Rhode Island
Commission for Health Advocacy
and Equity

Legislative Report, 2015

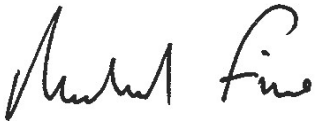
January 9, 2015

Dear Rhode Islanders,

I am pleased to present the Rhode Island Commission for Health Advocacy and Equity Legislative Report, 2015. The goal of this report is to identify the health inequities that exist in minority populations in Rhode Island, and to provide targeted recommendations for reducing the health impact of these inequities.

I commend the dedication and commitment of the Commission for Health Advocacy and Equity. Let us work together so that we can ensure all Rhode Islanders have equal life choices, and can achieve optimal health.

Sincerely,



Michael Fine, M.D.
Director of Health

January 9, 2015

Dear Legislators,

The Rhode Island Commission for Health Advocacy and Equity is a state commission introduced and written into legislation in 2011 with support from Representatives Walsh, Cimini, Ajello, Medina, and Williams, and Senator Pichardo, in an attempt to eliminate health disparities that exist in Rhode Island. The Commission is guided by this legislation, as enacted into law (RIGL 23-64.1), and its activities are further supported and governed by the Rhode Island Department of Health (HEALTH). The role of the Commission is to advise the Governor, the General Assembly, and HEALTH about racial, ethnic, cultural, and socio-economic health disparities; to advocate for the integration of activities that will help achieve health equity; to help develop a health equity plan that addresses the social determinants of health; to align statewide planning activities in developing health equity goals and plans; and to educate other state agencies and organizations on health disparities. The current Commission is composed of community members as well as individuals who represent various community organizations. In addition, ex-officio members from various state organizations including the Rhode Island Departments of Transportation; Labor and Training; Children, Youth and Families; Corrections; Education; Environmental Management; and Health and Human Services; and the Rhode Island Divisions of Elderly Affairs; Planning and Community Engagements and Housing, Community Development, the Commission on the Deaf and Hard of Hearing; the Office of the Attorney General, Commerce RI, and the Rhode Island Public Transit Authority (RIPTA) are represented on the Commission.

The Commission has set a number of goals/priorities to address over the coming years to achieve health equity in Rhode Island.

The Commission shall engage and educate state agencies about Rhode Island disparities, including social factors that play a role in creating or maintaining disparities. For year one, this would be achieved through active participation on the Commission from ex-officio members. The Commission will track the progress of 1-3 (health) equity measures developed by each state agency represented on the Commission, or work with that state entity to develop a quality equity measure(s).

The Commission will develop a comprehensive approach to reviewing and responding to the proposed legislation from ex-officio state agencies and others to ensure that the underlying causes of the social disparities that impair health are evaluated. The Commission will examine state-level processes on the collection of demographic data in health, healthcare settings, treatment quality, and outcomes to determine areas where improvement is needed to address inequalities.

Chief among the priorities of the Commission is the release of this Commission for Health Advocacy and Equity Legislative Report, 2015, which is the first step in using available data to highlight preventable health inequalities in Rhode Island. The report is being delivered to the

Governor, the Speaker of the House, the President of the Senate, and other key stakeholders and community members with the hope that it will be the impetus for a statewide, collaborative effort to eliminate health disparities in Rhode Island.

The Commission will develop a comprehensive health equity plan that addresses the social determinants of health.

To tackle these priorities, the Commission over the last two years has formed three subcommittees. The community engagement subcommittee (led by Julie Rawlings) has held numerous meetings and heard the concerns and challenges that face many Rhode Island communities. The data subcommittee (led by Reginald Tucker Seeley and Elisabeth Becker) has worked tirelessly to research areas where disparities exist and have selected health indicators and outcomes that are presented in this report. Finally, the policy subcommittee (led by Yvonne Heredia and Marcus Mitchell) has met with community and grassroots groups to identify and recommend policies that will have significant impacts on the most vulnerable populations in Rhode Island.

As noted above, the Commission for Health Advocacy and Equity Legislative Report, 2015 will inform community members, healthcare providers, policy makers, and state agencies about disparities that exist in Rhode Island. In doing this, it is our hope that each faction will do its part to help eliminate these disparities and foster a more equitable Rhode Island. We certainly know that our role does not end with the completion of this report. This report, rather, serves as a jumping-off point in hopes to successfully accomplish our selected priorities and our legislatively defined duties.

Sincerely,

Tanya L. Dailey, MD
Co-Chair
Commission for Health Advocacy and Equity

Julie Rawlings
Co-Chair
Commission for Health Advocacy and Equity

Additional members of the Commission for Health Advocacy and Equity:

Omar Bah, MPA
Kenya Fullen
Heriberto Gonzalez
Yvonne Heredia, RN, MS, PhDc
Gloria Hincapie
Ronda Jones
Ana Christina Lindsay
Aradhana Mehta, PhD
Marcus Mitchell
Michael Nina
Kavita Patel
Azade Perin-Monterroso
Deborah Perry, MA
Ulli K. Ryder, PhD
Reginald Tucker-Seeley, ScD

Table of Contents

Figures

Tables

Abstract

This Commission for Health Advocacy and Equity Legislative Report, 2015, developed by the Rhode Island Commission for Health Advocacy and Equity, provides an assessment of health disparities, or differences in health between population groups in our state. We first describe the components of our vision for a healthier Rhode Island, which strives for everyone to have access to quality healthcare, education, housing, and neighborhoods. We introduce the concept of the social determinants of health: aspects of your identity and your environment that may shape your own health and the health of those around you. We also provide a basic sketch of the social and demographic diversity of our state. After describing the various factors that contribute to health disparities, we investigate where significant differences across socio-demographic groups exist in six key health areas: maternal and child health, asthma, obesity, diabetes, heart disease, and oral health. Although limitations exist that made it difficult to have quality data for all social and demographic groups, health disparities among specific groups of Rhode Islanders were evident. These include Rhode Islanders with low educational attainment, Rhode Islanders who have disabilities, certain racial and ethnic minorities, and low-income Rhode Islanders. Finally, based on the process of writing this report, meeting as a Commission, and conducting community outreach, we offer recommendations on how to advance health equity in Rhode Island.

Executive Summary

Rhode Island is a healthy state in many ways, but some Rhode Islanders are not as healthy as they could be. Scientists have found that the conditions in which we live have an enormous impact on our health, long before we ever see doctors. To ensure that all Rhode Islanders have opportunities to make healthy choices, the Commission will work collaboratively to craft strategies, provide leadership, assess progress, and advance a vision of healthy people and healthy places. We promote equity as the means to ensure that everyone has the opportunity to participate and prosper; policies and practices that create conditions that sustain healthy people and healthy places; and collaboration among people from a variety of backgrounds and fields that promote and accelerate this work.

Healthy choices happen in the community. Health starts in our homes, schools, workplaces, and neighborhoods - even in the air we breathe. Equity, defined as just and fair inclusion into a society that allows all to participate and prosper, is at the core of this report and the work we are doing. We need to ensure equal opportunity. The more we see health this way, the more opportunity we have to improve it.

The Rhode Island Commission for Health Advocacy and Equity created this report to evaluate the impact of health disparities in our state and offer recommendations about how to improve health equity. In developing this report, Commission members partnered with ex-officio members, HEALTH, the Providence Plan, and the community to prepare background material about Rhode Island demographics and social factors, conduct an online survey about health in the state, review health disparities data, and contribute their own personal expertise.

Health disparities, or differences in health between population groups, exist. They prevent Rhode Island from being as healthy as it could be. The health disparities we present that are tied to social, economic, and environmental disadvantages are known as health inequities. In order to achieve a healthier Rhode Island, we need to focus on communities – build economic stability, create equitable educational opportunities, provide access to quality and affordable healthcare, promote safety and crime prevention, and enhance and improve physical environments and neighborhood design. In this way, we can make the healthy choice the default choice and improve the health of all Rhode Islanders.

The socio-demographics in Rhode Island are changing

- Rhode Island's populations of racial and ethnic minorities are growing.
- Approximately 12% of Rhode Islanders have a disability.
- In Rhode Island, rates of poverty are highest among Hispanics or Latinos.
- Median incomes for black or African-American, Hispanic or Latino, Native American and Alaska Native Rhode Islanders are lower than the state average. They are also lower than the median incomes of white and Asian Rhode Islanders.
- The rate of uninsured individuals is highest among black or African-American and Hispanic or Latino Rhode Islanders.

Adequately preparing and responding to changes in demographics will better equip Rhode Island to become a healthier state.

The findings in this report are based on available health data and are provided with specific recommendations or strategies to address the issue.

Health disparities findings and disease-specific recommendations

Maternal and child health

Findings	The infant mortality rate for black infants is almost twice that of white infants. Publicly insured teenagers have more than twice the percentage of unintended pregnancy, compared to those with private insurance.
Recommendations	The key risk factor interventions identified in the Rhode Island Infant Mortality Team's strategic plan should be implemented. To reduce maternal health disparities, the Rhode Island Preconception Health Collaborative Program should be supported.

Asthma

Findings	Rhode Island's core cities (Providence, Pawtucket, Central Falls, and Woonsocket) have the highest percentages of children who visit the doctor or hospital for asthma. Adults who earn less than $25,000 per year have significantly higher asthma prevalence than those who earn more money.
Recommendation	For schools to be healthy environments, the financing problems for necessary school facility repairs must be addressed. Potential solutions include authorizing an inter-agency committee to analyze health and environmental conditions in all schools and proposing a state financing mechanism that can cover the immediate cost of repairs (before Rhode Island Department of Education reimbursement) in priority schools.

Obesity

Finding	Male adolescents (compared to females), adolescents who have a sexual orientation other than heterosexual, and adults with disabilities (compared to those who do not have disabilities) have significantly higher obesity prevalence.
Recommendations	To decrease the likelihood that school-aged children become obese, the Commission recommends increasing the number of minutes required for Physical Education (PE) in the state. PE teachers should be provided with annual professional development opportunities to strengthen the quality of PE.

A statewide Healthy Food Financing Initiative (HFFI) should be implemented to provide grants and loans to food retailers that improve access to healthy foods in underserved communities.

To create a funding stream to support policy and environmental changes that promote safe and accessible walking, biking, and recreation, a tax on sugar-sweetened beverages should be implemented.

Diabetes and Heart Disease

Finding

Adults who earn less than $25,000 per year have significantly higher heart disease prevalence than those who earn more money.

Adults who report having disabilities have significantly higher diabetes, high blood pressure, and heart disease prevalence than those without disabilities.

Recommendation

To ensure that all Rhode Islanders with chronic disease have access to evidence-based programs for disease prevention and control, the Commission recommends that all health insurers include evidence-based programs as part of their benefits packages to improve adoption of healthy behaviors, improve health status, and reduce emergency department visits and hospitalizations.

Oral Health

Finding

Adults without a high school diploma are much less likely to have seen an oral healthcare provider in the past year than those with a high school diploma (or even more education).

Recommendation

To decrease disparities in utilization of dental services and the associated health effects in low-income and racially and ethnically diverse populations, the Commission recommends a legislative order requesting that the Rhode Island Executive Office of Health and Human Services (EOHHS) implement a managed care model for Rhode Island adult dental services, as identified in *An Assessment of the Rhode Island Medicaid Adult Dental Program*, prepared for the Rhode Island General Assembly by EOHHS in January 2014.

Global Recommendations

Incorporate a Health in All Policies approach

The Commission supports a Health in All Policies[1] approach that promotes equity, supports cross-sector collaboration, creates benefits for multiple partners, addresses structural and process change, and enables communities to live, work, and play in healthier conditions.

Improve systems for collecting health disparities data

The Commission recommends that improvements to data collection capacity and system accessibility be introduced in a state health disparities surveillance system that clearly highlights disease and health behavior conditions across socio-demographics in Rhode Island.

Strengthen Rhode Island's capacity to improve the status of health inequities

The Commission will work to leverage existing and emerging opportunities to strengthen community-based prevention and health system efforts to improve the health of Rhode Islanders. Rhode Island should include equity as a core outcome and intensify efforts to redefine the system of health to prioritize improvements to underlying social and environmental determinants of health, as noted in the health disparities findings.

Expand partnerships

The Commission is fully committed to tapping into new partners to be spokespeople and champions for advancing the Commission's agenda. For example, strengthening partnerships between academic institutions, hospitals and government (public/private partnerships) to expand partnerships and strengthen the Commission's infrastructure to get the work done. Stakeholders should also explore other ways to influence and inform policies and investments that advance equitable economic development and promote community engagement and leadership.

Coordinate efforts for action

The Commission recommends that the Governor convene the Directors of Rhode Island's state agencies in order to incorporate a Health in All Policies approach into the cabinet-level policy making process.

Introduction

Rhode Island is among the national leaders in many health measures. According to America's Health Rankings, we rank first in the nation in the percentage of adolescent teens (13-17) who are immunized and third in the number of primary care physicians per 100,000 people. In addition, in recent years we have seen overall improvements in several health outcomes. There has been a sharp decline in the number of youth who smoke tobacco cigarettes (from 35% in 2001 to 8% in 2013) due to successful comprehensive tobacco control programming. New cases of lead exposure among children have also dramatically decreased (from 25% of those tested in 2002 with blood lead levels of >5mcg/dL or higher to 4% of those tested in 2013) due to our increased public health efforts related to lead hazard remediation in homes, lead-safe work practices, and education. Though we have seen improvement in some health outcomes, there are specific health outcomes where not all Rhode Islanders are improving. One way we can start ensuring that all Rhode Islanders are as healthy as they can be is to target the factors that contribute to health more broadly. In particular, we can stop thinking of health as something we get only at the doctor's office, but instead as something that starts in our homes, schools, neighborhoods, workplaces, playgrounds, parks, and in the air we breathe and the water we drink. The more we see health this way, the more opportunity we have to improve it. Scientists have found that the conditions in which we live and work have an enormous impact on our health, long before we ever see doctors. It's time we expand the way we think about health in Rhode Island to include how to have and keep good health, not just how to avoid disease.[2]

What would a healthier Rhode Island look like?

