

# The Miriam Hospital

A Lifespan Partner



# **Community Health Needs Assessment**

*September 30, 2013* 

## **Table of Contents**

Executive Summary	page 3
About The Miriam Hospital and its community	page 3
Objectives	page 5
Highlights of Findings	page 6
Implementation Strategy	page 7
Introduction	page 10
About The Miriam Hospital	page 10
Demographics of Patients Served by The Miriam Hospital	page 11
Patient Origin	page 11
Patient Ethnicity	page 12
A Broader Definition of Community	page 13
Methodology and Strategy	page 14
Quantitative Data	page 14
Qualitative Data	page 15
Community Stakeholder Survey	page 16
Social Determinants of Health	page 17
Findings	page 20
Rhode Island Health Status at a Glance	page 22-23
Access to Care	page 24
Cancer	page 29
Healthier Weight	page 33
Mental Health	page 37
Community Stakeholder Survey: Complete Results	page 40
Most significant healthcare needs	page 40
Most significant social needs	page 42
Analysis	page 44
Implementation Strategy	page 46
Access to Care	page 46
Cancer	page 49
Healthier Weight	page 51
Mental Health	page 54
Conclusion	page 57
Appendices	page 58
Endnotes	page 73

## **Executive Summary**

The Miriam Hospital continuously assesses community need to ensure that its services are well-calibrated to the needs of its community. The Miriam regularly conducts population-based studies that examine growth and changes in the population served, community resources, and the changing prevalence of diseases, as well as patient experience with wait times, staffing levels, and changing standards of care. In recent years, in response to community need, the hospital has introduced several new services and expanded others; examples include launching a robotic surgery program, becoming the first hospital in the region to use a new technology to remove clots in patients experiencing stroke, and opening Rhode Island's first Joint-Commission-certified Stroke Center and the state's only Women's Cardiac Center.

Between September 2011 and May 2013, in order to gain greater insight into the health status and health care needs of the people served by The Miriam Hospital, a community health needs assessment (CHNA) was conducted on the hospital's behalf by Lifespan, a Rhode Island-based healthcare system (described below) of which The Miriam Hospital is a member. The CHNA was conducted concurrently and collaboratively with those of the other three Lifespan member hospitals, which also serve the statewide community, with the goal of maximizing efficiency and impact – in both data collection and crafting implementation plans – by leveraging synergy across institutions.

## **About The Miriam Hospital and its community**

The Miriam Hospital is a nonprofit, 247-bed general acute care teaching hospital located in Providence, Rhode Island. The seeds of The Miriam were planted in 1907, when a group of passionate, philanthropic women began to raise the necessary funds to establish a hospital in Providence that would provide high-quality medical care for Jewish immigrants in a care environment where their language and culture would be understood. Their vision was achieved in 1926, when The Miriam received a charter from the Rhode Island General Assembly and a 63-bed hospital opened on Parade Street. On April 24, 1966, the broader Rhode Island community, served by a significantly expanded Miriam Hospital, dedicated the 247-bed Summit Avenue facility that is home to today's hospital – advancing The Miriam's enduring mission "to serve all the people of Rhode Island regardless of race, creed, origin or economic means."

To strengthen its core mission of patient care, research and medical education, The Miriam Hospital affiliated with Alpert Medical School of Brown University in 1969 – launching more than four decades of active participation in medical education, offering residencies and other educational opportunities in internal medicine and medicine subspecialties, general surgery and surgical subspecialties, psychiatry, emergency medicine, orthopedics and dermatology. The hospital is staffed by more than 775 affiliated physicians, 50 full-time house staff, a nursing staff of 500, and more than 1,100 employees. In total, The Miriam Hospital employs more than 2,500 people.

In 2012, The Miriam Hospital provided nearly \$44.4 million in net community benefit expenses for its patients. The Miriam provides full charity care for individuals at or below twice the federal poverty level, with a sliding scale for individuals up to four times the poverty level. As part of its community benefit expenses, the Hospital provided over \$12.7 million in financial assistance at cost to patients (charity care), \$18.6 million in medical and health professions education, nearly \$3.4 million in subsidized health services (including services for oncology, HIV, tuberculosis, and men's health clinics) and \$3.6 million in unfunded medical research.

The Miriam Hospital is a founding member of Lifespan, a comprehensive health system established in 1994 to provide accessible, high-value services to the people of Rhode Island and southern New England. Other Lifespan members include Rhode Island Hospital and its Hasbro Children's Hospital, Bradley Hospital, also teaching hospitals affiliated with Alpert Medical School of Brown University; Newport Hospital, a community hospital; and Gateway Healthcare, a regional behavioral health provider. Members of the Lifespan Board of Directors serve as trustees of the system's member hospitals.

## **Population Characteristics**

The Miriam Hospital provides a comprehensive range of diagnostic and therapeutic services for the acute care of patients from throughout Rhode Island – principally from the city of Providence and from within Providence County, as well as southeastern Massachusetts. The 2010 United States Census reported that there were 178,042<sup>i</sup> people in Providence and 1,052,567<sup>ii</sup> people in the state of Rhode Island. The median age in Providence was 28.5 in 2010,<sup>iii</sup> which is much younger than the statewide median age of 39.4.<sup>iv</sup> Only 8.7% of Providence's population is over the age of 65, compared to 14.4% of the population statewide.<sup>v</sup> (Rhode Island has an older population when compared to the nation as a whole.<sup>vi</sup> The median age in the United States in 2010 was 37.2 and only 13.1% of the population was over the age of 65.<sup>vii</sup>)

Providence is a "majority-minority" city. viii According to the 2010 United States Census, 93.5% of the city's population identified as "one race"; of this population, 49.8% were white, 16% were Black or African-American<sup>ix</sup> (compared to 5.6% statewide<sup>x</sup>), 38.1% were Hispanic or Latino<sup>xi</sup>, and 6.4% were Asian. xii According to 2011 American Community Survey data, 29.4% of the city's population was foreign-born, with 66.2% of the foreign-born population coming from Latin American countries. Xiii Slightly more than half (52.1%) of all Providence households speak English-only at home. Xiv Nearly 48% of all Providence households speak a language other than English at home, with 34.9% of all Providence households speaking Spanish. Xiv

## **Income and Employment**

In 2011, the median household income in Providence was \$38,922, xvii which is significantly lower than the statewide median income of \$55,975. xviii The per capita income in the city was \$21,628, xviii which again was lower than the statewide per capita income of \$29,865. xix Twenty-three percent of all Providence

households lived with annual income of under \$15,000 a year, xx a considerably greater percentage than the 15.4% of all households statewide that lived under \$15,000 annually. Nearly one-quarter (23.1%) of all households in Providence received Supplemental Nutrition Assistance Program (SNAP) benefits in the past year, xxi which was over double the percentage of households statewide (10.7%) that received SNAP benefits. XXIII (Nationwide, the median income in the United States in 2011 was \$52,762; per capita income was \$27,915; 12.3% of all households in the United States lived with incomes of under \$15,000 annually; and 10.2% of households received SNAP benefits within the past year. XXIIII)

As of July 2013, the Bureau of Labor Statistics reported an unemployment rate of 10.2% in the Providence metro area – but 12.7% in Providence and 12.6% in Fall River, the closest city in southeastern Massachusetts. \*\*xxiv\*\* Rhode Island's statewide unemployment rate is the fourth highest in the nation at 8.9%, down from 10.6% in 2012. \*\*xxv\*\* (The New England average unemployment rate, as of May 2013, was 6.6%, with Connecticut at 8.0%, Maine at 6.9%, Massachusetts at 6.4%, New Hampshire at 5.5%, and Vermont at 4.0%. \*\*xxvi\*\*)

## **Statewide Perspective**

The Miriam Hospital serves people from almost every city and town in Rhode Island, as well as Massachusetts border communities. Rhode Island's compact, densely-populated geography – the state's 1,045 square miles are home to slightly over 1 million people, according to the 2010 census – facilitates considerable mobility among communities. Moreover, cross-institutional collaboration and referral is fostered among Lifespan member hospitals for a wide range of specialty services, including but not limited to oncology, pediatric services, trauma care, and surgery.

For these reasons, the community surveyed under the CHNA belongs to the Providence-Warwick, RI-MA Metropolitan New England City and Town Area (NECTA) – defined by the Office of Management and Budget in February 2013<sup>xxvii</sup>. This area includes all of Providence County, Bristol County, Kent County; six of the nine towns in Washington County; all six towns in Newport County; and parts of Bristol, Norfolk and Worcester County in Massachusetts.

## **Objectives and Methodology**

The goals of The Miriam Hospital's Community Health Needs Assessment were:

- To enhance the hospital's perspective on the healthcare needs of its community
- To establish a baseline data set and analysis upon which future work can build
- To provide a resource for individuals and organizations interested in the health status of the community served by The Miriam Hospital
- To inform creative discussions and collaborations to improve the health status of the community
- To meet the requirements of the Patient Protection and Affordable Care Act, which calls for nonprofit
  hospitals to periodically assess the health needs of people living in their service area

The CHNA encompassed intensive data collection and analysis, as well as qualitative research in the forms of interviews with and surveys of more than 100 internal and external stakeholders, including hospital-based physicians, nurses, social workers, administrators and other professionals, and community-based stakeholders representing constituencies served by The Miriam Hospital and Lifespan's three other hospitals.

## **Highlights of Findings**

Self-reported data included in the 2011 Behavioral Risk Factor Surveillance System (BRFSS) surveys of the Centers for Disease Control and Prevention (CDC) reveal 82.6% of Rhode Islanders describing their health as "excellent, very good or good." Nearly 62% of Rhode Islanders reported no physically unhealthy days per year, while 86.20% of Rhode Islanders reported fewer than 13 "physically unhealthy days" per year. XXVIII However, quantitative and qualitative analysis crystallized around four health needs of paramount concern in the community served by The Miriam Hospital:

#### Access to care

Community stakeholders consistently cited various aspects of access to care (i.e. access to health services, cost of services, access to health insurance, health literacy, and other factors) as the most pressing challenges facing their constituencies. Access to health insurance correlates to improvement in health status. The Miriam is deeply committed to ensuring that every member of its community has access to vital health services. In 2012, the hospital provided nearly \$44.4 million in net community benefit expenses for its patients. The hospital also works to remove financial, language, and cultural barriers to care – providing translation services; multilingual signage in lobby and waiting areas, including financial aid contact information; help with benefits eligibility upon registration; and written information about assistance eligibility.

#### Cancer

Cancer is the second-leading cause of mortality in Rhode Island, as it is nationwide. However, Rhode Island continues to have one of the highest cancer incidence rates in the nation. In 2009, Rhode Island's age-adjusted cancer incidence rate (491.4 cases per 100,000) was the fourth highest in the nation. The leading types of cancer incidence in Rhode Island were female breast cancer (135.2 per 100,000), prostate cancer (134.8/100,000), lung cancer (72.2/100,000), and colon (41.9/100,000). The state ranks 26<sup>th</sup> nationally for cancer mortality in the United States.

### Healthier Weight

Issues related to healthier weight – including nutrition, overweight/obesity, diabetes, hypertension, childhood overweight/obesity, heart disease, and stroke – were cited by community stakeholders as being among their constituents' top health concerns. Heart disease is the leading cause of death in Rhode Island, as it is across the United States, and Rhode Island's heart disease mortality exceeds that

of the nation as a whole. However, the state's diabetes mortality rate is slightly lower than the national average. Obesity and diabetes rates in Rhode Island are below the national median, but higher than rates in both Massachusetts and Connecticut. The state exceeds the national and regional rates for overweight, heart disease mortality rates, and other behavioral and medical risk factors such as physical inactivity and borderline diabetes.

While interviews and survey responses did not cite direct correlations, healthier weight is related to many of the other health and social issues identified. Poverty, unemployment, access to care challenges, mental illness, health literacy, and even asthma can affect lifestyle choices and other factors influencing healthy weight, such as ability to select, purchase, or cook nutritious meals; time, motivation, and safe places for exercise; and access to health services for the diagnosis and treatment of endocrine disorders and other medical conditions that may present a barrier to maintaining healthy weight.

#### Mental Health

Mental health and addiction were cited as top concerns among community stakeholders. Rhode Island has the highest rate of mental illness in the United States, with 24.2% of residents reporting any type of mental illness (compared with 19.7% nationwide). Incidence of serious mental illness (defined as "a diagnosable mental disorder that substantially interfered with or limited one or more major life activities" – is nearly double the national rate (7.2% vs. 4.6%). The percentage of Rhode Island adults reporting major depressive episodes in the past year also far exceeded the national average, with 9.5% of Rhode Islanders reporting such events in 2010 compared with 6.5% of all Americans. Rhode Islanders between 35 and 64 experienced the nation's third highest increase in suicide between 1999 and 2010.

Rhode Island has the second highest illegal drug use rate in the country, behind only Vermont. Trugrelated deaths – mostly from opioids such as heroin and oxycodone – claimed the lives of 193 Rhode Islanders in 2008. Rhode Island is one of only 16 states in which the number of deaths from opioid overdose now exceeds the number of motor vehicle fatalities. Providence County has the second-highest drug-related mortality rate in Rhode Island (20.1 deaths per 100,000 people), compared to a statewide rate of 18.4 deaths/100,000 people. Kent County had the highest drug-related death rate at 20.8 per 100,000, Washington County had the third highest, (15/100,000), followed by Newport County (11.2/100,000), and Bristol County (8.0 deaths/100,000).

## Implementation Strategy

The Miriam Hospital looks forward to continuing to identify critical health issues facing its community, and to working with community partners to address those issues as effectively as possible in the context of its mission and expertise, while sustaining its capacity to serve as a vital health care provider for Providence and Rhode Island. The hospital plans to continue or pursue initiatives in the following health-need areas identified through the Community Health Needs Assessment. [A full description of these programs can be found in the Implementation Strategies section of the report].

#### Access to Care

As a major employer, with more than 2,500 employees as of FY2012, The Miriam Hospital is a key source of employer-linked health insurance in the community it serves. The hospital also serves as a lifeline for critical health services, providing nearly \$44.4 million in net community benefit expenses for its patients in 2012. The Miriam provides full charity care for individuals at or below twice the federal poverty level, with a sliding scale for individuals up to four times the poverty level. As part of its community benefit expenses, the Hospital provided over \$12.7 million in financial assistance at cost to patients (charity care) and nearly \$3.4 million in subsidized health services—including services for oncology, HIV, tuberculosis, and men's health clinics. In addition to these community benefits, The Miriam Hospital – in collaboration with its fellow Lifespan affiliate hospitals – plans to continue or implement the following initiatives:

- Enhance access to prescription medicines upon discharge
- Promote women's health and access to health services
- Partner with Providence Community Health Centers
- Expand access to ambulatory care
- Promote health literacy statewide
- Present free Healthwise Workshops
- Provide Free Health Screenings Statewide
- Offer AED Grants Program
- Provide training for health professionals through the Lifespan Community Training Center

#### Cancer

The Miriam Hospital contributes to the fight against cancer in its community through the services it provides as a site of Lifespan's Comprehensive Cancer Center – delivering access to leading-edge research and top clinical expertise in cancer, close to home. In addition to the preventive, diagnostic, treatment, and survivorship benefits of the Comprehensive Cancer Center, The Miriam Hospital – in collaboration with other Lifespan affiliate hospitals – is exploring the following new initiatives for cancer prevention and care:

- Expand Comprehensive Cancer Center
- Avenues of Healing
- Cancer Survivors Day 2014
- Kickbutt Day
- Tobacco Prevention Programs
- Free lectures about smoking, smoking cessation, and cancer
- SunSmarts

### Healthier Weight

The Miriam Hospital provides an array of programs designed to help its community achieve healthier weight, including, most notably, its Weight Management Program – which offers comprehensive, medically supervised treatment for more than 3,500 mildly, moderately, and severely overweight adults – and its bariatric surgery department. In addition to these programs, The Miriam Hospital – in collaboration with other Lifespan affiliate hospitals – plans to continue or develop the following initiatives:

- Expand collaborative arrangements to expand services for Weight Management Program patients
- Continue work of the Weight Control and Diabetes Research Center
- Provide community BMI Screenings
- Offer nutrition program in partnership with Rhode Island Free Clinic
- Share lessons learned from the Lifespan Workforce Healthy Rewards Program

- Provide free lectures on issues pertaining to healthier weight
- Collaborate with Providence School District on school nurse continuing education
- Explore partnerships with Overeaters Anonymous

#### Mental Health

The Miriam Hospital is an active community partner in addressing mental health issues, providing an array of mental health services. Given intense statewide need, the hospital – in collaboration with other Lifespan affiliate hospitals – is undertaking the following initiatives:

- Growth of geriatric psychiatry department and supporting programs
- Expand collaborative arrangements to increase access to comprehensive mental health care
- Explore strategies to reduce opioid misuse, overdose and death
- Leverage the value of Gateway Health as a Lifespan member
- Expand Mental Health First Aid Offered by Gateway Health
- Temas Familiares
- Provide free lectures statewide on issues related to mental health

The Miriam Hospital was founded to serve the public good and address the health care needs of its community, and continues to sustain deeply-held mission, vision, and values that support and advance those goals. The aforementioned programs and strategies are designed to further enhance its efforts to meet critical community health needs.

## Introduction

Between September 2011 and May 2013, a community health needs assessment (CHNA) was conducted on behalf of The Miriam Hospital by Lifespan, a health system of which the hospital is a founding member. The quantitative and qualitative data collected through the CHNA reflect the hospital's broad scope of service and catchment area, defined as the state of Rhode Island and nearby southeastern Massachusetts. (See *Methodology and Strategy*.)

## **About The Miriam Hospital**

The Miriam Hospital is a nonprofit 247-bed general acute care teaching hospital in Providence, Rhode Island. The seeds of The Miriam were planted in 1907 by a visionary group of passionate, philanthropic women who began to raise the necessary funds to establish a hospital in Providence that would provide high-quality medical care for Jewish immigrants in surroundings where their language and culture would be understood. In 1926, The Miriam received a charter from the Rhode Island General Assembly – paving the way for a 63-bed hospital to be opened on Parade Street in Providence. On April 24, 1966, the 247-bed Summit Avenue facility that houses today's Miriam was dedicated "to serve all the people of Rhode Island regardless of race, creed, origin or economic means."

To strengthen its core mission of patient care, research and medical education, The Miriam affiliated with Alpert Medical School of Brown University in 1969. As a major teaching affiliate of the medical school, The Miriam participates in Brown's programs in internal medicine and medicine subspecialties, general surgery and surgical subspecialties, psychiatry, emergency medicine, orthopedics and dermatology. The hospital is staffed by more than 775 affiliated physicians, 50 full-time house staff, a nursing staff of 500, and more than 1,100 employees. In total, The Miriam Hospital employs more than 2,500 people

In 2012, The Miriam provided nearly \$44.4 million in net community benefit expenses for its patients. It provides full charity care for individuals at or below twice the federal poverty level, with a sliding scale for individuals up to four times the poverty level. Uninsured patients receive an automatic 50% discount on hospital charges. The hospital provided over \$12.7 million in financial assistance at cost to patients (charity care), \$18.6 million in medical and health professions education, nearly \$3.4 million in subsidized health services (including services for oncology, HIV, tuberculosis, and men's health clinics) and \$3.6 million in unfunded medical research.

The Miriam provides many other services to the community for which charges are not generated – including certain emergency services, community health screenings for cardiac health; prostate cancer, and other diseases; smoking cessation; immunization and nutrition programs; diabetes education; community health training programs; patient advocacy; and foreign language translation. The hospital also subsidizes the cost of treating patients who receive government assistance that provides the hospital

with health care reimbursements below cost – including low-income children and families, pregnant women, long-term unemployed adults, seniors, and people with disability covered under Medicaid.

The Miriam Hospital's commitment to nursing excellence has made it one of only three hospitals in the United States to earn the prestigious MAGNET designation four times from the American Nurses Credentialing Center, and the hospital has affiliations with fifteen college nursing programs under which it serves as a clinical training site. The Miriam receives no compensation for its nursing education activities, nor for similar contributions to the education of future allied health professionals in physical, speech, and occupational therapy; diagnostic radiology; medical technology; phlebotomy; and social work under affiliations with college programs in those disciplines.

In addition to its MAGNET designation, The Miriam has earned several prestigious awards and designations in recognition of the results of its investment in high-quality care:

- Gold Plus Performance Achievement Award (American Heart Association/American Stroke Association)
- Gold Seal of Approval for Primary Stroke Centers (The Joint Commission)
- Get with the Guidelines Gold Plus Performance Achievement Award for Stroke Care (American Heart Association/American Stroke Association)
- Outstanding Achievement Award (Commission on Cancer of the American College of Surgeons)
- Center of Excellence designation (American Society for Metabolic and Bariatric Surgery)
- Blue Distinction Center for Bariatric Surgery (Blue Cross & Blue Shield of Rhode Island)
- American Association of Cardiovascular and Pulmonary Rehabilitation certification
- Top 100 Hospital for Cardiovascular Care (Thompson Healthcare)
- Blue Distinction Center for Complex and Rare Cancers (Blue Cross & Blue Shield of Rhode Island)

The Miriam Hospital is a founding member of Lifespan, a comprehensive health system established in 1994 to provide accessible, high-value services to the people of Rhode Island and southern New England. Other Lifespan members include Rhode Island Hospital and its Hasbro Children's Hospital, Bradley Hospital, all also teaching hospitals affiliated with Alpert Medical School of Brown University; Newport Hospital, a community hospital; and Gateway Healthcare, a regional behavioral health provider. Members of the Lifespan Board of Directors serve as trustees of the system's member hospitals.

## **Demographics of Patients Served by The Miriam Hospital**

#### **Patient origin**

The Miriam Hospital's outpatient population is largely from Rhode Island; 93.3% of its approximately 70,500 outpatient encounters reflect treatment of Rhode Islanders. Another 5.4% of the hospital's outpatient encounters involve patients from Massachusetts. Nearly two-thirds (63.7%) of The Miriam's outpatient population comes from Rhode Island's urban core: the largest concentration comes from

Providence (26.7%), followed by Pawtucket (15.47%), Cranston (8.28%), Warwick (4.0%) and Central Falls (3.76%).

