight and 16% were considered obese for a combined 31%. This finding is consistent with 2018 and lower than 2016. Youth overweight and obesity varies widely by health insurance coverage, an indicator of preventative care access and socioeconomic status, and race and ethnicity. Across Rhode Island, 42% of uninsured youth and 35% of youth with public health insurance are overweight or obese compared to 14% of youth with private health insurance. Among racial and ethnic groups, over one-third of Hispanic/Latinx and non-Hispanic Black/African American youth are overweight or obese compared to 29% of non-Hispanic White youth.

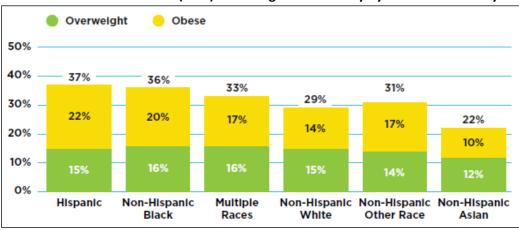


Youth (2-17) Overweight and Obesity for Rhode Island and The Core Cities

2019 Rhode Island Youth (2-17) Overweight and Obesity by Insurance Status



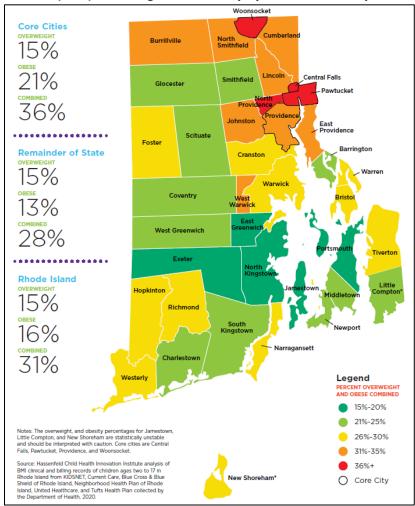
2019 Rhode Island Youth (2-17) Overweight and Obesity by Race and Ethnicity



Source: Rhode Island Kids Count

Overweight and obesity is higher in the core cities, reported as a combined 37% in 2019 compared to 28% in the remainder of the state. Central Falls (50%) and Woonsocket (41%) have the highest proportions of overweight or obese youth of any city or town in Rhode Island.

2019 Youth (2-17) Overweight and Obesity by Rhode Island City and Town



2019 Youth (2-17) Overweight and Obesity by Core City

|                           | Overweight | Obese | Combined |
|---------------------------|------------|-------|----------|
| Central Falls             | 20%        | 30%   | 50%      |
| Pawtucket                 | 17%        | 22%   | 39%      |
| Providence                | 14%        | 19%   | 33%      |
| Woonsocket                | 17%        | 24%   | 41%      |
| Four Core Cities          | 15%        | 21%   | 36%      |
| Remainder of Rhode Island | 15%        | 13%   | 28%      |



#### Behavioral Health

The 2021 Rhode Island Kids Count Factbook states, "Mental health treatment systems tend to be fragmented and crisis-driven with disproportionate spending on high-end care and often lack adequate investments in prevention and community-based services." Rhode Island has made great strides in promoting mental wellbeing and improving mental healthcare services for youth, but more work is needed to provide adequate and timely care for all youth across the state.

As reported in the Rhode Island Kids Count Factbook, the percentage of Rhode Island children ages 3 to 17 who needed mental health treatment or counseling and had a problem obtaining it declined from 55% in 2016 to 36% in 2017. While youth mental health services are improving statewide, psychiatric care continues to be a needed, limited resource across Rhode Island. The number of youth awaiting psychiatric inpatient admission increased from 212 in federal fiscal year (FFY) 2016 to 795 in FFY2020. Inpatient psychiatric care is critical to help stabilize youth experiencing acute psychiatric symptoms, including risk of suicide. Cooccurring with an increasing number of youth awaiting inpatient psychiatric care, was an increasing number of ED visits and hospitalizations among youth ages 13-19 due to suicide attempts. From 2015 to 2019, there were 1,165 ED visits and 794 hospitalizations among youth ages 13-19 due to suicide attempts statewide; 20 children under age 20 died due to suicide.

Rhode Island has historically reported a higher percentage of youth attempting suicide than the nation. In 2019, 14.7% of Rhode Island high school students reported an attempted suicide, an increase from 2015 and 2017 (10.5%) and a higher proportion than the nation (8.9%). When considered by subgroup, attempted suicides were higher among Black/African American and Latinx students compared to White students, as well as students identifying as lesbian, gay, or bisexual (LGB) versus straight.

#### **Rhode Island Youth Mental Health Service Availability Indicators**

|   | FFY 2016 | FFY 2017 | FFY 2018 | FFY 2019 | FFY2020  |
|---|----------|----------|----------|----------|----------|
| Youth awaiting psychiatric inpatient admission (psychiatric boarding)   | 212      | 462      | 465      | 437      | 795      |
| Average wait time for psychiatric admission   | 3 days   | 3.6 days | 1.4 days | 3.3 days | 3.2 days |
| Average children per day unable to leave psychiatric hospital due to lack of step-down availability or safe placement | 6        | 8        | 7        | 5        | 4        |

Source: Rhode Island Kids Count Factbook

#### **Rhode Island Youth Suicide Attempts and Deaths**

|  | 2012-2016 | 2013-2017 | 2014-2018 | 2015-2019 |
|--|-----------|-----------|-----------|-----------|
| ED visits among youth ages 13-19 due to suicide attempt        | 864       | 965       | 886       | 1,165     |
| Hospitalizations among youth ages 13-19 due to suicide attempt | 522       | 649       | 651       | 794       |
| Suicide deaths among youth under age 20                        | 22        | 6         | 25        | 20        |

Source: Rhode Island Kids Count Factbook



#### **High School Students Reporting an Attempted Suicide**

|               | 2013  | 2015  | 2017  | 2019  |
|---------------|-------|-------|-------|-------|
| Rhode Island  | 14.3% | 10.5% | 10.5% | 14.7% |
| United States | 8.0%  | 8.6%  | 7.4%  | 8.9%  |

Source: Centers for Disease Control and Prevention, YRBS

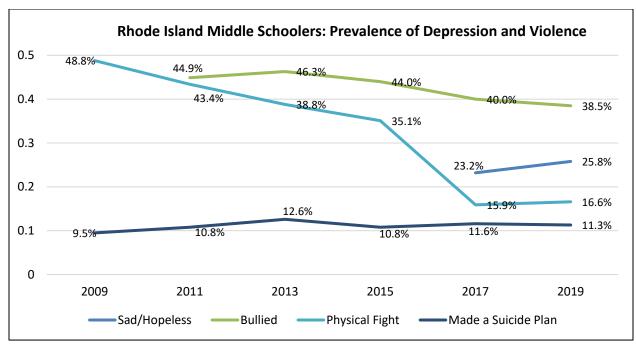
#### 2019 Rhode Island High School Students Reporting an Attempted Suicide

|                              | ·       |
|------------------------------|---------|
|                              | Percent |
| Gender                       |         |
| Female                       | 13.5%   |
| Male                         | 15.5%   |
| Race and Ethnicity           |         |
| White                        | 12.1%   |
| Black or African American    | 18.3%   |
| Latinx origin (any race)     | 17.7%   |
| Sexual Identity              |         |
| Lesbian, Gay, Bisexual (LGB) | 21.6%   |
| Straight                     | 13.3%   |

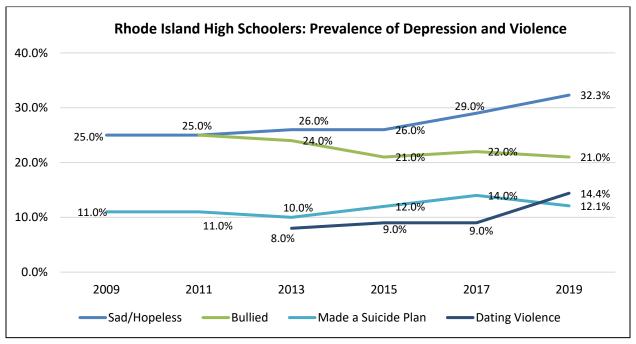
Source: Centers for Disease Control and Prevention, YRBS

Contributing to acute psychiatric distress among Rhode Island youth is an overall increasing percentage of both middle school and high school students who report feeling consistently sad or hopeless, and a recent increase in dating violence among high school students. Bullying and fighting among students has generally declined.