In creating this report, the Commission partnered with the community to better understand:

- What would a healthier Rhode Island look like?
- What are the challenges and barriers Rhode Islanders face to being as healthy as they could be?
- What steps should be taken to improve the health of Rhode Islanders?

Throughout this report you will read *Rhode Island Voices*, which are quotations from members of our communities addressing these questions.

A healthy Rhode Island is a place where everyone:

- Has affordable healthcare,
- Is able to see a doctor when they need to,
- Receives equal and quality education regarding their health and healthcare,
- Has access to preventive health services, and dental and mental health services,
- Receives equal treatment options and access,
- Has access to high-quality, affordable, and healthy housing,
- Has access to quality education, especially for young children,
- Lives in safe, clean, vibrant communities with opportunities to walk, bike, and exercise,
- Has affordable, healthy foods available in their neighborhoods, and
- Is represented by elected officials who work in the best interest of their constituents.

However, we know that not all Rhode Islanders have the opportunity to benefit from, or access to, the resources and services listed above, which are fundamental to health and well-being. A prosperous Rhode Island requires that everyone can access and engage in all of these aspects of a healthy life.

What is a community?

Although we often think of communities as geographically-defined locations, such as towns, neighborhoods, schools, or worksites, a 'community' can also be a group of individuals who share some unifying characteristic (e.g., disease status, racial or ethnic status, etc.).

What is health equity?

Health equity means attaining the highest level of health for all people and valuing everyone equally.[3] To achieve health equity, efforts must be made to address avoidable inequalities and injustices.

What are health disparities?

Health disparities are differences in health between population groups[4]. Disparities include inequalities in the rates and severity of diseases and other adverse health conditions, as well as mortality.[5] Because disparities are simply differences, sometimes they are preventable and sometimes they are not. For example, older people may face health disparities, such as higher rates of cancer, compared to younger people, but these types of disparities are to be expected due to aging. On the other hand, disparities based on factors such as education level, disability status, income, or housing conditions can be addressed. A health disparity related to a social, economic, and/or environmental disadvantage is called a health inequity. Health disparities are particularly problematic for those who identify with characteristics linked to discrimination or exclusion.[6]

A health disparity is not the same as a high rate of disease.

It is important to distinguish between a health disparity, or significant difference in health status among population subgroups, and a high rate of a disease for Rhode Islanders as a whole. For example, in Rhode Island, 27% of adults are obese (2013) indicating a high rate of obesity in the state, but the obesity rates across racial and ethnic groups are roughly the same. Thus, obesity has a high rate for all Rhode Islanders, but no significant difference across racial and ethnic groups. However, we *do* see significant differences in obesity rates by disability status, employment status, and level of household income, which is highlighted in the obesity section on page 30. In this report, we focus on disparities in health outcomes across population subgroups. For more information on the overall obesity burden in Rhode Island and the overall burden for other health outcomes, see HEALTH's publications, available at www.health.ri.gov

---

Rhode Island Voices

What does a healthy Rhode Island look like to you?

"A place where the incidence of disease is controlled, treated, and managed by our healthcare providers without barriers and discrimination."
Anonymous

"It looks safe enough to walk around and well lit at night. It looks approachable and welcoming with playgrounds full of physical and mental activities for kids, with fitness sections set-up for adults to do body workouts with friends when they do their walks, with roofed areas for rainy or sunny days."
Michael, Providence

What are the social determinants of health?

We all know that the choices we make, such as smoking or eating unhealthy foods, can impact our health. However, the conditions in which we live, learn, work, play, and age can affect our health in even more significant ways.[7] These conditions, called the "social determinants of health", can greatly influence our health behaviors and overall health.[8] Examples include:[9]

- Availability of resources to meet daily needs (e.g., safe housing and healthy food)
- Access to healthcare services
- Access to educational, training, job, and economic opportunities
- Transportation options
- Public safety
- Opportunities for recreational and leisure-time activities
- Socioeconomic conditions (e.g., concentrated poverty)
- Residential segregation
- Language/literacy
- Culture
- Access to mass media and technology (e.g., cell phones, the Internet, and social media)
- Social norms and attitudes (e.g., discrimination, racism, and distrust of government)
- Social support

To achieve a healthier Rhode Island, we need to focus on these social aspects of communities as well as the physical environments where people live. This means working to enhance the economic stability, educational opportunities, access to quality healthcare, and neighborhood quality for all Rhode Islanders.

Rhode Island's Socio-demographics

This section of the report outlines Rhode Island's demographics and illustrates where certain health disparities exist. Understanding characteristics about populations, such as the distribution of age, sex, race, ethnicity, birthplace, language and English-speaking ability, sexual orientation, disability, and socioeconomic status can help us understand who is most impacted by the differences in health outcomes in Rhode Island.

Race and Ethnicity

The population of racial and ethnic minorities is growing in the state, while the proportion of the population that is non-Hispanic white is decreasing, as shown in Table 1. Approximately 81% of the population is non-Hispanic white, according to the 2010 Census, as compared to approximately 85% in the 2000 Census.

Table 1. Race and Ethnicity in Rhode Island

Race and ethnic origin	2010 Census Population	2010 Percent of Total	2000 Census Population	Numeric Change (from 2000 to 2010)	Percent Change (from 2000 to 2010)
Rhode Island	**1,052,567**	**100.00%**	**1,048,319**	**4,248**	**0.40%**
White alone	856,869	81.40%	891,191	-34,322	-3.90%
Black or African-American alone	60,189	5.70%	46,908	13,281	28.30%
Native American and Alaska Native alone	6,058	0.60%	5,121	937	18.30%
Asian alone	30,457	2.90%	23,665	6,792	28.70%
Native Hawaiian and other Pacific Islander alone	554	0.10%	567	-13	-2.30%
Some other race alone	63,653	6.00%	52,616	11,037	21.00%
Two or more races	34,787	3.30%	28,251	6,536	23.10%
Hispanic or Latino	130,655	12.40%	90,820	39,835	43.90%
Not Hispanic or Latino	921,912	87.60%	957,499	-35,587	-3.70%

Source: Rhode Island Department of Labor and Training. Rhode Island Race & Ethnic Origin Demographics by County 2000 – 2010. Available: http://www.dlt.ri.gov/lmi/census/demo/ethnic.htm

Age

The current median age in Rhode Island is 40 years, about three years older than both the current national median and the state's median in the 2000 Census. The white population has the highest median age of any racial or ethnic group, shown in Table 1. Currently, 15% of Rhode Islanders are 65 years of age or older (2011-2013 American Community Survey).

Sex

There are slightly more females than males in Rhode Island (roughly 52% of the state is female). Females have a slighter older median age (41 years, compared to 38 years for males) (2011-2013 American Community Survey).

Birthplace, Language, and English Speaking Ability

About 13% of residents are foreign-born, with 51% of those individuals being naturalized U.S. citizens. For the population 5 years and older, 21% speak a language other than English and 8% of those individuals speak English less than "very well", based on their own assessments (2011-2013 American Community Survey).

Sexual Orientation

Sexual orientation is another import aspect of someone's identity that can impact his or her health. Among high school students, 8% thought that gay, lesbian, or bisexual best described them and an additional 3% were not sure how to categorize their sexual orientation.[10] However, we do not have comprehensive data about sexual orientation or identity for adults because most sources of data about Rhode Islanders and people in the United States do not collect this information.

Disability

About 12% of Rhode Islanders have a disability, according to the 2011-2013 American Community Survey. In this case, disability means that they reported having any one of six disability types: hearing difficulty (deaf or having serious difficulty hearing), vision difficulty (blind or having serious difficulty seeing, even when wearing glasses), cognitive difficulty (because of a physical, mental, or emotional problem, having difficulty remembering, concentrating, or making decisions), ambulatory difficulty (having serious difficulty walking or climbing stairs), self-care difficulty (having difficulty bathing or dressing), or independent living difficulty (because of a physical, mental, or emotional problem, having difficulty doing errands alone, such as visiting a doctor's office or shopping). Younger people have lower rates of disability than older people. As shown in Table 2, the white population and those who identify with two or more races have the highest disability rates.

Economic and Social Status

Socioeconomic status (SES) includes one's income, work status, and education. Clear differences emerge across racial groups in Rhode Island in educational attainment, income, unemployment, and insurance status, as shown in Table 2. Higher SES correlates with better health, so these differences in SES are significant determinants of health disparities. Although SES contributes to health disparities that are seen across racial and ethnic groups, it does not fully explain those health differences. A person's race, ethnicity, gender, and economic resources work together to impact their lives. Focusing only on income, we find that women of color have lower hourly wages than others with the same education level. Particularly notable is that women of color with BA degrees have the same average income as white men with a high school educations (Figure 1).

Table 2. Key Demographic, Social, and Economic Attributes by Race and Ethnicity

	White (alone)	Black or African-American (alone)	Asian (alone)	Some other race (alone)*	Two or more races	Native American and Alaska Native (alone or in combination)**	Native Hawaiian or other Pacific Islander (alone or in combination)**	Hispanic or Latino (any race)**	Rhode Island
% high school graduate or higher (25 years+)	88%	76%	77%	61%	83%	78%	n/a	63%	86%
% bachelor's degree or higher (25 years+)	34%	18%	44%	9%	25%	15%	n/a	12%	32%
Median household income	$60,140	$34,893	$51,443	$32,530	$36,620	$34,819	n/a	$29,859	$55,675
% living in poverty	11%	28%	19%	33%	23%	23%	n/a	36%	14%
% unemployed (16 years and older in civilian labor force)	6%	9%	5%	14%	11%	11%	n/a	12%	6%
Median age	43.1	29.3	29.5	28.2	19.7	27.3	27.9	25.8	39.7
% with a disability	13%	10%	6%	10%	13%	n/a***	n/a	10%	12%
No health insurance coverage	9%	21%	15%	28%	10%	n/a	n/a	25%	11%
Total population (#)	853,383	67,099	32,927	63,598	28,317	11,957	2,260	139,055	1,050,722

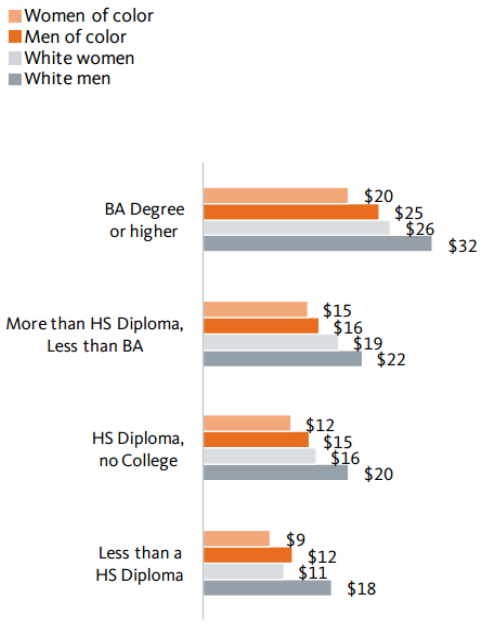
*Race is self-identified. “Some Other Race” includes all other responses not included in the "white," "black or African-American," "Native American or Alaska Native," "Asian," and "Native Hawaiian or Other Pacific Islander" race categories.

** The “Hispanic or Latino”, “Native American and Alaska Native”, and “Native Hawaiian or Other Pacific Islander” categories include individuals who identify with one or more of the racial and ethnic categories.

*** n/a indicates that the estimate is not available.

Source: U.S. Census Bureau, 2011-2013 American Community Survey for all except the Native American results, which are from the 2006-2010 American Community Survey, and the Native Hawaiian or other Pacific Islander results, which are from the 2010 Census Summary File 2

Figure 1. Median Hourly Wage



Source: IPUMS. Universe includes civilian noninstitutional full-time wage and salary workers ages 25 through 64.
Source: PolicyLink RI Profile, 2006-2010 data

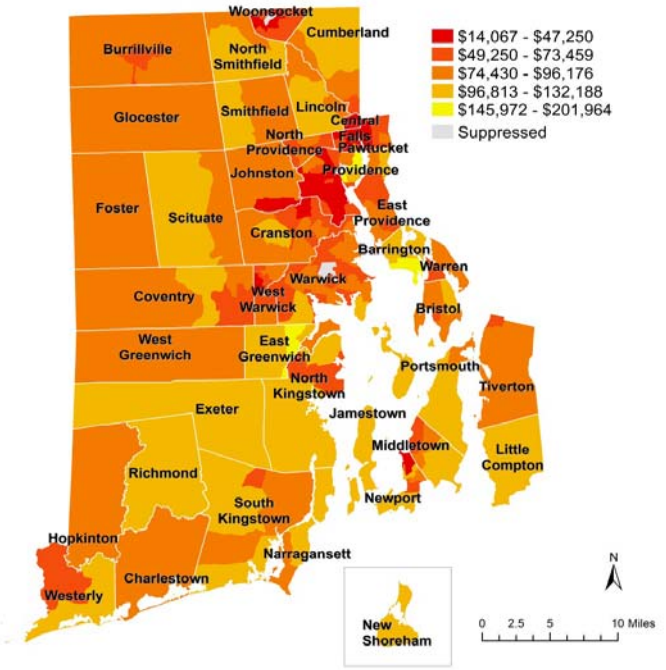
Figure 2. Median Family Income

Where you live – your physical environment – is another important determinant of health. Beginning in 2012, four "core cities" in Rhode Island were identified. In these cities, more than 25% of children live below the poverty line. They are Central Falls, Pawtucket, Providence, and Woonsocket.[11]

Figure 2 displays the median family income of residents by census tract and shows the relatively low median income in the core cities. Nevertheless, census tracts with the lowest incomes (shown in red) are also found in other municipalities, including Cranston, Johnston, Newport, and West Warwick. This unequal distribution of resources throughout the state and its communities tends to reflect patterns of health and well-being.