East Providence, Rhode Island is home to 7.7% of all Miriam outpatients. Nearby Seekonk, Massachusetts accounted for 1.15% of all outpatients and the neighboring town of Rehoboth, Massachusetts for 0.65%. An additional 1.3% of The Miriam's outpatients live in the Attleboro, North Attleboro, Plainville and Wrentham communities in Massachusetts.

About six percent (5.86%) of The Miriam's outpatients reside in Rhode Island's East Bay communities, such as Barrington (1.7%), Bristol (1.2%) and Warren (1.0%), and approximately 12 other cities and towns from the East Bay, Aquidneck Island and nearby southeastern Massachusetts. Another 4.4% of The Miriam's outpatients reside in southern Rhode Island, with the largest concentration coming from Coventry (1.1%) and East Greenwich (0.9%). Approximately five percent (4.8%) of outpatients come from the northwest region of the state, with the largest concentration (1.4%) residing in Woonsocket.

The geographic distribution of The Miriam's inpatient population is similar to the outpatient population, with a slight shift toward patients coming in from outside of the urban core region. Of over 15,600 total inpatients, 93.8% come from Rhode Island. Over half (54.4%) come from the urban core, with nearly 21.4% of all inpatients living in Providence, 11.8% living in Cranston, Warwick and West Warwick, and 21.2% living in North Providence (Central Falls, 2.6%; Johnston, 3.8%, North Providence, 2.0%, and Pawtucket 12.9%).

About eleven percent (10.6%) of inpatients are from East Providence (10.6%), 4.8% from Cumberland, 4.0% from Lincoln and 2.4% from Smithfield. Nearly 7.5% of all inpatients come from the East Bay region. Less than five percent (4.7%) of The Miriam's inpatient population comes from southern Rhode Island. In northwestern Rhode Island, the largest concentration of inpatient admissions comes from Woonsocket (1.5%) and North Smithfield (1.0%). About five percent (5.3%) of inpatients come from about 20 Massachusetts border communities, notably Attleboro (1.3%) and Seekonk (1.3%)

#### **Patient ethnicity**

The Miriam Hospital's patient population reflects the following characteristics:

#### **Inpatients**

Non-Hispanic White: 89.8%
 Non-Hispanic Black: 7.8%
 Hispanic or Latino: 4.5%

Asian: 0.30%

Did not provide: 2.3%

Other: 1.26%

### **Outpatients**

Non-Hispanic White: 71.8%
 Non-Hispanic Black: 11.3%
 Hispanic or Latino: 11,0%

Asian: 0.93%Other: 0.04%

Did not provide: 0.02%

Most of The Miriam's inpatient population (89%) speaks English as their primary language, with 4% speaking Spanish, 3% speaking Portuguese, and 1% speaking Cape Verdean. Among ambulatory/surgery patients, 93% of the patient population speaks English as their primary language, while 4% speaks Spanish, and 2% speaks Portuguese. Most (87%) of Emergency Department patients speak English as their primary language, with 8% citing Spanish, 2% Portuguese, 1% Creole, and 1% speaking Cape Verdean. Other languages represented, in very small numbers, include Russian, French, Arabic, Greek, Cambodian, Korean, Mandarin, Cantonese, Vietnamese, Tagalog, Khmer and Thai.

## A Broader Definition of Community

The Miriam Hospital serves the entire state of Rhode Island as well as border communities in Massachusetts. Rhode Island's compact, densely populated geography – the state's 1,045 square miles are home to just over 1 million people, according to the 2010 census – facilitates mobility among communities. Cross-institutional collaboration and referral is fostered among Lifespan member hospitals for a range of services, including but not limited to oncology, pediatric services, trauma care, and surgery. For these reasons, the community surveyed under The Miriam Hospital's CHNA belongs to the Providence-Warwick, RI-MA Metropolitan New England City and Town Area (NECTA) – defined by the Office of Management and Budget in February 2013<sup>xxxiv</sup>. This area includes Providence County, Bristol County, Kent County, six of the nine towns in Washington County, and all six towns in Newport County.

## **Methodology and Strategy**

The Miriam Hospital's CHNA was conducted in concert with those of the other three Lifespan member hospitals, thereby enriching the study through the availability of a deep reservoir of local and statewide data as well as the comparative experience of other institutions.

The CHNA process launched in September 2011 with the establishment of a project Steering Committee which evolved into a CHNA Executive Team consisting of the system's Chief Financial Officer, Senior Vice President of Human Resources, Senior Vice President of External Affairs, and Vice President of Community Relations. The Executive Team guided the project's strategic planning and oversaw implementation of its multiple phases. The Miriam Hospital's leadership team shaped the CHNA by recommending institutional and community leaders for participation, offering observations about community need, and providing insight about existing and planned programs.

The data collected over the nearly two years of the CHNA derive from a wide range of sources. The quantitative data was compiled largely at the state and county levels from public data sources, with some internal utilization data used where applicable. The qualitative data consists of: 1) interviews completed with both internal (i.e. hospital- and Lifespan-based); 2) nearly two dozen key informant interviews with community leaders, representing a diverse array of constituencies; and 3) a Community Stakeholder Survey of 54 organizations across the state.

#### **Quantitative Data**

In fall 2011, on behalf of The Miriam Hospital and its other member hospitals, Lifespan consulted with TWOBOLT, a Rhode Island-based firm with expertise in marketing strategy, execution, and analytics, to create a Needs Assessment Profile based on quantitative data from secondary data sources. Based on a review of other community health needs assessments completed by hospitals, health departments and community-based organizations nationwide, approximately two-dozen health and social issues were identified as areas of focus. The following sources of data were identified by either TWOBOLT or Lifespan as relevant to the needs assessment:

- 2011 Kids Count Rhode Island Fact Book
- RI Department of Health: The Health of RI Non-Metropolitan areas 2011
- Kaiser Family Foundation, State Health Facts, 2011
- 2010 United States Census
- 2010 American Community Survey
- 2009, 2010, 2011 Behavioral Risk Factor Surveillance System (BRFSS)
- 2010 Burden of Diabetes Report
- 2010 Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.
   Web-based Injury Statistics Query and Reporting System (WISQARS)
- 2010 National Cancer Institute: State Cancer Profiles
- 2010 Substance Abuse and Mental Health Services Administration, Results from the 2009 National Survey on Drug Use and Health: Mental Health Findings

- 2011-12 National Survey of Children's Health, the United States Department of Health and Human Services. Maternal and Child Health Bureau
- 2009-10 National Survey of Children with Special Health Care Needs, the United States Department of Health and Human Services, Maternal and Child Health Bureau

Most secondary data collection was completed by May 2012. In February 2013, at Lifespan's request, the Rhode Island Department of Health released updated, not-yet-released 2011 Behavioral Risk Factor Surveillance System (BRFSS) data for 45 key variables, representing a range of health and social domains including access to care, physical activity, cancer incidence, asthma hospitalization rates, fruit and vegetable consumption, and demographic data. The updated data was requested because of changes made in the 2011 BRFSS survey ranging from weighting methodologies, sampling that included landline and cell phone users, and changes in questions being asked. This new data would allow Lifespan's member hospitals to establish more accurate baselines for future CHNAs.

#### **Qualitative Data**

#### **Interviews and Survey**

Between August 2012 and May 2013, feedback was elicited via interviews or survey from more than 100 individuals or organizations – many representing minority and underserved communities – statewide:

#### **Stakeholder Interviews**

The CHNA encompassed 64 interviews with internal and external stakeholders:

### 40 Internal Interviews (See Appendix I)

Interviews with statewide experts, including primary care physicians, emergency medicine physicians, oncologists, social workers, epidemiologists, nurses, hospital executives, community health workers, community liaisons, data managers and other professionals. Many of these professionals sit on boards of community-based organizations, run community health programs, or have direct ties or affiliations with groups within the communities served by The Miriam Hospital. Others are experts in their fields, with many serving as faculty members of Warren Alpert Medical School of Brown University and Brown University School of Public Health. Lifespan-based experts are also well-represented on the policy level as consultants to state departments and panels charged with various aspects of public health.

### 24 Key Informant Interviews (See Appendix II)

Interviews with leaders of organizations addressing a wide range of issues and populations – including historically underserved communities, such as minority populations, children and youth, immigrant and refugee populations, and leaders of organizations with specific interest in or expertise about key issues such as obesity, cancer and asthma. In a few cases, organizations submitted a completed questionnaire in lieu of participating in an interview. Leaders of organizations with a statewide focus on policy, advocacy and social service provision, and a broad range of social issue content areas were also interviewed. A standard format and questionnaire was used for each interview.

## **Community Stakeholder Survey**

To ensure representation from a broad cross-section of the community, a statewide survey of 54 key community stakeholders was conducted:

#### 54 Community Stakeholders (See Appendix III)

Those surveyed included members of medically underserved, low-income, and minority populations in the community; representatives of organizations that had knowledge, information or relevant to the health needs of the community (including the Brown University School of Public Health, Warren Alpert Medical School of Brown University, the Economic Progress Institute, the United Way, and others); and representatives of the Rhode Island Department of Health. The survey was a 19-question instrument designed to elicit information about the general health and social needs of the community. Over 75% of those surveyed self-reported that they serve constituencies spanning the entire state of Rhode Island and/or the entire state of Rhode Island with the addition of southeastern Massachusetts. (See Appendix IV for survey instrument). Survey results are presented in this report in both the aggregated results (all stakeholders) and for organizations reporting that their membership is served by The Miriam Hospital.

## **Social Determinants of Health**

Every comprehensive assessment of a community's health needs must begin with a review of its *social* determinants of health – that is, factors and resources that drive the health of communities and individuals. These factors encompass the full experience of people's lives, from where they live and work (including employment status), to metrics measuring income, education, and housing and food security.

## Socioeconomic profile of Providence, Rhode Island

The majority of The Miriam Hospital's patients come from Providence and Rhode Island's urban core. Providence's population increased slightly between 2,000, when it was recorded at 173,618 xxxv, to 2010, when it was recorded at 178,042. The trend continues, with population placed at 178,432 in 2012. Xxxvii Nearly 17% of Rhode Island's 1,052,567 xxxviii residents live in Providence. The median age in the city of Providence was 28.5 in 2010, Xxxviiii which is much younger than the statewide median age of 39.4. Xxxiix Only 8.7% of Providence's population is over the age of 65, xii compared to 14.4% of the population statewide. (Rhode Island has an older population when compared to the nation as a whole. Xiii The median age in the United States in 2010 was 37.2 and only 13.1% of the population was over age 65. Xiii)

Providence is a "majority-minority" city. \*\*Iiii\* According to the 2010 United States Census, 93.5% of the population identified as "one race"; of this population, 49.8% was white; 16% percent were Black or African-American \*\*Iiii\* (compared to 5.6% statewide \*\*Iii\*); 38.1% was Hispanic or Latino \*\*Ivi\*; and 6.4% were Asian. \*\*Ivi\*\* According to 2011 American Community Survey data, 29.4% of the city's population was foreign-born, with 66.2% of the foreign-born population coming from Latin American countries. \*\*Ivi\*\* Slightly more than half (52.1%) of all households in Providence speak English-only at home. \*\*Iiii\*\* About 48% of all Providence households speak a language other than English at home, with 34.9% of all Providence households speaking Spanish.

In 2011, the median household income in Providence was \$38,922, "which is significantly lower than the statewide median income of \$55,975. The per capita income in Providence city was \$21,628, which again was lower than the statewide per capita income of \$29,865. Two Twenty-three percent of all Providence households lived on an annual income of under \$15,000 a year, which was considerably more than the 15.4% of all households statewide that lived under \$15,000 annually. Nearly one-quarter (23.1%) of all households in the city of Providence received Supplemental Nutrition Assistance Program (SNAP) benefits in the past year, which was over double the percentage of households statewide (10.7%) that received SNAP benefits. Which was over double the United States in 2011 was \$52,762; per capita income was \$27,915; 12.3% of all households in the United States lived under \$15,000 annually; and 10.2% of households received SNAP benefits within the past year.

Below is a breakdown of economic indicators for the state and the key cities in Providence County, from which The Miriam draws the largest concentration of its patients:

Rhode Island lix \$29,865 income per capita

\$55,975 median household income

14.3% of residents below poverty level

10.7% reported receiving Supplemental Nutrition Assistance Program (SNAP) benefits in

previous 12 months

15.4% of households reported income of less than \$14,999 9.5% of households reported income of more than \$150,000

Providence Ix

\$21,628 income per capita

\$38,922 median household income 27.7% of residents below poverty level

23.1% reported receiving SNAP benefits in previous 12 months 23.0% of households reported income of less than \$14,999 6.5% of households reported income of more than \$150,000

Pawtucket<sup>lxi</sup>

\$21,753 income per capita

\$39,628 median household income 19.4% of residents below poverty level

18.9% reported receiving SNAP benefits in previous 12 months 19.9% of households reported income of less than \$14,999 2.9% of households reported income of more than \$150,000

**Cranston**<sup>lxii</sup>

\$28,496 income per capita

\$58,422 median household income 9.7% of residents below poverty level

9.1% reported receiving SNAP benefits in previous 12 months 12.2% of households reported income of less than \$14,999 8.4% of households reported income of more than \$150,000

Warwick<sup>lxiii</sup>

\$31,596 income per capita

\$59.973 median household income 7.5% of residents below poverty level

5.9% reported receiving SNAP benefits in previous 12 months 10.6% of households reported income of less than \$14,999 7.6% of households reported income of more than \$150,000

Central Falls Ixiv \$15,235 income per capita

\$32,759 median household income 27.7% of residents below poverty level

29.5% reported receiving SNAP benefits in previous 12 months 26.4% of households reported income of less than \$14,999 1.0% of households reported income of more than \$150,000

**East** 

\$28,813 income per capita

Providence Ixv

\$49.408 median household income 10.0% of residents below poverty level

10.0% reported receiving SNAP benefits in previous 12 months 14.5% of households reported income of less than \$14,999 6.0% of households reported income of more than \$150,000

According to HousingWorks RI, a statewide affordable housing advocacy group, a household income of \$41,200 is needed to make average monthly rent for a two-bedroom in Providence (\$1,030) affordable.

## **Employment**

According to the Bureau of Labor Statistics, the unemployment rate as of July 2013 in the Providence area was 10.2% but 12.7% in Providence and 12.6% in Fall River, the closest city in Massachusetts. Rhode Island's unemployment rate is the fourth highest in the nation, at 8.9%, down from 10.6% in 2012. The New England average, as of May 2013, was 6.8%, with an unemployment rate in Connecticut at 8.0%, Maine 6.9%, Massachusetts 6.4%, New Hampshire 5.5%, and Vermont 4.0%. Ixviii)

A more nuanced view of unemployment in Rhode Island may yield even greater insight into the economic challenges (and related health challenges) facing the state's residents. According to the Rhode Island Department of Labor and Training, Rhode Island's rate of *labor underutilization* (including all unemployed people, "discouraged" workers and other marginally attached workers, and all people who are unemployed for economic reasons) was 15.9% in June 2013.

## **Findings**

Self-reported data included in the 2011 CDC Behavioral Risk Factor Surveillance System (BRFSS) surveys reveal 82.6% of Rhode Islanders describing their health as "excellent, very good or good." Nearly 62% of Rhode Islanders and 63.2% of Providence County residents reported no physically unhealthy days per year, while 86.20% of Rhode Islanders—and 88.16% of Providence County residents reported fewer than 13 "physically unhealthy days" per year.

However, data review and insights from clinicians, researchers, community stakeholders, and others reveals a community where economic stress is evident -- with potential and real implications for health status, access to care, cancer incidence, mental health, and the constellation of health conditions that are influenced by healthy weight.

Economic strain is starkly evident in the community served by The Miriam. Compared with 14.3% of all Rhode Islanders, about 27.7% of Providence residents, 19.4% of Pawtucket residents, 27.7% of Central Falls residents, and 22.2% of Woonsocket residents lived below the poverty level. These areas also have high rates of Supplemental Nutrition Assistance Program (SNAP) participation: Providence (23.1%); Pawtucket (18.9%); Central Falls (29.5%); and Woonsocket (20.0%), compared with a statewide SNAP participation rate of 10.7%.

According to 2011 BRFSS data, 17.13% of Providence County residents (compared to 14% of all Rhode Islanders) reported not having access to any type of health insurance – the highest rate of any county in the state. The full impact of the Patient Protection and Accountable Care Act (PPACA) will likely manifest over the next 18 months to two years, as greater numbers of Rhode Island residents are able to access health insurance outside of the traditional model of employer-based coverage. However, the immediate impact on the general health status of the population served by The Miriam Hospital is unclear.

As a major employer and a source of local employment for skilled health care professionals, The Miriam Hospital is a positive force for economic recovery. The hospital is staffed by more than 775 affiliated physicians, 50 full-time house staff, a nursing staff of 500, and more than 1,100 employees. In total, The Miriam Hospital employs more than 2,500 people. Recognizing that health care employment is built on the kind of career ladders that provide steady employment, health insurance and other benefits, and mobility for workers of virtually all skill levels, and acting on behalf of its member hospitals, The Miriam has taken its responsibility as an economic engine very seriously – for instance, participating in Lifespan initiatives to seek and secure competitive workforce grant funding to provide residency rotations, advanced training, and possible employment for unemployed and underemployed newly licensed registered nurses and unemployed Rhode Islanders interested in pursuing employment as certified nursing assistants (CNAs). As a key player in the state's innovation hub, Lifespan also leverages the economic potential of research underway at The Miriam and its other member teaching hospitals by making strategic investments in recruitment, research infrastructure, and technology commercialization.

#### Health issue areas of concern

However, The Miriam's status as a major employer and economic engine is, ultimately, simply an important secondary benefit of its role as a provider of essential hospital-based health services. The CHNA identified four key health issue areas of concern within The Miriam's scope of service and expertise that appear to be of critical need in the communities we serve:

#### Access to Care

Access to health and social services is critical to improving the health status of individuals and communities, and various challenges to access (i.e. cost, transportation, lack of health insurance, and health literacy) were cited as top concerns by community stakeholders – along with related challenges of poverty, lack of employment, and language/cultural barriers.

#### Cancer

Cancer is the second-leading cause of mortality in Rhode Island, as it is nationwide. Rhode Island has one of the highest cancer incidence rates in the nation. In 2009, Rhode Island's age-adjusted cancer incidence rate (491.4 cases per 100,000) was the fourth highest in the United States, but the state was 26<sup>th</sup> nationally for cancer mortality. The leading types of cancer incidence in Rhode Island were female breast cancer (135.2 per 100,000), prostate cancer (134.8/100,000), lung cancer (72.2/100,000), and colon cancer (41.9/100,000).

#### Healthier Weight

The leading cause of death in Rhode Island and in the United States is heart disease. IXXIV Maintaining healthy weight is a core defense against an array of cardiac conditions, in addition to diabetes, cancer, and other diseases as well as mobility issues that can contribute to injury and disability. Providence County residents had higher rates of obesity, diabetes, high blood pressure and cardiovascular disease compared to statewide prevalence rates. IXXIV

#### Mental Health

The physical, social, and economic benefits of sustaining mental health cannot be overstated, and community representatives surveyed routinely cited access to mental health services as a top concern. The quantitative data demonstrates that Rhode Island is the worst in the nation on certain key mental health indicators such as any mental illness (AMI). Beyond its destructive impact on individual lives, undiagnosed and/or untreated mental illness erodes productivity, increases addiction, violence, and suicide, and strains the social fabric of a community.

## **Rhode Island Health Status at a Glance**

	US	RI	MA	СТ	<b>Providence County</b>
Access to Care					
% Without any health coverage	17.9 <sup>lxxvi</sup>	14.1 lxxvii	6.7 <sup>lxxviii</sup>	12.5 lxxix	17.1 lxxx
% Adults (18-65) Uninsured	21.3 <sup>lxxxi</sup>	16.6 <sup>lxxxii</sup>	7.8 Ixxxiii	14.8 Ixxxiv	
% Not seeing doctor due to cost	14.6 lxxxv	12.3% <sup>lxx</sup>	cxvi 6.7 <sup>lxxxv</sup>	ii 9.6 <sup>lxxxviii</sup>	13.0% lxxxix
% Children (0-18) uninsured	9.6 <sup>xc</sup>	5.9 <sup>xci</sup>	3.0 <sup>xcii</sup>	6.0 <sup>xciii</sup>	
ED visits per 1,000	411 xciv	470 <sup>xcv</sup>	481 xcvi	464 <sup>xcvii</sup>	
Primary Care Physicians: Patient Ratio	2,300 <sup>xc</sup>	<sup>/iiixcix</sup> 1,11	6:1° 987:	1 <sup>ci</sup> 1,223	:1 <sup>cii</sup> 1,139:1 <sup>ciii</sup>
Cancer <sup>1</sup>					
Incidence					
All cancers	451.4	491.4	470.3	503.1	526
Bladder	20.4	29.9	24.1	27.2	28.9
Female Breast	122.9	135.2	130.3	138.9	136.8
Cervix	7.9	6.3	5.5	6.2	9.9
Uterus	25	25.5	29.3	30.7	25.8
Colon & Rectal	42.3	41.9	40.6	44.2	48.1
Lung and Bronchus	64.1	72.1	66.5	65.3	77.3
Melanoma	24.6	22.4	25.2	30.3	29.7
Prostate	137.4	134.8	131.8	158.9	171.5
Mortality					
Deaths/100,000	173.1	174.5	174.6	167.3	
Lung & Bronchus	48.5	48.9	48.6	44.1	
Prostate Cancer	33.0	22.5	21.7	22.4	
Breast Cancer/100,000	22.2	20.6	22.2	21.6	
Colon Cancer	15.7	15.6	15.1	13.3	
Pancreas	10.8	10.1	11.0	12.5	
Ovary	7.8	6.9	7.8	6.8	
Leukemia	7.0	6.8	6.6	7.2	
Liver	5.8	6.3	6.1	5.0	
Non-Hodgkin Lymphoma	6.3	5.0	5.5	5.9	
Uterus	4.2	3.7	4.3	4.9	

<sup>&</sup>lt;sup>1</sup> All national and state cancer data is from the National Cancer Institute's State Cancer Profiles.

