



RHODE ISLAND STATE HEALTHCARE INNOVATION PLAN

Better Health, Better Care, Lower Cost

ACKNOWLEDGMENTS

The creation of this plan required a significant commitment by hundreds of Rhode Islanders. From the many stakeholders that committed to bi-weekly meetings throughout the summer, to the dedicated staff of many Rhode Island departments and agencies, this plan is the work of many.

Thanks go to:

- The Brown University Center for Continuing Education, which provided reliable hospitality for meetings throughout the summer that included parking – a scarce resource in Providence.
- The Rhode Island Quality Institute which hosted many meetings, including the 7:30am workgroups, over the summer.
- The Advisory Board Company, whose expertise, guidance and project management made this process engaging, insightful, and smooth.

Healthy Rhode Island was a joint project of the Office of the Governor, the Office of the Lt. Governor, the Executive Office of Health and Human Services, the Office of the Health Insurance Commissioner, the Department of Health and HealthSourceRI. Each agency provided staff resources to the project that made the project a success and a true collaboration.

Healthy Rhode Island was led by Lt. Governor Elizabeth Roberts, and managed by Daniel Meuse, Project Director. Healthy Rhode Island was funded through an agreement with the Center for Medicare and Medicaid Innovation

TABLE OF CONTENTS

A.	Introduction	4
B.	Vision Statement	6
C.	Rhode Island and Its Current Health Care System	10
D.	The Basis for Changing Rhode Island's Health Care System	50
E.	Rhode Island's Health Care Goals	55
F.	Rhode Island's Value-Based Care Paradigm	57
G.	Innovations To Achieve The Value-Based Care Paradigm	61
H.	Implementation of Rhode Island's Health Care Innovations	88
I.	Driver Diagrams / Logic Model	94
J.	Evaluation Plan	109
K.	State Health Care Innovation Plan Financial Analysis	111
L.	Design Process Report	122
M.	Glossary	132
N.	References	135

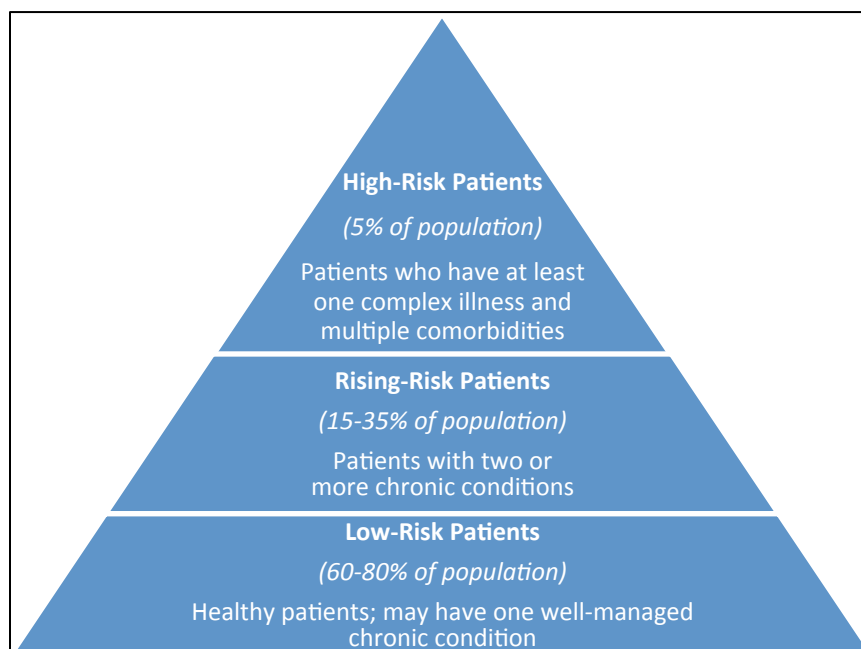
A. INTRODUCTION

The Rhode Island State Health Care Innovation Plan is a guide map with the objective to fundamentally change Rhode Island's health care system from one based on episodic care of illness and injury and supported by a volume-driven business model, to a system based on population health and supported by a business model rooted in value. This plan is designed to set the guideposts, to identify those steps that Rhode Island could take to maximize the opportunity for change in today's health care system. Each of the steps identified in the plan will require intense and detailed implementation planning. As such, this plan provides strategies for transforming the state's health care system, the context for those strategies and suggested tactics to bring the strategies to fruition. This plan should not be seen as the implementation blueprint, but rather a holistic model with the need for further debate and discussion on program details.

This plan was developed and created through a project funded by the Centers for Medicare and Medicaid Services, under the State Innovation Model program. Known as Healthy Rhode Island, the project focused on the development of the State Health Care Innovation Plan through extensive stakeholder engagement. With over 150 regular participants through a sixteen-week course of public convenings, and a three-week public comment period for this document itself, nearly every aspect represented in this plan has been discussed at some level. The focused effort on public feedback and dialogues has resulted in a plan that accurately reflects the trajectory of Rhode Island's health care system and actionable, realistic proposals to accelerate changes that support the "triple aim" of better health, better care and lower costs.

Balancing the goal of transforming the system of care in a way that supports the health of the population and lowers costs can be a challenging prospect, especially when faced with conflicting time horizons for such an activity. To create an effective balance, Rhode Island considers its population to consist of three distinct segments, as seen in Figure 1.

Figure 1.



Each of the three segments of the population has a different need and different strategies to reach the triple aim goals. Prevention and health promotion activities supported by community policies that support wellness, present the best opportunity to save money in the health care system and improve the health of the community. (Chang, Bultman, Drayton, Knight, Rattay, & Barrett, 2007) A singular focus on prevention and health promotion is an ideal strategy to improve the system for the low-risk patients, but has little effect on the high-risk and rising-risk groups and has a much longer time horizon for lowering costs. Likewise, intensive care management services are an ideal way to address the needs of the high-risk group and have proven to significantly reduce costs for this population. Investment in these types of care management programs, however, is targeted at a small group of individuals with little impact on the whole population's health.

This plan represents a blend of strategies to effectively address all populations, and in doing so, impact a preponderance of care across the state. There is no correct titration of investment across all of the population segments. Rhode Island's model will continually examine how well investments meet their intended goals and adjust as needed.

The plan will go into great detail on the need for change, the current environment, and opportunities to improve the health of Rhode Islanders. The plan is extensive, and for the sake of clarity and simplicity, there are some general terms that are used.

- **Provider / Provider Organization** – The plan references providers and provider organization frequently. Throughout the plan, the term providers and provider organizations are meant as broadly as possible. "Providers" includes, but is not limited to, physicians of all practice types and specialties, nurses of all practice levels, hospitals, long term care facilities, long term care service providers in the home and community, dentists and other oral health professionals, the clinical staff of physician practices and health care facilities, behavioral health facilities and professionals, and substance abuse treatment and recovery professionals. The term "provider organization" refers to formalized collaborations of these providers.
- **Lifelong System of Care** – The plan discusses a vision of a system of care, described as lifelong, that focuses on the person. This system of care is inclusive of pre-natal care, end of life care, and all lifestages in between. The system of care explicitly includes maternity care, pediatrics, school-based student health, adult primary care, family care, specialty care, behavioral health care, substance abuse treatment and recovery programs, oral health care, acute and emergent care, post-acute care, facility-based and home and community based long term care and hospice care.

Additionally, this plan is intended to encompass all payers in the Rhode Island health care system. While different payers, especially CMS-supported populations have distinct care needs, the envisioned system of care will be for all Rhode Islanders.

B. VISION STATEMENT

Healthy Rhode Island aims to achieve measurable improvement in health and productivity of all Rhode Islanders, and achieve better care while decreasing the overall cost of care.

We plan to transition from a disparate and health care provider and payer-centric environment to an organized delivery and payment system that is outcomes-oriented and person-centric.

-Purpose Statement of Healthy RI, the SIM Model Design Process

The World Health Organization's definition of health states, "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity." It would follow that a major sector in the state of Rhode Island referred to as "the health care system" would be primarily organized to ensure health for Rhode Islanders. However, few, if any, would agree that what is referred to as the "health care system" would meet that mission. The current system lacks coordination among health care providers, rewards providers with little to no regard to the quality of the care provided and struggles to meet the needs of all patients in terms of access to care.

Given the current environment of change in health care, the window of opportunity to change the health care system is open wider than it has been in a generation. The implementation of federal reforms, coupled with market changes, the aging of the population and breakdown of the old business model create an impetus for change, supported by an influx of persons into insurance coverage. It is in this period primed for change and innovation that Rhode Island seeks to take advantage of the opportunity and shape its health care system for the future. That health care system would have four main objectives: lifelong support of health and wellness, a focus on population health, coordinated models of care and payment transformation.

Rhode Island seeks to ensure a sustainable system of supports and services to attain and promote health, as defined above, for all of its residents. In doing so, Rhode Island recognizes that those residents will partner with payers and providers in the current health care system, as well as health related community-based organizations, to attain the vision of a new system of care.

The new sustainable system will support the health of Rhode Islanders, improve their experience and maintain a lower cost burden for them, government, employers and payers across the state. This will achieve the goals of the "Triple Aim," originally articulated by Donald Berwick, former Administrator of the Centers for Medicare and Medicaid Services (CMS). The "Triple Aim" is the achievement of better health and better care at lower cost. (Institute for Healthcare Improvement, 2013) Achieving these goals demands a transition to a value-based care paradigm for providers reaching at least 80% of the Rhode Island population within five years.

Lifelong support of health and wellness is conceptualized as pre-natal to grave. That is, the system of care is structured to provide Rhode Islanders with effective and appropriate care and support at all life stages – from effective, accessible and supportive pre-natal care to patient and family-centered support in the last moments of life. This objective requires a significant change in the orientation and focus of the health care system, supported by changes in the way in which providers are paid. The long term view of this change is that health promotion is fundamental to changing the trajectory of the health of the population and reducing the burden that disease and the medical care system has on our economy. (McGinnis, Williams-Russo, & Knickman, 2002)

The health care system has developed into a series of individual interactions between patient and health care provider. Not only has this evolution created an environment that struggles to coordinate the care of an individual when multiple providers are engaged in that individual's care, it also severs the relationship between the health care system and the community or population that it serves. Creating a focus on the overall health indicators of a population is a significant change for health providers. In fact, this year, Rhode Island hospitals undertook an effort to understand the health of Rhode Islanders and attempt to align their activities in the coming years with those health needs.