We hope that by providing data about Rhode Islanders and focusing on populations that are not as healthy as they could be, we can work together to achieve our goals for a healthy Rhode Island.

Prepared by The Providence Plan, 2014
Sources: US Census Bureau, 2008-2012 5-Year American Community Survey; Rhode Island Geographic Information System
Note: Data represent the median family income in the past 12 months in 2012 inflation-adjusted dollars. Areas shown in gray are suppressed due to margins of error larger than the estimated values.



Health in Rhode Island

Monitoring and Evaluating Health Equity

The Commission went through an extensive process of examining available data and gathering community input to better understand health equity in our state. The Commission chose to focus on six health areas or outcomes and their differences relative to the social determinants of health. These six areas are maternal and child health, asthma, obesity, diabetes, heart disease, and oral health. These health areas and outcomes provide insight into the disparities that exist in our state and are by no means an exhaustive list. However, based on their clear, measurable, and statistically significant differences, the Commission can confidently make recommendations and targeted action plans around these measures of health.

Some limitations were experienced when trying to analyze and review data for this report:

1. Non-standardized reporting of the social determinants across health outcomes.
2. Exclusion of important social categories from some data collection tools (for example, sexual orientation).
3. Exclusion of racial and ethnic populations, such as Native American and Southeast Asians, due to small population and sample size.

Statistically Significant Data

For the survey data analyzed, 95% confidence intervals were used to determine if there were statistically significant differences between the categories in a subpopulation. Confidence intervals represent the range of probable values. If the same exact survey was conducted 100 times, the 95% confidence interval represents the range of values we would have seen in 95 of the surveys. Confidence intervals help us determine if there is a 'real' difference between the categories (i.e., the difference is not likely due to sampling bias). In this report, we only present data in the health outcome bar charts that are significant.

Benchmarks

Because we think that Rhode Island can do better to achieve health equity, the Commission has set five-year benchmarks for each of the six health outcomes. In each bar chart you will see a red line indicating the target goal to be reached by all subgroups in the year 2020. This target benchmark has been set by the subgroup doing the best for that specific health outcome. If the subgroup populations are equal across a health outcome, a health disparity no longer exists.

Maternal and Child Health

Maternal and Child Health describes the health of mothers before pregnancy, during pregnancy, and after pregnancy, and the impact that this has on the health of their babies. While there are many different ways to assess maternal and child health disparities, which span many of the topic areas covered in this report, much local and national attention has focused on prenatal, perinatal, and postnatal health outcomes. There has been a statewide push to reduce infant mortality and unintended pregnancy.

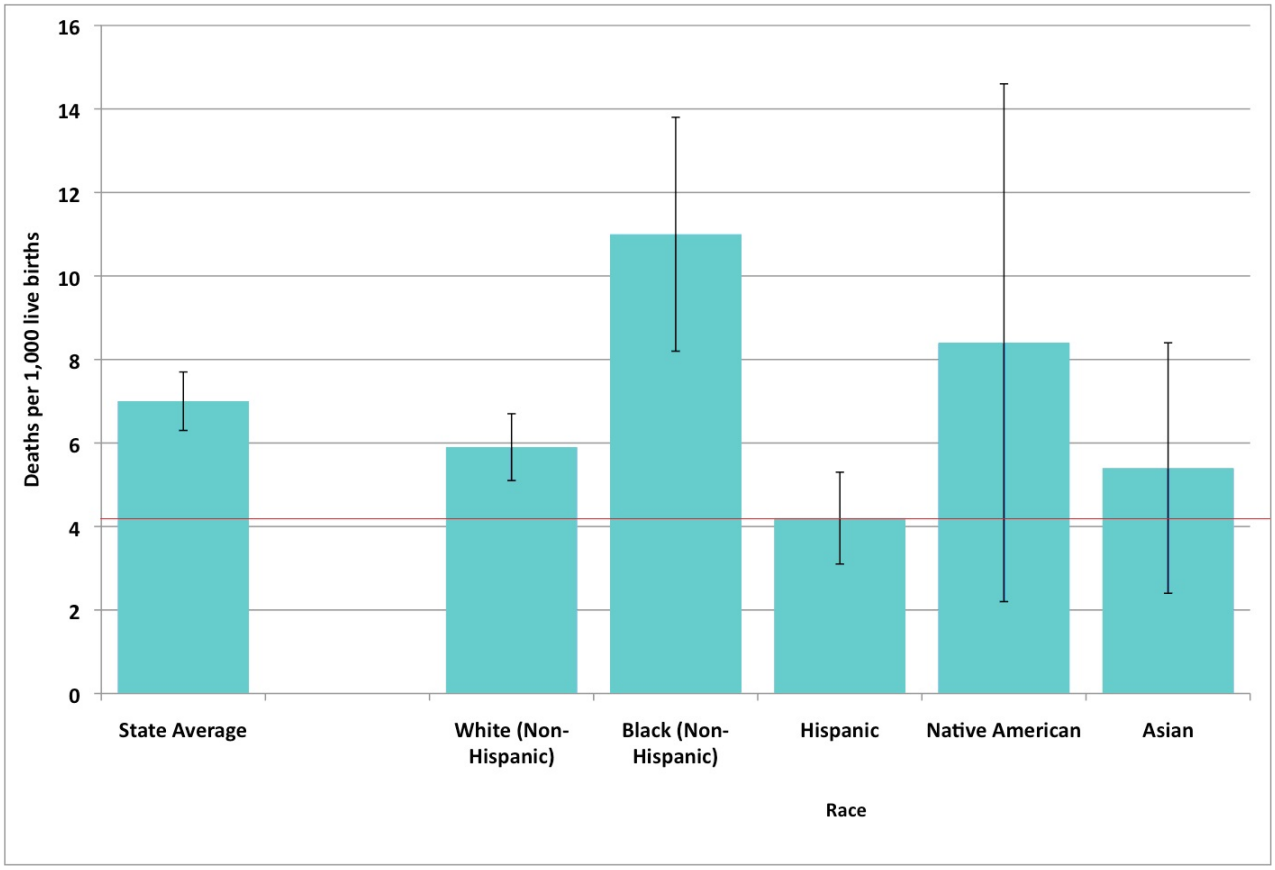
Infant Mortality

Infant mortality occurs when a baby dies before his or her first birthday. The infant mortality rate estimates how many infant deaths occur for every 1,000 live births. The causes for most of these infant deaths include: serious birth defects or chromosome abnormalities, preterm birth, Sudden Infant Death Syndrome, effects of maternal pregnancy complications, and injuries.[12] Infant mortality is related to the mother's health, public health practices, socioeconomic conditions, and the availability and use of appropriate healthcare for infants and pregnant women.[13] In Rhode Island, the overall infant mortality rate is about 7 deaths per 1,000 live births (see Figure 3). In Rhode Island, preterm birth is the leading cause of infant death and the majority of infant deaths occur in the first 27 days of life.[14]

As displayed in Figure 3, a large disparity exists in infant mortality rates between black infants and infants of other races and ethnicities. The infant mortality rate for black infants is almost twice that of white infants and almost three times that of Hispanic infants. Communities that face challenges such as poverty and high unemployment, typically have higher infant mortality rates than populations that do not face these challenges. [15]

How to Read Confidence Intervals
The black lines on each bar in Figure 4, and other graphs that follow, represent the 95% confidence interval for each estimate. When two groups have confidence intervals that overlap, indicating that the "true" value could potentially be the same in both groups, we assume the groups have statistically similar rates. If the confidence intervals do not overlap, we assume that the groups being compared are significantly different from one another.[30]

Figure 3. Infant Mortality Rate



Source: Rhode Island Maternal and Child Database. 2008-2012.

Background

In April 2014, HEALTH was selected to participate in the Infant Mortality Collaborative Improvement and Innovation Network (CoIIN) to address infant mortality. The initiative is a state-driven multi-sector collaboration to reduce infant mortality and disparities in birth outcomes by using the science of quality improvement, collaborative learning, and innovations to share and implement effective evidence-based approaches. HEALTH has assembled a team, which includes key leaders, community-based organizations, and providers who have committed to and have shared responsibility to assess data and develop strategies to reduce infant mortality among African-Americans (the highest risk group) in Rhode Island. The goal of this effort is to "Give all Rhode Island babies an equal opportunity to develop into healthy, productive adults by ensuring an equally healthy start."

Recommendations

After one year of intensive planning, the Rhode Island Infant Mortality Team will develop a five-year plan that addresses infant mortality disparities in Rhode Island. The Commission recommends that the key risk factor interventions identified in the strategic plan be implemented.

Unintended Pregnancy

An unintended pregnancy is a pregnancy that is mistimed, unplanned, or unwanted at the time of conception. Unintended pregnancies are related to delayed prenatal care or no prenatal care, increased risk behaviors before and during pregnancy, and higher rates of adverse birth outcomes (for example, preterm birth or low birth weight) and other complications. An intended pregnancy provides an opportunity for women to improve their health by addressing risk factors and behaviors before conception. Women who plan their pregnancies are less likely to have clinical complications during pregnancy and are more likely to have better birth outcomes.

Roughly 38% of pregnancies in Rhode Island were unintended between 2009 and 2011, which is lower than the national average of approximately 49%. Just over half of the women who were not trying to get pregnant were using birth control at the time of conception. The most common reasons for not using birth control among women who reported were: they did not mind if they got pregnant; they thought they could not get pregnant; or their husband or partner did not want them to use any contraception.

Unintended pregnancies are disproportionately experienced by women who are younger than 20 years of age, black, Hispanic, unmarried, have 12 or fewer years of education, have incomes lower than $10,000, or have public health insurance (see Figure 4).

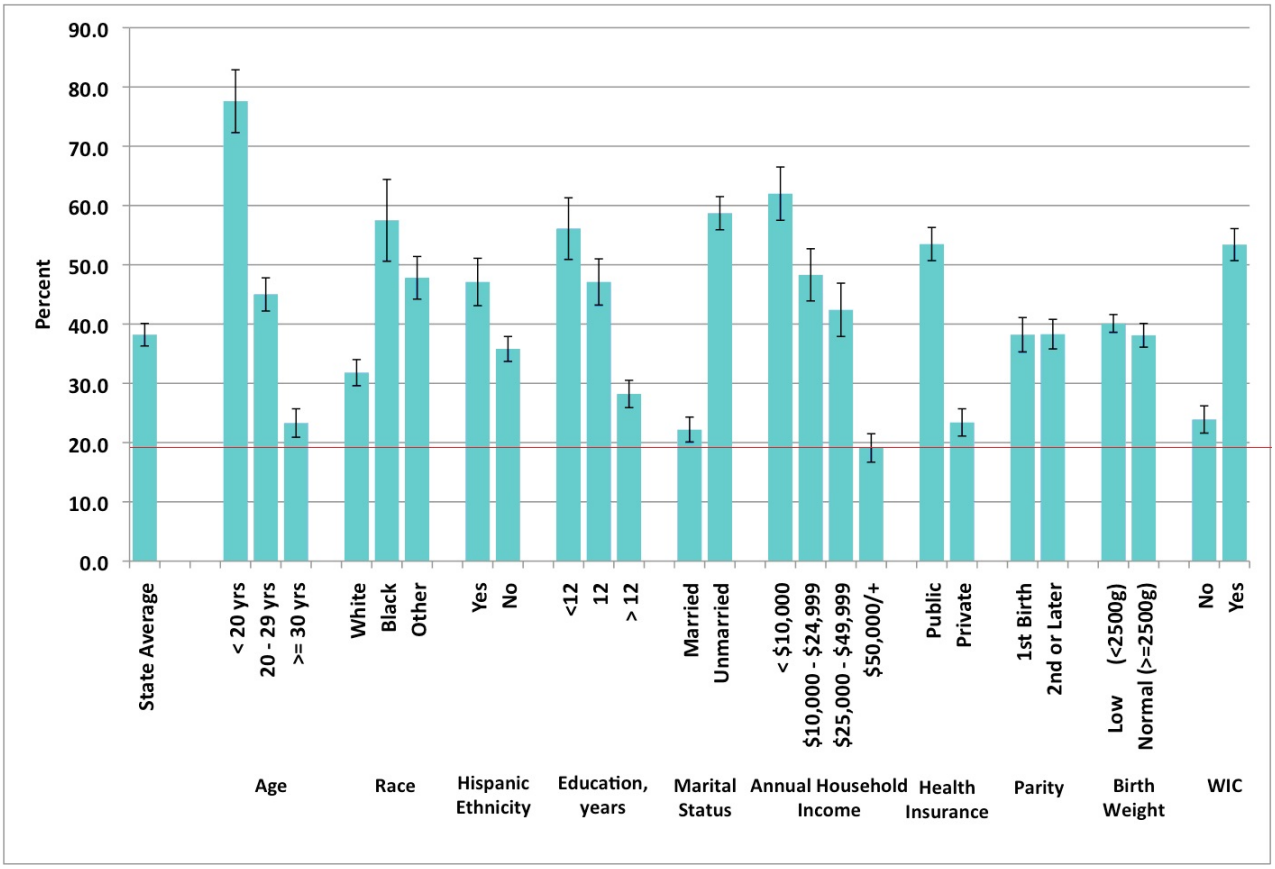
Rhode Island Voices

What are some of the challenges and barriers Rhode Islanders face to being as healthy as they could be?