## **Rhode Island Health Status at a Glance**

Screening % Reported Mammogram in Past Year (40+) % Reported Pap smear in Past 3 Years (21-65)	<b>US</b> 75.3 86.7	<b>RI</b> 81.4 <sup>2</sup> 90.3	<b>MA</b> 83.6 93.0	<b>CT</b> 80.3 91.7	Providence County
Healthier Weight					
<ul> <li>% Overweight</li> <li>% Obese</li> <li>Age-adjusted Heart Disease Death Rate<sup>3 cxiv</sup></li> <li>% Diagnosed with Diabetes<sup>4</sup></li> <li>% Overweight High School Students<sup>cxx</sup></li> <li>% Obese High School Students<sup>cxxi</sup></li> </ul>	35.7 <sup>civ</sup> 27.8 <sup>cix</sup> 179.1 8.7 <sup>cxv</sup> 14.7 12.0	37.1° 3 25.4° 167.1 8.5° 14.9 10.8	22.7 <sup>cxi</sup> 150.0 7.4 <sup>cxvii</sup> 14.6 9.9	35.2 <sup>cvii</sup> 24.5 <sup>cxii</sup> 155.7 7.3 <sup>cxviii</sup> 14.1 12.5	36.8 <sup>cviii</sup> 26.6 <sup>cxiii</sup> 9.2 <sup>cxix</sup>
Mental Health					
% Adults reporting any mental illness <sup>cxxiii</sup> % Adults reporting serious mental illness <sup>cxxiii</sup> % Adults, major depressive episode, past year <sup>cxxiv</sup> % Adults with serious thoughts of suicide <sup>cxxv</sup> 3.75 Mortality rate from suicide (per 100,000) % Alcohol dependence or abuse, past year <sup>cxxxii</sup> % Illicit Drug Use in the Past Month <sup>cxxxiii</sup>	19.83 4.99 6.7 4.13 12.1 <sup>cxxvi</sup> 6.78 8.82	21.10 5.06 6.88 3.95 12.3 <sup>cxxvii</sup> 9.11 14.52 <sup>5</sup>	19.72 5.42 6.91 3.62 12.5 <sup>cxxviii</sup> 8.4 11.55	18.61 4.75 6.42 9.4 <sup>cxxix</sup> 7.30 9.1	11.8 <sup>cxxx</sup>

\_

<sup>&</sup>lt;sup>2</sup> Rhode Island has the second highest (best) rate of mammograms for women (40+) in the nation.

<sup>&</sup>lt;sup>3</sup> The age-adjusted death rates are per 100,000 people. Rhode Island's heart disease death rate, not adjusted for age, was 220.6 deaths per 100,000 people, which was higher than the national rate of 193.6 per 100,000.

deaths per 100,000 people, which was higher than the national rate of 193.6 per 100,000.

A Rates for the United State, Connecticut and Massachusetts are from 2010 BRFSS data; Data for Rhode Island and Providence County is from 2011 BRFSS.

<sup>&</sup>lt;sup>5</sup> Rhode Island has the second highest illicit drug use rate in the country, behind only Vermont.

## **Access to Care**

Through the Community Stakeholder Survey conducted under the Community Health Needs Assessment (CHNA), community leaders and organizations both statewide and with members served by The Miriam Hospital identified various facets of access to health care services as the most significant health issues facing the constituencies they serve. The health care issues most frequently cited by respondents with members served by The Miriam Hospital were: Access to Health Insurance (85%); Nutrition (80%); Access to Primary Care (75%); Access to Mental Health Services (75%); Affordability of Prescription Medicine (75%); Access to Social Services (70%); and Affordability of Health Services (70%).

At the aggregate level, respondents to the survey also indicated that issues related to access to care were the most significant concerns to their members: Access to mental health services was cited as a top concern by 75.5% of respondents; access to health insurance by 73.6%; access to primary care by 71.7%; affordability of prescription medication by 69.8%; affordability of health services by 67.9%; health literacy by 62.3%; access to social services by 58.5%; and access to specialty care by 54.7%.

### Access to Care: Healthy People 2020 and Key Data

The Healthy People 2020 Objectives (HP2020) state that having access to comprehensive, quality health care services is important for the achievement of health equity and for increasing the quality of a healthy life for everyone. CXXXIII An individual or community's access to health care can impact overall physical, social and mental health status; quality of life; prevention of disease and mortality; and life expectancy.

The Healthy People 2020 Objectives are focused on four key components of access to care:

- Coverage
- Services
- Timeliness
- Workforce

According to the HPHP 2020 Objectives, having adequate access to health services means that a patient is able to 1) gain entry into the health care system, 2) access healthcare locations where the services he or she needs are provided, and 3) find a health care provider the patient can trust and with whom he or she can communicate. Predictors of access to health care include: health insurance, household income level, usual source of primary care, use of emergency rooms, and immunizations. The uninsured are more likely to report no usual source of care and use the emergency room for non-emergency care.

According to 2011 Behavioral Risk Factor Surveillance System (BRFSS) data, 14.1% of all Rhode Island adults reported not having access to health insurance. Providence County had the highest rate of

uninsured individuals at 17.1% while Washington County had the lowest rate (8.4%) of uninsured residents. CXXXXV

Because access to health insurance affects how patients access providers, the BRFSS survey asked individuals whether or not they had one person that they thought of as their health care provider and personal doctor. According to this metric, Rhode Islanders fared significantly better than the nation as a whole. At the national level, 21.9% cxxxvi of patients reported that they had no regular health care provider, compared with 14.0% cxxxviii of Rhode Islanders. At 14.7%, cxxxviii Providence County had the highest rate in Rhode Island of individuals responding that they had no regular health care provider. When respondents were asked if they had had a routine checkup within the past year, 75.2% cxxxix of Providence County respondents responded that they had -- slightly below the statewide average of 75.44. cxl

The cost of care was also cited as a barrier to accessing health care services for some individuals. According to BRFSS data compiled by the Kaiser Family Foundation, 12.3% cxli of Rhode Island residents reported that there was a time in the past 12 months that they needed to see a doctor but could not do so because of cost. Nationwide, 14.6% cxlii responded that they could not see a doctor due to cost in the past year, compared to 6.7% cxliii of residents in Massachusetts and 9.6% cxliv of Connecticut residents. Data compiled by the Robert Wood Johnson Foundation's *County Health Rankings and Roadmaps* program indicates that 13.0% of Providence County residents did not see a doctor in the past year due to cost, compared to 10.0% in Kent County and eight percent in Bristol, Newport and Washington Counties.

However, 2011 statewide BRFSS data provided by the Rhode Island Department of Health for this needs assessment indicates that 15.8% of residents statewide did not see a doctor in the past year because of costs. Calvi In Providence County, 18.0% of residents did not see a doctor in the past 12 months due to cost, compared to 17.2% in Bristol County, 12.7% in Kent County, 12.5% in Newport County and 12.2% in Washington County. Calvii

Patient-to-provider ratios are another way of determining whether or not there are enough physicians, dentists or other health care professionals to meet a community's need.

- In terms of the ratio of primary care physicians (PCPs) to patients, there are significant disparities among Rhode Island's counties. According to 2011-2012 data from the Health Resources and Services Administration, Providence County had 550 of the state's 943 PCPs. cxlviii Despite this large number of PCPs, the county's large population gives it a patient-to-provider ratio of 1,139:1 compared to 1,383:1 in Kent County, 1,218:1 in Newport County, 1,040:1 in Washington County, and 600:1 in Bristol County. cxlix cl It should be noted that each Rhode Island county ratio is below (better than) the estimated average panel size for a primary care physician in the United States (which is about 2,300 patients according to a 2012 study). cli
- According to 2011-2012 data from the Health Resources and Services Administration, Providence
   County had 516 of the state's nearly 715 mental health providers, giving it a patient-provider ratio of

1214:1, which was the best in the state. <sup>clii</sup> Bristol County ranked second, with a patient-provider ratio of 1,466:1. <sup>cliii</sup> There were 42 mental health providers in Newport County, giving it a rate of one provider for every 1,972 patients, which was the third worst rate in the state. <sup>cliv</sup> Kent County and Washington County had ratios of 2,594:1 and 2,151:1 respectively. <sup>clv</sup>

There are again notable disparities in dental care, with trends reversed. Providence County had 347 dentists, giving it a rate of 1186:1, followed by Washington County, which had 62 dentists (a ratio of 2,152:1) and Bristol County, which had the lowest number of dentists (17) in the state, giving it a ratio of 3,123 patients per dentist. CIVI Newport County had 72 dentists, giving it the best ratio in the state (1,200:1). CIVII Kent County had 112 dentists, giving it the second most favorable rate (1,496:1).

## **Community Stakeholder Survey Results**

A *Community Stakeholder Survey* was initiated in the spring of 2013. Surveys were sent to community members and organizations served by The Miriam Hospital and Lifespan's three other member hospitals. Fifty-four organizations responded statewide. Of these organizations, twenty responded that their members are served by The Miriam Hospital. Key informant interviews were also conducted with nearly two-dozen community and organizational leaders across the state as part of the needs assessment.

#### **Most Significant Health Needs**

The Miriam Hospital Stakeholder Survey Results

The Community Stakeholder Survey revealed broad concern around issues relating to access to care and services. Respondents were asked to identify any issue that was of concern to their members and also to list which issues were the three most significant. When asked to identify the three most significant concerns in their communities, respondents with members served by The Miriam Hospital identified the following as the most significant issues:

- 1) Access to Health Insurance (40%)
- 2) Affordability of Prescription Medication (35%)
- 3) Access to Primary Care (30%)

Also identified as being of concern, to a lesser degree, were:

- Access to Mental Health Services (25%)
- Affordability of Health Services (25%)
- Mental Health (25%)
- Access to Social Services (20%)
- Health Literacy (20%)
- Cancer (15%)
- Substance Abuse (15%)

When this subset of respondents was asked to list any health issues – and not just the top three – that were of significance to their communities, six of the top seven issues related to access to care: access to health insurance (85%); nutrition (80%); access to primary care (75%); access to mental health services (75%); affordability of prescription medication (75%); access to social services (70%); and affordability of health services (70%).

#### Statewide Stakeholder Results

The aggregated statewide survey results were similar to the concerns of the community-based organizations representing families and individuals served by The Miriam Hospital. However, the concern statewide was more pronounced around accessing mental health services and primary care services than it was the for the subset of respondents served by The Miriam Hospital.

- 1) Access to Mental Health Services (40.4%)
- 2) Access to Primary Care (38.5%)
- 3) Access to Health Insurance (30.8%)

Other health issues identified as being of notable concern in at the aggregate level include:

- Health Literacy (23.1%)
- Mental Health (23.1%)
- Affordability of Medicine (21.2%)
- Access to Social Services (19.2%)
- Substance Abuse (19.2%)
- Affordability of Health Services (17.3%)

When respondents were asked to list any health issues that were of significance to their communities, and not just the top three, the top five issues all related to access to care: access to mental health services (75.5%); access to health insurance (73.6%); access to primary care (71.7%); affordability of prescription medication (69.8%); and affordability of health services, mental health, and nutrition (all of which were cited by 67.9% of respondents).

#### **Most Significant Social Needs**

When asked to identify the most significant social concerns facing the communities they served, economic issues were front and center; 90% of respondents with members served by The Miriam Hospital cited *unemployment* — which can be directly linked to an individual's or family's access to health insurance, in addition to income levels — as the most significant issue. The second most significant issue among these respondents was *affordable housing* (75%), followed by *poverty* (70.0%), *education* (65%), *language barriers/limited English proficiency* (60%), food security (55%), and lack of transportation (55%).

The aggregated statewide results revealed similar trends, with the most significant social determinants identified being economic in focus: unemployment (84.6%); poverty (80.8%); lack of transportation (76.9%); affordable housing (75.0%); education (63.5%); food security (59.6%); and language barriers/limited English proficiency (57.7%)

Again, these findings are central to how an individual or family accesses health care services. If a patient lacks transportation or is unable to speak the language of healthcare providers, he or she will be less likely to keep appointments, understand and comply with treatment plans developed by care providers, or even to access the health care system at all.

## **Cancer**

Cancer is the second-leading cause of mortality in Rhode Island, as it is nationwide. In 2009, Rhode Island's age-adjusted cancer incidence rate (491.4 cases per 100,000 people) was the fourth highest in the nation. The leading types of cancer incidence in Rhode Island were (in order):

- Female breast cancer (135.2 per 100,000)
- Prostate cancer (134.8/100,000)
- Lung cancer (72.2/100,000)
- Colon cancer (41.9/100,000)

The state ranks 26<sup>th</sup> nationally for cancer mortality in the United States. Forty percent of community stakeholders surveyed with members served by The Miriam Hospital and over one-third (34.0%) of community stakeholders statewide cited cancer as a top concern.

### Methodology

To assess cancer incidence and mortality at the state and county levels, the CHNA relied primarily on the most recently available United States Cancer Statistics (USCS) data and the State Cancer Profiles (SCP) data. The USCS data is produced by the Centers for Disease Control and Prevention (CDC) and the National Cancer Institute (NCI), in collaboration with the North American Association of Central Cancer Registries (NAACCR). SCP is a collaborative effort that utilizes cancer data from both the county and national level from the CDC's National Program of Cancer Registries (NPCR) and NCI's Surveillance, Epidemiology and End Results Registries (SEER).

### Cancer Incidence in Rhode Island

Rhode Island continues to have one of the highest cancer incidence rates in the U.S. In 2009, Rhode Island experienced 5,984 cases of cancer – translating to the fourth-highest age-adjusted incidence rate (491.4 cases per 100,000 population) in the nation. (Compared regionally, Connecticut had the highest overall cancer incidence rate in the U.S., and Massachusetts ranked 18<sup>th</sup>. (Compared regionally)

Disparities are noted between counties: Newport County, Washington County, and Kent County all had incidence rates that exceeded the statewide rate. While Providence County's incidence rate was under the statewide median, it exceeded the national rate, which held true for all Rhode Island counties. Claric Providence County had the second highest mortality rate from all cancer types, behind Kent County.

The leading cancers in Rhode Island largely mirror national trends. clxiv According to the USCS, the cancers with the top ten (age-adjusted) incidence rates in Rhode Island are:

## Top Ten Types of Cancer in Rhode Island, Ranked in Order of Incidence clxv

- **1. Female Breast** (135.2 per 100,000)
- **2. Prostate** (134.8 per 100,000)
- 3. Lung and Bronchus (72.2 per 100,000)
- **4. Colon and Rectum** (41.9 per 100,000)
- **5.** Urinary Bladder (29.9 per 100,000)
- 6. Corpus and Uterus, NOS (25.5 per 100,000)
- **7.** Thyroid (21.8 per 100,000)
- **8. Melanomas of the Skin** (19.5 per 100,000)
- 9. Non-Hodgkin Lymphoma (17.7 per 100,000)
- **10.** Kidney and Renal Pelvis (16.6 per 100,000)

#### Overview: Cancer Incidence in Rhode Island

#### Breast Cancer

Female breast cancer is the leading cancer diagnosis in Rhode Island. Clavi At a rate of 135.2 cases per 100,000, Rhode Island has the fourth highest incidence rate of breast cancer for all races and all ages in the nation (the national rate is 122.9 cases per 100,000). Clavii All Rhode Island counties have breast cancer incidence rates exceeding the national rate. Newport, Bristol, Kent, and Washington counties all have incidence rates exceeding the statewide rate. While Providence County's rate (129.7 per 100,000) is the lowest of Rhode Island's five counties, it is significantly higher than the national rate. Claviii Among African-Americans, there were 32 cases of female breast cancer in Rhode Island with 28 occurring in Providence County. The SCP data reports that each of the four other counties had "three or fewer" cases. Clavi Among Hispanics, there were 42 cases, 35 of which occurred in Providence County.

#### Prostate Cancer

Rhode Island ranks 28<sup>th</sup> in the nation for prostate cancer incidence, with a rate of 134.8 cases per 100,000 – that is, below the nationwide rate (137.4). Clarkii However, Providence County has the third highest incidence rate for prostate cancer in the state and is one of three counties with incidence rates that exceed the state average. Clarkiii Four counties (Washington, Newport, Providence and Bristol) have prostate cancer incidence rates that exceed the national rate. Twenty-nine of the 36 cases of prostate cancer were diagnosed in African-American males in Providence County. The statewide rate for prostate cancer incidence in males of all ages is 185.4 cases per 100,000, which exceeds the nationwide rate of 124.4. Clarkii Of the 42 cases of prostate cancer amongst Hispanic men, 35 were in Providence County.

#### Lung and Bronchus Cancer

Rhode Island has an incidence rate of 72.1 cases per 100,000 for lung and bronchus cancer, which is the 13<sup>th</sup> highest in the nation. The nationwide rate is 64.1, with a confidence interval of (63.8, 64.8) based on NPCR and SEER data. Differences again exist at the county level. Providence has the second highest annual incidence rate for lung cancer in the state and is only one of three counties – the others being Kent County and Newport County – with incidence rates that exceed the statewide rate. The incidence rate of lung and bronchus cancer for African-Americans of both sexes was 67 cases per 100,000 in Rhode Island, with 29 cases total. Twenty-two of the 29 lung cancer cases occurred in Providence County. The nationwide rate was 70.6 cases per 100,000 African-Americans (based on SEER and NPCR data). The statewide rate for Hispanics was lower (50.2 cases per 100,000 people) than the statewide rate for all races, but higher than the nationwide rate for Hispanics (34.7).

#### Colon and Rectum Cancer

According to State Cancer Profile data, Rhode Island had the 28<sup>th</sup> highest rate of colon and rectum cancer in the country with 40.1 cases per 100,000, which was slightly higher than the nationwide rate (39.7/100,000). It had the third highest rate among states in New England, ranking better than Connecticut (40.8), and behind Maine (39.4) Massachusetts (36.9), Vermont (35.8) and New Hampshire (33.4). CIXXXIII According to the SCP data, Providence County had the highest rate of colon cancer among counties in state (47.1 cases per 100,000), which exceeded the state rate. CIXXXIII Only Providence and Bristol counties had incidence rates for colon cancer that exceeded the statewide rates.

## **Cancer Mortality in Rhode Island**

Rhode Island ranked 26<sup>th</sup> in the nation in terms of mortality from all cancers, with a rate of 174.5 deaths per 100,000 – a 1.8% decrease from 2008. Rhode Island slightly exceeded the nationwide death rate from all cancer types (173.1 deaths per 100,000). Providence County's annual mortality rate for all cancer types was180.3 per 100,000, exceeding the national rate – but had also declined by 1.8% from the previous year. The leading causes of cancer deaths in Rhode Island differ from the incidence rates by cancer type, according to the USCS data. Lung and Bronchus cancer mortality rates are more than double the rate of mortality from prostate cancer, the state's second leading cause of cancer death.

# Top Ten Types of Cancer in Rhode Island, Ranked in order of Mortality Claxxvi (Source: United States Cancer Statistics)

- **1. Lung and Bronchus** (48.9 cases per 100,000)
- 2. **Prostate** (22.5 per 100,000)
- 3. Female Breast (20.6 per 100,000)
- 4. Colon and Rectum (15.6 per 100,000)
- **5. Pancreas** (10.1 per 100,000)
- **6.** Ovary (6.9 per 100,000)
- **7. Leukemia** (6.8 per 100,000)
- 8. Liver and Intrahephatic Bile Duct (6.3 per 100,000)
- **9. Urinary Bladder** (5.1 per 100,000)
- **10.** Non-Hodgkin Lymphoma (5.0 per 100,000)

#### **Overview: Cancer Mortality in Rhode Island**

#### Lung and Bronchus Cancer

According to State Cancer Profile data, Rhode Island's statewide annual mortality rate from lung and bronchus cancers is currently 52.0 deaths per 100,000, which exceeds the nationwide rate of 50.6. CIXXXVIII Kent County has the highest mortality rate at 58.1 deaths per 100,000, followed by Providence County (52.2) and then Newport County (51.7). CIXXXVIII Providence County's mortality rate exceeded both the state and national rates, but it had decreased by 1.7% from the previous year. CIXXXIX Rhode Island currently does not meet the Healthy People 2020 Objective for Lung Cancer at either the state or county level for any of its five counties. While the mortality rate for African-Americans in Rhode Island is under the national rate (54.4 versus 55.5 deaths per 100,000), the rate does not meet the Healthy People 2020 Objectives. Sixteen of Rhode Island's 21 deaths from lung and bronchus cancer among African-

Americans were in Providence County. Among Hispanics, there were six lung cancer deaths in Rhode Island — a mortality rate of 11.9 per 100,000 — all of which were in Providence County. cxc

#### Prostate

Newport County's mortality rate from prostate cancer (20.9 deaths per 100,000 people) is lower than the statewide rate (22.5), the nationwide rate (23.6), and the lowest among the five counties in the state. cxci Providence County is the only county that has met the Healthy People 2020 Objective for Prostate cancer. Of the There were five deaths from prostate cancer among African-Americans, putting the rate under the national rate. Four of these five deaths were in Providence County. cxcii

#### Female Breast

Rhode Island's female breast cancer mortality rate is 21.9 deaths per 100,000, below the nationwide rate (23.0). Carolii Providence County has the third highest rate (22.2 deaths per 100,000). Bristol County has the highest rate (27.0), and Newport County has the lowest rate (19.6). The statewide rate has not met the Healthy People 2020 Objective; only Kent and Newport counties have female breast cancer mortality rates that have met the HPHP2020 Objectives. Carolina is 21.9 deaths per 100,000, below the nationwide rate (23.0).

#### Colon and Rectum

Providence County's mortality rate from colon and rectum cancer (15.6 deaths per 100,000 people) is slightly worse than the statewide rate (15.4) but better the nationwide rate (16.4). Reither the county nor state's death rates from colon cancer meet the Healthy People 2020 Objectives. Among African-Americans, there were seven deaths from colon cancer in Rhode Island—a mortality rate of 14.9 per 100,000 people. Six of these deaths occurred in Providence County (the SCP data does not indicate where the other deaths occurred). There were four deaths from colon cancer among Hispanics in Rhode Island, all of which occurred in Providence County.