Accordingly, the state and its partners will focus on improving population health through organized care delivery systems that focus on patient activation and care coordination across the health care continuum with attention to high quality at a lower cost. Inherent in this effort is strengthening the link between care delivery systems, the community, its policies and priorities, and the organizations that fulfill those priorities.

In order to achieve this holistic framework, the state believes it is necessary to encourage and support the organization of payers, physicians, hospitals and other health care providers into coordinated care teams using payment models supported by Centers for Medicare and Medicaid Services. These payment models may include pay-for-performance, bundled payments, shared savings [inclusive of Accountable Care Organizations (ACOs) and ACO-like structures] and other forms of shared financial responsibility. The payment structure supports the transition from fee-for-service to a value-based model of reimbursement intended to encourage a collaborative approach to provide efficient, high quality and coordinated care to an attributed population of patients. As providers improve the health of their attributed population based on specified quality metrics and cost reductions, they may be eligible to receive financial rewards or share in the savings with contracted payers.

The successful transition and implementation of these payment models will be contingent on the provision of necessary tools to the provider at the point of service including, but not limited to, technology, data and analytics, and collaborative team members. The magnitude of change that will occur through a coordinated care model will require providers and payers to work together in new ways, deploying new tools and processes. Providers will need assistance to succeed the transition to this new collaborative environment.

The new system must be built to support a sustainable economic model for consumers (including patients, employers, insurers and taxpayers) and for providers. For that reason, efforts must be

undertaken to address those areas of the system where a lack of coordination leads to unnecessary cost growth and, often, a poorer quality of care. These changes include improving care transitions and engaging the patients that utilize the highest level of health resources. At the same time, investments in Rhode Island's future health must be made and preserved. Efforts to prevent disease or other conditions that detract from health should be considered part of the health system, despite their historical separation. These efforts include both traditional public health activities carried out by government as well as non-governmental organizations, and activities focused on building and maintaining health in communities.

The state sees the envisioned changes to the health system supported by six pillars – fundamental characteristics of the new value-based system. These pillars of the system are:

- Multi-payer – The new system of care must be adopted by a preponderance of payers in the state to ensure broad adoption of the new models.
- Payment Transformation – Systemic changes to how providers and provider organizations are paid are inherent in a move from fee-for-service to value-based payments methods.
- Patient/Consumer Centric – The new system must be realigned to support and engage patients and consumers as they maintain and improve health, and address injury and illness.
- Transparency – The system must provide insight into provider quality and cost and how their performance compares to their peers.
- Accountability – As the system moves away from fee-for-service, providers will become more accountable for the total cost of care, patient *and* population health outcomes. Additionally, the new system must be built upon the philosophy that patients, consumers, payers, and policy makers are all accountable for maintaining and improving the health of individuals across the state.
- Community Assets – Integrating the resources and assets that have a great impact on the health of Rhode Islanders, but were not historically considered part of the “health care system” will be a critical success factor in the new system.

Rhode Island's State Health Care Innovation Plan will identify where the current health care system supports or conflicts with these pillars and how proposed innovations build or bolster the pillars.

C. RHODE ISLAND AND ITS CURRENT HEALTH CARE SYSTEM

Rhode Island Demographics

Rhode Island, the nation's smallest state, has a population of approximately 1,050,292 (United States Census Bureau, 2013). The result of a population of such magnitude residing in a small geographic location is that the state is the second most densely populated with a density of approximately 1,005 people per square mile (WorldAtlas.Com, 2009). As of 2012, approximately 90.7% of Rhode Islanders could be considered to live in an urban area, compared to 80.7% nationally (State Health Access Data Assistance Center, 2012).

Approximately 76% of the state's residents are classified as white, non-Hispanic. The African-American population is 7.3% and the Hispanic population is 13.2% (United States Census Bureau, 2013). The Hispanic population has been growing at a very fast rate, increasing by almost 44% between the years 2000 and 2010 (Parker, 2013). Notably, there are health disparities between these groups.

Rhode Island has stood out in the past few years due to its unemployment rate; as of December, 2013, RI has the second highest unemployment rate in the nation and has been in the top five for at least four years. Rhode Island mirrors the national figures when it comes to poverty levels. For example, 22.9% of Rhode Islanders live below 138% of the poverty line, compared to 23.4% nationally (State Health Access Data Assistance Center, 2012).

The other demographic trend relevant to assessing population health is the percent of persons over the age of 65; standing at 14.4%, this proportion is higher than the national average of 13.1% (United States Census Bureau, 2013). Furthermore, according to the U.S Census figures in 2010, Rhode Island's percentage of seniors aged 85 or older is the highest in the nation at 17.61%. The Rhode Island Department of Administration's Division of Planning projected that 25% of the state's population will be 65 or older by 2040, and a significant portion of that will be over 85 (United States Census Bureau, 2013).

According to America's Health Rankings, there are disparities among different populations within the state. For example, a sedentary lifestyle is more prevalent among non-Hispanic blacks at 35.2 percent, than non-Hispanic whites at 23.3 percent. Obesity is more prevalent among non-Hispanic blacks at 35.7 percent than non-Hispanic whites at 24.7 percent and smoking is also more prevalent among non-Hispanic blacks at 15.4% than all Hispanics at 11.6% (United Health Foundation, 2013). According the Centers for Disease Control and Prevention, the national smoking rate for Hispanics is 12.9% (Centers for Disease Control and Prevention, 2013)

The Health of Rhode Island's Population and the Burden of Disease

Chronic Disease

Heart disease, stroke, diabetes, and arthritis are among the most common, costly, and preventable of all illnesses both in Rhode Island and nationally.^{1,2,3} The tolls that these chronic disease take on our state are staggering.

- An estimated 7.4% (62,000) of Rhode Island adults have been diagnosed with diabetes. People with diabetes have medical expenditures 2.4 times higher than they would if they did not have diabetes. In Rhode Island, direct health care costs for adults with diabetes amount to an estimated \$722 million annually.
- As of 2010, the annual mortality rate due to stroke in Rhode Island was 34 deaths per 100,000 population. Approximately a third of Rhode Island adults have been diagnosed with high blood pressure, a major cause of stroke.
- In Rhode Island, 29% adults have arthritis. Of these adults, 41% have activity limitation due to their arthritis.

As disconcerting as these figures are, these chronic diseases are largely preventable. Four modifiable risk factors—smoking, high blood pressure, overweight/obesity, and the lack of physical activity—are responsible for much of the illness and premature death related to these chronic diseases.⁴ The higher prevalence of these risk factors among Rhode Island’s Hispanic and non-Hispanic black populations and those of lower socioeconomic status explains a significant proportion of disparities in life expectancy in Rhode Island. This same pattern is consistently observed in other states.⁵

These four modifiable risk factors also serve as indicators of possible unmet community health needs. Access to high-quality and affordable preventative health care may greatly reduce a person’s risk for developing chronic disease. Equally important is living in a neighborhood that is safe to walk in for individual and group exercise and where there is access to a high quality and affordable selection of fruits and vegetables and low fat foods.⁶

Table 1. Potentially Preventable Chronic Diseases and Associated Risk Factors in Rhode Island

Prevalence of Diagnosed Chronic Diseases Among Adults¹

Heart Attack (ever told)	4.4%
Angina or Coronary Heart Disease (ever told)	4.2%
Stroke (ever told)	2.4%
Diabetes (ever told)	8.4%
(Excludes pregnancy-related diabetes)	
Asthma – Lifetime (ever told)	16.3%
Asthma – Current (ever told)	11.9%
Arthritis (ever told) ²	26.7%

Prevalence of Four Major Modifiable Risk Factors – Adults¹

Overweight/obese ³	62.5%
Hypertension (ever told)	32.9%
Current smoking	20.0%
No physical activity/exercise past 30 days ⁴	26.2%

Hospital Discharges⁵

Age-adjusted hospitalization rate per **10,000** Rhode Islanders ages 18+

§ Cardiovascular disease	1179.0
• Heart Disease	814.2
§ Stroke	185.0
§ Diabetes	90.1
§ Osteoarthritis	147.0

Mor

Age-adjusted mortality rate per 10,000 Rhode Islanders ages 18+

Cardiovascular disease	202.2
Heart Disease	165.6
Stroke	27.4
Diabetes	13.5
Arthritis	*

¹ 2011 Rhode Island Behavioral Risk Factor Surveillance System weighted data.

² Persons told by a doctor that they have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.

³ In 2011, 37.1% of adults were overweight and 25.4% were obese.

⁴ Adults that reported doing no physical activity or exercise during the past 30 days, excluding their regular job.

⁵ 2005-2009 Rhode Island Hospital Discharge Data 5-year aggregated file for the principal (1st) diagnosis.

⁶ 2005-2009 Rhode Island Vital Record Death Certificate Data 5-year aggregated file for the underlying cause of death. * Too few deaths to report an age-adjusted rate.

Clustering of Risk Factors

Although each of the four major modifiable risk factors cited above (smoking, high blood pressure, overweight/obesity, physical inactivity) alone could devastate the health of an individual, they often do not affect people in isolated manners. They tend to cluster and act synergistically to increase the risk of developing one or more chronic conditions.^{7,8,9,10} The clustering of these health behaviors or risk factors determines not only the occurrence and severity of a chronic disease, but also has important implications for health promotion.¹¹

- Overweight and obesity increase risks of heart disease, stroke, type 2-diabetes, and osteoarthritis.
- Smoking, physical inactivity and high blood pressure (hypertension) increase the risks of heart disease, stroke, type 2 diabetes, and rheumatoid arthritis.
- Diets high in saturated fats increase the risks of heart disease and stroke, while high blood glucose (sugar) and high cholesterol increase the risk of type 2 diabetes.