Source: Rhode Island Department of Health

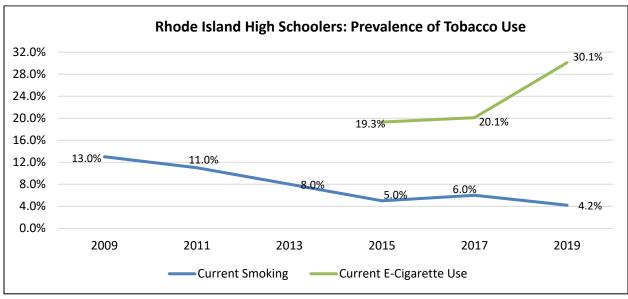


Source: Rhode Island Department of Health



#### Substance Use (Tobacco, Alcohol, Drugs)

The use of e-cigarettes among youth continues to rise statewide and nationally. In 2019, 30% of Rhode Island high school students reported currently using e-cigarettes, a 10-point increase from 2017, and a similar proportion as the nation overall (32.7%). Rhode Island high school students who report current e-cigarette use are more likely to be female, White, and/or LGB. Current use is defined as use on at least one day during the 30 days before the survey.



Source: Rhode Island Department of Health

High School Students Reporting Current (within past 30 days) E-Cigarette Use

|               | 2015  | 2017  | 2019  |
|---------------|-------|-------|-------|
| Rhode Island  | 19.3% | 20.1% | 30.1% |
| United States | 24.1% | 13.2% | 32.7% |

Source: Centers for Disease Control and Prevention, YRBS

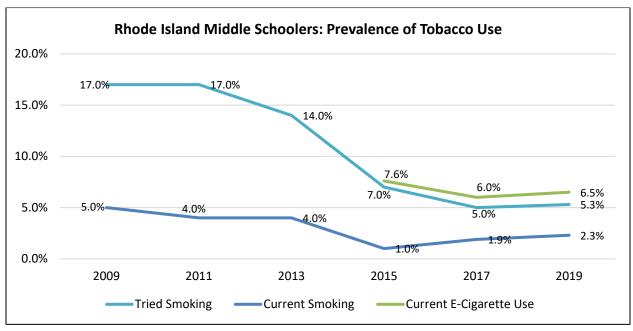
2019 Rhode Island High School Students Reporting Current (within past 30 days) E-Cigarette Use

| ==== 1  |  |  |  |
|---------|--|--|--|
| Percent |  |  |  |
|         |  |  |  |
| 31.2%   |  |  |  |
| 28.4%   |  |  |  |
|         |  |  |  |
| 36.4%   |  |  |  |
| 18.0%   |  |  |  |
| 20.1%   |  |  |  |
|         |  |  |  |
| 37.3%   |  |  |  |
| 30.1%   |  |  |  |
|         |  |  |  |

Source: Rhode Island Department of Health



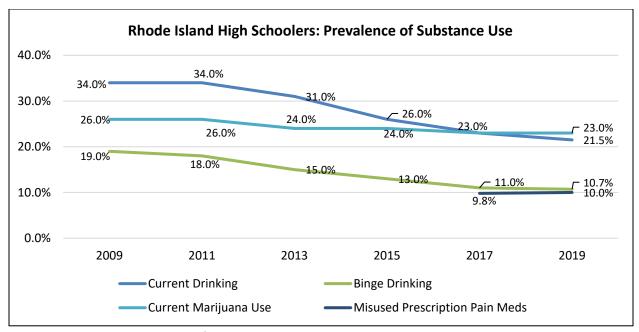
Approximately 16% of Rhode Island middle school students have tried e-cigarettes. While the percentage of current e-cigarette users has been stable since 2015, the percentage of current traditional cigarette smokers is on the rise, suggesting an increase in overall tobacco product use.



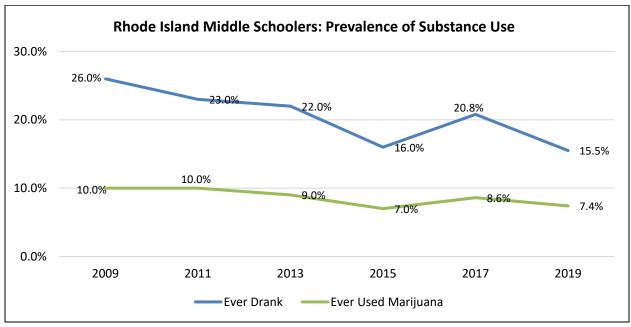
Source: Rhode Island Department of Health

Teen substance use is both a symptom and a risk factor for increased injury, depression, and poor health. The following graphs depict substance use among Rhode Island high school and middle school students. Substance use is generally declining about Rhode Island students, however, approximately 1 in 4 high school students report current alcohol and marijuana use. The misuse of prescription pain medications remained stable from 2017 to 2019 at approximately 1 in 10 high school students.





Source: Rhode Island Department of Health



Source: Rhode Island Department of Health



#### Adverse Childhood Experiences

Adverse Childhood Experiences (ACEs) have significant negative impact on the mental, physical, and emotional development of children, and contribute to risky health behaviors, poor health outcomes, and premature death. The following tables profile the prevalence of select ACEs among Rhode Island youth, including abuse, neglect, and family dysfunction (incarceration and domestic violence). Child abuse and neglect is defined as the following:

- Child abuse includes physical, sexual, and emotional abuse.
- Child neglect includes emotional, educational, physical, and medical neglect, as well as a failure to provide for basic needs.

Between 2015 and 2019 in Rhode Island, there were 454 ED visits, 81 hospitalizations, and six deaths of children under age 18 due to child abuse and/or neglect. The occurrence of these incidents was variable on a year-to-year basis. Nationwide in 2019, the majority (73%) of child maltreatment deaths involved neglect and 44% involved physical abuse (Note: these categories are not mutually exclusive).

Rhode Island Emergency Department (ED) Visits, Hospitalizations, and Deaths due to Child Abuse and/or Neglect

| , ,   |            |                   |        |  |
|-------|------------|-------------------|--------|--|
|       | ED Visits* | Hospitalizations* | Deaths |  |
| 2015  | 92         | 28                | 0      |  |
| 2016  | 79         | 8                 | 1      |  |
| 2017  | 107        | 18                | 2      |  |
| 2018  | 102        | 13                | 1      |  |
| 2019  | 72         | 14                | 2      |  |
| Total | 454        | 81                | 6      |  |

Source: Rhode Island Kids Count

As reported in the 2021 Rhode Island Kids Count Factbook, "In 2020 in Rhode Island, there were 1,862 indicated investigations of child neglect and abuse involving 2,681 Rhode Island children. The rate of child neglect and abuse per 1,000 children under age 18 was two times higher in the four core cities (18.2 victims per 1,000 children) than in the remainder of the state (8.9 victims per 1,000 children). About half (45%) of the victims of child neglect and abuse in 2020 were young children under age six and one-third (33%) were ages three and younger."

In comparison to 2019 CHNA data findings, the rate of indicated investigations and victims of child abuse and neglect declined in both the core cities and the remainder of Rhode Island. Within the core cities, Woonsocket and Central Falls continue to have the highest rates of child abuse/neglect in the state, although rates declined from the 2019 CHNA.

<sup>\*</sup>Include both suspected and confirmed assessments of child abuse and neglect.