## **Community Stakeholder Survey Results and Key Informant Interviews**

A *Community Stakeholder Survey* was initiated in the spring of 2013. Surveys were sent to community members and organizations served by The Miriam Hospital and Lifespan's three other member hospitals. Fifty-four organizations responded statewide. Of these organizations, twenty responded that their members are served by The Miriam Hospital. Key informant interviews were also conducted with nearly two-dozen community and organizational leaders across the state as part of the needs assessment.

Of the survey respondents who indicated that their members were served by The Miriam Hospital, 40% listed *cancer* when asked to identify the most significant healthcare issues that their members faced. When asked to identify the three most significant issues, 15% ranked *cancer* in their top three most significant issues. Statewide, 34% of community stakeholders ranked cancer as one of the most significant issues facing their communities and organization's members and 9.6% ranked cancer as one of the three most significant issues. Some participants in the Key Informant interviews indicated concern for an increased demand in services — particularly screening and consultation with surgical specialists — when the Affordable Care Act is implemented and previously uninsured patients will have more coverage. There was also concern expressed around lack of availability of insurance coverage for therapies and services such as pain management and rehabilitation services.

## **Healthier Weight**

Over the past two decades, the United States has experienced a dramatic increase in overweight and obesity rates. Although rates of increase for these metrics have leveled off in recent years, prevalence rates continue to remain at historic highs. According to the CDC and Healthy People 2020, the national age-adjusted obesity rate among adults age 20 and over increased by 57%, from 22.8% to 35.7%, in the years between 1988 and 2010. The obesity rate among children and adolescents age 2 to 19 increased by 69%, from 10.0% to 16.9%, during the same period. Coi

The CDC considers obesity a risk factor for multiple health conditions including hypertension, adverse lipid concentrations, and Type 2 Diabetes. CCIII In June 2013, the board of the American Medical Association voted in favor of declaring obesity as a disease CCIII -- reclassifying the approximately 78 million American adults and 12 million children who are obese as having a medical condition requiring treatment. CCIV

## **Incidence and Effects of Unhealthy Weight**

Unhealthy weight cuts a wide swath of disease and disability through a population – with particularly notable impact on risk for heart disease and diabetes. Obesity and diabetes rates in Rhode Island are below the national median; however, the state ranks higher than both Massachusetts and Connecticut. The state exceeds the national and regional rates for overweight, heart disease death rates, and an array of behavioral and medical risk factors such as physical inactivity and borderline diabetes.

According to 2011 BRFSS data, Rhode Island has the 14<sup>th</sup> lowest obesity rate in the nation with an obesity prevalence rate of approximately 25.4%. <sup>ccv</sup> (Obesity is defined by the CDC as having a Body Mass Index, or BMI, of over 30.) <sup>ccvi</sup> This is lower than the national rate of 27.8% but higher than neighboring states such as Connecticut (24.5%, 8<sup>th</sup> lowest) and Massachusetts (22.7%, 3<sup>rd</sup> lowest). <sup>ccviii</sup> Providence County has the highest rate of obesity (26.6%) followed closely by Kent County (26.3%). <sup>ccviiii</sup> Newport County has the lowest rate (17.9%) while Washington County has a prevalence rate of 22.8% and Bristol County's rate was 24.2%. <sup>ccix</sup>

While Rhode Island fares better than the nation on obesity, the same is not true for the prevalence of overweight, which is defined as having a BMI between 25 and 30. Rhode Island ranked 46<sup>th</sup> in the nation (which includes all 50 states and the District of Columbia) with an overweight prevalence rate of 37.1%, with only five states faring worse in the nation. (Connecticut ranked 20<sup>th</sup> nationally with an overweight prevalence rate of 35.2%, while Massachusetts ranked 42<sup>nd</sup> with a rate of 36.6%. (Coxi)

All Rhode Island counties exceed the national overweight rate of 35.7. The 2011 BRFSS data shows that Newport County had the lowest overweight prevalence rate in the state at 36.5%, followed in ascending order by Providence County (36.8%), Washington County (37.6%), Kent County (38.3%) and

Bristol County (41.5%). CCXIII Given that each county and the state as a whole exceeds a national median that has steadily climbed over the last decade, overweight/obesity is clearly a significant problem across the state.

Heart disease is the leading cause of death in Rhode Island, as it is across the United States. Coxiv According to the most recent data from the Centers for Disease Control and Prevention's National Vital Statistics System, there were 2,322 deaths related to heart disease in Rhode Island in 2010. The state's death rate (not adjusted for age) was 220.6 deaths per 100,000 people, which was higher than the national rate of 193.6 deaths per 100,000. The age-adjusted rate of heart disease mortality – 167.1 per 100,000 – was slightly lower than the national age-adjusted rate (179.1 per 100,000).

Providence County's lifetime incidence of heart attack/angina/stroke (7.97% of all residents) was higher than the statewide rate (7.9%). CCXVIII There were 431 deaths resulting from cerebrovascular disease (stroke) in Rhode Island in 2010, giving the state a mortality rate of 40.9 deaths per 100,000 people (31.4/100,000 age-adjusted). CCXIX This is roughly in line with the national death rate from strokes in 2010 (41.9 deaths per 100,000), but much lower than the national age-adjusted death rate (39.1/100,000).

Rhode Island performs better than the nation as a whole in terms of diabetes incidence. The percentage of Rhode Islanders diagnosed with diabetes in 2010 (7.8%) was lower than the national average (8.7%), but higher than the prevalence rates in Connecticut (7.3%) and (7.4%). CCXXIII The preliminary 2011 BRFSS data indicates that the prevalence rate for diabetes in Rhode Island increased to nearly 8.5% from 2010 to 2011. CCXXIII Bristol County had the highest prevalence of diabetes (9.7%), followed by Providence County (9.2%), Kent County (7.6%), Newport County (7.3%) and Washington County 7.0%). CCXXIII According to the same 2011 BRFSS data, Providence County had the second highest rate of high blood pressure (33.7% of all adults) in the state; the statewide rate was only slightly less at 33.1%.

Risk factors are also observed among Rhode Island's children and youth. Nearly one in six (15.5%) of children entering kindergarten during the 2011-2012 school year in Rhode Island were obese, which is actually a decrease from a high of 20.3% in the 2004-2005 school year. Data from 2011 indicates that 10.8% of Rhode Island high school students were obese (13.2% of males and 8.4% of females) and 14.9% were overweight (both males and females had prevalence rates around 14.9%). CCXXV Nationwide, an estimated 12.0% of high school students were obese and 14.7% were overweight.

#### **Risk factors**

A review of 2011 results from the Center for Disease Control's Behavioral Risk Factor Surveillance System (BRFSS) Survey reveals a number of risk factors threatening healthy weight management at both the state level and amongst residents of Providence County:

 34.54% of Providence County residents reported eating less than one full serving of fruit per day – less than any other Rhode Island county

- 24.06% of Providence county residents reported eating less than one full serving of vegetables per day –
   which is the least favorable rate of all counties statewide
- 53.5% of Providence County residents reported being either "inactive" or "insufficiently active," which
  makes Providence County the least active county in Rhode Island
- Only 13.61% of those surveyed from Providence County said they exercised more than 2.5 times per week, which is the lowest rate for all Rhode Island counties; 40.71% said they exercised for thirty minutes or less each week, which is just slightly worse than the statewide rate (40.85%)
- Only 18.08% met both aerobic and strengthening recommended guidelines
- Despite cited access issues, BRFSS reveals Providence County residents' positive performance on two key cardiovascular metrics:
  - 74.34% of adults in Providence County had had their blood cholesterol checked in the past year (comparable to the 74.3% Rhode Island percentage), with 37.89% having been told at some point that they had high blood cholesterol (compared to 38.42% statewide)
  - 53.53% of respondents said that they had never smoked, which is better than the statewide rate of 51.6% and the second highest percentage of non-smokers in the state.

## **Community Stakeholder Survey Results**

A *Community Stakeholder Survey* was initiated in the spring of 2013. Surveys were sent to community members and organizations served by The Miriam Hospital and Lifespan's three other member hospitals. Fifty-four organizations responded statewide. Of these organizations, twenty responded that their members are served by The Miriam Hospital. Key informant interviews were also conducted with nearly two-dozen community and organizational leaders across the state as part of the needs assessment.

#### The Miriam Hospital Stakeholder Results

Of the organizations that responded that their members were served by The Miriam Hospital, issues related to healthy weight were frequently mentioned. When asked to list the most significant health issues, *nutrition* was listed by 80% of respondents, making it the second most important issue overall. *Diabetes* was listed by 65% of respondents. *Overweight/obesity* was listed by nearly half (45%) of all respondents as being among the most significant health issues facing their members. In terms of social needs, 55% of respondents listed food security (access to affordable healthy and nutritious foods), as a major need.

Statewide Stakeholder Results

All community stakeholders identified concerns related to healthier weight as among the most significant health challenges of the constituencies they serve. *Nutrition* was cited as a top concern by 67.9% of all respondents to the community stakeholder survey; *overweight/obesity* by 52.8%; *diabetes* by 52.8%; *hypertension* by 43.4%; *youth health* by 41.5%; *childhood overweight/obesity* by 41.5%; *heart disease* by 39.6%; and *stroke* by 26.4%.

While interviews and survey responses did not cite direct correlations, healthy weight is also related to many of the other health and social issues identified. Poverty, unemployment, access to care challenges, mental illness, health literacy, and even asthma can affect lifestyle choices and other factors influencing healthy weight, such as ability to select, purchase, or cook nutritious meals; time, motivation, and safe places for exercise; and access to health services for the diagnosis and treatment of endocrine disorders and other medical conditions that may present a barrier to maintaining healthy weight.

## **Mental Health**

Various facets of *mental health* were identified by our community stakeholders – at both the statewide level and among survey respondents with members served by The Miriam Hospital – as the most significant health concern for the constituencies they serve. Statewide, *access to mental health services* was cited as a top concern by 75.5% of respondents; *mental health* by 67.9%; and *substance abuse* by 60.4%. Data review suggests that their concern is well founded.

## Methodology

Quantitative data for this area are drawn primarily from the most current publicly available data through the Substance Abuse and Mental Health Services Administration (SAMHSA) and the BRFSS. Community stakeholder survey results, and key informant interview data also supplement the quantitative data.

#### **Mental Illness**

In 2010, Rhode Island had the highest rate of mental illness in the United States, in terms of percentage of adults reporting any type of mental illness (24.2% in Rhode Island vs. 19.7% in the U.S. as a whole.)

Rhode Island's incidence of serious mental illness (SMI) cexxvii – defined by SAMHSA as "a diagnosable mental disorder that substantially interfered with or limited one or more major life activities" – is nearly double the national incidence (7.2% vs. 4.6%). The percentage of Rhode Island adults reporting major depressive episodes also far exceeded the national average, with 9.5% of Rhode Islanders reporting such events in 2010 compared with 6.5% of all Americans. (On this measure, Rhode Island is the only state in the nation ranking in the highest range.)

In 2010, Rhode Island had 129 suicides statewide, giving it an age-adjusted suicide mortality rate of 12.3 suicides per 100,000. CCXXVIII This is slightly higher than the nationwide rate of 12.1 suicides per 100,000 people, higher than the rate in Connecticut (9.4 per 100,000) but lower than Massachusetts (12.5 per 100,000). CCXXIX However, according to the CDC, the suicide rate in Rhode Island increased by 69% from 1999 to 2010, which was the third highest increase among states in the nation during that interval.

#### **Addiction**

Given high co-morbidity rates of substance abuse and mental illness – as well as the fact that treatment generally falls under the "behavioral health" umbrella – Rhode Island's challenges in this area were considered in the context of mental health.

Rhode Island has the second highest illegal drug use rate in the country, only behind Vermont. COXXXI Drug-related deaths – mostly from opioids such as heroin and oxycodone – claimed the lives of 193 Rhode Islanders in 2008. COXXXIII (There were 193-drug related deaths and 34 drug-related suicides in Rhode Island in 2008, the most recent year for which data is available.)

Based on 2007 self-reported data, experts believe that about 55,000 Rhode Island adults use non-medical opioids. CCXXXXIV Rhode Island is one of only 16 states in which the number of deaths from opioid overdose now exceeds the number of fatal motor vehicle fatalities — which is particularly significant, given that Rhode Island's percentage of fatal accidents that are alcohol-related also far exceeds the national average. CCXXXIV This correlates to national trends, which show overdose deaths quadrupling across the United States since 1980. Providence County has the second-highest drug-related mortality rate in Rhode Island (20.1 deaths per 100,000), compared to a statewide rate of 18.4 deaths/100,000 people. CCXXXIVI

There is also cause for concern in the area of youth drug and tobacco use. While the number of high school students who had ever reported smoking in Rhode Island (35.0%) was lower than the nationwide rate (46.4%) and lower than the rate in Massachusetts (38.5%), the state had a higher percentage of high school students who had ever used marijuana (40.1%) than the nationwide rate (37.3%). ccxxxvii

## **Community Stakeholder Results**

A *Community Stakeholder Survey* was initiated in the spring of 2013 for the community health needs assessment. Surveys were sent to community members and organizations served by The Miriam Hospital, as well as Lifespan's three other hospitals. Fifty-four organizations responded statewide. Of these organizations, twenty responded that their members are served by The Miriam Hospital.

Mental health and access to mental health services were dominant concerns among survey respondents both statewide and among those with members or communities served by The Miriam Hospital.

#### The Miriam Hospital Stakeholder Results

Of the organizations with members served by The Miriam Hospital, 75% responded that *access to mental health services* was among the most significant issues in the communities they serve. *Mental health*, as a standalone issue, and *substance* abuse, were both listed by 55% of respondents as one of the most significant issues in their communities. When asked to list the three most significant issues, *mental health* and *access to mental health services* were tied for the fourth most significant health issues with 25% of respondents listing these as the among the three most significant issues in their communities. Fifteen percent of respondents listed substance abuse as one of the three most significant issues impacting their communities and 55% of respondents said that it was one of the most significant issues overall.

#### Statewide Stakeholder Results

At the state level, the most significant health concern was *access to mental health* services, as over three-quarters (75.5%) of respondents said that this was a significant issue. The fifth most frequently cited health concern was *mental health*, as nearly 68% of respondents reported that mental health was among their communities/member's most significant health concerns. Slightly more than 60% of respondents statewide indicated that substance abuse was one of the most significant issues in the communities they serve.

# **Community Stakeholder Survey: Complete Results**

In the spring of 2013, Lifespan Community Health Services, the Office of Community Relations, and staff from each of Lifespan's four member hospitals created and disseminated a *Community Stakeholder Survey* to nearly 70 community-based organizations across the state. Fifty-four individuals responded on behalf of a wide range of constituencies including organizations that represented minority or underserved populations, organizations representing specific health or social issues, organizations representing specific age groups, organizations that are focused on research and policy, public health department officials, public health leaders, and other organizations. (See Appendix III for a list of Community Stakeholder Survey Respondents). Those that responded included organization executives and directors, in addition to front-line staff, social workers, community liaisons, scientists, nurses and case managers.

Of the 54 respondents, 20 stated that their communities/members were served by The Miriam Hospital. This section will provide an overview on the results of the survey at the statewide (aggregate) level — which includes all 54 respondents — and also for the 20 respondents who specifically mentioned that The Miriam Hospital serves the communities they represent.

# **Most Significant Healthcare Needs**

## The Miriam Hospital Stakeholder Opinions

The survey results were filtered for the twenty organizations that represent children or communities served by The Miriam Hospital. When asked what the most significant health concerns are in the communities that each respondent's organization serves, this survey subgroup echoed statewide concern about issues related to access to care, but listed *nutrition* more frequently than the statewide results:

•	Access to Health Insurance	85.0%
•	Nutrition	80.0%
•	Access to Primary Care	75.0%
•	Access to Mental Health Services	75.0%
•	Affordability of Prescription Medication	75.0%
•	Access to Social Services	70.0%
•	Affordability of Health Services	70.0%
•	Diabetes	65.0%
•	Health Literacy	55.0%
•	Mental Health	55.0%
•	Substance Abuse	55.0%
•	Access to Specialty Care	45.0%
•	Overweight/Obesity	45.0%
•	Cancer	40.0%

#### The Three Most Significant Health Issues

When this same subset of organizations were asked to list the three most significant health concerns in their communities, issues related to access to care (i.e. access to insurance, primary care, mental health services, etc.) moved to the top of the list along with mental health issues:

•	Access to Health Insurance	40.0%
•	Affordability of Prescription Medication	35.0%
•	Access to Primary Care	30.0%
•	Access to Mental Health Services	25.0%
•	Affordability of Health Services	25.0%
•	Mental Health	25.0%
•	Access to Social Services	20.0%
•	Health Literacy	20.0%
•	Cancer	15.0%
•	Substance Abuse	15.0%

## Statewide Stakeholder Opinions

At the aggregate level (all 54 respondents), when asked what the most significant health concerns are in the communities that each respondent's organization serves, the most frequently cited issues were:

•	Access to Mental Health Services	75.5%
•	Access to Health Insurance	73.6%
•	Access to Primary Care Services	71.7%
•	Affordability of Prescription Medication	69.8%
•	Affordability of Health Services	67.9%
•	Mental Health	67.9%
•	Nutrition	67.9%
•	Health Literacy	62.3%
•	Substance Abuse	60.4%
•	Access to Social Services	58.5%
•	Access to Specialty Care	54.7%
•	Overweight/Obesity	52.8%
•	Diabetes	52.8%
•	Asthma	43.4%
•	Hypertension	43.4%
•	Childhood Overweight/Obesity	41.5%
•	Smoking Cessation	41.5%
•	Youth Health	41.5%
•	Heart Disease	39.6%
•	Cancer	34.0%
•	Maternal/Infant Health	30.2%

#### The Three Most Significant Health Issues

All 54 respondents were then asked to list the three most significant healthcare challenges facing their constituents. Issues related to "access" to healthcare services, mental health services and health insurance remained at the top while health literacy—defined as *understanding of one's own health conditions and proper health maintenance behavior*—moved up to the fourth most significant issue:

•	Access to Mental Health Services	40.4%
•	Access to Primary Care Services	38.5%
•	Access to Health Insurance	30.8%
•	Health Literacy	23.1%
•	Mental Health	23.1%
•	Affordability of Medicine	21.2%
•	Access to Social Services	19.2%
•	Substance Abuse	19.2%
•	Affordability of Health Services	17.3%
•	Cancer	9.6%
•	Diabetes	7.7%
•	Overweight Obesity	7.7%

# **The Most Significant Social Needs**

## The Miriam Hospital Stakeholder Opinions

When the survey results were filtered for the twenty organizations that represent The Miriam Hospital, the most significant social needs resemble the same needs identified at the state level. However, immigration status appears to be less important overall to this subgroup of the survey—although language barriers are still significant—and other issues, such as *childcare* and *domestic violence*, gain in prominence:

•	Unemployment	90%
•	Affordable Housing	75%
•	Poverty	70%
•	Education	65%
•	Language Barriers/Limited English Proficiency	60%
•	Food Security	55%
•	Lack of Transportation	55%
•	Child Care	45%
•	Domestic Violence	40%
•	Literacy	40%

When asked to identify the three most significant social concerns, *Language Barriers/Limited English Proficiency* jumped to the second most important issue and, unlike the responses to the previous question, *Immigration Status* was in the top ten:

•	Unemployment	65%
•	Language Barriers/Limited English Proficiency	45%
•	Affordable Housing	40%
•	Poverty	40%
•	Food Security	30%
•	Lack of Transportation	20%
•	Immigration Status	15%
•	Literacy	15%
•	Education	10%
•	Violent Crime	10%

When asked about how to respond to these health and social needs, the subset of respondents representing members/communities served by The Miriam Hospital overwhelmingly expressed a desire for greater access to health care services, social services and substance abuse services:

<ul> <li>Improved Health Literacy</li> <li>Increased Access to Primary Care Providers</li> <li>Access to bilingual/translation services</li> <li>Health screenings</li> <li>Improved Communication with Medical Professionals</li> <li>Increased Job Training Opportunities</li> <li>Increased Access to Substance Abuse Programs</li> </ul>	•	Increased Job Opportunities	55%
<ul> <li>Increased Access to Primary Care Providers 50%</li> <li>Access to bilingual/translation services 45%</li> <li>Health screenings 45%</li> <li>Improved Communication with Medical Professionals 4</li> <li>Increased Job Training Opportunities 35%</li> <li>Increased Access to Substance Abuse Programs 35%</li> </ul>	•	Increased Access to Mental Health Providers	55%
<ul> <li>Access to bilingual/translation services 45%</li> <li>Health screenings 45%</li> <li>Improved Communication with Medical Professionals 4</li> <li>Increased Job Training Opportunities 35%</li> <li>Increased Access to Substance Abuse Programs 35%</li> </ul>	•	Improved Health Literacy	50%
<ul> <li>Health screenings 45%</li> <li>Improved Communication with Medical Professionals 4</li> <li>Increased Job Training Opportunities 35%</li> <li>Increased Access to Substance Abuse Programs 35%</li> </ul>	•	Increased Access to Primary Care Providers	50%
<ul> <li>Improved Communication with Medical Professionals 4</li> <li>Increased Job Training Opportunities 35%</li> <li>Increased Access to Substance Abuse Programs 35%</li> </ul>	•	Access to bilingual/translation services	45%
<ul> <li>Increased Job Training Opportunities 35%</li> <li>Increased Access to Substance Abuse Programs 35%</li> </ul>	•	Health screenings	45%
■ Increased Access to Substance Abuse Programs 35%	•	Improved Communication with Medical Profession	nals 45%
<u> </u>	•	Increased Job Training Opportunities	35%
<ul> <li>Access to Healthy Foods</li> </ul>	•	Increased Access to Substance Abuse Programs	35%
,	•	Access to Healthy Foods	30%

## Statewide Stakeholder Opinions

Respondents were asked to identify the social determinants of health that impact their communities. (These issues can often create barriers to accessing care or prevent optimal health outcomes.) The top 10 issues cited were:

•	Unemployment	84.6%
•	Poverty	80.8%
•	Lack of Transportation	76.9%
•	Affordable Housing	75.0%
•	Education	63.5%
•	Food Security	59.6%
•	Language Barriers/Limited English Proficiency	57.7%
•	Neighborhood Safety	51.9%
•	Child Care	50.0%
•	Literacy	48.1%

When asked to identify the three most significant social concerns in the communities they serve, the order changed slightly at the state level but unemployment, poverty, affordable housing and transportation access remained at the top:

•	Unemployment	54.9%
•	Poverty	47.1%
•	Affordable Housing	43.1%
•	Lack of Transportation	33.3%
•	Language Barriers/Limited English Proficiency	25.5%
•	Food Security	23.5%
•	Education	15.7%
•	Violent Crime	11.8%
•	Literacy	11.8%
•	Immigration Status	9.8%

Finally, respondents were asked to identify what types of services or strategies would best address the community's health and social concerns. The statewide results are below:

•	Increased Access to Mental Health Providers	51.9%
•	Increased Job Opportunities	47.2%
•	Increased Access to Primary Care Providers	47.2%
•	Improved Health Literacy	35.8%
•	Access to Healthy Foods	30.2%
•	Increased Access to Substance Abuse Programs	30.2%
•	Increased Job Training Opportunities	30.2%
•	Access to Bilingual/Translation Services	28.3%
•	Health Screenings	28.3%
•	Improved Communication with Medical Professionals	28.3%

# **Analysis**

The survey results reveal a substantial degree of community concern about *access* – access to healthcare services, access to primary care doctors, and access to insurance. Social determinants of health that are often important pathways to accessing health care services, such as employment and socioeconomic status, are also areas where Rhode Island has significant unmet needs.