Recent Rhode Island Behavioral Risk Factor Surveillance System data found that more than one-third of adults 20 to 64 years of age had at least one modifiable risk factor associated with cardiovascular disease and diabetes (36.2%), and an additional 44% of adults in this age group had two or more modifiable factors. This means that 252,614 Rhode Islanders between the ages of 20 and 64 years are at high risk for diabetes and heart disease.¹² Clustering of two or more risk factors was more prevalent among Rhode Islanders in the 20 to 64 year age group with a high school diploma or less education or who had household incomes that were lower than \$25,000 per year. For example, low-income adults aged 20 to 64 years were more likely to report two or more modifiable risk factors than adults in this age group with household incomes of \$50,000 a year and higher (55.0% versus 35.9%).¹³

Personal income and level of education, however, only partly explain disparities. The communities in which they live also affect individuals. Living in a high poverty neighborhood, as compared to a more economically affluent neighborhood, for example, has been shown to increase the risk of coronary heart disease in white residents by 70 to 90 percent and by 30 to 50 percent for African American residents.¹⁴ Adults 55 years of age and older living in economically disadvantaged areas in the United States are at increased risk for developing heart problems and high blood pressure. Additionally, women in this age category in these communities are at increased risk for diabetes. Living in an area with higher levels of crime and more segregation increases the chances of developing cancer for women and men.

These findings may be the result of greater exposure to environmental toxins, such as hazardous waste and low quality water. The effect of stress on the body's ability to fight disease, which may be greater for those living in poverty, could be another contributing factor.

Tackling these preventable chronic diseases requires a closer look at two major risk factors— namely obesity and smoking. According to United Health Foundation America’s Health Rankings, Rhode Island ranked 19th in the list of healthiest states in 2013, down from 16th in 2012.ⁱ Rhode Island can be proud of its ready availability of primary care physicians, and significant drop in adult and youth smoking rates over the past decade, in addition to high immunization coverage rates and low prevalence of obesity. However, large disparity in health status by education attainment, high rate of drug overdose deaths and high rate of preventable hospitalizations are the biggest challenges and are offsetting improvements in Rhode Island’s national health ranking.

The percentage of Rhode Island adults that smoke is not yet at the Healthy People 2020 level of 12% for adults aged 18+.ⁱⁱ Rhode Island’s Behavioral Risk Factor Surveillance System (BRFSS) data show that self-reported adult cigarette smoking rates have stalled in recent years. Twenty percent of Rhode Island adults were current smokers in 2011 (95% confidence intervals [CI]:18.6-21.5), dropping to 17% in 2012 (95% CI: 16.0-18.9); not a statistically significant decrease.

Rhode Island has made impressive strides in the reduction of smoking rates among high school aged youth (8.0% in 2013; down from 19.3% in 2003); a significant decrease over ten years. Yet the growing popularity of other tobacco products among teens is of concern. The percentage of high school students that currently smoke cigars, cigarillos, or little cigars has remained unchanged over the past ten years (2003: 10.5%; 2013: 9.4%) and the use of smokeless tobacco products (chewing tobacco, snuff or dip) has significantly increased (4.6% in 2003 to 7.0% in 2013). People who start smoking or using smokeless tobacco products in adolescence have a harder time quitting as adults.

Overweight and obesity are major public health crises nationally and in Rhode Island. The prevalence of overweight and obese adults in Rhode Island has increased dramatically in recent decades. In 2012, 37.2 percent of Rhode Island adults were overweight (95% CI: 35.3-39.0) and 25.7% were obese (95% CI: 24.1 –27.4). As troubling, Rhode Island’s Youth Risky Behavior Survey data show that the percentage of adolescents who are overweight or obese has not changed in the past decade. An estimated 14.4% of high school youth were overweight in 2003, as were 16.2% in 2013. In 2003, 9.8% of adolescents were obese, reaching 10.7% in 2013. It is well known that obese children and adolescents have increased odds of a wide range of physical and psychosocial problems,ⁱⁱⁱ and are more likely to be obese as adults with lifelong physical and mental health problems.

Of particular importance from a public health perspective, are disparities in the prevalence of chronic diseases and associated risk factors. Rhode Island’s BRFSS data show that socioeconomic disparities, whether measured by education or household income, persist for self-reported chronic disease risk factors (current smoking, overweight/obesity) as well as for diabetes. In 2012, for example, Rhode Island adults who were high school graduates or had fewer years of education were significantly more likely than those with a college education to report that they currently smoked (23.0% vs. 13.2%), to have a body mass index (BMI) classified as obese (28.6% vs. 23.6%), and to have diagnosed diabetes (11.8% vs. 8.6%). The prevalence of prediabetes did not vary by education or household income. In 2012, 6.5% of Rhode Island adults reported being diagnosed with prediabetes (95% CI: 5.5-7.4), excluding women with prediabetes during pregnancy.

Studies have shown that chronic disease risk factors act synergistically to increase the risk of developing one or more chronic conditions.^{iv,v,vi} Analysis of the 2012 Rhode Island BRFSS found that 36% of adults 20 to 64 years of age had at least one modifiable chronic disease risk factor associated with diabetes (smoking or obesity). 6% of Rhode Islanders ages 20–64 reported having both modifiable risk factors. This represents 33,552 Rhode Island adults at high risk for diabetes. Obesity has been historically known as a risk factor for type 2 diabetes.^{vii} Researchers have long known that people with type 2 diabetes who smoke have higher blood sugar levels, making their disease more difficult to control and putting them at greater danger of developing complications such as kidney failure and heart disease.^{viii} Clustering of these two modifiable chronic disease risk factors was common and significantly higher in adults with lower socioeconomic status.

Health disparities by income or education only partly explain disparities in health outcomes. Social determinants of health are shaped by the distribution of money and resources throughout communities. The impact of the recent U.S. economic recession, the longest, and by most measures the most severe since World War II, on the health of children and adults, and across racial/ethnic and socioeconomic groups is a new area of research.

During the recession of 2008 and 2009, Rhode Island's unemployment rates reached a record high of 12.7%; dropping only to 9.8% in January 2013, the highest in the country along with California (9.8%).^{ix} Unemployment among Hispanics and blacks in Rhode Island has shown little improvement from the high levels that prevailed throughout the recession years of 2008-2010. In the fourth quarter of 2012, the Hispanic unemployment rate was 18.2% in Rhode Island, the highest nationally for Hispanic adults, compared with 10.3% for all Rhode Island workers.^x The average unemployment rate for Rhode Island's black population increased to 17.6 percent in 2011, up from 15.7 percent in 2010, due to increased unemployment among black men.^{xi} The average unemployment rate for Rhode Island's adult white population fell from 10.8 in 2010 to 9.0 percent at the end of 2012.¹⁷ Rhode Island's unusually high unemployment rate is not expected to significantly change in the next two to five years. Widespread unemployment in neighborhoods reduces resources, often resulting in high home foreclosures, underfunded schools, and restricted access to services and public transportation, making it more difficult for people to return to work. When a state like RI experiences high unemployment rates the fabric of a community is deeply impacted and the health of its residents is adversely affected.

The Rhode Island Department of Health has been in the forefront of collecting population-based data on neighborhood risk and resilience factors in relation to health outcomes. In 2005, 2007, 2009, and 2011 the Rhode Island Behavioral Risk Factor Surveillance System included a nine question Social Capital module, which assessed connections among individual social networks and the norms of reciprocity and trustworthiness that arise from them. Respondents were asked about their participation in and willingness to volunteer for community events, belief that people can make a difference in their community, and perceptions of community-level trust and reciprocity. Adults with household incomes less than \$25,000 per year and those with less than a high school education were more likely to have negative responses to indicators of social capital than adults with higher incomes or more formal years of education. Adults who perceived their communities as having more social liabilities than assets were more likely to report being diagnosed with diabetes or being a smoker.

Potentially preventable hospitalizations. One area where higher quality and lower costs coincide is potentially preventable hospital admissions. These are inpatient stays that could be prevented with high-quality primary and preventive care, although not all such hospitalizations can be avoided. Potentially preventable hospitalizations for adults include diabetes, circulatory diseases, chronic respiratory diseases, and select acute conditions.^{xii}

Rhode Island's four-year aggregated Hospital Discharge Data (2009 – 2012) reveal striking disparities. Among adults aged 18 and older, the average annual (crude) hospitalization rate when diabetes was the principal (primary) reason for an inpatient admission was 483 per 100,000 for non-Hispanic blacks, 187 per 100,000 for Hispanics, and 171 per 100,000 for non-Hispanic whites. The rate for non-Hispanic blacks was nearly 3.0 times higher than non-Hispanic whites, and 2.5 times higher for non-Hispanic blacks than Hispanics. Diabetes inpatient admissions are costly. In 2012, the overall hospital costs of an inpatient stay when diabetes was the principal reason for admission for patients aged 18 and older (n= 1589) were nearly \$14 million (\$13,621,042), with an average cost of \$8,573.

Behavioral Health and Substance Abuse

Behavioral health is the largest single source of burden of disease in the state of Rhode Island. No other health condition matches mental illness in the combined extent of prevalence, persistence and breadth of impact (Murray & Lopez, A., 1996; Surgeon General Report, 2000; Kessler, et al., 1994, 1996). Behavioral health is an integral part of health – there is no health without mental health (Surgeon General Report, 2000). There is a strong moral and a substantial economic case for Rhode Island to adequately address the challenge of mental health and addiction problems for people who experience them in their communities (President's New Freedom Commission on Mental Health, 2003).

General Mental Health - During 2012, nearly one in six (16.4%) of Rhode Island adults indicated that their mental health was not good for more than seven days in the past 30 days. Rates were highest among the following groups: those with household incomes less than \$25K; those with less than a high school education; younger adults; non-white, non-Hispanics; and women. For example, nearly one-third (32.8%) of adults with annual household incomes of less than \$15K per year reported poor mental health compared to only 9% of adults with incomes of \$75K or higher. Adults with less than a high school education were twice as likely to report poor mental health compared to those with a college education. One in five young adults aged less than 25 (20.5%) reported poor mental health compared to 10.0% of those aged 65 or older. Those of races other than white and black, non-Hispanics reported higher rates of poor mental health (19.9%) compared to white, non-Hispanics (16.6%) and those of Hispanic ethnicity (13.9%). Women reported higher rates of poor mental health (18.3%) compared to men (14.4%).