2020 Indicated Investigations of Child Abuse and Neglect by Core City

|                           | Investigations of<br>Child Abuse/<br>Neglect | Investigations per<br>1,000 Children | Victims of Child<br>Abuse/Neglect | Victims per 1,000<br>Children |
|---------------------------|--|--------------------------------------|-----------------------------------|-------------------------------|
| Central Falls             | 87   | 15.4                                 | 145                               | 25.7                          |
| Pawtucket                 | 203  | 12.2                                 | 300                               | 18.1                          |
| Providence                | 403  | 9.7                                  | 623                               | 15.0                          |
| Woonsocket                | 173  | 17.5                                 | 273                               | 27.6                          |
| Four Core Cities          | 866  | 11.7                                 | 1,341                             | 18.2                          |
| 2019 CHNA Comparison      | 1,155  | 15.7                                 | 1,734                             | 23.5                          |
| Remainder of Rhode Island | 996  | 6.6                                  | 1,340                             | 8.9                           |
| 2019 CHNA Comparison      | 1,170  | 7.8                                  | 1,526                             | 10.2                          |

As reported in the 2021 Rhode Island Kids Count Factbook, "Of the 2,156 inmates awaiting trial or serving a sentence at the ACI (Adult Correctional Institution) on September 30, 2020 who answered the question on number of children, 1,299 inmates reported having 3,039 children. Thirty percent of sentenced mothers and 9% of sentenced fathers had sentences that were six months or less. Parents of Color were overrepresented compared to their proportion in the general population."

The rate of children of incarcerated parents declined from the 2019 CHNA report, but continues to disproportionately impact families within the four core cities. The rate of children of incarcerated parents within Central Falls, Pawtucket, Providence, and Woonsocket is approximately three to five times higher than the remainder of the state.

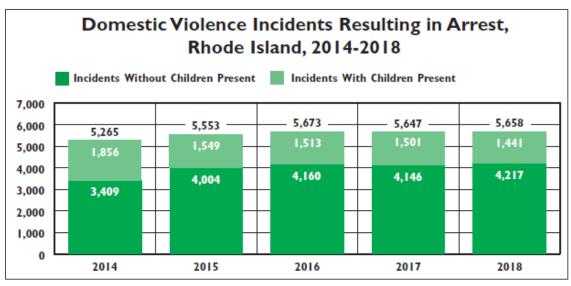
September 30, 2020 Children of Incarcerated Parents by Core City\*

|                           | Number of Children of<br>Incarcerated Parents | Rate per 1,000 Children |
|---------------------------|---|-------------------------|
| Central Falls             | 113   | 20.0                    |
| Pawtucket                 | 191   | 11.5                    |
| Providence                | 685   | 16.5                    |
| Woonsocket                | 162   | 16.4                    |
| Four Core Cities          | 1,151   | 15.6                    |
| 2019 CHNA Comparison      | 1,676   | 22.7                    |
| Remainder of Rhode Island | 656   | 4.4                     |
| 2019 CHNA Comparison      | 1,173   | 7.8                     |

<sup>\*</sup>Data are self-reported by the incarcerated parent(s) and may include children over age 18.



Domestic violence incidents resulting in arrest continue to increase in Rhode Island, although the number of children present during the incidents is declining. In 2018, there were 5,658 domestic violence incidents that resulted in arrests, up from 5,553 incidents reported at the time of the 2019 CHNA (data year 2015). Children were present in 25% (1,441) of incidents in 2018.



Source: Rhode Island Kids Count

In comparison to 2019 CHNA data findings, the percentage of domestic violence incidents resulting in arrest, where children were present, declined in both the core cities and the remainder of Rhode Island. Consistent with the state benchmark, approximately one-quarter of incidents within the core cities had children present.

2018 Children Present During Domestic Violence Incidents Resulting in Arrest by Core City

|                           | Number of Incidents<br>with Children Present | Percent with Children Present |
|---------------------------|--|-------------------------------|
| Central Falls             | 46   | 26%                           |
| Pawtucket                 | 221  | 25%                           |
| Providence                | 297  | 29%                           |
| Woonsocket                | 87   | 22%                           |
| Four Core Cities          | 651  | 26%                           |
| 2019 CHNA Comparison      | 621  | 28%                           |
| Remainder of Rhode Island | 790  | 25%                           |
| 2019 CHNA Comparison      | 907  | 28%                           |



#### Maternal and Infant Health

A total of 9,590 births occurred in Rhode Island in 2020. Consistent with overall population demographics, the majority (68.4%) of births occurred to people residing in Providence County. Less than 5% of births in Rhode Island occurred in Bristol County, and less than 10% of births occurred in either Newport or Washington counties. Kent County had the second highest proportion of births at 14%.

All babies born in Rhode Island are screened by the Rhode Island Department of Health's Newborn Risk Assessment Program. In 2020, 6,233 newborns (65%) screened positive, indicating the presence of one or more risk factors associated with poor developmental outcomes. Key risk factors include economic hardship, single motherhood, parental low education levels, and teenage birth. The following table identifies the prevalence of birth risk factors by Rhode Island county, as available.

Infants born in the core cities experience more risk factors associated with poor developmental outcomes, with nearly 75% born to low-income families, 60% born to single mothers, and 22% born to mothers without a high school diploma. These outcomes are reflected in higher reported risk factors across Providence County. Within other Rhode Island counties, approximately one-quarter to one-third of infants are born to low-income families, with a higher reported percentage in Newport County (37.7%). Newport County also reports a slightly higher percentage of births to single-mothers and mothers without a high school diploma compared to the remainder of the state.

2020 Infants Born at Risk

| 2020 illiants born at Kisk |              |                                   |                             |   |  |
|----------------------------|--------------|-----------------------------------|-----------------------------|---|--|
|                            | Total Births | Births to Low-<br>Income Families | Births to Single<br>Mothers | Births to Mothers<br>without a High<br>School Diploma |  |
| Bristol County             | 313          | 29.1%                             | 28.1%                       | 3.8%  |  |
| Kent County                | 1,353        | 31.4%                             | 34.4%                       | 4.3%  |  |
| Newport County             | 589          | 37.7%                             | 34.8%                       | 8.0%  |  |
| Providence County          | 6,563        | 57.8%                             | 49.6%                       | 15.4%   |  |
| Washington County          | 771          | 27.4%                             | 26.6%                       | 1.7%  |  |
| Four Core Cities           | 3,856        | 72.8%                             | 59.8%                       | 22.2%   |  |
| Remainder of Rhode Island  | 5,734        | 33.7%                             | 33.3%                       | 5.0%  |  |

Source: Rhode Island Kids Count

Despite a high prevalence of risk factors, Rhode Island overall generally reports positive birth outcomes. From 2015 to 2019, only 4% of all births were to teenage mothers and all counties met HP2030 goals for prenatal care and premature births. However, **positive birth outcomes are not shared equally across counties or racial and ethnic groups.** Consistent with having higher reported risk factors, particularly in the core cities, Providence County experiences more negative birth outcomes compared to other counties. Notably, 67.9% of infants are breastfed compared to the statewide average of 72%, and 81.9% of pregnant people receive first trimester prenatal care compared to 85%-89% in other counties.

Across Rhode Island, Black/African Americans experience notable birth disparities. Fewer than 77% of Black/African Americans receive first trimester prenatal care compared to 87% of Whites. Nearly 12% of



babies born to Black/African Americans are premature and/or have low birth weight compared to 7-8% of babies born to Whites. Latinx individuals also experience birth disparities in comparison to their White peers, although not to the same degree as Black/African Americans.

Consistent with the racial and ethnic makeup and known socioeconomic barriers within the core cities, birth disparities are most prevalent in Central Falls, Pawtucket, Providence, and Woonsocket. Notably, 79-81% of pregnant people in the core cities receive first trimester prenatal care compared to 87% in the remainder in the state, and 60-65% of babies in the core cities are breastfed compared to 77% in the remainder of the state.