While chronic diseases were less frequently mentioned by survey respondents, conditions such as diabetes, cancer and mental health were listed in the top 10 of the most significant health issues at both the state level and among respondents with communities served by The Miriam Hospital. These chronic conditions are often considered "downstream" diseases that may be affected or even prevented by focusing on "upstream" factors such as access to health insurance or access to primary care.

Health literacy was identified as a major need by community stakeholders statewide and the 8<sup>th</sup> most significant issue for respondents with members served by The Miriam Hospital. In addition, several individuals interviewed during the Key Informant interview process independently noted the importance of educating individuals about their own health conditions, how to effectively treat and manage their conditions, and how to access and navigate the health care system, particularly in the context of minority and immigrant populations. Chronic diseases such as cancer, overweight/obesity and diabetes, and even mental health were consistently ranked among the most significant health issues both at the state level and among respondents for The Miriam Hospital.

As for social needs, *unemployment*, *affordable housing*, and *poverty* were among the most frequently cited issues among respondents at the state level and in The Miriam subset. *Language barriers/Limited English proficiency* and *immigration status* were also among the most frequently cited issues when respondents in The Miriam subset were asked to rank the three most significant issues facing their communities. This reflects both the diversity of the community served by The Miriam Hospital and potential challenges that exist in adequately serving the community.

# **Implementation Strategy**

The Miriam Hospital plans to pursue the following Implementation Strategy in response to issues identified during its community health needs assessment:

## **Access to Care**

Various facets of access to care – including access to health insurance (85.0% of respondents with members served by The Miriam Hospital), access to primary care (75.0%), access to mental health services (75%) affordability of prescription medicine (75.0%), affordability of health services (70.0%), access to social services (70.0%) and health literacy (55.5%) – were widely cited as compelling community health needs among external stakeholders. According to 2011 BRFSS data, 14.10% of adults in Rhode Island had no health care coverage and 17.1% of adults in Providence County were uninsured.

Further analysis is needed to gain greater insight into the demographics of the uninsured population in Rhode Island. However, it is reasonable to deduct that this cohort must be composed of individuals who are not over 65 and therefore not eligible for Medicare; not parents with dependents and children and therefore not eligible for RIte Care, Rhode Island's Medicaid program; not armed services veterans and therefore not eligible for Veterans Administration benefits; not disabled and therefore not eligible for Medicare SSI coverage; not unemployed recently enough to be eligible for COBRA benefits, or unable to afford COBRA payments; and lacking the resources to purchase direct-pay private health insurance.

To the degree that the federally mandated state health insurance exchange may provide access to coverage for individuals who are currently not eligible for employment-based health insurance, the state's uninsured population may shrink. However, some of the challenges associated with access stem from root causes other than coverage – challenges that may include healthcare workforce issues (such as full primary care panels and insufficient supply of mental health professionals); inadequacy of coverage among insured individuals (such as lack of prescription coverage); issues associated with transportation and/or hours of service; lack of access to professionals who can link people to available services for which they may be eligible; and health literacy levels that may leave people unprepared to know how, when, and where to access the healthcare system.

In 2012, The Miriam Hospital provided nearly \$44.4 million in net community benefit expenses for its patients. The Miriam provides full charity care for individuals at or below twice the federal poverty level, with a sliding scale for individuals up to four times the poverty level. As part of its community benefit expenses, the Hospital provided over \$12.7 million in financial assistance at cost to patients (charity care), \$18.6 million in medical and health professions education, nearly \$3.4 million in subsidized health services—including services for oncology, HIV, tuberculosis, and men's health clinics—and \$3.6 million in clinical research that may yield new treatments and cures.

In addition to the above, The Miriam Hospital intends to launch or continue the following initiatives to address access concerns in its community:

#### Enhance access to prescription drugs upon discharge

Community stakeholders surveyed indicated the significance of the affordability of prescriptions drugs and also the barriers that patients face in obtaining their medicines – one of which is transportation. In fact, nearly 77% of stakeholders surveyed statewide and 55% of stakeholders with members served by The Miriam Hospital indicated that lack of transportation was a major unmet social need for the communities they serve. In order to eliminate a major barrier for patients who are treated and discharged in need of filling post-discharge prescriptions, The Miriam Hospital will explore options for opening a pharmacy at the hospital in 2014, similar to the pharmacy opened at Rhode Island Hospital in 2013. This new pharmacy would enable patients to leave the hospital with the prescriptions they need, thereby reducing anxiety, enhancing recovery, and reducing the likelihood of readmission.

#### Promote Women's Health and Access to Health Services

The Women's Medicine Collaborative, largely based at The Miriam Hospital, offers a wide range of services – encompassing primary and specialty care (such as obstetrics, on the Rhode Island Hospital campus, and gastrointestinal medicine) and social services. This menu of services has been designed in direct response to women's increased need for diverse levels and types of care.

#### Lifespan: Addressing Access to Health Issues System-wide

Community stakeholders statewide reiterated the significance of issues related to access to care throughout the entire course of the needs assessment. For example, leaders within the minority community emphasized the need for increased health literacy programs that help their communities overcome language and knowledge barriers in order to better understand their health conditions and how to better access health services. Policy leaders and children's advocates emphasized the significance of a lack of health insurance and the costs that uninsured patients place on the entire healthcare system. Other stakeholders surveyed and interviewed stressed the importance of increasing access to primary care services, specialty care services and social services. Thus, Lifespan – through its four hospitals, including Rhode Island Hospital, The Miriam Hospital, Newport Hospital and the Bradley Hospital – plans to tackle the issue of "access to care" through a multi-pronged, system-wide approach that includes the following initiatives:

#### Partner with Providence Community Health Centers

Community stakeholders expressed significant concern about access to health care services, social services and preventive services such as primary care access and health screenings. Lifespan is addressing these and other community health needs by becoming an anchor tenant at the Providence Community Health Center (PCHC) on Prairie Avenue. Opened in July 2012, the PCHC facility is a 40,200 square-foot building that replaces PCHC's 8,000 square foot Allen Berry site located at the Urban League

building on Prairie Avenue. The Health Center is located at the site of the former Federated Lithographers building in Upper South Providence, an area with high unemployment and significant health access challenges. Lifespan is the first long-term major tenant at the Federated site, with a commitment to lease 27,000 square feet of commercial office space for 10 years with an additional 10-year lease option. Lifespan will locate its Community Health Services office, its Radiology School, and the Hasbro Children's Hospital Children's Neurodevelopment Center, as well as training classrooms, at the facility. The Health Center is anticipated to ultimately provide an estimated 80,000 to 100,000 patient visits each year. Lifespan's investment in the health center as a long-term tenant will help provide financial stability for the health center and also synergy between the health center and Lifespan's health programs.

#### Expand Access to Ambulatory Care Centers

Access to health care services – ranging from primary care to specialty care services – was an overwhelming concern indicated by community stakeholders. For example, nearly three-quarters (74.3%) of community stakeholders with members served by Rhode Island Hospital indicated that access to primary care services was a significant issue. Lifespan recognizes the need to provide care in settings that are patient-centric, cost-effective and supportive of continuity of care. In January 2013, Lifespan's East Providence Ambulatory Center opened, housing a branch of Lifespan Laboratories as well as a Cardiovascular Institute (CVI) satellite that offers office visits and comprehensive testing services. The building will expand to offer outpatient dialysis and wound care treatment. The Center aims to serve nearly 19,000 patients annually. In February 2013, an ambulatory care center in East Greenwich opened, housing a Cardiovascular Institute (CVI) satellite, a Lifespan lab, and a pediatric multi-disciplinary clinic. In 2014, the clinic expects to conduct 380 evaluations and nearly 4,400 treatment interventions.

#### Promote Health Literacy Statewide

Health literacy – that is, knowledge about health, prevention, and how and when to access health services – was widely cited as a deficit among community stakeholders surveyed. On behalf of The Miriam Hospital and all of its member hospitals, Lifespan Community Health Services will continue to provide health education, screenings, and health-related printed material to the community.

### Healthwise Workshops

Leaders in the Latino, African, Asian, and other LEP (limited English proficiency) communities cited health literacy as one of the most important issues facing their constituents. Through the Healthwise Workshops, Lifespan Community Health Services will continue to provide community groups with culturally appropriate information about how to make healthy choices, handle minor illnesses and accidents, and communicate with health care professionals, among other health-related topics. The workshops are presented using PowerPoint presentations and printed Healthwise manuals. There is no fee for participation and the manuals are provided at no charge.

#### Provide Free Health Screenings Statewide

Last year, 1,084 free screenings were provided by Lifespan Community Health Services, as stand-alone events or as elements of another program. These screenings – for blood pressure, cholesterol, and stroke risk – will continue to be offered at no charge to members of the community and, in most

circumstances, to other nonprofit organizations, churches, and other organizations serving The Miriam Hospital's community. Lifespan covers the cost of the screenings.

#### AED Grants Program

Access to emergency medical care – particularly in the context of cardiac care – is an area where Lifespan is expanding the capacity of organizations and community members throughout the state to support improved chain of survival outcomes. This program, administered through Lifespan Community Health Services, assists large, community-based organizations and supports state efforts related to "heart safe communities" by providing an automated external defibrillator (AED) to their facility. In order for the facility to receive an AED, they must meet specific criteria and agree to training and compliance related to the proper use and maintenance of the device. Lifespan Community Health Services has 50 total AEDs available for distribution. As of August 2013, 14 sites have completed or are in the process of completing the program's training and received AEDs. The ultimate goal of the program is to ensure that all 39 cities and towns in Rhode Island have organizations with access to these devices.

#### Lifespan Community Training Center

In addition to the AED Grant Program, Lifespan is focusing on emergency cardiac care through its Community Training Center. The Center, which is part of Lifespan Community Health Services (LCHS), was established to coordinate all American Heart Association Emergency Cardiac Care (ECC) programs throughout Lifespan and for CPR instructors in the community. In 2012, LCHS provided 1,136 provider classes and 11 instructor training classes, certifying or recertifying nearly 9,000 students.

#### Cancer

Forty percent of community stakeholders with members served by The Miriam Hospital cited cancer as a top community health concern compared to about 34% of all stakeholders surveyed statewide. Incidence and mortality rates support their concern.

Cancer is the second-leading cause of mortality in Rhode Island, as it is nationwide. (The state ranks 26<sup>th</sup> nationally for cancer mortality in the United States.) Rhode Island continues to have one of the highest age-adjusted cancer incidence rates in the nation. In 2009, Rhode Island's age-adjusted cancer incidence rate (491.4 cases per 100,000 people) was the fourth highest in the United States. The leading types of cancer incidence in Rhode Island were female breast cancer (135.2 per 1000,000), prostate cancer (134.8/100,000), lung cancer (72.2/100,000) and colon (41.9/100,000). Although it seems unlikely that higher cancer screening rates in Rhode Island fully account for its higher incidence rates, the state does appear to compare well in terms of the percentage of residents who are screened. According to 2010 BRFSS data, Rhode Islanders were significantly more likely (more than 5% over the national average) than all Americans to have been screened for breast cancer, cervical cancer, colorectal cancer, and prostate cancer.

The Miriam's most significant contribution to the fight against cancer in its community is its role in the founding and continuing services of Lifespan's Comprehensive Cancer Center, which also includes Rhode Island Hospital and Newport Hospital. Rhode Islanders have access to leading-edge research and top clinical expertise in cancer from across the Lifespan system. In addition to the preventive, diagnostic, treatment, and survivorship benefits of the Comprehensive Cancer, The Miriam Hospital offers several other cancer-related services to the community (See Appendix V for a list of other programs related to cancer care at The Miriam Hospital and its Lifespan affiliate hospitals). In addition to these resources, The Miriam Hospital plans to pursue the following initiatives:

#### Expand Comprehensive Cancer Center

Stakeholders expressed concern about fragmentation in cancer care and difficulty in accessing services and coordinated care. Lifespan recognizes that access to specialty cancer care and a true continuum of care for cancer patients is a substantial unmet health need for patients across the state. Therefore, beginning in August 2013, all three of Lifespan's Cancer Centers—The Miriam Hospital, Rhode Island Hospital and Newport Hospital—have merged into one, system-wide Comprehensive Cancer Center, providing greater access to cancer specialists, psychosocial screenings with referrals to social workers and support services, enhanced patient and family education, patient navigators, genetics counselors and complementary therapies. A new location for adult oncology services in East Greenwich will also be operational by fall 2013, expanding the geographic availability of the CCC in southern Rhode Island. As each patient completes their course of therapy they will receive a survivorship plan, which will also be shared with his or her primary care physician.

#### Lifespan: Addressing Issues Relating to Cancer System-wide

Stakeholders identified cancer as one of the leading clinical conditions that significantly impacts the communities they serve. During the Key Informant interviews, some of the major concerns were around access to high-quality, comprehensive services for cancer patients, particularly those without health insurance. Access to increase preventive services was also identified as a significant need. Transportation was also seen as a barrier for some patients.

Lifespan is taking a system-wide approach to tackling issues related to cancer care and prevention. (See Appendix V for a complete list of cancer-related programs at each of Lifespan's affiliates.) By leveraging its resources at Rhode Island Hospital, The Miriam Hospital and Newport Hospital, Lifespan is building a system that provides comprehensive care for cancer patients and opportunities for prevention activities such as screenings for residents in the communities where they live. Specifically, Lifespan plans to initiate or continue the following programs:

#### Avenues of Healing

Through Lifespan Community Health Services, Lifespan's affiliate hospitals invest in community cancer education by sponsoring seminars and conferences such as *Avenues of Healing*, an annual

breast cancer program that provides education and information on breast cancer for survivors. Staff members from several hospital departments participate in interactive presentations on various cancer-related topics. More than 85 members of the community participated in the program in 2012.

#### Cancer Survivors Day 2014

Lifespan Community Health Services organizes an annual community cancer education program for cancer survivors and their families and friends. Cancer experts from Lifespan's hospitals will offer presentations and answer questions at the 2014 event.

#### Kickbutt Day

This annual, youth-oriented program – in collaboration with Lifespan Community Health Services – is designed to teach children and adolescents about the link between smoking and cancer. In 2012, 320 young people participated in this event.

#### Tobacco Prevention Programs

Lifespan and its affiliate hospitals will continue to support an array of school-based programs that carried the "no smoking" message. These programs, which are sponsored by Lifespan Community Health Services, reached over 2,300 children and adolescents in 2012.

#### Lectures about smoking, smoking cessation, and cancer

Throughout the year, Rhode Island Hospital experts and other invited speakers offer lectures about the links between smoking, cancer, and other serious illnesses. In 2012, 306 people were impacted by this program, which is sponsored by Lifespan Community Health Services.

#### SunsSmarts

Responding to the need for greater access to preventive services, Lifespan offers a community-based, collaborative effort involving Lifespan Community Health Services, the Partnership to Reduce Cancer in Rhode Island, the American Cancer Society, the Department of Health and University Dermatology. SunSmarts provides skin cancer screenings and detection service to community members at local beaches. Patients with any abnormalities are directly referred to University Dermatology or a provider of their choice. In 2012, the program screened 370 people.

# **Healthier Weight**

Heart disease is the leading cause of death in Rhode Island, and the state's mortality from heart disease is higher than the national average. Obesity and diabetes rates in Rhode Island are below the national median, but higher than rates in both Massachusetts and Connecticut. The state exceeds the national and regional rates for overweight, heart disease mortality rates, and other behavioral and medical risk factors such as physical inactivity and borderline diabetes. Working toward healthier weight addresses several areas of community health concern, including heart disease, diabetes, cancer, mental health,

chronic disability, and more. To the degree that it correlates with depression and loss of function, it may also affect employability – in turn, impacting social determinants of health and access to care.

Not surprisingly, factors related to healthy weight – from *nutrition* (cited by 80.0% of community stakeholders with members served by The Miriam Hospital), diabetes (65.0%), and *overweight/obesity* (45.0%) – surfaced consistently and frequently during the CHNA. While interviews and survey responses did not cite direct correlations, healthier weight is related to many of the other health and social issues identified. Poverty, unemployment, access to care challenges, mental illness, health literacy, and even asthma can affect lifestyle choices and other factors influencing healthy weight, such as ability to select, purchase, or cook nutritious meals; time, motivation, and safe places for exercise; and access to health services for the diagnosis and treatment of endocrine disorders and other medical conditions that may present a barrier to maintaining healthy weight.

The Miriam Hospital's weight management program provides comprehensive, medically supervised treatment for mild, moderate and severely overweight adults. The program has served over 3,500 patients through combining medical monitoring, behavior therapy, exercise instruction, three levels of calorie reduction and nutrition education. The program takes a team-based approach to weight loss and management. Participants participate in 16 to 28 weekly group sessions that teach behavior strategies for weight loss and maintenance. (See Appendix V for a complete list of programs related to healthy weight at each of Lifespan's affiliate hospitals.)

In addition to the resources provided above, The Miriam Hospital is exploring the following new initiatives designed to work toward healthier weight in its community:

#### Expand Collaborative Arrangements for Weight Management Program patients

Stakeholders voiced concerns about the silo approach in care that patients with weight management issues often encounter, and expressed specific difficulty in accessing support groups, nutrition counseling, and other services. The Weight Management program is expanding its collaborative arrangements with other departments – including Cardiac Rehabilitation and the Women's Medicine Collaborative – in order to more comprehensively serve patients needs, from behavioral health services and support to nutrition counseling.

### Leverage potential impact of the Weight Control and Diabetes Research Center

One of the world's preeminent research teams in weight management is affiliated with Alpert Medical School of Brown University and resident at The Miriam Hospital. The Miriam recognizes the importance of translating research findings to effective clinical and behavioral interventions for patients with weight management issues. The Miriam will continue to support clinical research to evaluate and implement effective strategies for long-term weight loss and weight gain prevention in children and adults.

Several Miriam Hospital services address the needs of community members coping with challenges related to maintaining healthier weight. (See Appendix V for a list of programs related to healthier weight at The Miriam Hospital and other Lifespan hospitals.) In addition to programs at the hospital, The Miriam Hospital is working with other Lifespan hospitals and corporate departments – such as Lifespan Community Health Services (LCHS) – to develop a multi-pronged, comprehensive approach to achieving and maintaining a healthier weight. Some of these strategies include:

#### Community BMI Screenings

The Miriam Hospital will work with Lifespan Community Health Services (LCHS) to continue to offer body mass index (BMI) screenings in the community, featuring body fat analysis, education, and referral for follow-up (if needed) by hospital nurses. More than 210 members of the community received this service in 2012.

#### Nutrition Program in Partnership with Rhode Island Free Clinic

Through this program, coordinated by LCHS, The Miriam Hospital partners with the Rhode Island Free Clinic to offer *Raising the Bar on Nutrition*, a six-week nutrition program that encompasses cooking demonstrations; a recipe book; tracking of health indicators, including BMI; and counseling about changing food consumption patterns (such as increasing vegetable intake.) In 2012, this program served 81 people – for an estimated total impact of 238 lives, including family members and other members of the community who would share the healthier meals that would result from participation in the program.

#### Sharing Lessons Learned from the Workforce Healthy Rewards Program

The Miriam Hospital participates in Lifespan's Healthy Rewards program, which offers free nutritional counseling and Weight Watchers membership to eligible employees and their dependents. The hospital regularly shares relevant information about the program experience with other area employers.

#### Providing Lectures on Topics Related to Healthier Weight

In 2012, 142 community lectures about topics related to healthier weight were offered in the community. These programs will continue under LCHS at sites throughout the Lifespan system.

#### Collaboration with Providence School District

Lifespan's office of Community Relations is making plans to facilitate the participation of clinicians from The Miriam Hospital and other Lifespan member hospitals as speakers at professional development seminars for nurses in the Providence School Department throughout the year.

#### Partnership with Overeaters Anonymous

During the Key Informant interview process, stakeholders cited the need for greater support group services for patients struggling with healthy weight issues. Lifespan recognizes the need to increase options in this area for patients throughout its healthcare delivery system. The Miriam Hospital and other Lifespan affiliates will explore offering space for Overeaters Anonymous groups and members to hold meetings and provide support to others struggling with weight management issues.