Depressive Disorders - One in five (20.3%) Rhode Island adults reported having a depressive disorder. This figure was highest among those with annual household incomes of less than \$15,000 (38.7%), which

was 3.6 times higher than those with incomes of \$75,000 or more. Nearly one-third (31.5%) of adults with less than a high school education reported having a depressive disorder, more than twice the rate for those with a college education (14.1%). Women were more likely to report having a depressive disorder (24.6%) compared to men (15.7%).

Alcohol Use - The prevalence of heavy drinking (adult men having more than two drinks per day and adult women having more than one drink per day) is 6.2%. The percent of RI adults who binge drink (males having five or more drinks on one occasion, females having four or more drinks on one occasion) is 17.2%. Males are more likely to binge drink (22.6%) than women (12.3%). The likelihood of binge drinking decreases with age. For example, adults aged 18-24 had the highest rate of binge drinking (29.4%) and adults aged 65 and older had the lowest rate (4.0%).

Serious Mental Health Illness - According to a report recently published by the Mental Health Association of Rhode Island (*Mental Health Measures Rhode Island New England State and United States, December 2013*), 7% of Rhode Island adults aged 18 or older have serious mental illness (SMI) compared with 4-5% for other New England states and the United States (5%). These data are from the National Survey on Drug Use and Health, which surveys a representative sample of the national population and is based on 2008-2009 data. Almost one in four (24%) Rhode Island adults have any mental illness (AMI) compared with one in five (20%) for other New England states and the US. The source for these data is *Mental Health United States, 2010, Table 98*.

Oral Health

Oral health status has improved for many Rhode Islanders over the past decade, but oral diseases still cause pain and disability for adults and children each year. More importantly, the burden of oral diseases is distributed unevenly among different populations. Disparities in oral health status exist among minority racial/ethnic groups, people of low socioeconomic status, and those who are underinsured or uninsured. Beyond these demographic risk factors, special healthcare needs, diabetes, pregnancy, and age constitute additional risk factors for common oral diseases or for oral disease-related health complications.

ORAL DISEASES

Dental Caries (Tooth Decay) - Dental caries is the most common chronic disease of childhood, both nationally and in Rhode Island. Unchecked, dental caries can result in loss of tooth structure, inadequate tooth function, unsightly appearance, pain, infection, and tooth loss. The pain and disability caused by untreated dental caries may limit children's ability to focus and perform in the classroom, causing them to miss school days and fall behind their peers. Significant disparities exist in the incidence of dental caries and untreated decay among Rhode Island children from different racial/ethnic and socioeconomic backgrounds. For example, Rhode Island third graders who are Hispanic or who attend schools with high student enrollment in free and reduced school meal (FRSM) programs are more likely to experience dental caries than their peers (High FRSM: 58%; Hispanic: 54%; Black: 47%; White: 46%; Low FRSM: 42%). Adults also are at risk for dental caries and can experience decay on the exposed crown portion of

a tooth or on the root surfaces of teeth that are exposed as gums recede. About one in five Rhode Island adults age 35–44 years self-report tooth decay.

Tooth Loss - Tooth loss affects a person's ability to chew and speak and can interfere with social functioning. With adequate personal, professional, and population-based preventive practices, most adults keep their full set of teeth throughout their lives. Since 2000, statewide trends in tooth loss have improved among Rhode Island adults. The percentage of adults age 35–44 years who have never had a permanent tooth extracted due to dental caries or periodontal disease increased from 61% in 2000 to 69% in 2008. Compared to their counterparts, more adults of minority race, with less education, and/or with lower income report having one or more teeth lost due to dental caries and periodontal disease (Figure 1). The percentage of adults age 65–74 years with complete tooth loss (edentulism) decreased from 23% in 2000 to 13% in 2008. For Rhode Island adults age 65+ years, edentulism is more common among those with lower education and income levels.

Oral Cancer - Oral cancer includes cancer of the oral cavity or pharynx. Nationally, oral cancer is the sixth most common cancer in black men and the eighth most common cancer in white men. Oral and pharyngeal cancers also are a significant issue in Rhode Island, particularly among men.

RISK FACTORS

Pregnancy Status - Oral health is an integral component of overall health and well being for women and is particularly important prior to conception and during pregnancy. Recent evidence suggests that oral infections such as periodontitis during pregnancy may increase the risk of preterm or low birth weight deliveries. In fact, pregnant women who have periodontal disease may be seven times more likely to have a baby that is born too early and too small.

Diabetes - Diabetes is a recognized risk factor for severe and progressive periodontal disease, which can result in the destruction of tissues and supporting bone around teeth. Despite their increased risks, data suggests that Rhode Island adults with diabetes access dental care at lower rates than their non-diabetic peers.

Age - Older adults with poor general health may have difficulty maintaining adequate oral hygiene, visiting a dental office, or tolerating dental treatment due to limited dexterity, visual or mental acuteness, mobility, and stress tolerance. Oral cancers also occur primarily in adults age 65+ years and may sometimes go unrecognized and untreated in the absence of routine dental visits.

Costs of Care in Rhode Island

The following table estimates the monthly spending per person by health coverage type:

Payer	Population	Population Estimate	Spending Per Member Per Month (PMPM)
Medicaid/CHIP	Adult	43,545	\$416
Medicaid/CHIP	Child	82,122	\$216
Medicaid/CHIP	Dual Eligible	23,326	\$1,542
Medicaid/CHIP	Disabled/Elderly	42,593	\$1,096
Private/Other	Individual	150,948	\$436
Private/Other	Family	430,391	\$362
Medicare	Dual Eligible	43,940	\$1,171
Medicare	Fee for Service/Medicare Advantage	149,771	\$1,058

Additionally, Rhode Island examined expenditures in different health service lines, as described in the table below:

Cost of Care by Service Category	Medicaid PMPM	Medicare PMPM	Commercial PMPM
Inpatient Hospital	\$ 70.31	\$ 348.76	\$ 83.08
Outpatient Hospital (total)	111.09	148.96	92.13
<i>Emergency Dept (subtotal)</i>	<i>22.30</i>	<i>26.99</i>	<i>17.76</i>
Professional Primary Care	16.19	41.69	31.44
Professional Specialty Care	33.71	119.25	59.59
Diagnostic Imaging/X-Ray	3.27	22.30	11.99
Laboratory Services	3.06	15.15	5.87
DME	6.73	13.18	3.87
Dialysis Procedures	0.08	0.07	0.33
Professional Other (e.g., PT, OT)	28.01	0.04	10.09
Skilled Nursing Facility	0.90	109.33	1.65
Home Health	10.38	44.39	2.73
Nursing Home	138.29	-	-
ICF/MR	3.58	-	-
Home and Community-Based Servi	36.90	-	-
Other	82.82	58.07	1.98
Professional Specialty Care	33.71	119.25	59.59
Subtotal	\$ 579.04	\$ 1,040.42	\$ 364.34
Prescription Drugs (Outpatient)	41.34	162.72	76.29
Total	\$ 620.38	\$ 1,203.14	\$ 440.63

Current Health Care System Model

The health care and social assistance sector in Rhode Island is large and vibrant, making up 20% percent of the Rhode Island employment market. (Rhode Island Department of Labor and Training, 2012).

Below are the central health care organizations in the State and descriptions of some of the key relationships among them.

Physicians and Other Health Care Providers:

PRIMARY CARE

According to a report completed by the Robert Graham Center in March of 2013 on behalf of the state's Health Care Planning and Accountability Advisory Council, there are approximately 841 primary care physicians in the state, a figure that includes family medicine, geriatricians, general practitioners, internal medicine practitioners and pediatricians (Robert Graham Center, 2013). According to the same study, these physicians account for approximately 32.8% of all medical providers, which is similar to the national figure of 33.3%

The Graham Center report also indicates that there are approximately 1,726 specialists in Rhode Island, accounting for 67.2% of the physician supply, which is similar to the national figure of 66.7%. Further, the Graham Center found that there are a total of 422 Nurse Practitioners and 277 Physician Assistants in the state. When the Graham Center looked at physician to population ratios, the Center found that Rhode Island ranks 8th in the nation for primary care and 6th in the nation for specialty care.

There are two large aggregations of primary care physicians in the Rhode Island marketplace:

Coastal Medical Practice – an ACO comprised entirely of physicians and supporting staff (101+ physicians, nurse practitioners and physician assistants). The organization began as a primary care practice but has expanded to include some specialties such as cardiology, pulmonary, pediatrics and infectious diseases. They have a patient panel of approximately 105,000, including some Massachusetts residents, and some of their physicians are members of CSI-RI. In 2007, they made a strategic decision to start engaging in pay-for-performance contracts. In 2009, they put PCMH at the center of their strategy, focused on meaningful use and became involved with the state Beacon project (see below for more on Beacon). In 2011, they began to pursue shared savings arrangements with BCBSRI as well as United and Tufts. Currently, they are in the Medicare Shared Savings Program.

Rhode Island Primary Care Physicians Corporation (RIPCP) – An independent physicians association, the group represents over 150 physicians in the State. It contracts directly with both major insurance providers and supports its members' efforts to become recognized as National Committee on Quality Assurance (NCQA) PCMH's. RIPCP has more than 45 practices that have achieved recognition as Level 1 NCQA PCMH.

A significant number of primary care physicians in the state belong to very small practices, or practice independently. According to the Graham Report, the median primary care practice size in Rhode Island is slightly smaller than other states (11 physicians compared to 12 nationally and 14 in other New England States). Approximately 27% of primary care physicians are in practices with three or fewer physicians (Robert Graham Center, 2013). These independent physicians represent a significant focus of the innovation efforts in the State.