2015-2019 Maternal and Infant Health Indicators

|   | Percent of All<br>Births to<br>Teens (15-19) | First<br>Trimester<br>Prenatal Care | Premature<br>Births | Low Birth<br>Weight Births | Breastfeeding<br>at Time of<br>Birth |
|---|--|-------------------------------------|---------------------|----------------------------|--------------------------------------|
| Bristol County                          | 1.9%   | 85.4%                               | 7.7%                | 5.8%                       | 81.1%                                |
| Kent County                             | 2.5%   | 87.9%                               | 7.9%                | 6.5%                       | 76.3%                                |
| Newport County                          | 2.4%   | 87.1%                               | 8.0%                | 7.2%                       | 81.2%                                |
| Providence County                       | 4.8%   | 81.9%                               | 9.3%                | 8.1%                       | 67.9%                                |
| Washington County                       | 2.4%   | 89.4%                               | 8.4%                | 6.8%                       | 85.7%                                |
| Rhode Island                            | 4.0%   | 83.9%                               | 8.9%                | 7.7%                       | 72.0%                                |
| White, Non-Hispanic                     | NA   | 86.9%                               | 8.2%                | 6.6%                       | NA                                   |
| Black/African American,<br>Non-Hispanic | NA   | 76.5%                               | 11.5%               | 11.7%                      | NA                                   |
| Asian, Non-Hispanic                     | NA   | 82.2%                               | 7.7%                | 7.6%                       | NA                                   |
| Latina (any origin)                     | NA   | 81.0%                               | 9.6%                | 8.1%                       | NA                                   |
| United States*                          | 4.5%   | 77.6%                               | 10.2%               | 8.3%                       | 83.6%                                |
| HP2030 Goal                             | NA   | 80.5%                               | 9.4%                | NA                         | NA                                   |

Source: Rhode Island Kids Count

2015-2019 Maternal and Infant Health Indicators by Core City

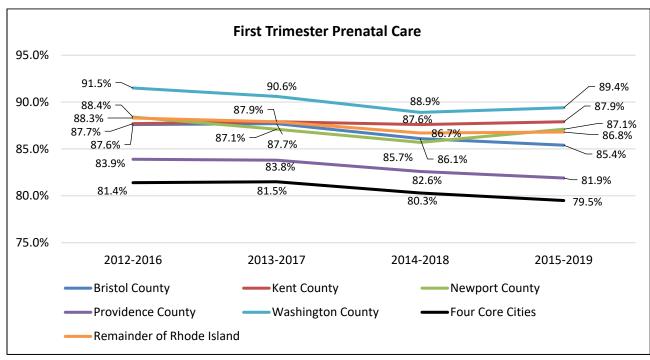
|                              | Percent of All<br>Births to<br>Teens (15-19) | First<br>Trimester<br>Prenatal Care | Premature<br>Births | Low Birth<br>Weight Births | Breastfeeding<br>at Time of<br>Birth |
|------------------------------|--|-------------------------------------|---------------------|----------------------------|--------------------------------------|
| Central Falls                | 9.2% (n=144)                                 | 78.8%                               | 11.0%               | 8.7%                       | 60%                                  |
| Pawtucket                    | 4.6% (n=217)                                 | 80.6%                               | 9.7%                | 8.8%                       | 65%                                  |
| Providence                   | 6.5% (n=797)                                 | 79.3%                               | 9.7%                | 8.7%                       | 63%                                  |
| Woonsocket                   | 4.0% (n=201)                                 | 78.8%                               | 10.0%               | 9.2%                       | 63%                                  |
| Four Core Cities             | 6.4%   | 79.5%                               | 9.8%                | 8.8%                       | 63%                                  |
| Remainder of Rhode<br>Island | 2.5%   | 86.8%                               | 8.2%                | 6.9%                       | 77%                                  |

<sup>\*</sup>Data are reported for 2019 (single year) based on availability.

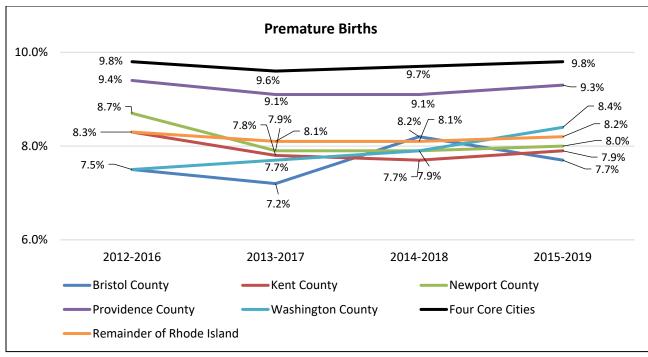


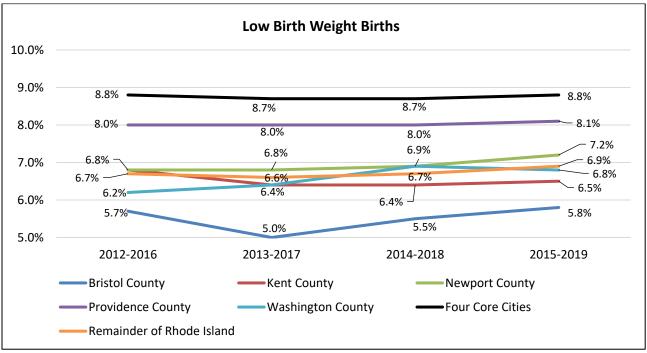
The following graphs depict trends in prenatal care and birth outcomes from 2012-2016 to 2015-2019. The percentage of pregnant people receiving first trimester prenatal care declined in both the core cities and the remainder of the state, and in all counties except Kent. In Bristol, Providence, and Washington counties, the percentage of pregnant people receiving first trimester prenatal care declined two percentage points from 2012-2016 to 2015-2019.

The percentage of babies breastfed at the time of birth also declined statewide, driven by a 10-percentage point decline in the core cities from 2012-2016 to 2015-2019. Based on known racial and ethnic disparities, the decline in breastfeeding was likely higher among non-White infants, particularly Black/African Americans. Other birth outcomes, including low birth weight and premature births have been largely consistent over recent years.

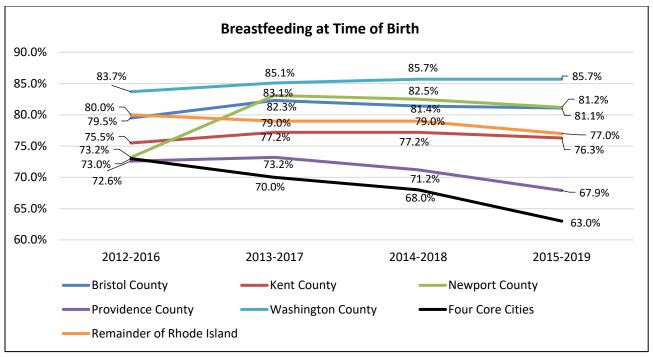












Rhode Island had a total of 285 infant deaths from 2015-2019, 156 or 55% occurred in the core cities. The infant death rate within the core cities is 50% higher than the remainder of Rhode Island and does not meet the HP2030 goal. Infant death disparities within the core cities are largely due to inequities experienced by Black/African Americans. The infant mortality rate for Black/African Americans statewide is nearly three times higher than for Whites. Similar disparities in maternal death rates are seen nationwide; Black/African Americans have a maternal death rate that is 2.5 times higher than for Whites. Rhode Island maternal death data is not available due to confidentiality restrictions.



2015-2019 Infant Deaths per 1,000 Live Births

|                                      | Infant Deaths per 1,000 Live Births |  |  |
|--------------------------------------|-------------------------------------|--|--|
| Bristol County                       | NA (n=2)                            |  |  |
| Kent County                          | 3.9 (n=30)                          |  |  |
| Newport County                       | 4.9 (n=17)                          |  |  |
| Providence County                    | 6.2 (n=220)                         |  |  |
| Washington County                    | 3.6 (n=16)                          |  |  |
| Four Core Cities                     | 7.4                                 |  |  |
| Remainder of Rhode Island            | 4.1                                 |  |  |
| Rhode Island                         | 5.4                                 |  |  |
| White, Non-Hispanic                  | 3.8                                 |  |  |
| Black/African American, Non-Hispanic | 10.6                                |  |  |
| Asian, Non-Hispanic                  | 5.0                                 |  |  |
| Latina (any origin)                  | 6.3                                 |  |  |
| HP2030 Goal                          | 5.0                                 |  |  |

2018 Maternal Deaths\* per 100,000 Live Births

|               | Total Deaths | Total Death<br>Rate | Black Death<br>Rate | White Death<br>Rate | Latina Death<br>Rate |
|---------------|--------------|---------------------|---------------------|---------------------|----------------------|
| Rhode Island  | NA           | NA                  | NA                  | NA                  | NA                   |
| United States | 658          | 17.4                | 37.1                | 14.7                | 11.8                 |
| HP2030 Goal   |              | 15.7                |                     |                     |                      |

Source: Centers for Disease Control and Prevention

Research findings from secondary data analysis were compared to qualitative research findings to compare perceptions to statistical data, identify root causes, and contextualize data trends and contributing factors for identified health needs.