## **Mental Health**

Both quantitative and qualitative data collected for the CHNA revealed significant unmet needs statewide, and also in the population specifically served by The Miriam, around mental health. Rhode Island had the highest rate of mental illness in the United States, in terms of percentage of adults reporting any type of mental illness (24.2% in Rhode Island vs. 19.7% in the U.S. as a whole.) Rhode Island's incidence of serious mental illness (SMI) ccxxxviii is nearly double the national incidence (7.2% vs. 4.6%). The percentage of Rhode Island adults reporting major depressive episodes has also far exceeded the national average, with 9.5% of Rhode Islanders reporting such events in 2010 compared with 6.5% of all Americans. (On this measure, Rhode Island is the only state in the nation ranking in the highest range.)

Rhode Island has the second highest illegal drug use rate in the country, only behind Vermont. Drug-related deaths – mostly from opioids such as heroin and oxycodone – claimed the lives of 193 Rhode Islanders in 2008. (There were 193-drug related deaths and 34 drug-related suicides in Rhode Island in 2008, the most recent year for which data is available.) Lifespan addiction experts say that Rhode Island is in the midst of an opioid use crisis.

Finally, according to the community stakeholder survey conducted for the needs assessment, mental health and access to mental health services were dominant concerns among survey respondents both statewide and among those with members or communities served by The Miriam Hospital. Of the organizations with members served by The Miriam, 75% responded that access to mental health services was among the most significant issues in the communities they serve. Mental Health, as a standalone issue, and substance abuse, were listed by 55% of respondents as one of the most significant issues in their communities. When asked to list the three most significant issues, mental health and access to mental health services were tied for the fourth most significant health issues with 25% of respondents listing these as the among the three most significant issues in their communities. Fifteen percent of respondents listed substance abuse as one of the three most significant issues impacting their communities.

The Miriam Hospital is an active community partner around mental health issues, and plans several additional initiatives to respond to this significant need. (See Appendix V for a complete list of programs and resources related to mental health care at each of Lifespan's member hospitals.)

Expanding collaborations to increase access to comprehensive mental health care

Community stakeholders overwhelmingly expressed need for enhanced access to mental health

services and other medical care and social services for mental health patients. The Miriam Hospital's Behavioral Medicine program has entered into collaborative arrangements with other departments within the hospital, in addition to other hospitals within the Lifespan system – such as the Medicine/Pediatrics Clinic at Rhode Island Hospital and the Miriam's Immunology/Infectious Disease Department and Pulmonary and Cardiac Rehabilitation Program – to better address the needs of patients with a dual medical and psychiatric diagnosis. The hospital's Department of Psychiatry has also initiated collaborations with other departments to provide more mental health services to medical patients, such as the provision of services to patients treated for HIV/AIDS in the Immunology/Infectious Disease Program under the Ryan White Program.

#### Growth of geriatric psychiatry department and supporting programs

Given Rhode Island's aging population, there are increasing demands on providing mental care for geriatric patients. The Miriam's Psychiatry Department has expanded capabilities within the Geriatric Psychiatry outpatient department to provide geriatric-specific psychotherapy and case management for treatment of dementia. The Miriam's Geriatric Psychiatry department continues to be one of the largest training sites in the country for the field of geriatric psychiatry as a specialty. The nursing home consultation service contributed to a tele-health pilot study that offers geriatric psychiatry consultations and education to staff at area nursing homes.

#### Exploration of Strategies to Continue to Reduce Opioid Misuse, Overdose and Death

In response to near-epidemic levels of opioid overdose and death in the state, The Miriam Hospital has been active in efforts to prevent overdose through its Preventing Overdose and Naloxone Intervention (PONI) program. The Miriam Hospital will explore ways to increase the number of prescriptions issued for Naloxone to patients who meet the necessary criteria; increase the number of suboxone prescribers at the hospital; expand training for physicians and other personnel about discussing opioid use; pursue opportunities to expand the PONI program to other Lifespan hospitals; and collaborate with other hospitals to purchase and promote medication lock boxes.

#### **Lifespan: Addressing Mental Health System-wide**

As the quantitative data demonstrates, and as stakeholders have responded throughout the CHNA, access to mental health is arguably Rhode Island's most significant community health need. This issue impacts every city and town in Rhode Island. Therefore, Lifespan is leveraging its hospitals, corporate departments, and its relationship with its newest affiliate, Gateway Behavioral Healthcare, to increase access to comprehensive mental health services. See Appendix V for a list of all mental health-related programs at Lifespan's partner hospitals. In addition to these programs, Lifespan plans to:

#### Leverage the Value of Gateway Health as a Lifespan Member

In 2013, Gateway Health – the region's largest community-based provider of behavioral health services, with 42 locations serving more than 15,000 patients – became a Lifespan member organization. The new relationship will support new levels of synergy, building on a four-year-old collaboration through which Gateway has provided behavioral health triage services in the emergency departments of Rhode Island Hospital and Hasbro Children's Hospital.

#### Expand Mental Health First Aid Offered by Gateway Health

In 2008, Gateway Health was selected as one of seven community health organizations nationwide to pilot a *Mental Health First Aid* training curriculum under the direction of the National Council for Community Behavioral Healthcare (NCCBH.) Gateway currently offers the training – which gives laypeople the means to deliver aid pending arrival of first responders, but not diagnose or act as a medical professional, in the same way as traditional CPR classes do – four to five times a year. Lifespan affiliates are considering providing support to offer the training more frequently throughout the year. Lifespan is also considering expanding its reach through its partnerships with a wide range of community organizations, from the Providence School Department to the Institute for the Study and Practice of Nonviolence

#### Temas Familiares

Recognizing the need for increased social supports and services for young families, Lifespan Community Health Services helps support a Spanish parenting workshop. This program, which reached 350 people in 2012, offers sessions on important issues related to physical and mental health such as autism, depression, drug-use, childhood development, and emotional intelligence.

#### Providing Lectures Statewide on Mental Health Topics

In 2012, Lifespan – through its hospitals and Lifespan Community Health Services – provided lectures on a range of mental health topics that reached nearly 147 individuals statewide.

## Conclusion

The Miriam Hospital's Community Health Needs Assessment was conducted at a time of extraordinary uncertainty – in the domestic and global economies, in the state and national health care systems, in the lives of individuals and communities, and for health care organizations.

Health care organizations will likely find already razor-thin margins shrinking further over the next few years, as reimbursement changes under federal system reforms begin to converge with the cumulative effects of years of rising uncompensated care. Demand for health services will likely rise as more people become insured through state health insurance exchanges, and – at least in the near term, until the healthcare workforce builds to necessary levels and the system recalibrates – hospitals will likely be asked to absorb new levels of volume exceeding the capacity of community-based health care resources. Severity of illness and need for chronic disease management will no doubt intensify as significant numbers of newly-insured individuals seek treatment for long-deferred health conditions. The challenges and opportunities that come with the maturation of Accountable Care Organizations remain to be fully realized and articulated.

The only real certainty is this: the roles of hospitals are changing, at the same time that our communities' needs are shifting and intensifying.

As a provider of critical health services for its community, The Miriam Hospital considers the community's health needs in the context of its fundamental imperative to sustain essential hospital-based services. The hospital is deeply committed to helping to improve the health status of the community it serves.

Although this Community Health Needs Assessment was conducted on behalf of The Miriam Hospital, it was developed with the ultimate goal of informing community-wide health status improvement efforts that extend far beyond the hospital. The data and analysis included in the report is intended to serve as a useful resource for all health advocates, practitioners, policy experts, and others who are committed to working together to build a healthier Rhode Island. The people of The Miriam Hospital look forward to collaborating with community partners, leveraging the strengths of many different organizations and constituencies, to advance that work on behalf of the people they serve.

**Appendices** 

# Appendix I: Lifespan Internal Stakeholder Interview & Participant List

- 1. Monica Anderson\*, Community Liaison, The Miriam Hospital
- Rowland Barrett, PhD\*, Director, Center for Autism and Developmental Disabilities, Bradley Hospital
- 3. James Butera MD, Oncologist/Hematologist, Rhode Island Hospital
- 4. Mary Cooper MD, Senior Vice President & Chief Quality Officer, Lifespan Corporate Services
- 5. Gus Cordeiro, President & CEO, Newport Hospital
- 6. Mike Delmonico, Director of Physician Practices, Newport Hospital
- 7. Judy Diaz\*, Director, Lifespan Community Health Services
- 8. Cathy E. Duquette PhD, RN\*, Lifespan Corporate Services, Rhode Island Hospital, EVP, Nursing Affairs, Chief Quality Officer, RIH
- 9. Richard J. Goldberg MD\*, Psychiatrist-in-Chief-RIH & TMH, Rhode Island Hospital
- 10. Geetha Gopalakrishnan, MD\*, Medical Director Hallett Center, Miriam Hospital, Rhode Island Hospital
- 11. Traci Green PhD\*, Epidemiologist, Rhode Island Hospital
- 12. Camille Gregorian, LICSW, Rhode Island Hospital, Clinical Manager, Adult Division (CG)
- 13. Dr. Heather Hall, Newport Hospital, Chair, Department of Psychiatry
- 14. Kathleen Hittner MD, Lifespan Corporate Services, SVP, Community Health
- 15. Shay Isamone, Manager, Community Practice Services, Newport Hospital
- 16. Peter Karczmar, MD\*, Physician, Coastal Medical Group, The Miriam Hospital
- 17. Robin King, Business Development/Provider Relations, Newport Hospital
- 18. Susan Korber, MS, RN\*, Director, Cancer Services and Ambulatory Care
- 19. Mark Lambert, Learning Technologies Specialist, Lifespan Learning Institute
- Anastasia Luby, Lifespan Learning Institute, Manager Dec Support Survey Center, Decision Support Services
- 21. Fred Macri, Rhode Island Hospital, Executive Vice President & COO
- 22. Michelle McKenzie, Director, Community Access, The Miriam Hospital
- 23. Dr. Michael Mello\*, Rhode Island Hospital, Injury Prevention Center, Director
- 24. Laurie Mitchell, Lifespan Corporate Services, HR Officer for Physician Services
- 25. Stacey Oliver, Database Manager, Access, Bradley Hospital
- 26. Vincent Pera MD\*, Medical & Program Director, Weight Management Program, The Miriam Hospital
- 27. John Peterson, Business Manager, Bradley Hospital
- 28. Lauren Pond, Rhode Island Hospital, Director of Case Management and Social Work (LP)
- 29. David Portelli, Rhode Island Hospital, The Miriam Hospital, Physician, Emergency Medicine
- 30. Julie Rawlings, Minority Outreach Specialist, Lifespan Community Health Services
- 31. Josiah "Jody" Rich MD\*, General Internist, The Miriam Hospital
- 32. Henry Sachs MD, President & CEO, Bradley Hospital
- 33. Arthur Sampson, The Miriam Hospital, Executive Director
- 34. Fred Schiffman, The Miriam Hospital, Medical Director, Comprehensive Cancer Center
- 35. Rachel Schwartz, Vice President, Strategic Planning, Lifespan Corporate Services
- 36. Jay Spitulnik, Lifespan Learning Institute, Organizational Consultant
- 37. Tara Szymanski, Manager, Oncology Data Management, Rhode Island Hospital
- 38. Sivamainth Vithiananthan, MD, Chief of Minimally Invasive and Bariatric Surgery, University Surgical Associates, The Miriam Hospital
- Patrick Vivier MD\*, Rhode Island Hospital/Hasbro, Brown University, Director, MPH Program Associate Professor
- 40. Dan Wall, Bradley Hospital, President & CEO

<sup>\*</sup>Indicates that contact person has affiliations both with Lifespan and with community organizations

# **Appendix II: Key Informant Interviews**

- 1. Abacus Health Solutions, Dave Ahearn\*, Founder and Senior Scientist
- 2. American Cancer Society, Alexandra Fiore
- 3. Brown School of Public Health, Terrie Fox Wetle
- 4. Department of Health, Michael Fine, MD, Director, Public Health
- 5. Dorcas International Institute of RI, Carol Holmquist Executive Director
- 6. East Bay Community Action Program (EB CAP) Newport Health Center, Dennis Roy, CEO
- 7. Economic Progress Institute, Linda Katz
- 8. Gateway Healthcare, Richard H. Leclerc, Director
- 9. Guatemalan Consulate, Patricia Lavanino
- 10. Injury Prevention Center, Dr. Michael Mello
- 11. Institute for the Study & Practice of Nonviolence, Teny Gross, Director
- 12. Kids Count, Elizabeth Burke Bryant
- 13. Latino Public Radio, Pablo Rodriguez
- 14. Newport County Community Mental Health Center, J. Clement Cicilline
- 15. Oasis International, Muraina "Morris" Akinfolarin
- 16. Overeaters Anonymous, Michelle A., Member
- 17. Partnership to Reduce Cancer in Rhode Island, Bill Kokonis
- 18. Progreso Latino, Mario Bueno
- 19. Providence School Department, Donna O'Connor
- 20. Rhode Island Free Clinic, Marie Ghazal, MS, RN, CEO
- 21. RI Breast Cancer Coalition, Marlene McCarthy
- 22. Socio Economic Development Center for Center for Southeast Asians, Channavy Chhay
- 23. Urban League, MJ Daly
- 24. YMCA of Greater Providence, Neta Taylor-Post

# **Appendix III: Community Stakeholder Survey Respondents**

- 1. AARP, Kathleen Connell Executive Director
- 2. African Alliance of RI, Julius Koale, President
- 3. AidsProjectRI, Thomas Bertrand, Executive Director
- 4. American Cancer Society, Alexandra Fiore
- 5. American Lung Association of the Northeast, Betina (Tina) Ragless, Director of Health Education
- 6. Blue Cross/Blue Shield, Bobby Rodrigues
- 7. Brown School of Public Health, Terri Fox Wetle
- 8. Camp Street Community Ministries, Jackie Watson
- 9. Center for Prisoner Health and Human Rights, Miriam Hospital/Brown University Medical School, Bradley Brockman, Executive Director
- 10. Chinese Nursing Association, Irene Qi
- 11. Community Asthma Program, Daphne Koinis-Mitchell, PhD
- 12. Community Health Workers Association of Rhode Island, Beth LeMarre Brown Medical School, Beth Lamarre
- 13. Crossroads of Rhode Island, Don Laliberte, Director of Social Services
- 14. Rhode Island Department of Health, Beatriz Perez, Manager, Safe Rhode Island/Rhode Island Youth Suicide
- 15. Rhode Island Department of Health, Ana Novais
- 16. Gateway Healthcare, Richard H. Leclerc
- 17. Goodwill Industries of Rhode Island, Denise Doktor, Case Manager / Employment Services Coordinator
- 18. Health Centric Advisors, Rosa Baier, Senior Scientist
- 19. Health Leads Providence, Adam Shyevitch, Executive Director
- 20. Injury Prevention Center at Rhode Island Hospital, Michael Mello, MD, MPH
- 21. James L. Maher Center, William Maraziti, CEO
- 22. Jewish Alliance of Greater Rhode Island, Marty Cooper, Community Relations Director
- 23. Martin Luther King Community Center, Marilyn Warren, Executive Director
- 24. McAuley House, Reverend Mary Margaret Earl, Associate Director
- 25. Mental Health Association of Rhode Island, Susan Jacobsen, MA, LMHC Executive Director
- 26. The Miriam Hospital, Ambulatory TB/Immunology Department, [No name listed], Clinical Manager
- 27. Mount Hope Learning Center, Elizabeth Winnegan
- 28. Mount Hope Neighborhood Association, Ray Watson
- 29. NAACP Providence, Jim Vincent, President
- 30. National Association of Social Workers (NASW) RI Chapter, Rick Harris, President
- 31. Newport County Community Mental Health Center, J. Clement Cicilline
- 32. Overeaters Anonymous, Michelle A.
- 33. Parent Support Network of Rhode Island, Cathy Ciano
- 34. Partnership to Reduce Cancer in RI, Bill Koconis, Secretary
- 35. Progreso Latino, Mario Bueno, Executive Director
- 36. Project Night Vision, Kobi Dennis, Founder
- 37. Providence School Department, Donna O'Connor
- 38. Refugee Clinic at Hasbro Children's Hospital, Dr. Carol Lewis
- 39. Rhode Island Division of Elderly Affairs, Catherine Taylor, Director
- 40. Rhode Island Health Center Association, Jane Hayward, President & CEO
- 41. Rhode Island Parent Information Network, Matthew Cox
- 42. Rhode Island Public Health Association, Amy Signore, MPH, President
- 43. Rhode Island Public Health Institute at Brown University, Patricia A. Nolan, MD, MPH, Executive Director
- 44. Rhode Island Adult Education Professional Development Center, Jill Holloway, Director
- 45. Rhode Island Breast Cancer Coalition, Marlene McCarthy
- 46. Rhode Island Dept of Corrections, Fred Vohr MD, Medical Program Director

- 47. Rhode Island Free Clinic, Marvin Ronning
- 48. Samuels Sinclair Dental Center, Shirley Spater Freedman, DMD, Director
- 49. Socio-Economic Development Center for Southeast Asians, Channavy Chhay, Executive Director
- 50. Taming Asthma, Dr. Peter Karczmar, MD
- 51. TB & Immunology, The RISE Clinic (Miriam's Hospital), E. Jane Carter
- 52. United Way of Rhode Island, Kyle Bennett, Director of Annual Giving
- 53. Visiting Nurses Services of Newport and Bristol Counties, Jean Anderson, CEO
- 54. Women's Center of Rhode Island, Vera Medina-Smith, Residential Supervisor

# **Appendix IV: Lifespan Community Stakeholder Survey**

Lifespan's 2013 Community Health Needs Assessment (CHNA) — Community Stakeholder Survey

#### Introduction

This brief, 13-question needs assessment survey is being circulated to organizations and individuals representing the *broad interests of the community* across Rhode Island.

The goal of the survey is to ensure that the community is a direct part of Lifespan's 2013 Community Health Needs Assessment process.

The information that you share in the survey will be aggregated and analyzed for inclusion in the report. The survey will close on April 26, 2013. Your participation is greatly appreciated.

- 1. Your Name
- 2. Your Title
- 3. Organization Name
- 4. Types of Services Provided
  - Advocacy/Policy
  - Social Services
  - Clinical/Health Services
  - Other

# Defining Your Community: Questions 5-12 Ask for Demographic Information on the People/Communities You Serve

- 5. Dose your organization serve the entire state of Rhode Island?
  - Yes (Skip to Question 8)
  - Yes, we also serve southeast Massachusetts (Skip to Question 8)
  - No, organization works primarily at the county level (Skip to Question 6)
  - No, my organization works primarily at the city/town level (Skip to Question 7)
- 6. Counties
- 1. Not Applicable
- 2. Bristol
- 3. Kent
- 4. Newport
- 5. Providence
- 6. Washington
- 7. Cities/Towns
- 1. Not Applicable
- 2. Barrington
- 3. Bristol
- 4. Burrillville
- 5. Central Falls
- 6. Charlestown
- 7. Coventry
- 8. Cranston
- 9. Cumberland
- 10. East Greenwich
- 11. East Providence
- 12. Exeter
- 13. Foster
- 14. Glocester
- 15. Hopkinton

	16. Jamestown
	17. Johnston
	18. Lincoln
	19. Little Compton
	20. Middletown
	21. Narragansett
	22. New Shoreham
	23. Newport
	24. North Kingstown
	25. North Providence
	26. North Smithfield
	27. Pawtucket
	28. Portsmouth 29. Providence
	30. Richmond
	31. Situate
	32. Smithfield
	33. South Kingstown
	34. Tiverton
	35. Warren
	36. Warwick
	37. West Greenwich
	38. West Warwick
	39. Westerly
•	40. Woonsocket
8.	Do you have a primary focus on an age group?
	No     Vac (If was places around guartier 0)
9.	Yes (If yes please answer question 9)  If you appropriate to Question 9, please complete this question:    Propriate   Pr
9.	If you answered yes to Question 8, please complete this question: <ul><li>Children Under Age 18</li></ul>
	<ul><li>Children Under Age 18</li><li>Adults</li></ul>
	Elderly
	Families
	Other
10	Race/Ethnicity
	Not applicable
	Asian
	Black or African-American
	<ul> <li>Hispanic/Latino</li> </ul>
	Non-Hispanic White
	Native Hawaiian or Pacific Islander
	<ul> <li>Other</li> </ul>
11.	Languages (list all that apply)
	<ul> <li>Not Applicable</li> </ul>
	<ul> <li>African Dialects</li> </ul>
	<ul> <li>Arabic</li> </ul>
	<ul> <li>Burmese</li> </ul>
	<ul> <li>Cape Verdian Creole</li> </ul>
	<ul> <li>Cambodian</li> </ul>
	• English
	<ul> <li>French</li> </ul>
	• Karen
	Mandarin
	Portuguese
	Russian
	• Spanish
	• Other

- 12. Estimated number of people you served in 2012:
  - Not Applicable
  - 0-100
  - 100-500
  - 500-1,000
  - 1,000-10,000
  - 10,000 50,000
  - 50,000+
- 13. What Lifespan Hospital(s) would you say serves most of your members?
  - a. Not Applicable
  - b. Bradley
  - c. Miriam
  - d. Newport
  - e. Rhode Island Hospital
  - f. Hasbro Children's Hospital
- 14. What are the most significant health concerns in the community that you serve (list all that apply)?
  - o Access to Primary Care
  - Access to Mental Health Services
  - o Access to Specialty Care
  - Access to Social Services
  - o Access to Health Insurance
  - o Alcohol Abuse
  - o Affordability of Health Services
  - o Affordability of Prescription Medication
  - o Asthma
  - o Cancer
  - Childhood Overweight/Obesity
  - Drug Abuse
  - o Diabetes
  - Health Literacy (Understanding of one's own health conditions, proper health maintenance behavior, etc.)
  - o Heart Disease
  - o Hypertension
  - Maternal/Infant Health
  - Mental Health
  - o Nutrition
  - o Oral Health
  - Overweight/Obesity
  - o Sexually Transmitted Diseases
  - Smoking Cessation
  - o Stroke
  - Youth Health
- 15. Which of the health concerns that you identified are the three most significant in the communities you serve?
- 16. What are the most significant social concerns in the community that you serve (list all that apply)?
  - Affordable Housing
  - Child Care
  - Domestic Abuse
  - Education
  - Food Security
  - Gang Violence
  - Immigration Status
  - Lack of transportationLanguage Barriers/Limited English Proficiency
  - Literacy
  - Parent Support Services