Physician Organizations:

With a few exceptions, Rhode Island lacks the large multi-practice physician organizations that exist in other parts of the country. The largest physician organizations in the state are the, Lifespan/Physician Services Organization with 800 physicians, the Women & Infants Physician-Hospital Organization (PHO) with 220 physicians, and the Providence and Kent PHO with 200 physicians. Coastal Medical is the largest primary care physician organization in the state with approximately 85 physicians. The Rhode Island Primary Care Physicians is an independent physician association with approximately 163 independent primary care physicians. The rest of the physician groups are smaller or comprised of a single specialty, such as Rhode Island Medical Imaging, which is a group of fifty-three radiologists. Although there are large Physician Hospital Organizations, these entities have not engaged in any meaningful value-based contracting to date.

Hospital and Health Systems:

The environment is rapidly changing for the hospitals and health care systems in Rhode Island. There have been several recent mergers and purchases representing consolidation within the state, and another two pending purchases proposed by separate out-of-state for-profit systems for three hospitals; these pending purchases as of October, 2013 are in different stages of the review/approval process in the Department of Health and the Attorney General's office.

Rhode Island has witnessed the development of hospital systems over the past few decades.

Care New England: a non-profit organization comprised of Butler Hospital, Kent Hospital, and Women and Infants Hospital with an agreement to purchase Pawtucket Memorial Hospital.

Lifespan: a not-for-profit health care system based in Providence, RI. Formed in 1994, Lifespan includes three teaching hospitals of The Warren Alpert Medical School of Brown University: Rhode Island Hospital and its Hasbro Children's Hospital; The Miriam Hospital; and Bradley Hospital, the nation's first psychiatric hospital for children. Lifespan also includes Newport Hospital, a community-based hospital in Newport, RI. and Gateway Healthcare Inc a statewide community health and family services agency. Lifespan hospitals are among the top recipients in the country of research funding from the National Institutes of Health.

Care New England and Lifespan account for 80% of Rhode Island's hospital beds (American Hospital Association, 2013). By focusing efforts with these two systems, it is expected that the state's health care innovation plan can make great strides with few touch points.

CharterCare: a non-profit organization comprised of Roger Williams Medical Center, Our Lady of Fatima Hospital and St. Joseph Health Services. Recently it was announced that Prospect Medical Holdings a for-profit hospital chain based in CA, has signed an asset purchase agreement with Chartercare. Regulatory review of the purchase had not begun as of this plan.

Other hospitals: Westerly Hospital, South County Hospital, Landmark Hospital, the Providence VA Medical Center and the Eleanor Slater Public Hospital (495 beds on two campuses).

In 2008, Landmark Hospital in Woonsocket entered receivership. At the time of this publishing, the hospital had cleared all regulatory hurdles to proceed with a purchase by Prime Medical Services, an 18 hospital for-profit chain based in California. This would make Landmark the first for-profit hospital in the state. In 2013, Westerly Hospital (in receivership since 2011) was purchased by Lawrence and Memorial of New London Connecticut, and Care New England announced its intention to purchase Memorial Hospital. In addition, Prospect Medical Holdings of California recently signed an intention to purchase the CharterCARE Hospital System. A 2012 study commissioned by Health Care Planning and Accountability Council (HCPAAC) showed that there is projected to be a surplus of hospital beds of between 100 and 200 beds, in the next several years (The Lewin Group, 2013). While the report did not specify geographics of the bed supply, the finding continues to inform public opinion that health care in Rhode Island needs a more focused planning effort.

TABLE 1: RHODE ISLAND HOSPITALS

Hospital	Health System	City	Licensed Beds as of December 2013	Notes
Butler Hospital	Care New England	Providence	143	Psychiatric
Kent Hospital	Care New England	Warwick	359	
Women & Infants Hospital of RI	Care New England	Providence	167	Maternity, NICU
Memorial Hospital of Rhode Island	Under agreement to be purchased by Care New England	Pawtucket	294	
Roger Williams Medical Center	CharterCARE	Providence	220	
Our Lady of Fatima Hospital	CharterCARE	North Providence	359	
The Westerly Hospital	Lawrence +Memorial of New London, CT	Westerly	125	
Rhode Island Hospital, Hasbro Children's Hospital	Lifespan	Providence	719	Level I Trauma
Newport Hospital	Lifespan	Newport	129	
The Miriam Hospital	Lifespan	Providence	247	
Emma Pendleton Bradley Hospital	Lifespan	Providence	60	Children's Psychiatric
Eleanor Slater Hospital	State-owned	Pascoag/Cranston campuses	495	Long term care only

Landmark Medical Center	Under agreement to be purchased by Prime Healthcare	Woonsocket	214	Approved by state regulators, Sale Pending
Providence VA Medical Center	Veteran's Administration	Providence	73*	
South County Hospital	Independent	Wakefield	100	
Rehabilitation Hospital	Under agreement to be purchased by Prime Healthcare	Woonsocket	82	

Source: The Lewin Group, 2013

Federally Qualified Health Centers:

Rhode Island has eight Federally Qualified Health Centers (FQHC's) that serve approximately 123,035 patients: 31% of these patients are currently uninsured and Medicaid covers 42.6%. East Bay Family Health, Thundermist Health Center of West Warwick, and WellOne Primary Medical and Dental Care are participating in CMS' FQHC Advanced Primary Care Practice Demonstration. This is a three-year program that will show how the PCMH model can improve quality of care, to promote the Triple Aim. Three FQHCs are also participating in the CSI-RI, the state's patient-centered medical home program.

TABLE 2: FQHC'S IN RHODE ISLAND

FQHC	City	Patients Served in 2012
Blackstone Valley Community Health Care	Pawtucket	11,888
Comprehensive Community Action, Inc	Cranston	13,341
East Bay Community Action Program	Newport	8,542
Northwest Community Healthcare (WellOne)	Pascoag	13,330
The Providence Community Health Centers, Inc	Providence	39,839
Thundermist Health Center	Woonsocket, W. Warwick and Wakefield	35,604
Tri-town Economic Opportunity Committee	Johnston	5,285
Wood River Health Services, Inc	Hope Valley	7,076

Behavioral Health System

Similar to the medical care system, the behavioral health system in Rhode Island has developed into a fragmented system of payers and providers. The fragmentation, developed due to multiple funding streams for behavioral health services and the discordant policy goals of each of the funders, leads to different systems of care depending on coverage type and diagnosis.

HOSPITAL CARE

Rhode Island has a unique "State" hospital system in that long term inpatient care is provided at the state operated general hospital, while acute psychiatric care is provided by private hospitals. Decisions around acute psychiatric hospitalizations are generally made by the hospitals, particularly after hours with the assistance of Qualified Mental Health professionals with whom they have contracts. However,

behavioral health crises among uninsured consumers are managed through a state program to provide an array of diversion, hospital alternative and psychiatric hospitalization.

The state has set a goal for reduction of hospitalization, promoting the policy that long term care hospitalization should be provided only for those seriously mentally ill adults for whom community services are not available. The number of state-funded hospital psychiatric service admissions in state fiscal year 2013 was 845.

COMMUNITY MENTAL HEALTH ORGANIZATIONS

Rhode Island's community mental health services are provided by its network of Community Mental Health Organizations (CMHO). The CMHOs, which grew out of Rhode Island's 1962 Community Mental Health Law and the federal Community Mental Health Organization Act, form a fully integrated statewide mental health delivery system based on a single comprehensive CMHO in each of the state's catchment areas. These services are provided for those with chronic and persistent mental illness and are largely funded through the state's Department of Behavioral Health, Disabilities and Hospitals. Following the merger of several of the original eight catchment-based CMHOs, six regionally-based CMHOs are responsible for the provision of all outpatient public mental health services in the state's eight catchment areas. Each CMHO provides prevention, emergency, general outpatient, and community support services:

- **Wellness Promotion** includes a) consultation to other health, mental health, law enforcement and human service providers to assist them to recognize and address mental health problems among their clients, and b) community education regarding the nature of mental illness and development of a positive attitude toward its prevention and treatment.
- **Emergency Service** is an immediate response by mental health professionals 24 hours per day, 7 days per week, to anyone experiencing a psychiatric emergency. It can include psychiatric assessment, crisis intervention, medication, short-term counseling, referral, face-to-face assessment by a qualified mental health professional, case management and admission to an inpatient unit when necessary.
- **General Outpatient (GOP) Service** is provided for people suffering from a degree of mental illness or emotional distress adversely affecting their level of functioning but not severe or long-lasting enough to be disabling. General Outpatient treatment programs provide an array of services that include but are not limited to individual, group and family counseling, and education. These programs offer comprehensive and coordinated diagnostic, clinical, and educational services that may vary in intensity level according to the needs of the individual served.

Community Support Service (CSP, Community Support Program) is the provision of care to individuals residing in the community who meet criteria for being Seriously and Persistently Mentally Ill. Services to SPMI clients are delivered using a treatment team model similar to ACT. All CSP-eligible clients have access to an array of intensive, community-based care coordination, health promotion and case management.

TABLE 3: CMHO'S IN RHODE ISLAND

CMHO	City	Approximate # Clients Served Annually
East Bay Center, Inc	East Providence	3000+
Fellowship Health Resources, Inc	Lincoln	RI #'s not broken out in annual report
Gateway Healthcare, Inc	Pawtucket (recently purchased by Lifespan)	15,000+
The Kent Center for Human & Organizational Development	Warwick	4,000+
Newport County Community Mental Health Center, Inc	Middletown	1814*
NRI Community Services, Inc	Woonsocket	3900
The Providence Center	Providence	12,123
Riverwood Mental Health Services	Warren	500

*FY2013

In addition to the CMHO's and hospitals, the state has an array of behavior health professionals in private practice who serve those with mild to moderate mental illness. Anecdotal reports suggest a lack of services for children and elders, however, there is not a reliable data source to support that claim. The state's Health Care Planning and Accountability Advisory Council is currently undertaking an analysis of the supply of behavioral health services in the state. Improvements in our mental health service delivery system, better coordination of services and more effective integration of mental health and primary care are vital to high quality patient-centered care. This is an enormous challenge and opportunity for Rhode Island.