"There are substantial economic barriers in Rhode Island that prevent our most vulnerable from being able to maintain healthy lifestyles and receive the kinds of treatment needed most. Our infrastructure and housing opportunities often are not conducive to healthy behaviors and outcomes."
Anonymous

"Many Rhode Islanders are not taught the importance of early preventative care, access to that care and understanding one's diagnosis; as well as medications prescribed."
Linda, Providence

Figure 4. Unintended Pregnancy



Source: Rhode Island Pregnancy Risk Assessment Monitoring System (PRAMS)

Addressing Unintended Teen Pregnancy

Teen pregnancies affect the long-term well-being of families and communities. In 2010, teen childbearing in Rhode Island cost taxpayers at least $41 million, according to an updated analysis from the National Campaign to Prevent Teen and Unplanned Pregnancy. In addition, teen pregnancy disproportionately affects racial and ethnic minorities. For example, the rate of Native American teen birth is approximately four times greater than the rate for white teens.[16]

Woonsocket had one of the highest rates of teen pregnancy in Rhode Island during 2008-2012. The rates of teen births in girls 15-19 years of age (67 per 1,000) was almost three times that for the state (23) with 428 teen births occurring during the five year period. Eighty-three of the 428 births (19.3%) were "repeat teen births." Repeat teen births (defined as having two or more pregnancies resulting in a live birth before 20 years of age) pose an even greater risk to teen moms and their children. Ensuring that teen moms have access to birth control, screening for postpartum depression, and referrals to community resources (for example, home visits and WIC) at postpartum visits is critical to the health and well-being of mothers and their children. Rhode Island has implemented three long-term, evidence-based home visiting programs that work with families to

decrease and/or delay repeat teen births and promote family planning. One of the programs, the Nurse-Family Partnership, has been particularly successful.

In response to the high rates of repeat births in teen moms in Woonsocket, Thundermist Health Center's Teen Tot Clinic instituted "Mommy & Me" visits at four-weeks postpartum. The postpartum and well-child visits are scheduled back-to-back and are co-located, when possible, to increase postpartum exam compliance, improve early access to birth control, increase screening and treatment of postpartum depression, and decrease subsequent and unintended pregnancies.
This simple yet effective intervention has resulted in increased postpartum exam compliance (57% to 88.3%) and use of birth control, as well as increased screening for postpartum depression from 72% to 100% and reduced subsequent pregnancy rates from 24% to 14% at 18 months, and from 44% to 15% at 24 months postpartum.

Programmatic support for interventions such as these is critical to ensure that preconception and interconception health is systematically addressed though effective public health strategies.

Background

The Rhode Island Preconception Health Collaborative is a community coalition that is coordinated by HEALTH. It aims to improve maternal and child health by optimizing preconception and interconception care. The vision of this Collaborative, as outlined in its strategic plan, is to enhance the health of all Rhode Islanders to maximize healthy pregnancies and pregnancy outcomes.

Recommendations

The Collaborative's mission is to systematically address preconception health through implementation of public health initiatives, comprehensive health policies, healthcare practices and promotion, and consumer awareness in Rhode Island. The Commission recommends that appropriate parties/agencies support the Collaborative's mission in order to help reduce maternal health disparities.

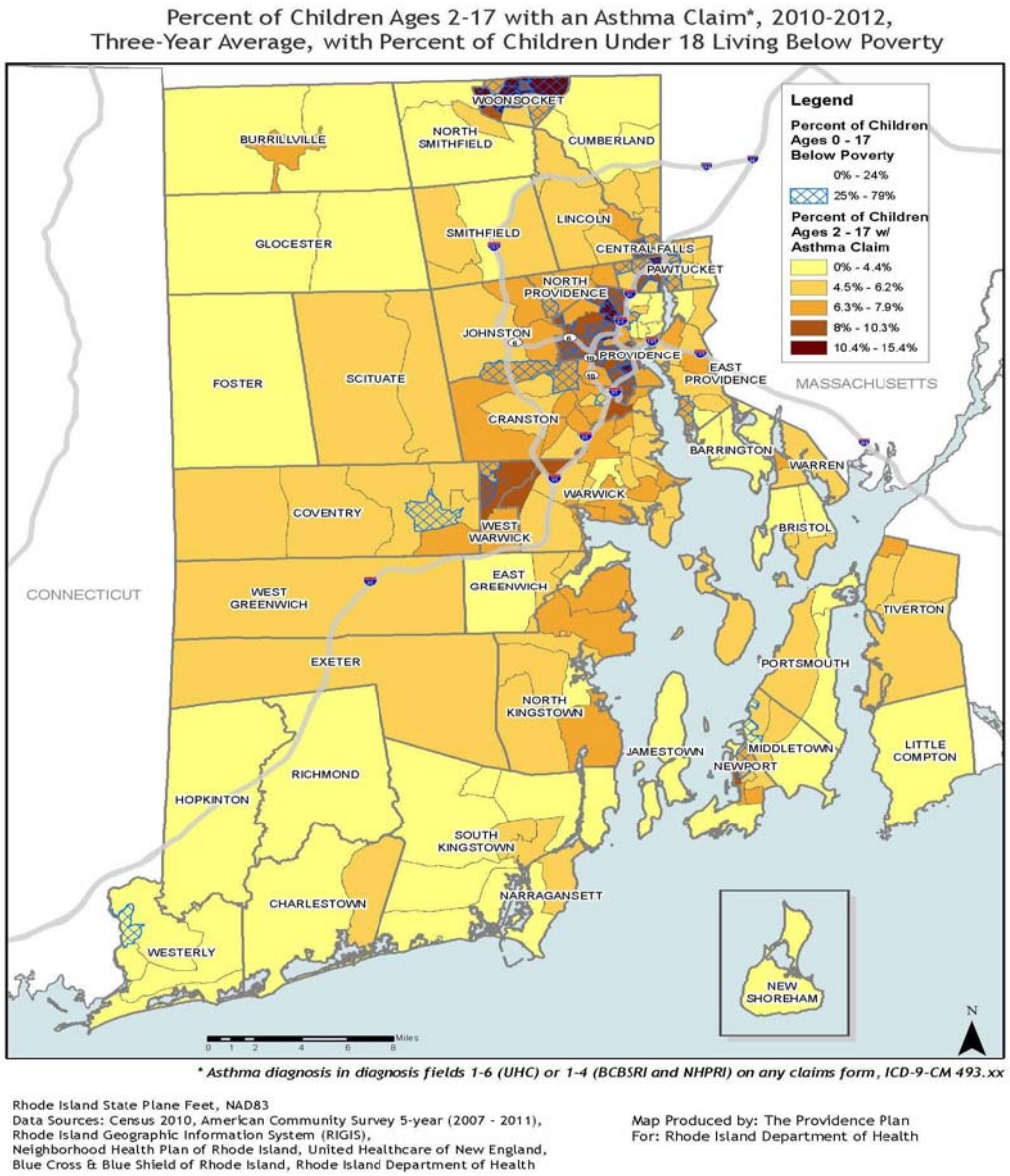
Asthma

Asthma is a chronic respiratory disease that narrows the airways in the lungs, causing shortness of breath, wheezing, coughing, and chest tightness. Asthma poses a serious health problem for both children and adults. Asthma is often triggered by mold, mildew, dust mites, pest infestations, smoke, and poor air quality. Exposure to asthma triggers largely depends on where people live, housing conditions, and whether they have resources to remove or reduce these factors. If poorly managed, asthma can lead to emergency room visits or hospitalizations.

Childhood Asthma

In Rhode Island, approximately 9% of children younger than 18 years of age currently have asthma.[17] Among children who have asthma, outcomes differ by race and ethnicity. Hospitalizations are disproportionately higher for non-Hispanic black children (38 per 10,000), compared to non-Hispanic white children (14 per 10,000) or Hispanic children (19 per 10,000). Childhood asthma is more prevalent in the core cities of Rhode Island, where poverty and older housing (which may be more likely to have asthma triggers, such as dust) are more prevalent (See Figure 5).

Figure 5. Asthma and Childhood Poverty Map

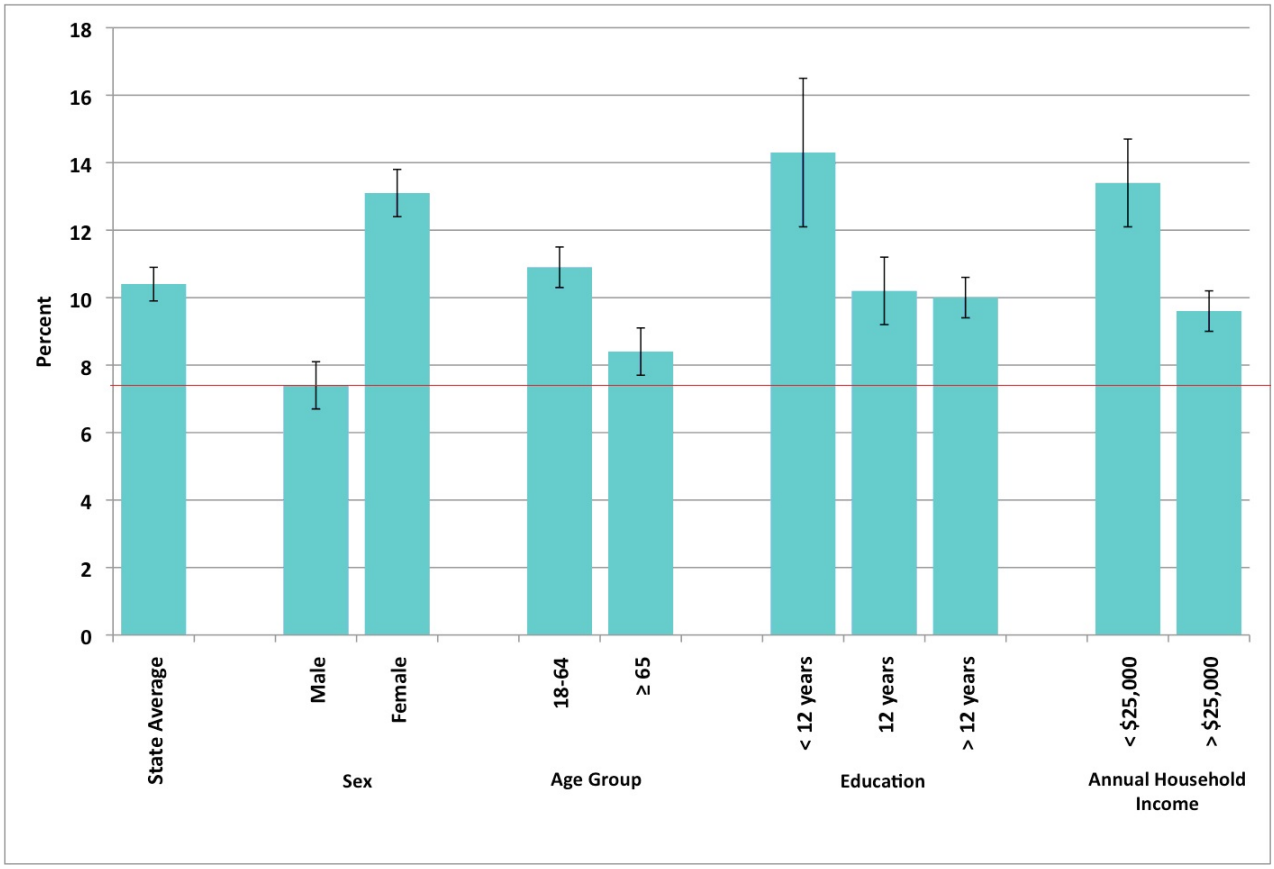


Source: 2014 Rhode Island Claims Data Book. Available: www.health.ri.gov/publications/databooks/2014AsthmaClaims.pdf

Adult Asthma

About 11% of Rhode Island adults currently have asthma. In our state, asthma disproportionately affects women, younger individuals (as compared to people 65 years of age and older), people without high school diplomas, and people with household incomes of less than $25,000 (See Figure 6).

Figure 6. Adult Asthma



Data Source: 2014 Asthma Burden Document (2006-2010 Rhode Island Behavioral Risk Factor Surveillance System combined file, Rhode Island Department of Health, Center for Health Data and Analysis)

There is strong evidence that factors in the indoor and outdoor environment play strong roles in triggering asthma. Because asthma disproportionately impacts adults and children of lower socioeconomic status, it is important to create interventions that target this group and provide resources necessary to mitigate triggers and risk factors.