<sup>\*</sup>Maternal deaths include deaths of pregnant people or within 42 days of termination of pregnancy, from any cause related to pregnancy or its management. Rhode Island deaths are not reported due to confidentiality restrictions.



# Evaluation of Health Impact: 2019-2022 Community Health Improvement Plan Progress

In 2019, Care New England (CNE) completed a CHNA and developed a systemwide supporting three-year Implementation Plan for community health improvement. The Implementation Plan outlined our strategies for measurable impact on identified priority health needs, including behavioral health, chronic diseases, and maternal and child health. In all of these areas, CNE sought to implement strategies and optimize care and service through the lens of Diversity, Equity, and Inclusion (DEI). Care New England has established an environment that puts DEI at the center of its work and informs how the system approaches and treats all patients and families.

The following sections outline our work to impact priority health needs, including key programs and initiatives, and our work to center Diversity, Equity, and Inclusion in advancing the health and well-being of patients, employees, and residents.

#### Diversity, Equity, and Inclusion (DEI)

In 2019, formal work toward implementation of DEI initiatives across CNE began with the assembling of a group of staff, including all Operating Unit (OU) Presidents from across the system, now known as the Diversity Action Planning Committee. Dionne W. Poulton, Ph.D. was hired in December 2019 as the inaugural Chief Diversity Officer for CNE, and now chairs the Action Planning Committee, in addition to the oversight and accountability of seven other hospital and facility DEI OU councils she has established during her tenure. Currently, there are over 250 staff members actively engaged in DEI endeavors each month across CNE. This work is also sustained by the support of a full-time DEI Coordinator and full-time DEI Education Specialist/Trainer.

In early 2021, Dr. Joseph Diaz was named the Chief Health Equity Officer for CNE. As a primary care physician, Dr. Diaz leads the clinical efforts of the Medicaid Accountable Care Organizations, in addition to leading the strategy, evaluation, and implementation of clinical practices that yield improved outcomes for our diverse populations. Additionally, in 2020, Ms. Sandra Victorino assumed the position of Director of Workforce Development for CNE. In her new role, Sandra is primarily responsible for helping to diversify our entire workforce at CNE.

Beyond the DEI OU Councils, there are four broad diversity and inclusion areas of focus at CNE: a) Regular review, advisement and implementation of fair and equitable policies and procedures; b) Education and training opportunities for staff, providers, and residents and fellows from Brown University; c) HR/Workforce development support; and d) Employee relations and investigations.

With the addition of a full time trainer who supports education endeavors, CNE currently offers professional development trainings on the following topics: Unconscious Bias, Microaggressions, LGBTQ Sensitivity, Harassment, Bullying and Bystander Education, DEI Skills for Managers, Black Maternal Mortality, and also targeted trainings and discussions led by Dr. Poulton in response to specific incidences involving CNE staff, providers, patients, and residents and faculty from the Warren Alpert Medical School of Brown University. Dr. Poulton also proudly represents CNE at public and private



events, and as a presenter at local and national conferences—while also establishing and maintaining important relationships with key stakeholders in RI including the Department of Health, healthcare colleagues, and business and education leaders.

The DEI Department proudly hosted two public events in 2021 that were attended by hundreds of community members. The DEI Summit in February included panel discussions with community members from the United Way, King's Tabernacle Church, Secretary Womazetta Jones from the Rhode Island Executive Office of Health and Human Services (EOHHS), and a keynote address from acclaimed Professor and Trauma Surgeon at the University of Chicago, Dr. Brian Williams. The DEI Department also hosted the International Women's Day Celebration in March, which showcased our four women OU Presidents who discussed their careers and their challenges of maintaining work-life balance.

At the recommendation of Secretary Womazetta Jones, CNE developed a racial equity scorecard designed to track and measure improvements in different areas such as: a) Creating welcoming environments at Women and Infants and Kent Hospitals; b) Improvement of Press Ganey scores for patients of color both in the ED and inpatient areas; c) Increasing diverse management hires through workforce development; d) Optimization of racial and ethnic patient categories to improve data collection; e) Increasing the rate of breast cancer screenings in Pawtucket and Central Falls; f) Decreasing the incidences of severe maternal morbidity among patients with preeclampsia; and g) Increasing the number of staff engaging in professional development trainings. Each area has a clearly defined goal and quarterly checkpoints to ensure progress. Staff members with responsibility and expertise in each area have been identified as "Champions" for each endeavor.

In response to the tragic killing of George Floyd in 2020, CNE held important town hall discussions that were attended by almost 2000 employees. Following the town halls, CNE created and implemented the "929 Mindful Moment," when all staff across CNE, for 929 days, can stop at 9:29am and 9:29pm and take a moment of self-reflection about all people who live on the margins, who face injustice, and who need our assistance. 9:29 is significant because it is the confirmed time that George Floyd was under the knee of Officer Chauvin.

#### Behavioral Health

Behavioral health strategies implemented by CNE addressed the overarching goal to increase access to and advance treatment for mental health and substance use disorders. As part of the 2019-2022 Implementation Plan, CNE conducted or supported the following programs and initiatives:

- Partnership with The Providence Center to provide AnchorED, a program connecting certified peer recovery coaches to individuals who present at the ED with an opioid overdose
- Support and oversight of the Butler Hospital Behavioral Health Call Center, a live information and referral resource for individuals in crisis or those seeking behavioral health services
- Support for the Community Diversion Program, which provides a clinician to ride along with police to respond to individuals in psychiatric or substance use crises
- Provision of the Crisis Stabilization Unit, a short-term care option for patients experiencing acute psychiatric and/or substance use crisis that could escalate to a point of requiring hospitalization



- ➤ Hosting of free weekly and monthly community support groups, including Al-Anon Family Groups, Alcoholics Anonymous, Alcoholics Anonymous-Women's Meeting, Anxiety and Depression Group, Family ConnectionsTM, MDDA-DBSA (Depression and Bipolar Support Alliance) Self-Help Group, NAMI Family and Connection Recovery, Narcotics Anonymous, OCD & Related Disorders Educational Lecture, SMART (Self-Management and Recovery Training), and SS (Suicide Survivors) Hope Group
- Moms MATTER Program, providing a safe place for pregnant and breastfeeding women with an opioid use disorder to seek compassionate and non-judgmental care
- Safe Stations Providence, a program providing 24-hour walk-in support at fire stations throughout Providence for anyone experiencing a behavioral health crisis or seeking services
- Butler Hospital True Self Program, addressing behavioral health needs specific to the LGBTQ+ community, particularly among adolescents and young adults
- Women's Behavioral Health Consultation Liaison Service, providing care and support for women experiencing depression or mood and anxiety disorders while pregnant or postpartum
- Zero Suicide, an evidence-based model for a system-wide, organizational commitment to safer, preventive suicide care

The Providence Center (TPC) has partnered with the Providence Police Department since TPC's founding in 1969. In 2010, TPC initiated a program that "embeds" behavioral health clinicians in the Police Department. These staff are "co-responders," responding with police officers to behavioral health crises. Working together, police officers and clinicians can often de-escalate a crisis safely and non-violently and connect the individual to needed treatment and recovery supports without further criminal justice involvement.

The mutual goal of the Police Department and TPC is to address the needs of individuals in the community without criminalizing mental illness or substance use disorder. TPC clinicians also aim to divert individuals away from unnecessary hospitalization and into outpatient treatment options whenever possible. This aim is accomplished through robust safety plans and follow up outreach to ensure smooth service connection. As a result of overwhelming program success, TPC has doubled staffing in Providence to two full time clinicians and expanded its co-responder program into the Warwick, West Warwick, and multiple Washington County police departments.