SUBSTANCE ABUSE TREATMENT AND RECOVERY

The Department of Behavioral Health Care, Developmental Disabilities and Hospitals (BHDDH) is the designated single state authority (SSA) for substance abuse treatment and prevention services. The treatment team within the Division of Behavioral Health (DBH) is responsible for monitoring the delivery of an array of treatment services, across the ASAM continuum of care. Through the SAPT and through use of Medicaid and state dollars, BHDDH funds community providers in all areas of the state who provide a comprehensive array of services for uninsured Rhode Islanders.

Substance abuse outpatient services are provided through five prime contractors serving five regions: Providence County--South (immediate metro City of Providence), Providence County--North, Kent County, Washington County, and Newport-Bristol Counties. Each prime contractor is responsible for insuring a comprehensive continuum of outpatient services including individual and group counseling, intensive outpatient, and partial hospitalization (e.g., day hospital).

The SSA funds a single, statewide medical detoxification/acute psychiatric hospitalization program. This program provides detoxification services, including a secure unit for individuals with suicide ideation in need of detoxification. The contract also supports the use of outpatient detox treatment, and step-down services for continued stabilization, but does not provide medication monitoring. The service has increased the number of individuals who are connected with outpatient or opioid treatment upon discharge from detox.

The Department has recently re-contracted for adult substance abuse residential treatment services. Residences are now gender-specific. There are now six men's and six women's treatment facilities across the state providing gender-specific treatment. The new contract provides for programs at each of the ASAM-PPC-2 levels, which allows for a better match of client needs to programs. Two new levels have been added: a two-bed "respite/crisis" contract for women and a "short-term transitional" level at nine of the programs. Also, the provision of recovery housing has been formalized. All state funds for recovery housing are now implemented and monitored by an agency licensed in Rhode Island which maintains MOUs with each recovery house and requires that the programs maintain Level III of the National Accredited Recovery House standards. Finally, the new contract encourages all providers to enhance their provision of a recovery oriented system of care by utilizing a full continuum of care and by adding and supporting recovery housing.

The state has continued to fund Medication Assisted Treatment. Six agencies with twelve sites provide statewide MAT. Three of the programs are funded by the Department for uninsured clients. Also, a number of physicians who are not funded by BHDDH provide Medicaid-covered suboxone treatment, and many of these provide clinical services for other service providers by contract.

INTERVENOUS DRUG USE

The SSA functions as the state Opioid Treatment Authority. The SSA currently funds eight of the twelve authorized opioid treatment programs in the state. Funded treatment slots are geographically dispersed throughout the state to increase treatment accessibility for patients. Opioid Treatment Programs are

expected to incorporate best practices based on SAMHSA's TIP 43. For opioid dependent patients who have required a higher level of care, dual enrollment is available for both residential and more intensive outpatient services

The state also:

- Continues to implement capacity management and wait list systems strategies.
- Continues collaboration with the Department of Health's ENCORE program (Education, Needle Exchange, Counseling, Outreach and Referral) which is an HIV (and other Blood-borne pathogens) prevention/intervention aimed at injecting drug users (note: no Block Grant dollars were used for needle exchange activity)

All contracts with programs funded by the Block Grant include language requiring that they conduct outreach activities to intercede specifically with IVDUs, in order to provide HIV counseling, and refer individuals to treatment or medical/other support. Although not funded by BHDDH, the Department of Health (DOH) and their community programs provided a wide range of street outreach activities to intravenous drug users designed to reduce harm and refer IVDUs to treatment. In addition, BHDDH and DOH regularly collaborate. The Department is a standing member of the Department of Health-lead Drug Overdose Rescue Coalition, which also includes representatives of the medical and pharmacy treatment communities.

Oral Health Care

Rhode Island's oral health system, like most states, had developed in a separate system of care than the medical system. Approximately 97% of Rhode Island dentists work in private practices, while 3% work in a public health setting, such as in a dental safety net site. During the past decade, the state has significantly enhanced access for children to oral health services, especially at the health centers in our state and at Lifespan's Samuels Sinclair Dental Clinic. Rhode Island also continues to cover dental services for adults in our Medicaid program and has created a successful mobile treatment capacity for seniors in nursing homes. To continue to improve oral health outcomes and eliminate disparities, Rhode Island's oral health workforce must provide both preventive and restorative care for individuals in all settings. The co-location of oral health and other health services at our health centers offers an opportunity to re-integrate oral health with other aspects of physical health. In addition, the state should continuously monitor dental workforce trends to assure a sufficient provider supply and develop responsive, flexible workforce strategies.

The dental team is comprised of dentists, dental hygienists, dental assistants, and laboratory technicians. This team can work in private practice, within a dental safety net site, such as a community health center, hospital or clinic, and/or volunteer their time and services.

As of September 2010, 619 actively licensed dentists were practicing in Rhode Island, or 59 dentists per 100,000 Rhode Island residents. Rhode Island's dentist to population ratio is favorable when compared to the national average (47:100,000). However, dentists are not evenly distributed across the state, and they do not uniformly accept individuals with all types of insurance coverage. Increased shortages are

expected in the next decade: more than half of actively practicing Rhode Island dentists are approaching retirement age (50+ years) (Figure 9), and the state has a less than optimal supply of expert faculty to train students seeking entry into this profession. Most importantly, these shortages will likely impact the state's most underserved populations—families with low income, individuals with special health care needs, elders in nursing facilities, and people of minority race/ethnicity.

As of September 2010, 713 actively licensed registered dental hygienists were practicing in Rhode Island. Dental hygienists in Rhode Island practice under “general supervision,” which means that a dentist must authorize the procedures to be performed but need not be present while the dental hygienist provides the services. Dental hygienists in other states have less restrictive supervision and can perform expanded functions, such as placement of restorative materials, periodontal dressing, suture removal, and metal restoration polishing. Revisiting regulatory requirements for dental hygienists to expand their roles may allow Rhode Island to improve access to oral health care services, particularly for vulnerable populations who are not able to access traditional dental practices, either due to geographical, cultural, or financial barriers.

Rhode Island does not license dental assistants, making it difficult to quantify the number currently practicing in Rhode Island. Without licensure, continuing education is not required; therefore, mastery of topics, such as infection control and radiation health and safety, whose content changes over time, is not a requirement for employment. Education in these topics may increase the safety of both dental assistants and their patients.

Long Term Care

There are 84 long term care facilities in Rhode Island. Most of them are independently owned and approximately 80.5% are for-profit. The remaining facilities are non-profit, including the state-run Veterans Home (Centers for Medicare and Medicaid Services, 2011). According to CMS, Rhode Island has one of the highest rates in the country of nursing home beds per thousand persons aged 65 or older (Centers for Medicare and Medicaid Services, 2011).

Carelink is an entity in the long term-care community. It is a non-profit management service organization that supports the business activities of three Adult Day Care services, four Home Health Care agencies, three independent living facilities, six Assisted Living Facilities, seven Nursing Homes and one hospice agency. Carelink serves as one of the two organizations chosen to manage the Integrated Care Initiative (described more fully below) for individuals dually eligible for Medicare and Medicaid. Carelink manages the PACE-RI program:

Program of All-Inclusive Care for the Elderly (PACE) Organization of Rhode Island: Established in 2005, in Rhode Island, by Carelink, the PACE Organization of Rhode Island is a member of the National PACE Association, which includes 72 PACE programs in 30 states. This organization helps to support the frail elderly who have complex health care needs and a strong desire to remain living in the community. Funded as a capitated system through per-enrollee payments

from Medicare and Medicaid, it is able to manage these funds and fully coordinate the health care needs of its enrollees. The entrance requirements are that a recipient is over the age of 55, certified by the state to require nursing home care, and live in an area that is served by a PACE program (nearly all of Rhode Island qualifies). The integrated care consists of health care providers and social service providers, and includes all necessary services such as transportation and homemaker services for each patient. All services must be deemed medically necessary.

Home Health Care Agencies:

There are 59 licensed Home Nursing Care Agencies in the State of Rhode Island. Few of them are integrated with other health care entities, such as hospitals. These agencies will be important elements to the new value-based care system because they will serve as partners to primary care providers, hospitals and long term care institutions and provide important services in aiding patients as they transition between institutions, or back into their homes. Home health care and hospice agencies are also important to providing high quality end of life care. Like entities in other areas, such as independent hospitals, these agencies are expected to face pressure to consolidate and partner with institutions in the future.

Community-Based Organizations:

A number of Community Based Organizations provide services whose importance will only grow with the transition to the new value-based health care system. Some of these organizations already are well versed in issues such as patient privacy and outcome data collection, and others provide relevant services but are not fully coordinated across all care settings. Several of the most active organizations to date are listed below:

YMCA: The YMCA of Greater Providence includes seven different branches across the state. The YMCA has a number of health care services, including “Join 4 Me,” a program aimed at helping overweight children and teenagers achieve a healthy weight; a Diabetes prevention program, which is aimed at those with rising risk and is paid for by one commercial insurance carrier (UnitedHealthCare); and the Livestrong program, which supports adult cancer survivors who have become deconditioned or chronically fatigued. There is a statewide alliance of YMCA’s, which is moving toward the creation of a statewide health resource.

Health Leads: This is a Providence chapter of a local organization that helps connect patients to the basic resources they need to be healthy, such as nutrition, housing, or jobs. This chapter is based at Hasbro Hospital, and advocates work with both providers and patients to make them aware of the local resources available to patients. Providers write ‘prescriptions’ for needed community resources, and advocates then help patients get connected to those resources. Staffed by college students, the Health Leads program is one successful response to the awareness of the importance of paying attention to social determinants of health.

Community Action Rhode Island: There are nine Community Action Programs (CAP Agencies) that provide social service support for Rhode Island’s poor. Many of these agencies provide

services that both directly and indirectly support the health of their client base, such as case management services for elders and family members, lead poisoning case management, fall prevention programs for the elderly, housing assistance, heating assistance and an emergency food supply, to name a few.

Rhode Island Parent Information Network: (RIPIN): RIPIN is an organization dedicated to empowering Rhode Islanders through information, support and training, and has a significant focus on health care. Among their recent programs are/were an intervention program designed at working with high ED utilizers on a case management basis, a pediatric practice enhancement project and peer-to-peer resources to help individuals navigate health insurance information and enrollment.