A Rhode Island Success Story

Controlling Asthma in Schools Effectively (CASE) Pilot Program

The Rhode Island Asthma Control Program (RIACP), Hasbro Children's Hospital, Family Services of Rhode Island, and the Rhode Island Asthma Control Coalition are partnering with schools through the Controlling Asthma in Schools Effectively (CASE) Pilot Program to improve asthma outcomes at school. Children with asthma spend much of their days at school, making schools an important setting for asthma management. CASE works with four schools and in three communities to teach asthma management skills through workshops for students, parents, teachers, and staff. Teachers and staff who have participated have greatly improved their knowledge of asthma, and now have specific strategies for improving asthma in their classrooms. Schools are encouraged to have Asthma Action Plans for each student on file. CASE also performs environmental walkthroughs and provides resources for schools to identify and fix environmental asthma triggers. The RIACP has piloted CASE with four elementary schools located in the core urban cities Central Falls, Pawtucket, and Providence. These schools were chosen based on their locations in areas of high asthma burden (as reported by surveillance of claims data), reports of chronic absenteeism rates as high as 21%, issues in the schools' physical environments that needed to be addressed, and reports from parents. These schools have between 14-21% of students with an asthma diagnosis. Within a three year period, between 11-15% of these students with asthma had an asthma-related ED visit or hospitalization.[31] CASE schools aim to reduce asthma disparities among students from minority and low socioeconomic backgrounds. 54% of students are Hispanic and 30% are African American. Between 80-99% of the students in these schools are eligible for Free and Reduced Priced School Meals (FRSM), as compared to 46% statewide.[32]

School-based after-school asthma interventions with students and caregivers for asthma skills and knowledge have been shown to be effective in Rhode Island, both to improve asthma knowledge and to improve asthma outcomes in a sustainable manner.[33] In-school asthma trainings have been shown to be effective in improving student asthma knowledge. Intervening on school teacher knowledge has been shown to be effective in improving teacher knowledge, and desire to continue improving asthma outcomes even after studies are over.[34] The Hasbro Draw a Breath (DAB) Program is responsible for holding asthma education workshops in schools to educate staff, students, and their families on controlling asthma, how to be aware of asthma triggers within the school environment, and what resources are available for families of children with asthma. In the four CASE schools from October 2012 to April 2014, 70 students, 49 families/caregivers, and 102 staff members received education from the DAB curriculum. The students attend both in-school workshops and after-school workshops. After-school workshops are open to caregivers as well, who are encouraged to attend. Staff trainings are held during mandatory administrative meetings to ensure high attendance. Thus far, the staff members who have attended the trainings have shown significant improvements in perceived self-efficacy in preventing or responding to asthma, decreased stigma towards asthma's importance, and improvements in asthma knowledge. Staff knowledge about asthma increased by 80%, staff reported 15% greater self-efficacy, and expressed a greater interest in learning who in their class has asthma and in demanding additional support to address environmental concerns in schools.

Background

School Facility Repairs

School-age children spend more time in schools than any other building, aside from their homes. The schools they attend should be safe, clean, and well-equipped. Building conditions are important to the safety and health of our students and staff, and are also linked with educational outcomes and student performance. The average age of schools in Rhode Island is approximately 60 years, and many are in need of repair and renovation to provide healthy and safe learning environments. The Rhode Island Department of Education (RIDE) FY2013 Public Schoolhouse Assessment details the deteriorating condition of many schools across the state, which are in dire need of repair, based on health and safety concerns. These concerns include asthma triggers such as mold, leaking roofs, poor indoor air quality, and pests, as well as other health concerns, such as peeling lead paint and asbestos. The 2014 Rhode Island KIDS COUNT Factbook states that "in the U.S., black and Hispanic students are now more segregated from white students than at any point in the past four decades. As a result, white students generally attend schools that are disproportionately white and low-poverty, while black and Hispanic students attend schools that are disproportionately minority and high-poverty."[18]

Repairs for large facilities are expensive. Although school facilities across Rhode Island are aging and need repair, school districts in affluent cities or towns are more able to pay for the necessary work. Schools in the core urban cities are in dire need of repair, have a disproportionate level of students with asthma, and yet do not have the tax base or sufficient access to financing to pay for repairs. RIDE can reimburse 80% of the costs of repair, and would approve hundreds of millions of dollars of work for urgently needed school facility repairs within the core urban cities alone. For cities or towns with sufficient revenue to cover repair costs, the 80% reimbursement from RIDE can be used to create a revolving fund to finance future repairs. However, when cities have budget deficits and lack funding, the only way to cover the cost of repairs is to take out bonds. Even after 80% of repair costs are reimbursed by RIDE, 20% of those bonds, plus interest, needs to be paid in the future, which add additional financial burdens on city budgets.

Recommendations

To develop solutions to the financing problems for necessary school facility repairs, the Commission recommends to:

- Have the legislature authorize an inter-agency committee with representatives from RIDE, HEALTH, and DEM to analyze health and environmental conditions in all Rhode Island schools and create a priority list of schools needing statewide financial support for repairs.
- Propose a statewide bond, or other state financing mechanism, that can cover the immediate cost of repairs (before RIDE reimbursement) in prioritized schools. This would take the financing burden off of over-burdened cities and school districts while addressing pressing health disparities and related educational outcomes for the most vulnerable children in Rhode Island.

Obesity

Obesity is defined by an excess amount of body fat, in relation to lean body mass.[19] Obesity increases the risk for serious conditions such as heart disease, stroke, diabetes, osteoarthritis, and certain cancers.[20] Although Rhode Island has a lower adult obesity rate than 30 other states, obesity is still a public health concern: 27% of our adult population and 11% of our adolescent population are obese.[21]

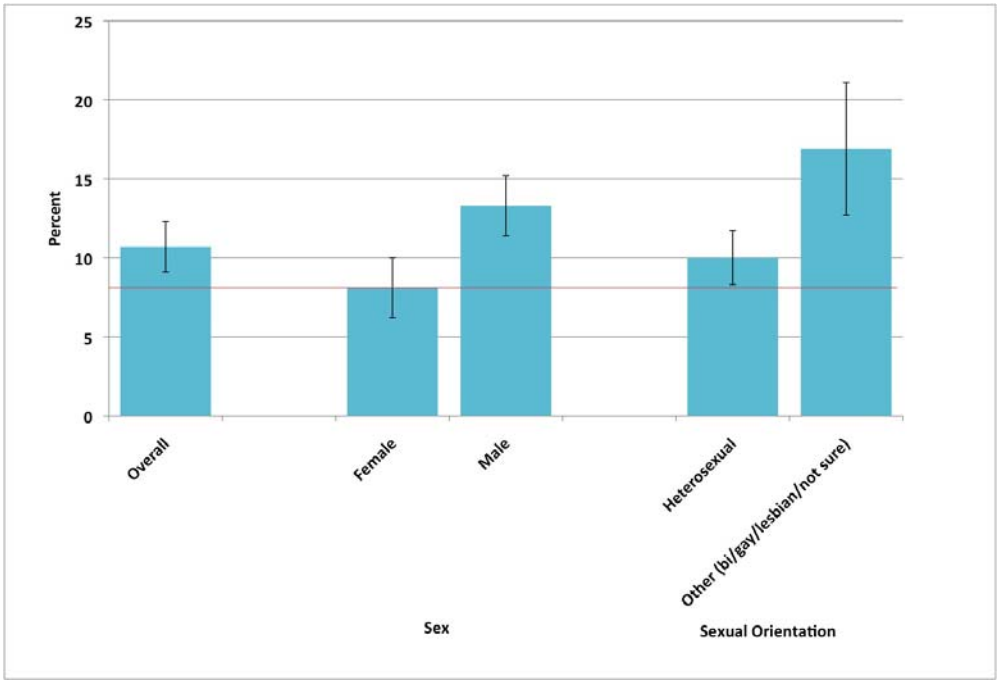
Adolescent Obesity

Currently, disparities among adolescent groups in Rhode Island exist across gender and sexual orientation (Figure 7). Male adolescents tend to have significantly higher obesity rates compared to females. Obesity among heterosexual adolescents is lower than among their peers who identify with another sexual orientation.

Measuring Obesity

Obesity was determined by calculating Body Mass Index (BMI) for the adults who were surveyed (weight in pounds divided by height in meters squared). Individuals with a BMI of 30 or more are considered obese. For adolescents, those with a BMI equal to the 95th percentile or greater for children of the same age and sex are considered obese. Self-reported data are usually associated with slightly under-reporting of weight among women and slightly over-reporting of height among men, compared with studies that actually measured height and weight. This means that it was likely that obesity is even more common than these data indicate. BMI is just one way of measuring whether one's weight is healthy. Other examples include waist size, body fat composition, and waist-to-hip ratio.

Figure 7. Adolescent Obesity

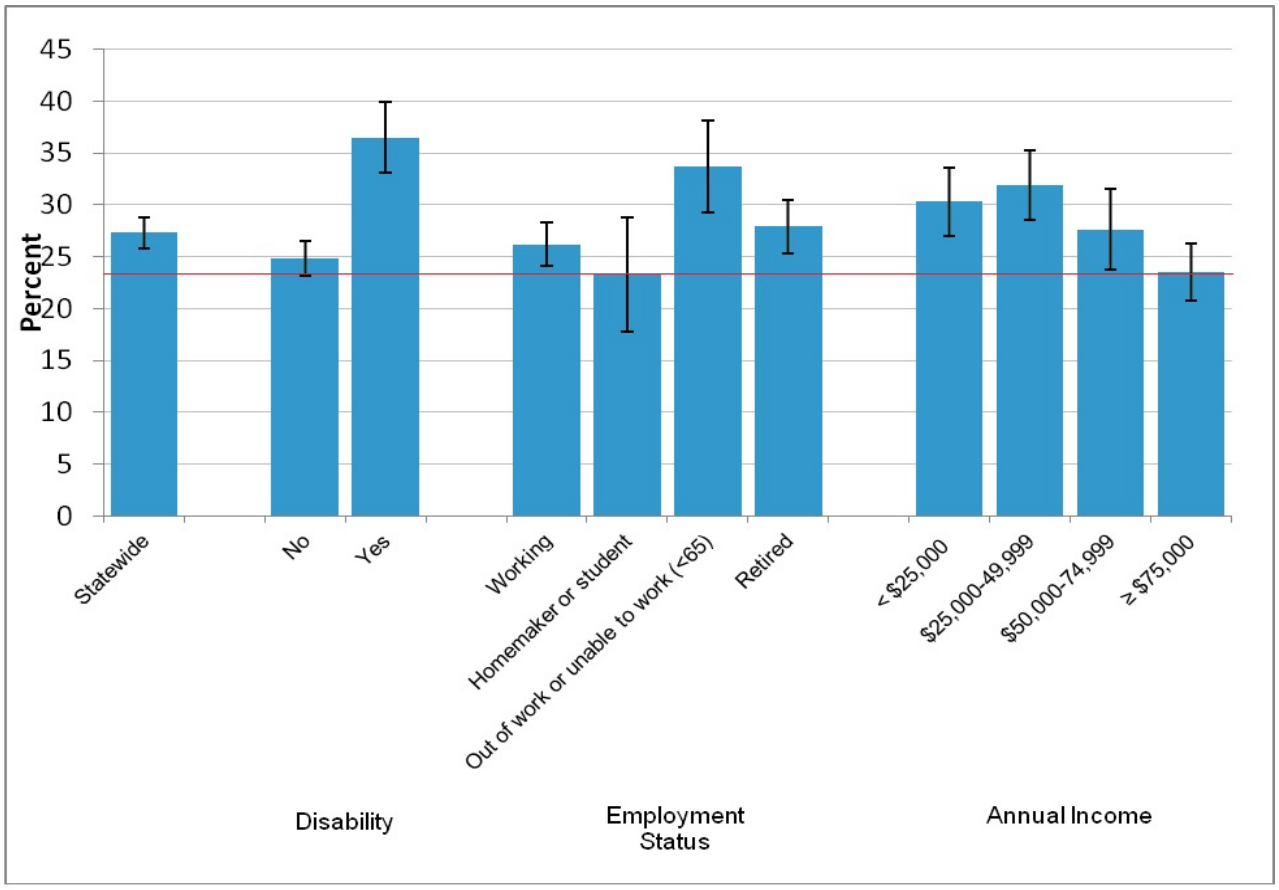


Data Source: Rhode Island Youth Risk Behavior Survey (2011-2013 combined file), Biennial survey of public high school students, Rhode Island Department of Health, Center for Health Data and Analysis

Adult Obesity

Obesity disparities among adults can be seen by disability status, occupational status, and annual household income. According to Figure 8, adults with disabilities have the highest obesity rate among all adults. Adults who are out of work and adults who fall into the lowest household income categories have high obesity rates as well.

Figure 8. Adult Obesity



Source: 2013 Behavioral Risk Factor Surveillance System

To reduce obesity rates among groups at higher risk, efforts should focus on healthier living habits and conditions. Previous Centers for Disease Control and Prevention (CDC) studies have shown that the lack of safe green spaces and nearby healthy food options have led to high rates of obesity among low-income families.[22] Other research suggests that sexual minority youth may face challenges such as stigma, discrimination, family disapproval, social rejection, and violence that may make them more vulnerable to negative health outcomes.[23] These insights and other research can inform strategies to decrease the disproportionate burden of obesity in Rhode Island.

Background

Obesity is the result of an energy imbalance – consuming too many calories and not expending enough energy to burn those calories. While individual choice is a factor in obesity, the places where people live, work, and learn play important roles in whether or not they make healthy decisions.

Children spend more time in school than in any other environment away from home. While at school, most of their time is sedentary. The Society of Health and Physical Educators recommends that elementary school children receive 150 minutes of physical education (PE) per week and middle school students receive 225 minutes per week.

Rhode Island law requires that children receive only 100 minutes of combined health education and physical education. Research has shown that the odds of becoming an overweight adult decrease for each weekday of PE.

How do we define disability?
The Behavioral Risk Factor Surveillance System (BRFSS) considers an individual to have a disability if the respondent answers yes to either of the following self-reported questions "Are you limited in any way in any activities because of physical, mental or emotional problems?" and/or "Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?" The Youth Risk Behavioral System (YRBS) classifies public high school students as having a disability if they respond yes to either of the following self-reported questions: "Do you have any physical disabilities or long-term health problems? (Long-term means 6 months or more)" and/or "Do you have any long-term emotional problems or learning disabilities?" (Long-term means 6 months or more)[35]

Recommendation

The number of minutes of required PE in Rhode Island should be increased to better align with national recommendations of 150 minutes per week for elementary school and 225 minutes for middle and high school students. PE teachers should be provided with annual professional development opportunities to strengthen the quality of PE.