Since 2019, the two Providence clinicians conducted a total of 1,793 contacts or interventions of various types. Of those contacts, 577 required full emergency evaluation. On average, from 2019 to June 2021, individuals were diverted from arrest 99% of the time and from hospitalization 60% of the time. Since June 2021, the hospitalization diversion rate fell to 30%, a finding that is attributed to increased acuity in the patient population and decreased availability of outpatient providers, secondary to COVID-19 and the associated staffing shortage nationwide.

TPC has provided the Warwick Police Department with a full-time Community Diversion Clinician since 2015. From 2017 to 2019, TPC also provided a full-time clinician to the West Warwick Police Department. The West Warwick clinician was readded to the department in 2021 with renewed funding.



Since 2021, the West Warwick clinician saw a total of 541 contacts with 149 full crisis evaluations. The diversion rate from criminal justice involvement was 97% and the diversion rate from hospitalization was 64%. Since 2019, the Warwick clinicians saw a total of 711 contacts with 61 emergency evaluations. The rate of diversion from arrest was 100% and the diversion rate from hospitalization was 61%.

In 2019, TPC provided a full-time Community Diversion Clinician to six Washington County police departments – Charlestown, Narragansett, North Kingstown, Richmond, South Kingstown, and Westerly. The clinician rotates across the six communities and provides on-call assistance to New Shoreham as requested. Since the start of the Washington County program in 2019, a total of 1,171 individuals have been served with 385 emergency evaluations. The diversion rate from arrest was on average 99% and the diversion rate from hospitalization was 63%.

Beginning in 2022, TPC plans to again expand the co-responder program to include partnerships with Providence EMS and the Providence telecommunications division. One full-time clinician will begin co-responding with EMTs, responding to behavioral health calls for service. This program will be aimed at diversion from hospitalization, providing transport to outpatient service sites, and conducting follow up interventions. This clinician will also co-locate in telecommunications dispatch to determine if callers in crisis might be assisted via telephone intervention prior to or in lieu of a public safety response.

The Butler Hospital True Self Intensive Outpatient Program for young adults is designed to meet the specific psychological needs of individuals 18 to 26 years old in the LGBTQIA+ communities. The program's theoretical framework draws on aspects of Cognitive Behavioral Therapy, Dialectical Behavioral Therapy, and Acceptance and Commitment Therapy. The program aim is to provide a safe and supportive environment where people can seek treatment without fear of discrimination.

The True Self program continues to thrive. Consistent feedback from patients is that the space feels safe and affirming and that staff are affirming, knowledgeable, and welcoming. The program secured Blue Cross's Safe Zone Certification in 2022 and will now be advertised by the insurer as a safe and affirming program. From October 1, 2020 to September 30, 2021, the program served 55 unique patients for a total of 188 visits.

The Zero Suicide initiative at Butler Hospital remains a vital and growing program, supported by the CNE Suicide Prevention Committee. The committee has been meeting monthly since January 2018 and is comprised of representatives from across the CNE system, including Brown University suicide prevention researchers; Butler, Kent, and Women and Infants hospital representatives; TPC; primary care representatives; the RI Department of Health; suicide peer advocates; and guests. The committee has successfully implemented several initiatives, notably a systemwide suicide prevention education campaign. As part of the campaign, CNE developed and maintains two informational web pages, one for clinical providers and one for other staff and patients. The clinical provider page includes evidence-based resources and steps for accessing emergency behavioral health services. The staff and patient page includes information on decreasing stigma associated with suicide, such as recommendations on how to talk about suicide.



The CNE Suicide Prevention Committee provided evidence-based suicide prevention trainings to Butler inpatient and outpatient medical providers and TPC case managers and clinicians. As a result, providers at both sites are actively and routinely using suicide crisis tools with their patients. Additionally, an evidence-based screening tool has been embedded at medical practices across CNE. Upcoming tasks for the committee include an evaluation of suicide prevention activities conducted to date and the development of a standardized process for providing in-person support and resources for clinicians who have a patient or colleague that dies by suicide.

Members of the CNE Suicide Prevention Committee also belong to the Consortium for Research Innovation in Suicide Prevention at Brown University. This group of researchers, clinicians, state leaders, and suicide prevention leaders facilitate the dissemination of current suicide research findings into the community and serve as a resource to Butler Hospital. The committee is also active in advocating for suicide prevention policies within state legislature, most recently supporting a bill calling for the construction of suicide prevention barriers on four state bridges.

Butler Hospital has also collaborated with the American Foundation for Suicide Prevention (AFSP) for nearly four years and co-hosted one of AFSP's community education programs, "Talk Saves Lives" for the last two years. Talk Saves Lives was offered six times in 2021. Butler Hospital also co-hosted a "Research Connection" program sponsored by AFSP, and shared findings from research being conducted by two Butler-affiliated Brown University researchers with partial funding by AFSP. Lastly, Butler Hospital hosted the annual Out of the Darkness Walk in fall 2021, an awareness and fundraising event for AFSP. The event welcomed over 400 walkers to the Butler campus. Additional support and co-hosted education programs are planned for 2022, including programs that focus on specific populations affected by suicide such as members of the LGBTQ+ community and elderly individuals.

As part of the 2019-2022 Community Health Improvement Plan, Butler Hospital sought to improve access to behavioral health services through optimization of the Call Center and website. This work included the transition of Outpatient Behavioral Health Intake to the Call Center where patients can now be triaged and scheduled 24/7 for any available behavioral health service at Care New England. Switchboard operations were also transitioned to the Call Center so that patients can reach a live person 24 hours a day, 7 days a week. The website redesign included the creation of an access form submission so that patients can contact behavioral health access specialists digitally versus by phone. The online submission comes directly to the intake department and is responded to immediately upon receipt. In 2021, the Call Center triaged 9,854 Patient Assessment Services, 3,690 Partial Hospital Program admissions, and 525 Intensive Outpatient Program admissions.

# Chronic Disease

Chronic disease strategies implemented by CNE addressed the overarching goal to address cyclical poverty, trauma, and health disparities that lead to poorer outcomes and shortened life expectancy. Many of these strategies targeted the needs of older adults and were spearheaded by Kent Hospital in partnership with Integra Community Care Network, an Accountable Care Organization comprised of community providers, including CNE.



As part of the 2019-2022 Implementation Plan, CNE conducted the following programs and initiatives:

- Financial and programmatic support to Health Equity Zones (HEZ), including evidence-based walking clubs and group exercise programs for adults at risk of heart disease, hypertension, stroke, and diabetes
- Free or reduced-cost community-based education, screenings, and health services, targeting underserved and at-risk populations
- Uber Health services to meet the transportation needs of patients seeking specialty care at Kent Hospital
- Certified Diabetes Outpatient Educators, offered in partnership with Integra to support better outcomes for patients with diabetes
- Kent Hospital certification as an Institute for Healthcare Improvement Age-Friendly Health System and accreditation as a Bronze Level III Geriatric Emergency Department
- Kent Hospital CMS waiver to offer Rhode Island's first Acute Hospital Care at Home program for Medicare beneficiaries
- Kent Hospital Comprehensive Care Program for Older Adults, including dedicated Adult Care for Elders (ACE) unit
- Expansion of the Integra at home program in response to the COVID-19 pandemic to facilitate telehealth appointments, provide at-home clinical care, and assist with social needs
- ➤ COVID-19 response including meal and grocery delivery for older adults and outreach by social workers to identify and help address social needs, including isolation
- ➤ Community-based COVID-19 testing at two locations: Tollgate Road in Warwick and Brewster Street in Pawtucket. From October 2020 to September 2021, Kent Hospital, in partnership with the RI Department of Health, provided testing for 16,824 individuals.
- Community Vaccine Clinics providing COVID-19 vaccinations for 28,281 individuals between December 2020 and September 2021

Integra at home is a partnership with community para medicine professionals to provide acute care at home for older adults with complex chronic illness. The program provides both clinical and social care to improve older adult health outcomes and reduce ED visits and hospitalizations. Services are coordinated with primary care practices and community-based organizations and supported with dedicated advanced practice providers and nurses who conduct home visits.