- Poverty
- Unemployment
- Other
- 17. Which of the social concerns that you identified are the three most significant in the communities you serve?
- 18. Your selection of the issues above is based primarily on (check all that apply):
  - a. Member feedback
  - b. External research data
  - c. Utilization data
  - d. Other
  - e. Not Applicable
- 19. What are the key services or strategies do you think can help address the social and health concerns for the people you serve? (Choose no more than three)
  - Access to Healthy Foods
  - Access to bilingual/translation services
  - Health screenings
  - Health Education
  - Improved Health Literacy
  - Improved Communication with Medical Professionals
  - Increased Job Opportunities
  - Increased Job Training Opportunities
  - Increased Access to Mental health providers
  - Increased Access to Primary Care Providers
  - Increased Access to smoking cessation programs
  - Increased Access to smoking prevention programs
  - Increased Access to substance abuse programs
  - Support groups for chronic diseases/conditions
  - Other \_\_\_\_\_

# Appendix V: Lifespan Resources and Programs for Key Issue Areas

#### **Asthma**

#### **Bradley Hospital and Research Center**

Childhood Asthma Research Program

Project ARC: Asthma Management and Ethnic Disparities at the Adolescent Transition

Adolescent-Parent-Provider Communication in Latinos with Asthma

Asthma and Academic Performance in Urban Children

The Evaluation of "Asthma 102" Program, Stress and Immunity in Pediatric Asthma

Asthma and Academic Performance in Urban Children

The Community Asthma Program (CAP)

Project REACH: Resilience and Asthma in Children Project SAIL: Stress, Asthma, and Immunity Links

#### Hasbro Children's Hospital

The Respiratory and Immunology Center: Allergy and Immunology

Pediatric Pulmonary Pediatric Rheumatology Full-service Laboratories Hospital inpatient care Specialist on 24-hour call

Childhood Asthma Research Program

Community Asthma Programs

Pharmacy/Draw A Breath Program (DAB)

Providence School Asthma Partnership Program

Asthma Camp

Hispanic Asthma Support Group for Parents

Asthma School Lunch Program and the Emergency Room Diversion Program

Community Outreach and Training

#### **Newport Hospital**

Pulmonary Medicine

#### **Rhode Island Hospital**

**Research**: New Treatments for Asthma Attacks Medical Decision Making of Acute Asthma Severity

#### Lifespan's Community Health Services

Family Program Support groups Education Programs

#### Cancer

#### Hasbro Children's Hospital

Division of Pediatric Hematology and Oncology

Evaluation, diagnosis, and treatment

Survivorship care

Pediatric Leukemia/Lymphoma Services

Pediatric Neuro-Oncology Pediatric Solid Tumors

Bleeding Disorders: Hemophilia and Homeostasis Program

Hematology: Hemoglobinopathy Services (Sickle cell) Thalessemias

Fertility Preservation

Comprehensive Health Assessment and Management for Pediatric Cancer Survivors (CHAMP)

#### The Miriam Hospital

The Comprehensive Cancer Center

Brachytherapy

Chemotherapy

Combination Treatment

**IMRT** 

Interventional Radiology

Robotic Prostatectomy

Robotic Radiosurgery

Surgery (Da Vinci Surgical System)

Soft Brachytherapy

Screening and diagnostics

Cancer clinical trials

#### **Newport Hospital**

The Comprehensive Cancer Center (same as above)

ICAN COPE (Cancer) support group

#### **Rhode Island Hospital**

Blue Distinction Center for Complex and Rare Cancers

**Breast Cancer Services** 

Comprehensive Cancer Center (same as above)

Comprehensive Care for Area Patients

**Cancer Clinical Trials** 

Cyberknife

Gamma Knife

Image Guided Tumor Ablation

Radiation Therapy

Radiofrequency Ablation

Radiosurgery

Trilogy Image Guided Radiation Therapy

#### Lifespan's Community Health Services

Support groups

Health Screenings: Breast cancer, Prostate cancer, Skin Cancer

Workshops and seminars: National Cancer Survivors Day, Breast Health Education

#### **Healthy Weight**

#### **Bradley Hospital and Research Center**

**Adolescent Obesity** 

Role of parents in adolescent weight control

Integrated treatment for overweight adolescents with depression

Chronic Disease Management

Development of an Illness Beliefs Questionnaire for Pediatric Illness

Development of the Pediatric IBD

Behavioral Health Registry

#### Hasbro Children's Hospital

Adolescent Weight Management Program

Creating Healthy Attitudes Nutrition Goals and Exercise Strength (CHANGES)

Division of Pediatric Endocrinology and Metabolism

Patient care

Medical education and research

My Diabetes Online Program

Pediatric Diabetes Program for kids and teens with Type I diabetes

#### The Miriam Hospital

Weight Management Program

**Bariatric Surgery** 

Weight Research Programs

Weight Control and Diabetes Research Center

Cognitive Effects of Bariatric Surgery

Sleep Duration and Pediatric Overweight: The Role of Eating Behaviors

Prevention of Postpartum Weight Retention Weight Control and Diabetes Research Center

The Look AHEAD Continuation: Action for Health in Diabetes Gene X Behavioral Interaction in the Look AHEAD program

The Cardiovascular Institute

#### **Newport Hospital**

Community Classes and Programs

Enough is Enough (6-wk weight loss program)

Yoga

A Healthier You

Risk Factor Reduction Program

Employee Health Promotion Programs

Weight management (Weight Watchers, yoga, nutrition)

On-site fitness center

Wellness profile

Healthwise Handbook

**Diabetes Support Group** 

#### **Rhode Island Hospital**

Placebo

Diet/behavior modification

Drug therapy

Gastric Bypass

Gastric adjustment band

Vertical sleeve gastrectomy

Educational programs

Rhode Island Hospital Nutrition Teaching Center

Weight Loss Success Striders

Diabetes and Endocrinology

Pediatric Diabetes program

Diabetes and treatment management

Osteoporosis testing and treatment

Diabetes outpatient education

General clinical services

Comprehensive Diabetes program

Coordinated Care of Diabetes Complications

The Cardiovascular Institute

#### Lifespan's Community Health Services

Support groups

Healthy screenings

Blood pressure

Body fat analysis

Cholesterol

Health risk assessment

Workshop and seminars

Heart health education

Hypertension/stroke awareness

Health education and lecture programs

Emergency cardiovascular care program for kids

**HITECH Heart Program** 

Life support/CPR training

Diabetes education

Women's Wellness

**Diabetes Outpatient Education** 

Healthwise for Life

#### **Mental Health**

#### **Bradley Hospital and Research Center**

Access Center

Crisis Service

**Adolescent Services** 

Inpatient Treatment Services

**Outpatient Services** 

Partial Hospital Program

SafeQuest

AfterSchool with the Arts

Parenting Resources

Effective Discipline

Healthful Leisure

Alcohol and Drug Abuse

Parent and Child Communication

Depression and Suicide

Teens and Parties

Childhood chores and Life's Difficult Changes

Raising Mentally Healthy Babies and Toddlers

**ADHD** 

Divorce over the holidays

Halloween fears

Parenting in a digital age

Illusion of Prom Perfection

Childhood OCD

Child's Military Parent is deploying

Autism and the holidays: Sensory Overload

**Avoiding Homesickness** 

**HIV Prevention** 

Adolescent Relationships

Infant and Toddler Development

Early Childhood Mental Health

Preschool Intervention Programs

Prevention in Headstart

**Primary Care** 

Biological Basis of Psychiatric Disorders

Neuroimaging

Bipolar Disorder

Mood Disorders

Sleep and Chronobiology

Response to Traumatic and Chronic Stress

Autism

Genetics

Child Adolescent Psychological Disorders

Anxiety Disorders and Obsessive Compulsive Disorder

Mood Disorders and their treatment

Substance Abuse

Depression

Suicide

Forensic Issues/Juvenile Justice

Court Clinic: Intervention for Offenders

**Adolescent Criminality** 

Health Services Research

Adolescent Substance Abuse

Pediatric Behavioral Health

Sibling Adaption

Adolescent Obesity

Sleep

Prevention and Early Intervention

#### Hasbro Children's Hospital

Psychiatry Emergency Services

Child and Adolescent Forensic Psychiatry

Pediatric Consultation and Liaison Service

Early Childhood Clinical Research Center

Pediatric Anxiety Research Clinic

SibLink: a program for siblings of children with medical, developmental and behavioral problems

Pediatric Neuropsychology Service

Outpatient Services: Child and Adolescent Psychiatry

#### The Miriam Hospital

Psychiatry Emergency services

Consultation-Liaison

**Correctional Psychiatry** 

Inpatient Services

Mood Disorders

Family Research

Neuropsychiatry

Substance Abuse Treatment

Neuropsychology Services

**Outpatient Services** 

Body Dysmorphic Disorder

Behavioral Medicine

Partial hospitalization

Neuropsychological Evaluation

Integrated Behavioral Medicine Services

Adult Outpatient Behavioral Medicine Services

Geriatric Psychiatry

Nursing Homes psychiatry consultation program

Neuropsychology

Psychiatric consultation

Geriatric outpatient services

Education and research

#### **Newport Hospital**

Adult Partial Hospitalization Program

Consultation Liaison Services

Adult Inpatient Psychiatric Services

**Adult Outpatient Services** 

Alzheimer's Caregiver Support Group

Behavioral Health Support group

Behavioral Medicine

Memory Assessment Program

#### **Rhode Island Hospital**

Inpatient services

Substance abuse

Consultation-Liaison Services

Correctional Psychiatry

Electroconvulsive Therapy

**Emergency Services** 

Family Research

Geriatric Psychiatry

**MIDAS Project** 

Mood Disorders Program

Partial Hospitalization Program

Outpatient Programs

Psychiatric Emergency Services
Recreation Therapy
Gambling Treatment Program
Neuropsychiatric Services
Adult Neuropsychology services
Pediatric Partial hospitalization program

## **Endnotes**

<sup>i</sup> "Providence City: Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.

http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC\_10\_DP\_DPD1

"Rhode Island, Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data,"

American Fact Finder, United States Census Burgan

American Fact Finder, United States Census Bureau.

iii "Providence City: Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data,"
American Fact Finder, United States Census Bureau.

http://factfinder2.census.gov/faces/tableservices/isf/pages/productview.xhtml?pid=DEC\_10\_DP\_DPDP1

"Rhode Island, Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.

<sup>v</sup> "Newport County QuickFacts from the US Census Bureau," U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, State and county Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, May 23, 2013.

vi "Rhode Island, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.
vii "United States, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data,"

vii "United States, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.
viii "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010

"Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data, American Fact Finder, U.S. Census Bureau.

ix "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data, American Fact Finder, U.S. Census Bureau.

\* "Rhode Island, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.

xi "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data, American Fact Finder, U.S. Census Bureau.

xii "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data, American Fact Finder, U.S. Census Bureau.

"Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

xiv "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

\*\* "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

<sup>xvi</sup> "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

xvii "Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau. xviii "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey

\*VIII "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

xix "Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

\*\* "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

xxi "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

"Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

American Fact Finder, U.S. Census Bureau.

xxiii "United States," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

xxiv "Providence, Rhode Island, Economic Summary," July 2, 2013, U.S. Bureau of Labor Statistics. <a href="http://www.bls.gov/ro1/blssummary\_providence.pdf">http://www.bls.gov/ro1/blssummary\_providence.pdf</a>

"Unemployment Rates for States, Monthly Rankings, Seasonally Adjusted, April 2013," Local Area Unemployment Statistics," Bureau of Labor Statistics, United States Department of Labor. <a href="www.bls.gov/web/laus/laumstrk.htm">www.bls.gov/web/laus/laumstrk.htm</a>
"Unemployment Rates for States, Monthly Rankings, Seasonally Adjusted, April 2013," Local Area Unemployment Statistics," Bureau of Labor Statistics, United States Department of Labor. <a href="www.bls.gov/web/laus/laumstrk.htm">www.bls.gov/web/laus/laumstrk.htm</a>

- xxvii "Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas," Office of Management and Budget, p.143. http://www.whitehouse.gov/sites/default/files/omb/bulletins/2013/b13-01.pdf

  xxxiiii "Physical Health: Year of Interview: 2010, County 3: Newport County," 2010 Rhode Island Behavioral Risk Factor
- Surveillance System. From the Behavioral Risk Factor Survey Data Web Query System.

  xxix "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of
- Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.

  xxx Secondary Source: "Opioid Overdose in Rhode Island: Current Facts and Community Based Rapid Assessment
- and Response," Rhode Island Hospital. Primary Source: Substance Abuse and Mental Health Administration (SAMHSA), DAWN (Drug Abuse Warning Network), 2008: Area Profiles of Drug-Related Mortality, DAWN Mortality Publications, 2009;220-21.
- xxxi Secondary Source: "Opioid Overdose in Rhode Island: Current Facts and Community Based Rapid Assessment and Response," Rhode Island Hospital. Primary Source: United States Centers for Disease Control and Prevention (CDC). National Center for Health Statistics Homepage. http://www.cdc.gov/NCHS/. Accessed 1/29/2010. xxxiii Secondary Source: "Opioid Overdose in Rhode Island: Current facts and community based Rapid Assessment
- and Response, Rhode Island Hospital. Primary Source: Office of Applied Studies, SAMSHA, Drug Abuse Warning Network, 2008 (08/2009) update.
- xxxiii Secondary Source: "Opioid Overdose in Rhode Island: Current facts and community based Rapid Assessment and Response, Rhode Island Hospital. Primary Source: Office of Applied Studies, SAMSHA, Drug Abuse Warning Network, 2008 (08/2009) update.
- xxxiv "Revised Delineations of Metropolitan Statistical Areas, Micropolitan Statistical Areas, and Combined Statistical Areas, and Guidance on Uses of the Delineations of These Areas," Office of Management and Budget, p.143. http://www.whitehouse.gov/sites/default/files/omb/bulletins/2013/b13-01.pdf
- "Rhode Island Community Profiles: Providence," Providence Plan. http://profiles.provplan.org/profiles/municipality/providence/population/
- "Providence (city), Rhode Island," State and County Quick Facts, United States Census Bureau. http://quickfacts.census.gov/qfd/states/44/4459000.html
- "Rhode Island, Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.
- xxxviii "Providence City: Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.
- http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC 10 DP DPDP1 
  xxxix "Rhode Island, Profile of General Population and Housing Characteristics, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.
- "Newport County QuickFacts from the US Census Bureau," U.S. Census Bureau: State and County QuickFacts. Data derived from Population Estimates, American Community Survey, Census of Population and Housing, State and
- county Housing Unit Estimates, County Business Patterns, Nonemployer Statistics, May 23, 2013.

  \*\*I "Rhode Island, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data," American Fact Finder, United States Census Bureau.

  \*\*Illia "United States, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data,"
- American Fact Finder, United States Census Bureau.
- "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data, American Fact Finder, U.S. Census Bureau.
- xliv "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010 Demographic Profile Data, American Fact Finder, U.S. Census Bureau.

  \*\*W "Rhode Island, Profile of General Population and Housing Characteristics, 2010, 2010 Demographic Profile Data,"
- American Fact Finder, United States Census Bureau.

  xivi "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010
- Demographic Profile Data, American Fact Finder, U.S. Census Bureau. xivii "Providence city, Rhode Island," Profile of General Population and Housing Characteristics: 2010, 2010
- Demographic Profile Data, American Fact Finder, U.S. Census Bureau. xiviii "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey
- 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

  \*\*Iix "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey
- 5-Year Estimates, American Fact Finder, U.S. Census Bureau.
- <sup>1</sup> "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

  ii "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-
- Year Estimates, American Fact Finder, U.S. Census Bureau.

- <sup>lii</sup> "Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

  iii "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-
- Year Estimates, American Fact Finder, U.S. Census Bureau.

  liv "Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates,
- American Fact Finder, U.S. Census Bureau.

  V "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.
- <sup>1</sup>/<sub>M</sub> "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.
- "Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.

  Niii "United States," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates,
- American Fact Finder, U.S. Census Bureau.

  lix "Rhode Island," Selected Economic Characteristics, 2007-2011 American Community Survey 5-Year Estimates,
- American Fact Finder, U.S. Census Bureau.
- "Providence City," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.
- "Pawtucket," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau. lxii "Cranston," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year
- Estimates, American Fact Finder, U.S. Census Bureau. | Science | S
- Estimates, American Fact Finder, U.S. Census Bureau.
- "Central Falls," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.
- 1xv "East Providence," Selected Social Characteristics in the United States," 2007-2011 American Community Survey 5-Year Estimates, American Fact Finder, U.S. Census Bureau.
- "Providence, Rhode Island, Economic Summary," July 2, 2013, U.S. Bureau of Labor Statistics. http://www.bls.gov/ro1/blssummary\_providence.pdf
- "Unemployment Rates for States, Monthly Rankings, Seasonally Adjusted, April 2013," Local Area Unemployment Statistics," Bureau of Labor Statistics, United States Department of Labor. <a href="https://www.bls.gov/web/laus/laumstrk.htm">www.bls.gov/web/laus/laumstrk.htm</a>
- "Unemployment Rates for States, Monthly Rankings, Seasonally Adjusted, April 2013," Local Area Unemployment Statistics," Bureau of Labor Statistics, United States Department of Labor. www.bls.gov/web/laus/laumstrk.htm
- "How is your general health?" Prevalence and Trends Data, 2011 Behavioral Risk Factor Surveillance System, Office of Surveillance, Epidemiology, and Laboratory Services," Behavioral Risk Factor Surveillance System.
- "Physical Health, Rhode Island," 2010 Rhode Island Behavioral Risk Factor Surveillance System. From the
- Behavioral Risk Factor Survey Data Web Query System.
- lxxii "Physical Health, Providence County," 2010 Rhode Island Behavioral Risk Factor Surveillance System. From the Behavioral Risk Factor Survey Data Web Query System.

  | Stating of the control of
- Special Report pulled by the Rhode Island Department of Health, March 26, 2013. Ixxiv Stats of the State of Rhode Island, Centers for Disease Control and Prevention.
- http://www.cdc.gov/nchs/pressroom/states/RI 2013.pdf
- in the stand Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- <sup>x/i</sup> "Prevalence and Trends Data, Health Care Access/Coverage, 2011, Table: Do you have any kind of health care coverage?" Behavioral Risk Factor Surveillance System, Office of Surveillance, Epidemiology, and Laboratory Services, United States Center for Disease Control and Prevention.
- Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

  | Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

  | Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- coverage?" Behavioral Risk Factor Surveillance System, Office of Surveillance, Epidemiology, and Laboratory Services, United States Center for Disease Control and Prevention. http://apps.nccd.cdc.gov/BRFSS/list.asp?cat=HC&yr=2011&qkey=8021&state=All
- TXXIX "Prevalence and Trends Data, Health Care Access/Coverage, 2011, Table: Do you have any kind of health care coverage?" Behavioral Risk Factor Surveillance System, Office of Surveillance, Epidemiology, and Laboratory

```
Services, United States Center for Disease Control and Prevention.
http://apps.nccd.cdc.gov/BRFSS/list.asp?cat=HC&yr=2011&qkey=8021&state=All
   "Rhode Island Behavioral Risk Factor Surveillance System, 2011; Table 1, Risk Factors by ctycode (brfs11),"
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

| Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

| Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
health care coverage," Office of Surveillance, Epidemiology, and Laboratory Services, Behavioral Risk Factor
Surveillance System, United States Center for Disease Control and Prevention.
http://apps.nccd.cdc.gov/BRFSS/list.asp?cat=HC&yr=2011&qkey=8031&state=All
health care coverage," Office of Surveillance, Epidemiology, and Laboratory Services, Behavioral Risk Factor
Surveillance System, United States Center for Disease Control and Prevention.
health care coverage," Office of Surveillance, Epidemiology, and Laboratory Services, Behavioral Risk Factor
Surveillance System, United States Center for Disease Control and Prevention.
http://apps.nccd.cdc.gov/BRFSS/list.asp?cat=HC&yr=2011&qkey=8031&state=All
"Prevalence and Trends Data, 2011 Health Care Access/Coverage, Adults aged 18-64 who have any kind of
health care coverage," Office of Surveillance, Epidemiology, and Laboratory Services, Behavioral Risk Factor
Surveillance System, United States Center for Disease Control and Prevention.
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
"Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
"Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
"Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
lxxxix "Health Factors - Could not see doctor due to cost," County Health Rankings and Roadmaps, Robert Wood
Johnson Foundation, 2013.
xc "Children's Health Insurance," 2013 Rhode Island KIDS COUNT Factbook /Health.
http://www.rikidscount.org/matriarch/documents/13 Factbook Indicator 18.pdf xci "Children's Health Insurance," 2013 Rhode Island KIDS COUNT Factbook /Health.
http://www.rikidscount.org/matriarch/documents/13_Factbook_Indicator_18.pdf
"Children 18 and below without health insurance (percent), 2010," KIDS COUNT, Data Center, Data Across
States. http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?ind=33
xciii "Children 18 and below without health insurance (percent), 2010," KIDS COUNT, Data Center, Data Across
States. http://datacenter.kidscount.org/data/acrossstates/Rankings.aspx?ind=33
"Hospital Emergency Room Visits per 1,000 Population, 2010," State Health Facts, the Henry J. Kaiser Family
Foundation. http://kff.org/other/state-indicator/emergency-room-visits/
"Hospital Emergency Room Visits per 1,000 Population, 2010," State Health Facts, the Henry J. Kaiser Family
Foundation. http://kff.org/other/state-indicator/emergency-room-visits/
"Hospital Emergency Room Visits per 1,000 Population, 2010," State Health Facts, the Henry J. Kaiser Family
Foundation. http://kff.org/other/state-indicator/emergency-room-visits/
xcvii "Hospital Emergency Room Visits per 1,000 Population, 2010," State Health Facts, the Henry J. Kaiser Family
Foundation. http://kff.org/other/state-indicator/emergency-room-visits/
<sup>xcviii</sup> "Estimating a Reasonable Patient Panel Size for Primary Care Physicians with Team-Based Task Delegation,"
Altschuler, Justin, D. Margolius, T. Bodenheimer, K. Grumbach. September/October 2012, vol 10 no. 5 pgs.396-400,
```

xcix "Health Factors - Primary care physicians," County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, 2013.