> Rhode Island example*:* Cumberland Public Schools (CPS) added three full-time PE teachers at the K-5 level to come into alignment with the required PE time for a week in school. CPS also added a full-time PE person for more time on adaptive PE for children with disabilities.

Background

Food availability impacts people's food choices. Many Rhode Islanders, particularly those in Rhode Island's less urban areas, live in communities that offer limited access to supermarkets and other food retailers that sell healthy foods. In Warren, 96% of residents live in a food desert, or an area with low access to a full-service grocery store. Rhode Island's urban residents are more likely to have supermarket access, but are inundated with fast food outlets and convenience stores. Central Falls has 37 fast food outlets and convenience stores per square mile, while Cumberland has two. Greater access to supermarkets may be related to a reduced risk of obesity, while greater access to convenience stores may be related to an increased risk of obesity. Stores may want to sell healthier foods but need assistance and funding to change their product offerings, signage, and equipment to do so. For many smaller storeowners in particular, this is a barrier to getting fresh, healthy food into the areas that need it most.

Recommendation

Increase access to healthy foods by implementing a statewide Healthy Food Financing Initiative (HFFI) to provide grants and loans to food retail outlets that improve access to affordable, healthy foods in underserved communities.

> Rhode Island Example: Fresh To You brings low-cost fruits and vegetables to underserved communities through a mobile market. Programs such as this could be funded through HFFI.

Background

Communities that are safe, walk-able, have safe and attractive areas to play, and have programs that encourage physical activity are more physically active. Residents in walk-able communities have a 35% lower risk of obesity than residents in non-walk-able areas. However, a sustainable funding stream is needed to assist communities in making infrastructure and practice changes. HEALTH receives no state funding for obesity prevention. All obesity prevention funds are from CDC, and come with specific guidelines on how the funds must be spent. This often leaves a void at the community level, where projects to improve physical activity need to take place.

One way to create a funding stream is through a small tax on sugar-sweetened beverages, which have been shown to contribute to obesity. Increasing the price of sugar-sweetened beverages would decrease consumption, and also generate funds needed to create healthier communities.

Recommendation

Create a funding stream to support policy and environmental changes in communities that promote safe and accessible walking, biking, and recreation through a tax on sugar-sweetened beverages.

Rhode Island example: The Healthy Places by Design Program is funded Pawtucket, North Kingstown, and South Kingstown. It helps these communities make policy changes that would improve walking, biking, and recreation access. These communities implemented initiatives such as complete streets policies, walking paths, walk to school programs, and improvements to make sidewalks compliant with the Americans with Disabilities Act (ADA).

Diabetes

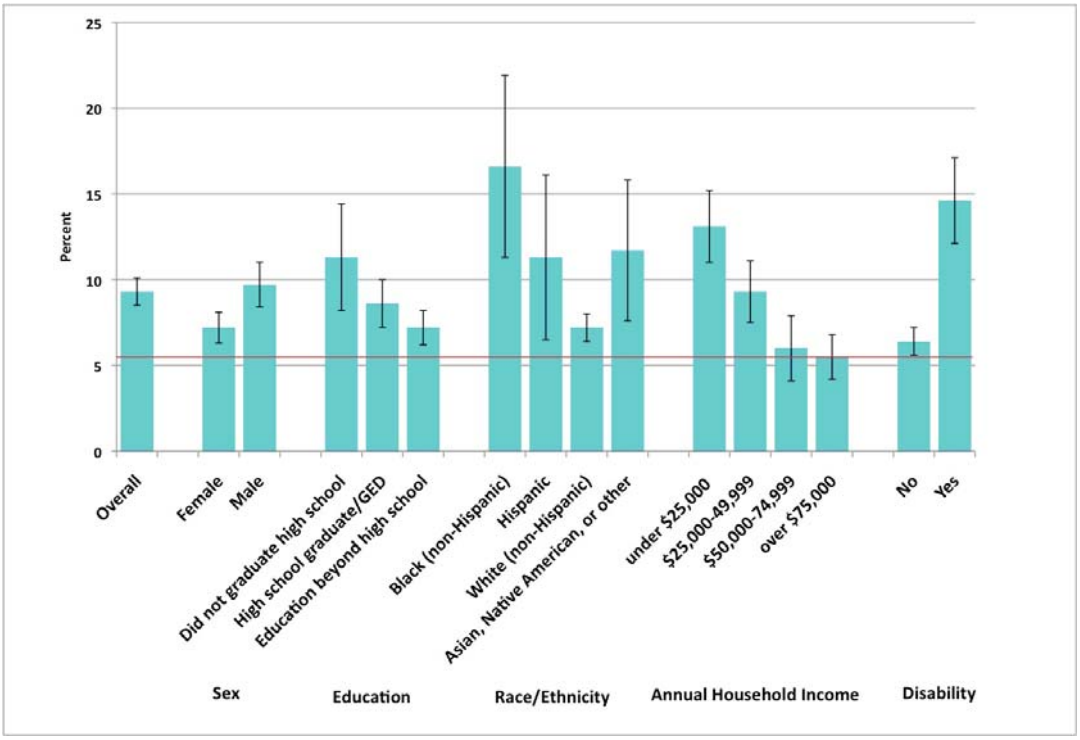
Diabetes is a chronic disease marked by high levels of blood sugar (also called blood glucose). Diabetes occurs when the body has problems either making insulin (Type 1) or using insulin (Type 2). Insulin is a hormone that helps the body break down glucose in food and use the food for energy. Because there is no known cure for diabetes, it can cause serious health problems over time, including blindness, dental disease, nerve damage, kidney problems, and cardiovascular disease, if not properly managed.

In Rhode Island, diabetes disproportionately impacts black adults, Hispanic adults, those who earn less than $25,000 per year, and those with less than a high school education. Rhode Island adults who primarily speak Spanish have twice the prevalence of diagnosed diabetes than adults who primarily speak English.

For individuals at risk of developing Type 2 diabetes, reducing smoking, losing weight, and increasing physical activity can help prevent or delay it. Once diagnosed, diabetes can be managed through routine medical care to improve health outcomes. Resources and interventions targeted at low-income and minority communities can help to minimize the risk of developing the disease and the impact of the disease on overall health and well-being.

Note: Data about diabetes and its disparities come from the 2010 Burden of Diabetes in Rhode Island Report.[24]

Figure 9. Adult Diabetes



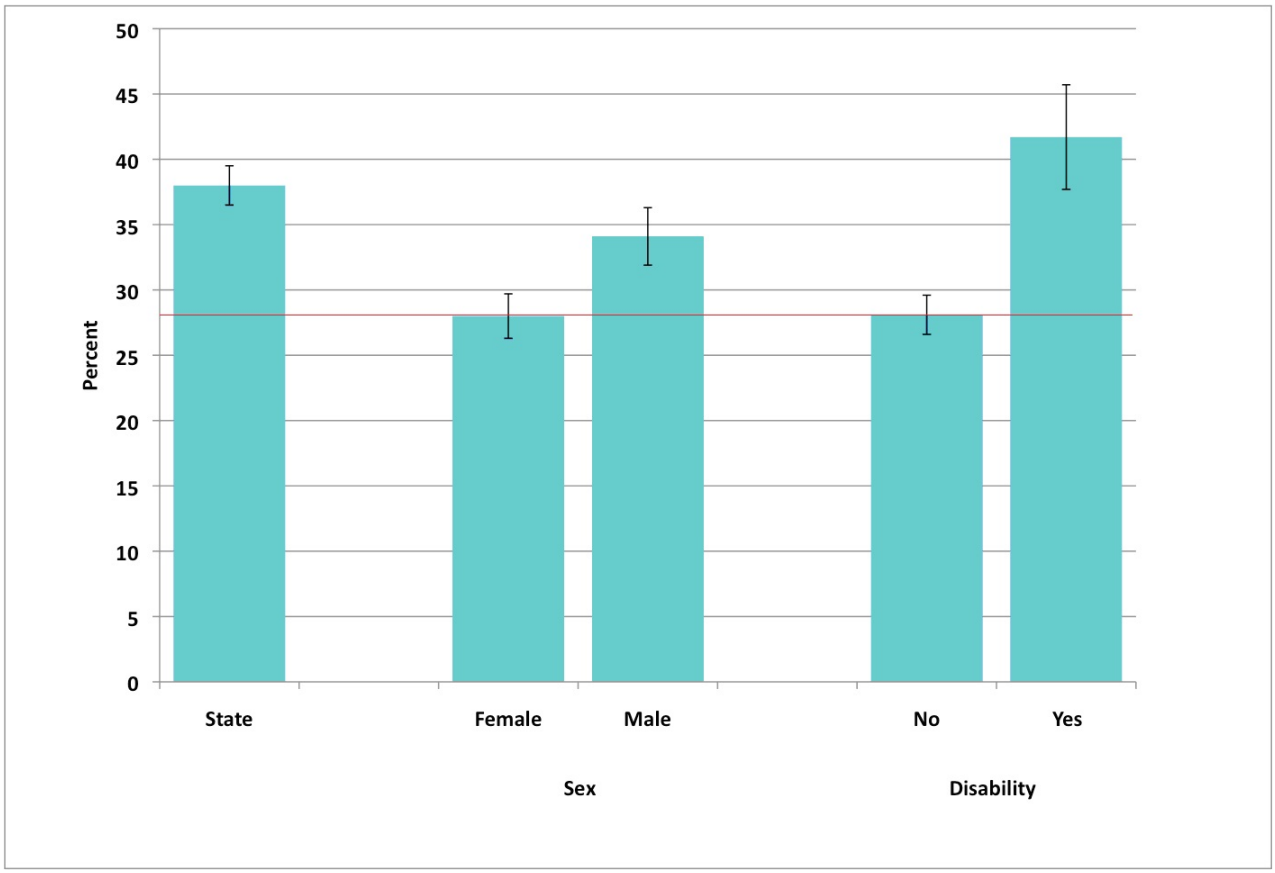
Source: 2013 Behavioral Risk Factor Surveillance System

Heart Disease

Heart disease refers to diseases that affect the heart or blood vessels (arteries and veins). In this report, people with heart disease include individuals who have been told by a doctor that they had a heart attack (myocardial infarction), angina (coronary artery disease), or stroke.

Heart disease is the second leading cause of death in Rhode Island. However, the burden of heart disease and stroke could be greatly reduced through healthy lifestyle choices: avoiding tobacco use, having a healthy diet and healthy weight, exercising, and limiting alcohol use. Hypertension (high blood pressure) increases the risk of heart disease, especially when it is present with other risk factors. Figure 10 displays the prevalence of hypertension by sex and disability status. Certain other health conditions also make it more likely that someone will develop heart disease, including Type 2 diabetes, high cholesterol, and overweight and obesity (www.cdc.gov/heartdisease/facts). The more risk factors people have, the more likely they are to develop heart disease.[25]

Figure 10. Age-Adjusted Hypertension

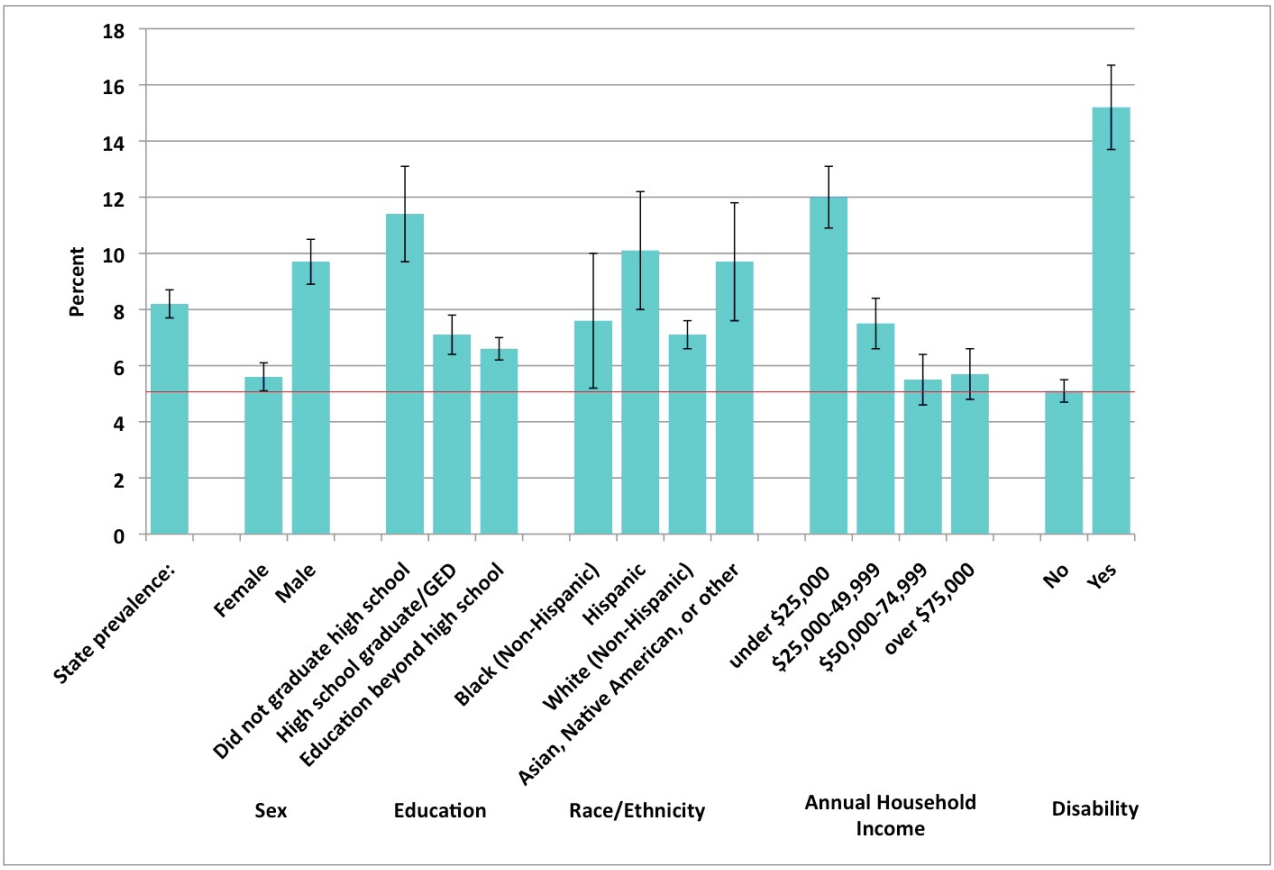


Source: 2013 Behavioral Risk Factor Surveillance System

How to Read "Age-Adjusted" Statistics
Age-adjusted statistics allow for more accurate comparisons between population groups that have different age distributions. For instance, because older people are more likely to develop diabetes, population groups with more elderly people would be expected to have more diabetes. Age-adjusting results in rates that would occur if all groups had the same standard population.