Employers: Self-funded large employer groups make up 43% of the commercial insurance market (Office of the Health Insurance Commissioner of the State of Rhode Island, 2013). Changes to the health care market in Rhode Island will need the support of this group of employers. According to the Graham Report referenced earlier, the top ten employers in 2010 in Rhode Island were private:

TABLE 4: LARGEST EMPLOYERS IN RI

Employer	Number of Employees in Rhode Island
Rhode Island State Government	14,904
Lifespan	11,869
The United States Government	11,581
The Roman Catholic Dioceses of Providence	6,200
Care New England	5,953
CVS Corp	5,800
Citizens Financial Group (Royal Bank of Scotland)	5,800
Brown University	4,800
Stop and Shop Supermarket Co. (Royal Ahold)	3,632
Bank of America	3,500

Other Members of the Health Care Community:

There are numerous organizations that provide support to the health care systems in Rhode Island. Other major organizations that have a significant impact on care delivery in Rhode Island include the Rhode Island Quality Institute (RIQI), which is the state's not-for-profit designated entity for Health information exchange and serves as the State's regional Extension center, and Healthcentric Advisors, the State's Quality Improvement Organization (QIO), which supports the provider community.

Rhode Island Quality Institute (RIQI): Founded in 2001, RIQI is a non-profit organization whose mission is to “significantly improve the quality, safety and value of health care in Rhode Island.” Serving as a home for the Beacon Community Program, the Rhode Island Regional Extension Program Rhode Island’s HIE, “CurrentCare,” RIQI is dedicated to the development of quality health information that is available to patients, providers, payers and government. RIQI’s Board of Directors is composed of representation from the rest of the local health care community, including hospitals, consumer groups and academia.

Healthcentric Advisors: With 18 years of experience, Healthcentric Advisors is a local nonprofit organization providing health care quality improvement patient safety technical assistance, analytical, educational, research, and project management services. The organization has a history of working with and for state and federal government agencies, health care providers, research organizations and other national and community entities. Healthcentric Advisors is known for its subject matter expertise in physician office practice transformation, care transitions and readmissions reduction, and making providers' quality data meaningful and actionable. A principal role for Healthcentric Advisors is serving as the Medicare Quality Improvement Organization contractor for the State of Rhode Island. The organization is viewed as one of the State’s neutral conveners and assists health care providers in all settings to successfully implement new quality improvement initiatives. Its voluntary board of directors has representation from the health care, business, and consumer communities.

Insurance Coverage

The population of uninsured in Rhode Island (12.1%) is lower than the national average (15.8%). Additionally, Rhode Island’s rate of uninsurance for children under 19 is 5.9%, well below the national average of 9.6%. Rhode Island enjoys a relatively high rate of employer-sponsored insurance coverage at 60%, and also has a large share of its non-elderly population on Medicaid (20%) (Urban Institute, 2012). The forthcoming Medicaid expansion is expected to enroll an additional 38,000 Rhode Islanders (Center on Budget and Policy Priorities, 2012), and an additional number of the uninsured will receive coverage through purchasing insurance through the Exchange, HealthSourceRI, with coverage effective in 2014.

Insurance Market:

There are four companies in the private commercial market in Rhode Island: Blue Cross Blue Shield of Rhode Island (BCBSRI), United Healthcare, Tufts Health Plan and Neighborhood Health Plan of Rhode Island (NHPRI). Combined, they cover 556,903 lives, as of December 2012, which represents a decline in number of commercially covered lives since 2011 (Office of the Health Insurance Commissioner of the State of Rhode Island, 2013). On average, since 2005, the enrollment in private market insurance has dropped 1.6% annually. This decline has been attributed to the lasting effects of the economic downturn and increase in the proportion of part-time or non-benefit jobs.

Most Rhode Islanders receive health insurance through their employers. Self-funded and fully-insured large employer groups make up 84% of the total insured market (43% and 41% respectively.) Fully-insured small group (13%) and fully-insured individual subscribers (3%) are the remainder of the market (Office of the Health Insurance Commissioner of the State of Rhode Island, 2013).

Blue Cross Blue Shield of Rhode Island (BCBSRI) currently maintains the market majority of commercial lives at about 70% in the state. United Healthcare of New England has approximately 27 % of the market, and Tufts Health Plan has approximately 2.5% of the insured market (Office of the Health Insurance Commissioner of the State of Rhode Island, 2013).

Insurance Driven Reforms

Since 2009, there has been a multi-payer effort to support the development of Patient Centered Medical Homes (PCMH's) through the Chronic Sustainability Initiative of Rhode Island (see below for further description). BCBSRI, NHPRI and UHC have all been engaged in supporting this advance in the delivery of primary care.

In 2013, BCBSRI signed a contract with Rhode Island Primary Care Physicians Corporation to establish a Patient Centered Medical Home (PCMH) program or Medical Home. Through the program, BCBSRI pays physicians additional monthly fees to actively manage complex chronically ill patients; it has also invested in nurse managers on the primary care team. The goal of the project is to provide a better model of care focused on prevention and chronic care management and to improve health outcomes for patients. This effort has supported a number of Rhode Island primary care practices in the achievement of medical home development.

BCBSRI also partnered with South County Hospital to create a 'Medical Neighborhood' (Blue Cross and Blue Shield of Rhode Island, 2013). This model involves the participation of independently practicing physicians, but relies upon the hospital to be the central support staff that is typically found in a Medical Home. BCBSRI is also engaged with South County Hospital with a bundled payment model for orthopedics procedures (South County Hospital , 2013).

United Healthcare of New England announced, in February of 2013, that they were forming an "accountable coordinated care organization" (ACCO), which includes Lifespan's acute care hospitals and physicians who will provide coordinated care to approximately 21,000 people in the state who are enrolled in United Healthcare's employer-sponsored benefit plans. This model is focused on managing patients with chronic diseases, and paying participating providers incentives based on process and clinical outcome measures. (UnitedHealthCare, 2013)

United HealthCare currently acts as a third-party administrator for the State of Rhode Island employee health insurance, a contract that expires at the end of 2013.

Neighborhood Health Plan of Rhode Island (NHPRI) is a locally based, not-for-profit health plan founded by the Community Health Centers of Rhode Island in 1993, in response to the initiation of RIte Care, the Rhode Island Medicaid managed care program. Using a network model, it offers coverage to four

distinct Medicaid populations: families with low to moderate income, children with special health care needs, all children in the Rhode Island foster care system and Medicaid-only adults. At the end of 2013, it became the larger of two providers for the Integrated Care Initiative, which is a program designed to coordinate care for the Medicare and Medicaid dual eligible population. Currently, NHPRI covers approximately 66% of all Medicaid managed care recipients in Rhode Island and 50% of all Medicaid enrollees in Rhode Island. Over 90,000 individuals are enrolled in their programs. Starting in 2014, NHPRI will offer coverage in the individual and small employer market through HealthSourceRI, the state's health insurance exchange.

Tufts Health Plan has a small but growing presence in Rhode Island. They have been focusing on providing support to employers through the provision of robust wellness plans and are the only health plan in the Northeast to be awarded NCQA Wellness & Health Promotion Accreditation (Tufts Health Plan, 2013). They are considered leaders in the Massachusetts market and are expected to continue this work in Rhode Island when they offer plans on HealthSourceRI beginning in 2015.

Health-Related Agencies in the State of Rhode Island

There are a number of state agencies that work together to address the health needs of the residents of Rhode Island. The Executive Office of Health and Human Services houses the state's Medicaid program and provides fiscal and management oversight of four state departments including the Department of Health (RIDOH), Department of Human Services (DHS), the Department of Behavioral Health, Developmental Disabilities and Hospitals (BHDDH) and the Department of Children, Youth and Families (DCYF). While the Department of Health (RIDOH) falls under the umbrella of EOHHS, it is the only public health agency for the state and is critical to assuring that transforming the health care system serves both individuals as well the entire population of RI. HealthSourceRI is Rhode Island's state-based Health Insurance Exchange. The Office of the Health Insurance Commissioner (OHIC) is the regulatory agency overseeing all commercial health insurance, including consumer and provider issues regarding insurance. Finally, the Lieutenant Governor's office functions as a key convener and leader of coordinated health care reform efforts. The work of other agencies, such as the Division of Planning within the Department of Administration, the Department of Transportation and the Department of Environmental Management also affects the health of Rhode Islanders. The Department of Administration also plays a key role in its management of state employees and retirees health benefits. The following is a summary of the key health-related roles and responsibilities of the five departments/offices listed above:

TABLE 5: RI AGENCY RESPONSIBILITIES

Agency/Office	Primary Responsibilities
Department of Health	Public health, licensing providers and facilities, Health Services Council, Inspections
Executive Office of Health and Human Services / Medicaid	Medicaid policy and program management

Office of Health Insurance Commissioner	Commercial health insurance regulation
Department of Behavioral Health, Developmental Disabilities and Hospitals	State hospitals, Behavioral health and substance abuse programs and chronic long term medical and psychiatric conditions
HealthSourceRI	Health Insurance Exchange for individuals and small businesses

Medicaid

OVERVIEW

During State Fiscal Year(SFY) 2012, Rhode Island's Medicaid program served approximately 228,000 Rhode Islanders, with an average of 193,000 enrolled at any one time. Twenty-two percent of Rhode Island's population were enrolled in Medicaid for some part of SFY 2012 and program expenditures totaled approximately \$1,783 million. Medicaid expenditure is divided among several state agencies, with \$1,369 million of total expenditure managed by the Office of Health and Human Services (OHHS), and \$366 million managed by the Department of Behavioral Health Care, Developmental Disability and Hospitals (BHDDH).

Under the Medicaid program, the federal government is typically responsible for approximately half of total expenditure. In SFY 2012, the Federal Medical Assistance Percentage (FMAP) was 52.33%.