Integra at home was expanded during the COVID-19 pandemic to reduce hospital visits and potential exposure to the virus. Paramedics, nurse practitioners, and social workers were enlisted to visit older adults in their homes to facilitate telemedicine visits with primary care practices. Integra staff also helped patients find groceries and secure medication deliveries. Social workers facilitated video visits with older adults to provide social connection and address issues of isolation. Integra in-home providers administered COVID vaccines to homebound older adults.



The Age-Friendly Health Systems initiative is a set of evidence-based interventions specifically designed to improve care for older adults. Kent Hospital joined more than 100 health systems in become an Age-Friendly Health System, working to make care for older adults even more tailored to patients' goals and preferences and consistently of high-quality.

In February 2019, Kent Hospital, opened an Adult Care for Elders (ACE) unit to test and implement the Age-Friendly Health Systems Framework. The unit focused on documenting what matters to the patient and implementing delirium screening and prevention plans for all patients. The health care team uses a dashboard to track the ACE unit outcomes and key performance metrics. Since opening, the unit has seen a reduction in both length of stay and falls with injury, along with an increase in patient and staff satisfaction. The ACE unit had served, on average, 76 patients per month with an average age of 86. The hospital expanded the size of the unit to 20 beds since opening and can now serves up to 100-120 patients per month, on average.

#### Maternal and Child Health

Maternal and child health strategies implemented by CNE addressed the overarching goal to deliver the best birth outcomes for all mothers and babies and improve the well-being of families. As part of the 2019-2022 Implementation Plan, CNE conducted the following programs and initiatives:

- Active participation in the statewide Prematurity Task Force and Maternal Mortality Review Program, including leadership of Rhode Island AIM (Alliance on Innovation of Maternal Health) to eliminate preventable maternal morbidity and mortality and address disparities in outcomes among Black women and women of color
- Collaboration with lactation consultants, doulas, and other community partners to provide breastfeeding education and social media campaigns, and to implement a donor milk program at Women & Infants Hospital
- Evidence-based programs to provide compassionate care for pregnant people with opioid use disorder and keep parents and babies together (e.g., Moms MATTER)
- Financial counseling to assist pregnant people and people seeking gynecologic and well-woman services acquire insurance coverage
- Free or reduced cost breastfeeding, childbirth, and parenting education programs (English and Spanish)
- Initiation of the Women & Infants Hospital Community Leadership Council to partner with community networks of women of color to support policies and practices that build collective power for social, economic, and political transformation
- Partnership with community clinics (e.g., Clinica Esperanza, Thundermist, Rhode Island Free Clinic) to provide consultation and care for uninsured or underinsured individuals accessing women's health and maternal care services
- Screenings and follow up care to identify and support pregnant and postpartum people experiencing mental health and/or substance use disorders



- Support groups and educational materials for women experiencing or at risk for Crohn's disease, colitis, and gestational diabetes
- Volunteer programming to support career development and enrichment opportunities for teens (on hold during pandemic)

The Women & Infants Hospital Community Leadership Council meets quarterly to discuss issues related to health inequities, program development, and the improvement of women's health. The Council has undertaken several initiatives, including: (1) Human Resources review of all policies and procedures to support a just culture; (2) targeted growth in diverse hiring for management roles; (3) ongoing educational opportunities for staff on microaggressions, unconscious bias, caring for the LGBTQ population, trauma-informed care ,and bullying/harassment; 4) enhanced orientation process for doulas and partnerships with insurers; (5) expanded interpreter services; 6) partnership with the RI Food Bank and employees to provide personal care items to patients; and (7) enhancement of data dashboards to collect patient race and ethnicity information to better identify and respond to disparities.

The Women & Infants Hospital Community Leadership Council is dedicated to improving continuity of care, promoting a culture of inclusion and humility, and creating an environment that supports low intervention births, inter-professional collaboration, and patient and family centered care. A key component of this work is partnership with and expansion of community doula services. In 2021, Rhode Island passed a state budget that includes Medicaid coverage for the doula care and mandates inclusion of doula care in private insurance plans. This coverage is critical to improving the health and safety of pregnant people and their children, and particularly Black birthing people and their families.

The Women & Infants Hospital Obstetrics and Gynecology Care Center will be partnering with Integra's Women's Wellness Program to promote doula services and the Flourish Fund Baby Registry. With the Flourish Fund Baby Registry, pregnant people can register for gift bundles that include essential items and wellness services that help families thrive from pregnancy into parenthood. Evidence-based services are provided by a vetted, exclusive network of birth doulas, lactation counselors, postpartum doulas, newborn care specialists, fitness trainers, and more.

In addition to expanding access to doula services, Women & Infants Hospital partnered with Tufts Health Plan to provide a Meals on Wheels program at the Obstetrics and Gynecology Care Center and implemented a Transition Home Plus (THP) Program for NICU babies. The THP Program is a comprehensive, family-centered program for high—risk Medicaid families with infants in the NICU. It includes a multidisciplinary team of Neonatologists, Neonatal Nurse Practitioners, Licensed Independent Clinical Social Workers, and a Psychiatric Nurse Specialist to provide enhanced caregiver education and specialized infant services that begin in the NICU and extend to seven months post-discharge. The goal of the program is optimized health, improved outcomes, reduction in unnecessary ER visits and rehospitalizations, and enhanced cost savings.

As an integrated system with specialties in both maternal and child health and behavioral health, CNE is uniquely positioned to identify and respond to the mental health and substance use disorder needs of pregnant and post-partum people. Women & Infants Hospital has implemented a number of screening tools across its practices and innovative response initiatives.



Women & Infants Hospital conducts depression and behavioral health screenings, with follow up care and support provided by the Women's Behavioral Health Consultation Liaison Service, among others. In 2020, the hospital began Brexanolone/Zulresso infusion treatment for postpartum depression. Average patient response to this treatment is within 1-3 days versus 2-8 weeks for other oral medications. Referrals for the service have been received from other New England states as CNE is the first regional provider to offer this treatment. Beginning in 2022, Women & Infants Hospital will also offer a new program, Medication for Opioid Use Disorder (MOUD), in partnership with the RI Department of Health. The program will provide suboxone services for pregnant patients.

The Women & Infants Obstetrics and Gynecology Care Center implemented the Drug Abuse Screening Test (DAST) 10-question tool with the goal of 80% of patients completing the screening at their prenatal intake so that intervention and education can happen as early as possible. Additional screening is conducted at 36 weeks pregnant to identify any changes in substance use or additional intervention needs. The care site has not yet met its goal for 80% screening coverage and is actively working with nursing staff to improve screening practices.

At Care New England, we know we cannot make the progress alone. We are dedicated to working within—and with—our communities to improve the health and quality of life of all residents. We respect and value the expertise and services of the many individuals and organizations across Rhode Island that are committed to this work every day. In carrying out our community work, we will continue to sustain our ongoing collaborative efforts and seek to foster new partnerships to better reach diverse populations and address social determinants of health that create an imbalance in quality of life and equity for all residents. To learn more about CNE's community health improvement work, visit carenewengland.org.



# 2022-2025 Community Health Improvement Plan

Care New England developed a three-year Community Health Improvement Plan (CHIP) to guide systemwide community benefit and population health improvement activities across its service area. The CHIP builds upon previous health improvement activities, while recognizing new health needs identified in the 2022 CHNA, a changing healthcare environment, and the impact of the COVID-19 pandemic.

Goals, objectives, and strategies from the 2022-2025 CHIP are outlined below. In developing the CHIP, CNE sought to focus on upstream interventions to address social determinants of health and advance health equity for our communities.

## Priority Area: Behavioral Health

**Goal:** Strengthen and support community initiatives and healthcare services that increase behavioral health resources and address underlying barriers to equitable treatment access.