Statewide, 8% of adults have heart disease.[26] Rates of heart disease differ substantially by socioeconomic status. Rhode Islanders with lower incomes (under $25,000) and those who have not graduated from high school suffer from heart disease at higher rates (Figure 11). In addition, Hispanic adults have higher heart disease prevalence than their white counterparts. Finally, individuals with disabilities have a higher heart disease prevalence than those without disabilities.

Figure 11. Age-Adjusted Heart Disease



Source: 2011-2013 Behavioral Risk Factor Surveillance System

Because heart disease is serious, costly, and widespread, it is important to focus both on preventing new cases of the condition and helping those who have it take care of their health. For example, people of lower socioeconomic status have less access to healthcare resources and have more exposure to stress, violence, and environmental hazards that can increase the risk of developing chronic disease.

A Rhode Island Success Story

The Community Health Network

In 2012, HEALTH launched the Community Health Network, an innovative "one stop shop" for wellness programs. The Community Health Network was created to address a common barrier to improving clinical outcomes among patients with chronic conditions — the reality that while providers are aware of the positive impact that chronic disease self-management can have, they often do not know how to access programs for their patients. The goal of the Community Health Network is to support primary care practices and the health system by providing an easy link to evidence-based programs in the community. Physicians can refer patients to any of the programs by sending a Community Health Network Program referral to HEALTH via electronic health record, a secure fax line, phone, or email. A patient navigator, employed or contracted by HEALTH, contacts the patient to assess their needs, directs them to the appropriate program, and helps them to overcome any barriers to completing the referral.

One of the challenges within the U.S. healthcare system has been the increasing number of individuals diagnosed with chronic conditions and the task of managing their care. Chronic conditions—heart disease, stroke, cancer, COPD, chronic pain, diabetes, arthritis, and disabilities—are among the most common, costly, and preventable of all health problems in the U.S., according to the CDC. Half of all Americans have at least one chronic disease, and seven in ten U.S. deaths each year are from chronic diseases.[36] Costs due to injury and chronic conditions cause significant burden on both the patient and society. In 2007, total hospital charges in Rhode Island for all causes and age groups were more than $3 billion.[37] The hospital charges due to chronic conditions and falls account for more than a third of this total amount.[38] In addition, lost productivity and decreased quality of life add to the total cost of these conditions. The average patient spends relatively little time in medical providers' offices, compared with time spent in their neighborhood and community. This creates a gap between care and education received in the clinic and the situations and realities a patient may encounter on a daily basis.

By linking patients to evidence-based programs and the necessary tools to take control of their health, they will be better able to manage their chronic conditions by improving their eating and physical activity behaviors. Most of the programs are free or have a very low cost, and some even offer incentives to patients completing the program. All of the Community Health Network programs focus on activating and empowering patients to increase control of their health. Patients learn how to set goals to improve their health and lifestyle, to eat healthier and increase physical activity, manage symptoms and medication, work with their healthcare team and handle difficult emotions. Patient navigators have facilitated over 400 referrals to evidence-based programs around the state. Activating the patient to self-manage their health and connecting medical care to the community is necessary to improve quality of life and reduce healthcare expenditures and sustain the gains. The Community Health Network will enhance implementation of patient-centered medical home, bridging the gap between the medical home and the community. The three key aspects that make this model unique are:

- Emphasizing patient activation.
- Addressing social barriers to health by accessing community resources through the Rhode Island Parent Information Network Peer Navigator.
- Providing an access point that is easy and convenient to the patient and provider.

Recommendation

To ensure that all people have access to evidence-based programs for chronic disease prevention and control, the Commission recommends that all health insurers, including Medicaid, include evidence-based programs as part of their benefits packages to improve adoption of healthy behaviors, improve health status, and reduce emergency room visits and hospitalizations for people in Rhode Island with chronic disease (for example, heart disease and diabetes).

Oral Health

Oral health is an important part of physical health and quality of life. The pain and tooth loss that often accompany poor oral health can impact daily functioning.[27] Proper oral hygiene and regular dental visits are important for maintaining oral health and preventing diseases and complications, like cavities, gum disease, and tooth loss, and even potentially chronic diseases that impact other parts of the body. Research shows that poor oral health is associated with poor pregnancy outcomes and many chronic diseases, such as heart disease, diabetes, and cancer.

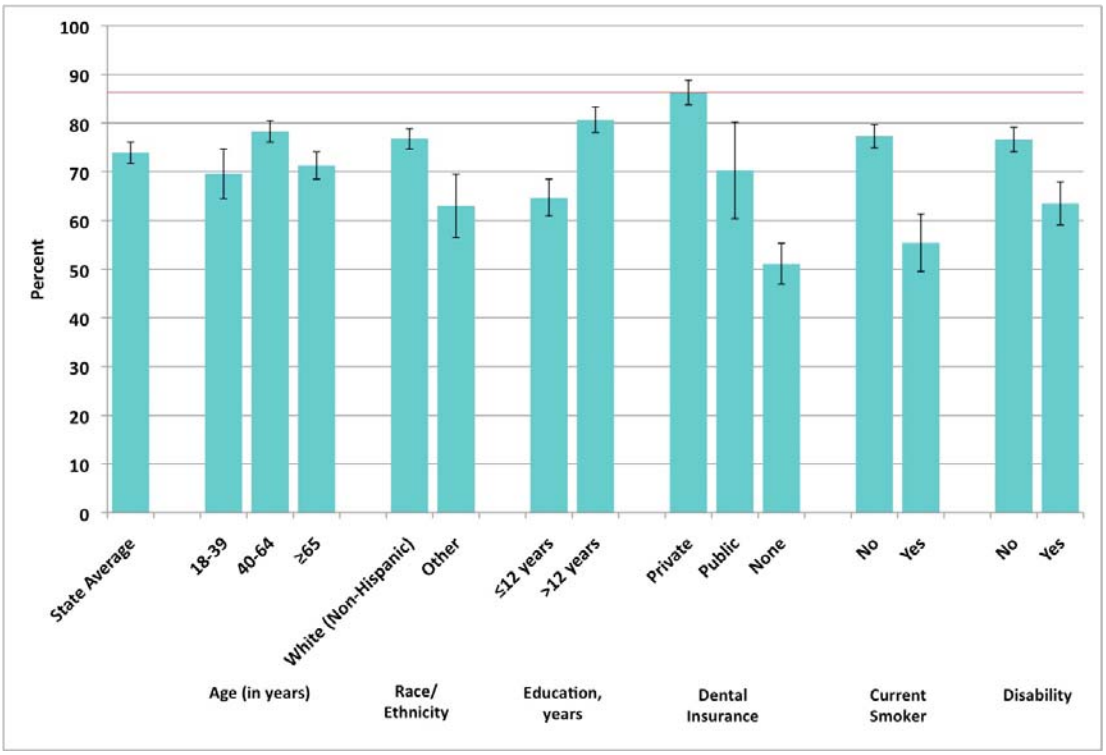
Dental Care Utilization

In Rhode Island, almost 75% of adults had seen a dental provider in the last year (Figure 12). Adults in the following categories were less likely to have had a dental visit in the last year:

- Younger than 40 years of age or older than 65 years of age
- Not white
- 12 or fewer years of education
- Public insurance or no dental insurance
- Smoker
- Have a disability

These differences in dental care utilization can impact disease risk and later oral health outcomes.

Figure 12. Rhode Island Adults Who Went to a Dentist or a Dental Clinic in the Past Year



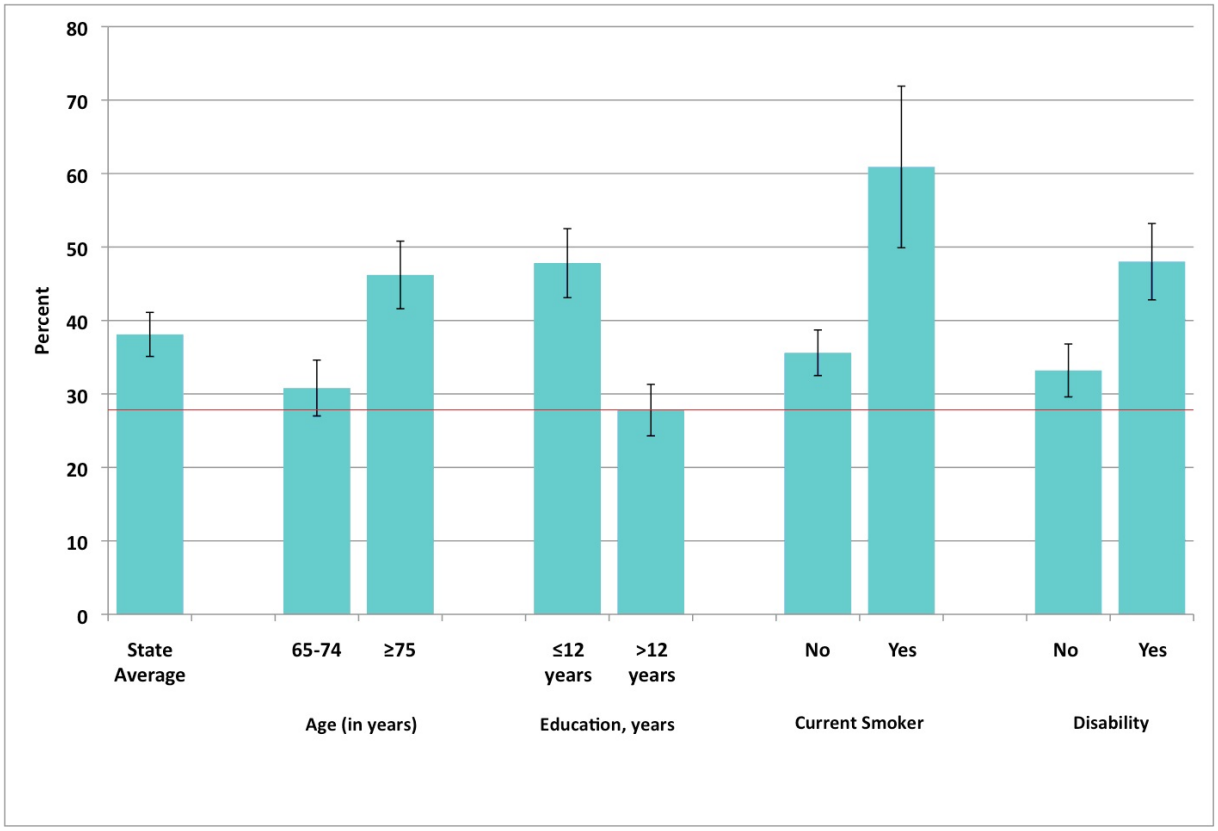
Note: Current smoker are those who have smoked at least 100 cigarettes in their lifetime and who currently smoke
Source: 2012 BRFSS data, prepared by Junhie Oh, Oral Health Program Epidemiologist

Tooth Loss

Tooth loss is another important indicator of oral health that can reveal inequalities that emerge toward the end of life. As of 2012, almost 40% of Rhode Island adults who were 65 years of age or older had lost six or more of their natural teeth (Figure 13). Older adults (65 and older) were more likely to have lost six or more teeth if they were/had:

- Older than 74 years of age
- A current smoker
- 12 or fewer years of education
- A disability

Figure 13. Rhode Island Adults (65 years of age or older) Who Lost Six or More Teeth



Note: Current smoker=Those who have smoked at least 100 cigarettes in their lifetime and who currently smoke
Source: 2012 BRFSS data, prepared by Junhie Oh, Oral Health Program Epidemiologist

Current research suggests that various parts of your identity (your education, social status, background, where you live, and health behaviors) can each have a unique impact on oral health.[28] In order to improve the oral health and overall health of the entire population, preventive care and dental visits need to be universal. Increasing the rates of preventive visits would positively impact both oral health and overall health, particularly for:

- racial and ethnic minorities
- those with lower levels of education
- those without insurance
- smoker
- those with disabilities

A Rhode Island Success Story

Advanced Education in General Dentistry (AEGD)

Advanced Education in General Dentistry (AEGD) programs are a proven dental residency training mechanism that effectively meets dental school graduates' post-doctoral educational needs and addresses disparities in obtaining dental care among disparate populations. As Rhode Island's largest pediatric dental provider, St. Joseph Health Services of Rhode Island (SJHSRI), through an affiliation with Lutheran Medical Center, has operated an Advanced Education in Pediatric Dentistry (AEPD) residency program since 2003. The families of most of the children served are low-income and/or are racially or ethnically diverse. Despite a continuous increase in dental services for children at the St. Joseph Pediatric Dental Centers, unmet demand for dental care among adults, particularly those with low-income, has simultaneously grown. Many parents of children at the St. Joseph Pediatric Dental Centers had limited access to dental care since few private dental providers in Rhode Island accept Medicaid patients. Recognizing these problems, HEALTH's Oral Health Program and SJHSRI collaborated to implement the AEGD program to provide more comprehensive, advanced training in general dentistry and expand services beyond the pediatric population in underserved communities. Typically, newly graduated dentists have not fully developed the skills and competencies needed to treat and manage complicated unmet oral health needs among socially/economically underserved, ethnically/culturally diverse populations, and/or adults with special healthcare needs. The AEGD program has been designed to complement the AEPD program at SJHSRI and prepare competent dental practitioners with a high level of clinical expertise acquired through comprehensive general dentistry training. The program has increased access to dental services for underserved adult populations. According to the 2014 Dental Safety Net Report, SJHSRI and its Pediatric & Family Dental Centers treated 1,603 more adult patients in 2013 than in 2009. This increase in the number of adult patients is attributed to the expansion of its residency program. Most of the adults treated were enrolled in Medicaid.