Annals of Family Medicine.

- <sup>c</sup> "Health Factors Primary care physicians," County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, 2013.
- ci "Health Factors Primary care physicians," County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, 2013.
- cii "Health Factors Primary care physicians," County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, 2013.

- <sup>ciii</sup> "Health Factors Primary care physicians," County Health Rankings and Roadmaps, Robert Wood Johnson Foundation, 2013.
- civ "Weight classification by Body Mass Index (BMI)," Office of Surveillance, Epidemiology, and Laboratory Services, 2011, Behavioral Risk Factor Surveillance System.
- <sup>cv</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- cvi "Weight classification by Body Mass Index (BMI)," Office of Surveillance, Epidemiology, and Laboratory Services, 2011, Behavioral Risk Factor Surveillance System.
- cvii "Weight classification by Body Mass Index (BMI)," Office of Surveillance, Epidemiology, and Laboratory Services, 2011, Behavioral Risk Factor Surveillance System.
- cviii "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- cix "Weight classification by Body Mass Index (BMI)," Office of Surveillance, Epidemiology, and Laboratory Services, 2011, Behavioral Risk Factor Surveillance System.
- <sup>cx</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- cxi "Weight classification by Body Mass Index (BMI)," Office of Surveillance, Epidemiology, and Laboratory Services, 2011, Behavioral Risk Factor Surveillance System.
- <sup>cxii</sup> "Weight classification by Body Mass Index (BMI)," Office of Surveillance, Epidemiology, and Laboratory Services, 2011, Behavioral Risk Factor Surveillance System.
- <sup>cxiii</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- cxiv "Table 19. Number of deaths, death rates, and age-adjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." *Deaths: Final Data for 2010,* National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\_04.pdf
- cxv "Have you ever been told by a doctor that you have diabetes?" Office of Surveillance, Epidemiology, and Laboratory Services, 2010, Behavioral Risk Factor Surveillance System.
- <sup>cxvi</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- cxvii "Have you ever been told by a doctor that you have diabetes?" Office of Surveillance, Epidemiology, and Laboratory Services, 2010, Behavioral Risk Factor Surveillance System.
- cxviii "Have you ever been told by a doctor that you have diabetes?" Office of Surveillance, Epidemiology, and Laboratory Services, 2010, Behavioral Risk Factor Surveillance System.
- <sup>cxix</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
- <sup>cxx</sup> Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance United States, 2011. MMWR June 8, 2012; Vol. 61; No. 4, p. 150.
- Centers for Disease Control and Prevention. Youth Risk Behavior Surveillance United States, 2011. MMWR June 8, 2012; Vol. 61; No. 4, p. 150.

  Coxxii "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of
- <sup>cxxii</sup> "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.
- coxiii "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.

  coxiv "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of
- <sup>coxiv</sup> "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.
- cxxv "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011. http://www.samhsa.gov/data/NSDUH/2k11State/NSDUHsaeTables2011.pdf
- cxxvi "Deaths: Final Data for 2010, Table 19. Number of deaths, death rates, and age-adjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010," National Vital Statistics Reports, Volume 61, Number 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\_04.pdf

```
cxxvii "2008-2010, Suicide Deaths (per 100,000)," Health Indicators Warehouse, National Center for Health Statistics,
United States Centers for Disease Control and Prevention, http://healthindicators.gov/Indicators/Suicide-deaths-per-
100000 1105/Profile/Data
°CXXVIII "Deaths: Final Data for 2010, Table 19. Number of deaths, death rates, and age-adjusted death rates for major
causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern
Marianas, 2010," National Vital Statistics Reports, Volume 61, Number 4, May 8, 2013.
http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_04.pdf
cxxix "Deaths: Final Data for 2010, Table 19. Number of deaths, death rates, and age-adjusted death rates for major
causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern
Marianas, 2010," National Vital Statistics Reports, Volume 61, Number 4, May 8, 2013.
http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61 04.pdf
cxxx "2010. Non-age adjusted rate, Suicide Deaths (per 100,000)," Health Indicators Warehouse, National Center for
Health Statistics, United States Centers for Disease Control and Prevention.
http://healthindicators.gov/Indicators/Suicide-deaths-per-100000 1105/Profile/Data
cxxxi "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of
Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.

cxxxii "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of
Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.
http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=1
"Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
    "Rhode Island Behavioral Risk Factor Surveillance System, 2011; Table 1, Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
   " "Behavioral Risk Factor Surveillance System, 2011 Codebook Report, Land-Line and Cell-Phone data, July 26,
2012." Centers for Disease Control and Prevention.
<sup>cxxxvii</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
     "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
    "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
  "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

cxli "Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
<sup>cxlii</sup> "Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
"Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
cxliv "Percentage Reporting Not Seeing a Doctor in the Past 12 Months Because of Cost, 2010," State Health Facts,
the Henry J. Kaiser Family Foundation. http://kff.org/other/state-indicator/could-not-see-doctor-because-of-cost/
<sup>cxlv</sup> "Health Factors - Could not see doctor due to cost," County Health Rankings and Roadmaps, Robert Wood
Johnson Foundation, 2013.
<sup>cxlvi</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
cxivii "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."
Special Report pulled by the Rhode Island Department of Health, March 26, 2013.
cxlviii"Primary Care Physicians," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area
Health Resource File," Health Resources and Services Administration, United States Department of Health and
Human Services.
http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-
```

CXIIX."Primary Care Physicians," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File," Health Resources and Services Administration, United States Department of Health and Human Services.

%20v1.xls

http://www.countvhealthrankings.org/sites/default/files/2013%20Countv%20Health%20Rankings%20Data%20-%20v1.xls

<sup>ci</sup>"Primary Care Physicians," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File," Health Resources and Services Administration, United States Department of Health and Human Services.

http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-%20v1.xls

"Estimating a Reasonable Patient Panel Size for Primary Care Physicians with Team-Based Task Delegation," Altschuler, Justin, D. Margolius, T. Bodenheimer, K. Grumbach. September/October 2012, vol 10 no. 5 pgs.396-400, Annals of Family Medicine.

clii "Mental Health Providers," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File." Health Resources and Services Administration. United States Department of Health and Human Services.

http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-

%20v1.xls
Cilii "Mental Health Providers," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File." Health Resources and Services Administration. United States Department of Health and Human Services.

http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-

%20v1.xls
Coliv "Mental Health Providers," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area

\*\*Convices Administration. United States Department of Health and Human Services.

http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-

%20v1.xls

©V "Mental Health Providers," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File," Health Resources and Services Administration, United States Department of Health and Human Services.

http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-

%20v1.xls
COVI "Dentists," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File," Health Resources and Services Administration, United States Department of Health and Human Services. http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-%20v1.xls

"Dentists," 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File." Health Resources and Services Administration. United States Department of Health and Human Services. http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-%20v1.xls

"Dentists." 2013 County Health Rankings," Robert Wood Johnson Foundation. "2011-2012 Area Health Resource File," Health Resources and Services Administration, United States Department of Health and Human Services. http://www.countyhealthrankings.org/sites/default/files/2013%20County%20Health%20Rankings%20Data%20-

%20v1.xls
clix Status of the State of Rhode Island, Centers for Disease Control and Prevention. http://www.cdc.gov/nchs/pressroom/states/RI 2013.pdf

clx "All Races (includes Hispanic), Both Sexes, All Cancer Sites, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009.

clxi "All Races (includes Hispanic), Both Sexes, All Cancer Sites, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxii "Incidence Rate Report for Rhode Island by County, All Races (includes Hispanic), Both Sexes, All Cancer Sites, All Ages Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

cixiii "Death Rate Report for Rhode Island by County, death years through 2009: All Cancer Sites," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxiv "Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Sites with the Highest Rates within Race- and Ethnic-Specific Categories (Table 4.46.MF1)." National Program of Cancer Registries, United States Cancer

Statistics. 2009. clxv "Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Sites with the Highest Rates within Race- and Ethnic-Specific Categories (Table 4.46.MF1)." National Program of Cancer Registries, United States Cancer Statistics, 2009.

clxvii "Age-Adjusted Invasive Cancer Incidence Rates for the 10 Primary Sites with the Highest Rates within Race- and Ethnic-Specific Categories (Table 4.46.MF1): 2009 Top 10 Cancers," United States Cancer Statistics (USCS), National Program of Cancer Registries (NPCR), United States Centers for Disease Control and Prevention. clxvii "Incidence Rate Report by State, All Races (includes Hispanic), Female, Breast, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009. clxviii "Incidence Report for Rhode Island by County, All Races (includes Hispanic), Female, Breast, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

Civix Incidence Rate Report for Rhode Island by County Black (includes Hispanic), Female, Breast, All Ages Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009.

Incidence Rate Report for Rhode Island by County Black (includes Hispanic), Female, Breast, All Ages Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

Clixid Incidence Rate Report for Rhode Island by County Hispanic (any race), Female, Breast, All Ages Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009. Clixid "Incidence Rate Report by State, All Races (includes Hispanic), Male, Prostate, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009. Clixid "Incidence Rate Report for Rhode Island by County, All Races (includes Hispanic), Male, Prostate, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxxiv "Incidence Rate Report by State, **Black (includes Hispanic)**, Male, Prostate, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009. clxxv "Incidence Rate Report for Rhode Island by County, All Races (includes Hispanic), Male, Prostate, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

cixxvi "Incidence Rate Report for Rhode Island by County, All Races (includes Hispanic), Male, Prostate, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009

cixxvii Incidence Rate Report by State, All Races (includes Hispanic), Both Sexes, Lung & Bronchus, All Ages, Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009.

clxxviii "Incidence Rate Report for Rhode Island by County, All Races (includes Hispanic), Both Sexes, Lung & Bronchus, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxxix "Incidence Rate Report by State, **Black (includes Hispanic), Male, Lung & Bronchus,** All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxxx "Incidence Rate Report by State, **Black (includes Hispanic)**, **Male, Lung & Bronchus**, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxxxii "Incidence Rate Report by State, Hispanic (any race), Male, Lung & Bronchus, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009. clxxxii "Incidence Rate Report by State, All Races (includes Hispanic), Both Sexes, colon & Rectum, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

cixxxiii "Incidence Rate Report for Rhode Island by County, All Races (includes Hispanic), Both Sexes, Colon & Rectum, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

cixxxiv "Death Rate Report by State, death years through 2009, All Cancer Sites Healthy People 2020 Objective Number: C-1 Reduce the overall cancer death rate All Races (includes Hispanic), Both Sexes, All Ages Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

clxxxv "Age-Adjusted Cancer Death Rates for the 10 Primary Sites with the Highest Rates within Race- and Ethnic-Specific Categories (Table 4.46.MF2)" National Program of Cancer Registries, United States Cancer Statistics. 2009.

clxxxvi "Age-Adjusted Cancer Death Rates for the 10 Primary Sites with the Highest Rates within Race- and

Ethnic-Specific Categories (Table 4.46.MF2\*, 2009, Rhode Island," United States Cancer Statistics, National Program of Cancer Registries (NPCR), Centers of Disease Control and Prevention.

Clooxvii "Death Rate Report for Rhode Island by County, death years through 2009, Lung & Bronchus, Healthy People

cixxxvii "Death Rate Report for Rhode Island by County, death years through 2009, Lung & Bronchus, Healthy People 2020 Objective Number: C-2, Reduce the lung cancer death rate, All Races (includes Hispanic), Both Sexes, All Ages, Sorted by Rate. State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

and Prevention. 2009.

clxxxviii "Death Rate Report for Rhode Island by County, death years through 2009, Lung & Bronchus, Healthy People 2020 Objective Number: C-2, Reduce the lung cancer death rate, All Races (includes Hispanic), Both Sexes, All Ages, Sorted by Rate. State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

and Prevention. 2009. clxxxix "Death Rate Report for Rhode Island by County, death years through 2009, Lung & Bronchus, Healthy People 2020 Objective Number: C-2, Reduce the lung cancer death rate, All Races (includes Hispanic), Both Sexes, All Ages, Sorted by Rate. State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

<sup>cxc</sup> "Death Rate Report for Rhode Island by County, death years through 2009, Lung & Bronchus, Healthy People 2020 Objective Number: C-2 Reduce the lung cancer death rate, Hispanic (any race)<sup>3</sup>, Both Sexes, All Ages Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009.

<sup>cxci</sup> "Death Rate Report for Rhode Island by County, death years through 2009, Prostate, Healthy People 2020 Objective Number: C-7, Reduce the prostate cancer death rate, All Races (includes Hispanic), Male, All Ages, Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009.

<sup>cxcii</sup> "Death Rate Report for Rhode Island by County, death years through 2009, Prostate, Healthy People 2020 Objective Number: C-7, Reduce the prostate cancer death rate, Black (includes Hispanic), Male, All Ages, Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

Country, death years through 2009, Breast, Healthy People 2020 Objective Number: C-3, Reduce the female breast cancer death rate, All Races (includes Hispanic), Female, All Ages, Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

<sup>cxciv</sup> "Death Rate Report for Rhode Island by County, death years through 2009, Breast, Healthy People 2020 Objective Number: C-3, Reduce the female breast cancer death rate, All Races (includes Hispanic), Female, All Ages, Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

<sup>cxcv</sup> "Death Rate Report for Rhode Island by County, death years through 2009, Breast, Healthy People 2020 Objective Number: C-3, Reduce the female breast cancer death rate, Black (includes Hispanic), Female, All Ages, Sorted by Rate." State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

"Death Rate Report for Rhode Island by County, death years through 2010, Colon & Rectum, Healthy People 2020 Objective Number: C-5, Reduce the colorectal cancer death rate, All Races (includes Hispanic), Both Sexes, All Ages," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention, 2009.

cxcviii "Death Rate Report for Rhode Island by County, death years through 2009, Colon & Rectum, Healthy People 2020 Objective Number: C-5, Reduce the colorectal cancer death rate, Black (includes Hispanic), Both Sexes, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

CXCVIII "Death Rate Report for Rhode Island by County, death years through 2009, Colon & Rectum, Healthy People

"Death Rate Report for Rhode Island by County, death years through 2009, Colon & Rectum, Healthy People 2020 Objective Number: C-5, Reduce the colorectal cancer death rate, Black (includes Hispanic), Both Sexes, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

CXCIX "Death Rate Report for Rhode Island by County, death years, through 2009, Colon & Rectum, Healthy People

"Death Rate Report for Rhode Island by County, death years, through 2009, Colon & Rectum, Healthy People 2020 Objective Number: C-5, Reduce the colorectal cancer death rate, Hispanic (any race), Both Sexes, All Ages, Sorted by Rate," State Cancer Profiles, National Cancer Institute and United States Centers for Disease Control and Prevention. 2009.

<sup>cc</sup> "Latest Data," Nutrition, Physical Activity, and Obesity. Healthy People 2020, U.S. Department of Health and Human Services. <a href="http://healthypeople.gov/2020/lhi/nutrition.aspx?tab=data">http://healthypeople.gov/2020/lhi/nutrition.aspx?tab=data</a>

```
<sup>cci</sup> "Latest Data," Nutrition, Physical Activity, and Obesity. Healthy People 2020, U.S. Department of Health and
Human Services. <a href="http://healthypeople.gov/2020/lhi/nutrition.aspx?tab=data">http://healthypeople.gov/2020/lhi/nutrition.aspx?tab=data</a>
```

<sup>ccii</sup> "Prevalence of Obesity in the United States, 2009-2010," NCHS Data Brief, Number 82, January 2012, National Center for Health Statistics, United States Centers for Disease Control and Prevention, United States Department of Health and Human Services.

cciii "AMA declares obesity as a disease," Los Angeles Times, June 18, 2013.

http://articles.latimes.com/2013/jun/18/science/la-sci-obesity-disease-20130619 cciv "AMA declares obesity as a disease," *Los Angeles Times*, June 18, 2013.

http://articles.latimes.com/2013/jun/18/science/la-sci-obesity-disease-20130619

CCV "Weight classification by Body Mass Index (BMI)," 2011 Prevalence and Trends Data, Behavioral Risk Factor Surveillance System. United States Center for Disease Control and Prevention.

"Weight classification by Body Mass Index (BMI)," 2011 Prevalence and Trends Data, Behavioral Risk Factor Surveillance System, United States Center for Disease Control and Prevention.

ccvii "Weight classification by Body Mass Index (BMI)," 2011 Prevalence and Trends Data, Behavioral Risk Factor Surveillance System, United States Center for Disease Control and Prevention.

ccviii ccviii "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013. CCIX CCIX "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)."

Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

"Weight classification by Body Mass Index (BMI)," 2011 Prevalence and Trends Data, Behavioral Risk Factor Surveillance System, United States Center for Disease Control and Prevention.

"Weight classification by Body Mass Index (BMI)," 2011 Prevalence and Trends Data, Behavioral Risk Factor Surveillance System, United States Center for Disease Control and Prevention.

<sup>xii</sup> "Weight classification by Body Mass Index (BMI)," 2011 Prevalence and Trends Data, Behavioral Risk Factor Surveillance System, United States Center for Disease Control and Prevention.

ccxiii "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

Status of the State of Rhode Island, Centers for Disease Control and Prevention.

http://www.cdc.gov/nchs/pressroom/states/RI 2013.pdf

<sup>ccxv</sup> "Table 19. Number of deaths, death rates, and age-adjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010, National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61 04.pdf

ccxvi "Table 19. Number of deaths, death rates, and age-adjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010. National Vital Statistics Report. Vol. 61. No. 4. May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61 04.pdf

ccxvii "Table 19. Number of deaths, death rates, and age-adjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010, National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\_04.pdf

"Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013. CCXIX "Table 19. Number of deaths, death rates, and age-adjusted death rates for major causes of death: United

States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010, National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. 

each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010, National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\_04.pdf 
CCXXI "Diabetes: Have you ever been told by a doctor that you have diabetes?," Prevalence and Trends Data, 2010

Behavioral Risk Factor Surveillance System, United States Centers for Disease Control and Prevention, United States Department of Health and Human Services.

<sup>ccxxii</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

<sup>ccxxiii</sup> "Rhode Island Behavioral Risk Factor Surveillance System, 2011: Table 1. Risk Factors by ctycode (brfs11)." Special Report pulled by the Rhode Island Department of Health, March 26, 2013.

"Childhood Obesity," 2013 Rhode Island KIDS COUNT Factbook, p.78; Source: Rhode Island Department of Health, Center for Health Data and Analysis, Immunization Program School Years 2001-202 through 2011-2012. http://www.rikidscount.org/matriarch/documents/13 Factbook Indicator 31.pdf

Centers for Disease Control and Prevention. "Youth Risk Behavior Surveillance - United States, 2011." MMWR June 8, 2012; Vol. 61; No. 4. Centers for Disease Control and Prevention. "Youth Risk Behavior Surveillance – United States, 2011." MMWR

June 8, 2012; Vol. 61; No. 4.

<sup>ccxxvii</sup> "How Many Americans Experienced Mental Illness in the Past Year?," SAMHSA News, November/December 2010, Volume 18, Number 6.

http://www.samhsa.gov/samhsanewsletter/Volume 18 Number 6/MentalHealthReport.aspx 

ccxxviii "Intentional self-harm, (suicide) (\*U03,X60-X84,Y87.0), from Table 19. Number of deaths, death rates, and ageadjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010. National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61 04.pdf

ccxxix "Intentional self-harm, (suicide) (\*U03,X60-X84,Y87.0), from Table 19. Number of deaths, death rates, and ageadjusted death rates for major causes of death: United States, each state, Puerto Rico, Virgin Islands, Guam, American Samoa, and Northern Marianas, 2010." Deaths: Final Data for 2010, National Vital Statistics Report, Vol. 61, No. 4, May 8, 2013. http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\_04.pdf

ccxxx "Middle-aged suicide rate spikes in RI," Associated Press, May 6, 2013.

http://www.boston.com/news/local/rhode-island/2013/05/06/middle-aged-suicide-rate-

spikes/MMdedygmKND5twzhDEffFN/story.html
ccxxxi "2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011. CCXXXXII Secondary Source: "Opioid Overdose in Rhode Island: Current Facts and Community Based Rapid Assessment

and Response," Rhode Island Hospital. Primary Source: Substance Abuse and Mental Health Administration (SAMHSA). DAWN (Drug Abuse Warning Network), 2008: Area Profiles of Drug-Related Mortality. DAWN Mortality Publications, 2009;220-21.

CCXXXIIII Secondary Source: "Opioid Overdose in Rhode Island: Current Facts and Community Based Rapid Assessment and Response," Rhode Island Hospital. Primary Source: Substance Abuse and Mental Health Administration (SAMHSA), DAWN (Drug Abuse Warning Network), 2008; Area Profiles of Drug-Related Mortality, DAWN Mortality Publications, 2009;220-21.

ccxxxiv Secondary Source: "Opioid Overdose in Rhode Island: Current Facts and Community Based Rapid Assessment and Response," Rhode Island Hospital. Primary Source: SAMHSA, Office of Applied Studies. 2007 State Estimates of Substance Use and Mental Health.

ccxxxv Secondary Source: "Opioid Overdose in Rhode Island: Current Facts and Community Based Rapid Assessment and Response," Rhode Island Hospital. Primary Source: United States Centers for Disease Control and Prevention (CDC). National Center for Health Statistics Homepage. http://www.cdc.gov/NCHS/. Accessed 1/29/2010. ccxxxxvi Secondary Source: "Opioid Overdose in Rhode Island: Current facts and community based Rapid Assessment

and Response, Rhode Island Hospital. Primary Source: Office of Applied Studies, SAMSHA, Drug Abuse Warning Network, 2008 (08/2009) update.

<sup>xvii</sup> Centers for Disease Control and Prevention. "Youth Risk Behavior Surveillance – United States, 2011." MMWR June 8, 2012; Vol. 61; No. 4, pages 95-96.

2010, Volume 18, Number 6.

http://www.samhsa.gov/samhsanewsletter/Volume 18 Number 6/MentalHealthReport.aspx

"2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)," Substance Abuse and Mental Health Services Administration (SAMHSA), 2010-2011.