### **Strategies:**

- Implement an equity dashboard to track and measure system DEI initiatives and outcomes for patients of color.
  - Establish a welcoming environment for all with culturally sensitive patient and public settings using signage, multicultural media, and merchandise
  - Improve experience scores for patients of color both in the ED and inpatient areas
  - Increase diverse management hires through workforce development
  - Increase the number of staff engaging in professional development trainings, such as Unconscious Bias; Microaggressions; LGBTQ Sensitivity; Trauma Informed Care; Harassment, Bullying and Bystander Education; DEI Skills for Managers; and Anti-Racism, among others
  - Optimize collection of race and ethnicity data to identify disparities and track improvement
- 2. Collaborate with community-based providers to assess behavioral health needs, facilitate service referrals, and coordinate care.
  - Partner with The Providence Center to provide AnchorED, connecting certified peer recovery coaches to individuals who present at the ED with an opioid overdose
  - Support Safe Stations Providence, providing 24-hour walk-in support at fire stations throughout Providence for anyone needing or seeking behavioral health services
  - Support the Community Diversion Program, providing a clinician to ride along with police to respond to individuals in psychiatric or substance use crises



- 3. Expand detection of behavioral health conditions and access to services for populations placed at-risk.
  - Conduct standardized screening for mental health and suicide among patients
  - Implement a new 25-bed short stay unit to provide more immediate delivery of behavioral health services and to help alleviate overcrowding and boarding in emergency departments
  - Implement Zero Suicide at Butler Hospital, an evidence-based model for safer, preventive suicide care
  - Provide support and oversight of the Butler Hospital Behavioral Health Call Center, a live information and referral resource for individuals in crisis or those seeking behavioral health services
  - Provide the Moms MATTER Program, a safe place for pregnant and breastfeeding women with an opioid use disorder to seek compassionate and non-judgmental care
  - Provide the Butler Hospital True Self Program, addressing behavioral health needs specific to the LGBTQ+ community, particularly among adolescents and young adults
  - Provide the Women's Behavioral Health Consultation Liaison Service, offering care and support for women experiencing depression or mood and anxiety disorders while pregnant or postpartum
  - Support the CNE Suicide Prevention Committee, comprised of diverse health system and community representatives, to promote systemwide suicide prevention education and trainings, disseminate current suicide research, and advocate for statewide suicide prevention policies
- 4. Conduct community behavioral health trainings and programs to empower residents to seek services and reduce associated stigma and fear.
  - Host and participate in community education and outreach initiatives to prevent substance use and promote good mental health
  - Host free community support groups, including Alcoholics Anonymous, Narcotics
    Anonymous, Anxiety and Depression, Family ConnectionsTM, Depression and Bipolar
    Support Alliance, NAMI Family and Connection Recovery, Self-Management and
    Recovery Training, and Suicide Survivors Hope Group, among others
- 5. Invest in workforce recruitment and retention of behavioral healthcare professionals.
  - Advocate for statewide behavioral health service delivery gaps and related policy initiatives
  - Promote awareness of health and human services careers among middle school and high school students
  - Provide job shadowing, mentoring, and training opportunities, targeting workforce development that reflects the multicultural and racial makeup of the community



## Priority Area: Chronic Disease

**Goal:** Achieve equitable life expectancy and quality of life for all people by ensuring all residents have the resources they need to maintain their health.

# **Strategies:**

- 1. Implement an equity dashboard to track and measure system DEI initiatives and outcomes for patients of color.
  - Establish a welcoming environment for all with culturally sensitive patient and public settings using signage, multicultural media, and merchandise
  - Improve experience scores for patients of color both in the ED and inpatient areas
  - Increase diverse management hires through workforce development
  - Increase the number of staff engaging in professional development trainings, such as Unconscious Bias; Microaggressions; LGBTQ Sensitivity; Trauma Informed Care; Harassment, Bullying and Bystander Education; DEI Skills for Managers; and Anti-Racism, among others
  - Increase the rate of breast cancer screenings in Pawtucket and Central Falls through implementation of a mammography screening service and program
  - Optimize collection of race and ethnicity data to identify disparities and track improvement
- 2. Invest in community services and programs that address equity in health and healthcare.
  - Integrate interpreter and bilingual services within healthcare settings
  - Partner with Integra to implement primary care social determinants of health screening and response for eligible members
  - Provide free or reduced-cost community-based education, screenings, and health services, targeting underserved populations and those placed at-risk
  - Provide Uber health services to meet the transportation needs of patients seeking specialty care at Kent Hospital
  - Support Health Equity Zones and their implementation of evidence-based health and social well-being programming
- 3. Provide and expand healthcare services that enhance access to care and promote whole-patient care.
  - Collaborate with primary care practices to identify and schedule patients who delayed care during the pandemic
  - Expand equitable access to telehealth visits by increasing technology know-how and facilitating telehealth among priority populations



- Partner with Integra to advocate for Community Health Worker (CHW) workforce development and sustainability, and hiring of CHWs at primary care sites
- Partner with Integra to provide Certified Diabetes Outpatient Educators to support better outcomes for patients with diabetes
- Support age-friendly health services at Kent Hospital, including Age-Friendly Health Systems designation, Adult Care for Elders (ACE) unit, accreditation as a Bronze Level III Geriatric Emergency Department, and Acute Hospital Care at Home program for Medicare beneficiaries
- Support the Integra at home program, a partnership with community para medicine professionals to provide home-based clinical and social needs care for older adults with complex chronic illness

## Priority Area: Maternal and Child Health

**Goal:** Achieve equitable outcomes for mothers and babies by strengthening communities and addressing underlying barriers to care.

## **Strategies:**

- 1. Implement an equity dashboard to track and measure system DEI initiatives and outcomes for patients of color.
  - Decrease the incidence of severe maternal morbidity among patients with preeclampsia
  - Establish a welcoming environment for all with culturally sensitive patient and public settings using signage, multicultural media, and merchandise
  - Improve experience scores for patients of color both in the ED and inpatient areas
  - Increase diverse management hires through workforce development
  - Increase the number of staff engaging in professional development trainings, such as Unconscious Bias; Microaggressions; LGBTQ Sensitivity; Trauma Informed Care; Harassment, Bullying and Bystander Education; DEI Skills for Managers; and Anti-Racism, among others
  - Optimize collection of race and ethnicity data to identify disparities and track improvement
- 2. Advocate for equitable birth outcomes for Black women and babies.
  - Continue to advocate for and support doula services, including workforce development and sustainability
  - Partner with Integra to connect Obstetrics and Gynecology Care Center patients with doula services
  - Implement the recommendations of the Women & Infants Hospital Community
     Leadership Council, a partnership with community networks of women of color to
     improve continuity of care, promote a culture of inclusion and humility, and create an



- environment that supports low intervention births, inter-professional collaboration, and patient and family centered care
- Implement a new Post-Partum Hypertension Program at Women & Infants Hospital to address disparities in hospital readmission, morbidity, and mortality among women of color; the program will support free blood pressure cuffs, post-partum education, and clinical oversight and care coordination by a Nurse Practitioner and bi-lingual Community Health Worker
- Participate in the statewide Prematurity Task Force and Maternal Mortality Review
   Program
- Provide leadership support for the Rhode Island Alliance on Innovation of Maternal Health (AIM)
- 3. Provide and expand culturally competent and sensitive maternal and child health services.
  - Collaborate with lactation consultants, doulas, and other community partners to provide breastfeeding education and a donor milk program at Women & Infants Hospital
  - Conduct universal behavioral health screenings at Women & Infants Hospital, with follow up care and support, including the region's first medication infusion treatment for postpartum depression and the new Medication for Opioid Use Disorder program
  - Partner with community clinics to provide consultation and care for uninsured or underinsured individuals accessing women's health and maternal care services
  - Partner with Tufts Health Plan to provide a Meals on Wheels program at the Obstetrics and Gynecology Care Center
  - Provide a Transition Home Plus (THP) Program for NICU babies to optimize health and improve outcomes for high-risk Medicaid families with infants in the NICU
  - Provide financial counseling to assist pregnant people and people seeking gynecologic and well-woman services acquire insurance coverage
  - Provide free or reduced cost multilingual breastfeeding, childbirth, and parenting education programs and support groups

## **Next Steps**

Care New England welcomes your partnership to meet the health and medical needs of our community. We know we cannot do this work alone and that sustained, meaningful health improvement requires collaboration to bring the best that each community organization has to offer. To learn more about CNE's community health improvement work or to discuss ways in which we can partner together, please visit our website: carenewengland.org.



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