Rhode Island Voices

What steps should be taken to improve the health of Rhode Islanders?

"Make the healthy option the default one!"
Anonymous

"We need to raise the minimum wage so people all through the state can access healthy foods, achieve self-sufficiency and dignity. I truly believe that drug abuse and alcoholism are related to the depression that results when people feel trapped by poverty."
Debi, Cranston

"Educate! Empower all individual to be proactive about the care they receive."
Anonymous

Background

Whether a person has dental insurance, and whether that insurance is private or Medicaid, is a major determinant in whether they have visited a dental office in the past year (Figure 12). This disparity in utilization of dental services is associated with incidence of oral disease, poor pregnancy outcomes, and other chronic diseases in low-income and racially and ethnically diverse populations.

Recommendations

The Commission recommends issuing a legislative order requesting that the Rhode Island Executive Office of Health and Human Services (EOHHS) implement a managed care model for Rhode Island adult dental services, as identified in *An Assessment of the Rhode Island Medicaid Adult Dental Program*, prepared for the Rhode Island General Assembly by EOHHS in January 2014. Evidence discussed in this report supports a cost-effective managed care system, which would increase the oral health and overall health of Rhode Island Medicaid recipients; satisfy the Centers for Medicare and Medicaid Services' (CMS) triple aim to improve healthcare, improve overall health and lower costs; and replicate the success of RIte Smiles, Rhode Island's Medicaid Children's Dental Managed Care program, for Rhode Island's adult population.

Summary

While Rhode Islanders have expressed their goals for a healthy state, there are still many groups and communities that are burdened with preventable disparities in health. As evidenced by the information presented here, we see that substantial differences in health outcomes exist across subgroups of the population. In the health outcomes presented here, the largest disparities were seen consistently in levels of educational attainment, disability status, and income. Significant disparities also emerged for racial and ethnic minorities.

The analysis in the previous section illustrates the differences in health outcomes that exist across socio-demographic groups. Policies targeted specifically at these outcomes are important steps in ensuring equity within the state. However, it is also clear from the analysis that due to the intersectionality of the social determinants of health, there also needs to be action and collaboration on a universal, statewide level. What follows are the next steps that the Commission recommends for all government agencies and other stakeholders in order to address health disparities across the state.

Global Recommendations for Advancing Health Equity in Rhode Island

The following recommendations are the result of months of research, interviews, data collection, meetings, public forums, and surveys conducted to assess the current environment related to health disparities throughout Rhode Island. The information collected was then collated and edited to reflect commonalities in comments, observations, and conclusions. These policy recommendations are the initial steps for efforts that the Commission believes will lead to significantly enhanced opportunities to address and eliminate health disparities in Rhode Island. Additionally, the Commission believes the policy recommendations will greatly improve health outcomes throughout the state, increase efficiency and effectiveness of healthcare with favorable returns on investments, reduce healthcare expenditures at the state and local levels, and greatly improve the personal health of people throughout Rhode Island.

These recommendations are all related to holistic and comprehensive health management systems integration. They are driven by data on health disparities and inequities and involve HEALTH, other state agencies, legislators and elected officials, and community-based organizations, among other organizations. Cross-agency coordination is vital to all of the recommendations. The Commission for Health Advocacy and Equity requests that all efforts be made by all stakeholders to implement these recommendations for 2015 and beyond.

Incorporate a Health in All Policies approach

The state, municipalities, and community stakeholders should develop methods that raise the level of health equity awareness, explicitly recognize that policies made outside of the health domain impact the health of Rhode Islanders, and build a stronger commitment to reducing health disparities throughout state government. The Commission recommends a Health in All Policies[29] approach that would promote health and equity, support cross-sector collaboration, create benefits for multiple partners, and create structural or process change with mechanisms enabling the ability to more effectively and efficiently improve health conditions.

Improve systems for collecting health disparities data

The state, municipalities, and community stakeholders should immediately institute policies and measures to address the challenges Rhode Island has for monitoring health inequities and documenting the costly outcomes of health disparities. The Commission recommends that implementation of improvements to data collection capacity and system accessibility be introduced in a state health disparities surveillance system that clearly highlights disease and health behavior conditions across socio-demographics in Rhode Island. Minimally, Rhode Island must coordinate the collection of health disparity data across programs within HEALTH. In addition, this recommendation also includes improvements to collecting state and local data related to poverty and healthy housing, as these conditions have a direct connection to health disparities and equity. Data collection policies and goals should be consistent across community-based organizations, faith-based organizations, NGOs, and not-for-profit agencies. Data should be gathered consistently on ethnicity and race, disability status, and other categories of demographics. Due to small population sizes of Native Americans and Southeast Asians in the state, the Commission requests enhanced efforts for these groups. All data on all minority populations are critical to understanding and developing strategies to eliminate health disparities.

Strengthen Rhode Island's capacity to address health inequities

Stakeholders should immediately establish plans and efforts to strengthen the capacity of the state and cities and towns to develop and sustain effective partnerships and programs to achieve health equity. The Commission recommends that we establish a state grant process that facilitates programming across state agencies that influences the social determinants of health (for example, education, transportation, planning, health, and employment/training).

Additionally, the Commission recommends that the Director of Health identify and dedicate available resources to the Commission and the Office of Minority Health to support the role and efforts of these entities to address health inequities in Rhode Island.

Expand partnerships

To amplify the collective knowledge base related to the causes of health disparities and the paths to health equity, the Commission recommends strengthening partnerships between academic institutions and government (public/private partnerships) and seeking joint funding support. An emphasis for funding to identify the causes of disparities and outline appropriate levels of interventions may be required.

Coordinate efforts for action

All stakeholders, state agencies, and partners should coordinate efforts annually to rally and apply the aforementioned measures toward specific health disparity issues and outcomes. The Commission recommends that the Governor convene the Directors of Rhode Island's state agencies in order to incorporate health equity into the cabinet-level policy making process. This should result in an ongoing effort by the Governor and state agencies to consider health equity when developing all state policies.

[1] Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute.

[2] Robert Wood Johnson Foundation. A new way to talk about the social determinants of health. Available: http://www.rwjf.org/content/dam/farm/reports/reports/2010/rwjf63023

[3] U.S. Department of Health and Human Services. (2014). Disparities. Available: HTTP://HEALTHYPEOPLE.GOV/2020/ABOUT/DISPARITIESABOUT.ASPX

[4] State of Rhode Island General Assembly. (2011). Commission for Health Advocacy and Equity. Available: http://webserver.rilin.state.ri.us/BillText11/HouseText11/H5633A.pdf

[5] U.S. Department of Health and Human Services. (2014). Disparities. Available: HTTP://HEALTHYPEOPLE.GOV/2020/ABOUT/DISPARITIESABOUT.ASPX

[6] National Prevention Council. (2014). Elimination of Health Disparities. Available: http://www.surgeongeneral.gov/initiatives/prevention/strategy/health-disparities.pdf

[7] Robert Wood Johnson Foundation. America is Unhealthy. Available: http://www.rwjf.org/content/dam/files/rwjf-web-files/Resources/2/Commission_America_is_unhealthy_2014_OnePager.pdf

[8] Centers for Disease Control and Prevention. (2014). Social Determinants of Health. Available: http://www.cdc.gov/socialdeterminants/Definitions.html

[9] U.S. Department of Health and Human Services. (2014). Social Determinants of Health. Available: http://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health

[10] Rhode Island Department of Health. (2013). Youth Risk Behavior Survey Results. Available: http://www.health.ri.gov/materialbyothers/yrbs/2013HighSchoolDetailTables.pdf

[11] Rhode Island Department of Health. (2012). Guidelines for Adoption of New Core City Designation. Available: http://www.health.ri.gov/publications/guidelines/CoreCityData.pdf

[12] Centers for Disease Control and Prevention. (2014). Infant Mortality. Available: http://www.cdc.gov/reproductivehealth/maternalinfanthealth/infantmortality.htm

[13] Federal Interagency Forum on Child and Family Statistics. (2013). America's Children: Key National. Indicators of Well-Being, Washington, DC: Government Printing Office.

[14] Rhode Island Kids Count. (2014). Factbook: Infant Mortality. Available: http://www.rikidscount.org/matriarch/documents/Ind27.pdf

[15] Rhode Island Kids Count. (2014). Factbook: Infant Mortality. Available: http://www.rikidscount.org/matriarch/documents/Ind27.pdf

[16] Rhode Island Department of Health. (2011). Minority Health Facts: Native Americans in Rhode Island. Available: http://www.health.ri.gov/publications/factsheets/minorityhealthfacts/NativeAmericans.pdf

[17] Rhode Island Department of Health. (2014). The Burden of Asthma in Rhode Island. Available: http://www.health.ri.gov/publications/burdendocuments/2014Asthma.pdf

[18] Rhode Island Kids Count. (2014). 2014 Rhode Island Kids Count Factbook. Available: http://rikidscount.org/matriarch/documents/2014Factbook-noart.pdf

[19] Trust for America's Health & Robert Wood Johnson Foundation. (2014). The State of Obesity: Better Policies for a Healthier America. Available: http://www.stateofobesity.org/files/stateofobesity2014.pdf

[20] Centers for Disease Control and Prevention. (2014). Overweight and Obesity. Available: http://www.cdc.gov/obesity/data/adult.html

[21] Trust for America's Health & Robert Wood Johnson Foundation. (2014). The State of Obesity in RI. Available: http://www.stateofobesity.org/states/ri

[22] Centers for Disease Control and Prevention. Obesity among Low-Income Preschool Children Available: http://www.cdc.gov/obesity/downloads/pednssfactsheet.pdf

[23] Centers for Disease Control and Prevention. (2012). Health Risks Among Sexual Minority Youth. Available: http://www.cdc.gov/healthyyouth/disparities/smy.htm

[24] Rhode Island Department of Health. (2010). The Burden of Diabetes in Rhode Island. Available: http://www.health.ri.gov/publications/burdendocuments/2010Diabetes.pdf

[25] Rhode Island Department of Health. (2009). The Burden of Heart Disease and Stroke: Rhode Island. Available: http://www.health.ri.gov/publications/burdendocuments/2009HeartDiseaseAndStroke.pdf

[26] 2011-2013 Behavioral Risk Factor Surveillance System

[27] Rhode Island Department of Health. (2012). Access to Dental Care among Rhode Island Children and Adults. Available: http://www.health.ri.gov/publications/databriefs/2012AccessToDentalCareAmongRhodeIslandChildrenAndAdults.pdf.

[28] Steele, J., Shen, J. Tsakos, G., Fuller, E., Morris, S., Watt, R., Guarnizo-Herreño, C. and Wildman, J. (2014). The Interplay between Socioeconomic Inequalities and Clinical Oral Health. Journal of Dental Research: 1–8.

[29] Rudolph, L., Caplan, J., Ben-Moshe, K., & Dillon, L. (2013). Health in All Policies: A Guide for State and Local Governments. Washington, DC and Oakland, CA: American Public Health Association and Public Health Institute.

30 Rhode Island Department of Health. (2009). The Burden of Heart Disease and Stroke: Rhode Island. Available: http://www.health.ri.gov/publications/burdendocuments/2009HeartDiseaseAndStroke.pdf

31 Rhode Island Department of Health. (2013). RI Reports on immunization, lead exposure, and asthma. http://www.health.ri.gov/healthy/schools/

32 Infoworks, RI Department of Education, Rhode Island Education Data Reporting. http://infoworks.ride.ri.gov/

33 DePue, Judith D., et al. (2007). "Providence school asthma partnership: School-based asthma program for inner-city families." *Journal of Asthma* 44.6: 449-453.

34 Henry, Richard L., et al. (2004). "Randomized controlled trial of a teacher-led asthma education program." Pediatric pulmonology 38.6: 434-442.

35 Rhode Island Department of Health. (2013). Disability and Health 2013 Annual Report. Available: http://www.health.ri.gov/publications/annualreports/2013DisabilityAndHealth.pdf

36 2007 Rhode Island Hospital Discharge Data, Rhode Island Department of Health, Center for Health Data and Analysis

37 2007 Rhode Island Hospital Discharge Data, Rhode Island Department of Health, Center for Health Data and Analysis

38 2007 Rhode Island Hospital Discharge Data, Rhode Island Department of Health, Center for Health Data and Analysis. Note: This is only an approximate number meant to give an idea of the burden; Ages 0 and older for asthma. Ages 18 and older all other diseases. Ages 65 and older for falls.