Between 2008 and 2012, total Rhode Island Medicaid medical expenditures based on date of service have increased an average of 1.3 percent per year. This overall expenditure increase is associated with a 2.2 percent average annual increase in enrollment combined with a 0.9 percent overall average decrease in per member per month (PMPM) costs. The increase in enrollment and the decrease in PMPM can be added together to determine average annual expenditure growth.

Enrollment declined from 2007 through 2009, but then increased in 2010, exceeding 2007 levels, and continued to increase in SFY 2011 and 2012. PMPM costs increased from SFY 2008-2010 and then decreased in SFY 2011 and 2012 to lower than 2008 levels, resulting in the negative average annual trend. These expenditure trends compare quite favorably to both national Medicaid expenditures and state commercial per member per month cost trends.

POPULATIONS SERVED

Medicaid serves four different primary populations, each with very different service needs and PMPM cost experience.

- Adults with disabilities account for the largest share of expenditure, with 2012 expenditure of \$662 million, and an average PMPM cost of \$1,808. The largest components of expenditure for

this population are residential and rehabilitation services for persons with developmental disabilities (26%) and hospital care (25%).

- Elders account for \$476 million in total 2012 Medicaid expenditure, and the highest average cost per member per month (PMPM) of \$2,230. For this population, nursing facilities account for roughly two-thirds (65%) of expenditures.
- Children and families account for 69% of total enrollment and 27% of total expenditure, with total 2012 expenditure of \$474 million. Additionally, the federal match is increased to 66.63% for qualifying “optional” low income children and pregnant women under the Children’s Health Insurance Program (CHIP).
- Children with special health care needs (CSHCN) account for 10 percent of total Medicaid expenditures and 6 percent of enrollees, with total 2012 expenditures of \$170 million. Expenditures on this population are dominated by professional behavioral health services, which account for just under half (44%) of total expenditures.

MEDICAID PROVIDERS

Medicaid pays for services offered by a variety of providers. Hospitals and nursing facilities together account for nearly half (46%) of program expenditure. Key contributors to expenditure growth were hospitals and professional providers.

- Hospitals were the largest provider type, accounting for 27% of Medicaid expenditure in 2012. Hospital payments are also a key driver of Medicaid expenditure growth, as payments to hospitals increased by an average of 4.0% per year between 2008-2012.
- Nursing facilities were the next largest provider type, accounting for 19% of expenditure in 2012. Expenditure on these providers has been increasing on average 2.0% per year between 2008-2012.

MANAGED CARE

It is important to note that not all payments are made directly by Medicaid to service providers. Seventy-seven percent of Medicaid eligibles are now enrolled in managed care plans. These enrolled populations account for 49% of Medicaid expenditure.

- Children and families who are not eligible for employer-sponsored or Medicare coverage are nearly all enrolled in managed care plans.
- Starting in 2008, children with special health care needs, without other insurance coverage were required to enroll in managed care plans, resulting in 79% of this population now enrolled in managed care. In addition new managed care programs were established in 2008 to transition Medicaid eligible adults with disabilities to managed care. In 2012 47% of adults with disabilities were enrolled in managed care.
- Rhode Island’s participating Medicaid Managed Care Health Plans have consistently ranked among the nation’s top performing Health Plans according to commonly used Healthcare Effectiveness Data and Information Set (HEDIS®) measures.

COMMUNITY CARE AND LONG TERM CARE

Expenditure on community care and long term care accounts for about 41% of total Medicaid expenditure (\$724 million) in SFY 2012. Community care programs are intended to allow states to provide home and community based services to at-risk populations as alternatives to more costly nursing home/institutional options.

MANDATORY AND OPTIONAL SERVICES

Most of the expenditure on optional services is designed to reduce expenditure for mandatory services. Optional services accounted for \$507 Million in total Medicaid expenditure in SFY 2012, approximately 28% of total Medicaid expenditures. The largest component of optional services is residential and rehabilitation services for persons with developmental disabilities, including group homes. These services provide an important alternative to more expensive (mandatory) inpatient/institutional services for persons with developmental disabilities.

HIGH COST USERS

Medicaid expenditures are highly concentrated, as the top 7% of users account for nearly two-thirds (66%) of expenditures.

- High cost users are defined as those who incur \$25,000 or more per year in Medicaid expenditure. These high utilizers typically present with multiple, complex conditions, requiring care coordination across a variety of provider types. This suggests a sustained need for care management, focused on high cost/chronically-ill populations.
- Eighty-three percent of expenditure for high cost users is for Elders and Adults with Disabilities. The largest categories of expenditure for high cost users are nursing facilities and residential and rehabilitation facilities for persons with developmental disabilities.

UTILIZATION

Individuals covered by both Medicare and Medicaid have dual coverage (“duals”). Medicare is the primary payer for most medical services (e.g. hospital, physician, pharmacy) for 96% of elders and for 48% of adults with disabilities. Medicaid pays for services not paid for by Medicare (e.g. extended nursing home stays, home and community supports). For “non-duals” (persons covered only by Medicaid), Medicaid pays for all covered services.

- For dually-covered elders, nursing home admissions increased 2% per year on average between SFY 2010 and 2012 while hospice admissions per thousand decreased by 2% per year on average. Also, nursing home admissions are five times higher than hospice admissions per thousand.
- Emergency room visits and inpatient admissions per thousand for adults with disabilities covered only by Medicaid are relatively flat over SFY 2010-2012 while office visits per thousand have increased 5% per year on average.

- For children and families and for children with special health care needs, acute care utilization measures, such as inpatient admissions, emergency room (ER) admissions, and office visits, have decreased since 2010.

Health Care Information and Technology in Rhode Island

Rhode Island's state government has been a leader in creating the information and technology backbone that will continue to support the State's transition to value-based care. The following section outlines the State's progress in Electronic Health Record (EHR) adoption, the Health Information Exchange state's integrated child health information system which includes the state's immunization registry (functions like a pediatric public health HIE) the All Payer Claims Database (APCD), the Unified Health Infrastructure Project (UHIP) and the Chronic Care Sustainability project (CSI).

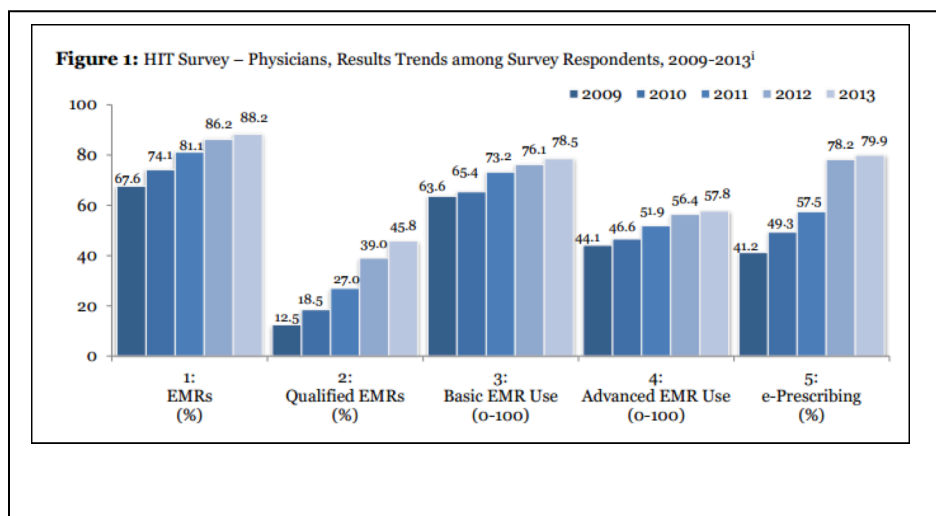
ELECTRONIC HEALTH RECORD (EHR) ADOPTION

Rhode Island has valued the use of health information technology and continues to see progress in the adoption of electronic health records. The Department of Health has been measuring the level of adoption through an annual HUT survey since 2009, well before the HITECH act and CMS Meaningful Use Incentive Program .

In early 2013, the Rhode Island Department of Health administered its fifth annual HIT survey to 3,799 physicians licensed in Rhode Island, in active practice, and located in Rhode Island, Connecticut or Massachusetts. The response rate was 62.3% (n=2,367) (Rhode Island Department of Health, 2013). While the EHR adoption rate of survey respondents is 88%, when normalized to the entire physician population the HER adoption rate stands at approximately 51%.

The following table from the Department of Health's survey demonstrates an ongoing trend of providers adopting EHRs.

FIGURE 2: DOH HIT SURVEY 2013



Importantly, in 2010, Rhode Island received a total of \$27 million from the American Recovery and Reinvestment Act (ARRA) in the form of three grants (HIE, REC, and Beacon community) to the Rhode Island Quality Institute for investments in Health Information Technology. \$6 million went to the creation and funding of the Regional Extension Center (REC) designed to assist providers with EHR implementation and achieving Meaningful Use. Through the REC, primary care providers receive support and assistance in EHR adoption, implementation and reaching meaningful use. The REC serves as a trusted advisor, helping to “bridge the technology gap.” The REC assists providers as they select and EHR vendor, undertake workflow analysis to support implementation and reach meaningful use. Additionally, the RI REC established a vendor market place that is comprised of pre-qualified EHR software vendors, technical service consultants and health information service providers (HISPs, needed to support Direct messaging). The REC helps providers assess vendor options, and makes cost and functionality comparisons to simplify the vendor decision-making process. RIQI has also leveraged the Regional Extension Center staff of relationship managers to educate, recruit and train providers on several HIT programs and services, including Currentcare (the state’s HIE), Direct messaging and promoting Health IT certification for health care professionals. More specifically the REC staff works closely with their HIE and other RIQI colleagues to promote the following:

- [CurrentCare Services](#) – The RI REC staff promotes and recruits provider offices to engage in CurrentCare (including getting provider offices to enroll their patients in Currentcare, encourage providers to use the Currentcare viewer, obtain a direct messaging account and subscribe to the hospital alerts service.
- [Direct](#) messaging – Direct messaging is secure email for transmitting patients’ protected health information (PHI). It allows for provider-to-provider communication, enables providers to receive Hospital Alerts from Currentcare when a patient is admitted to a hospital or emergency department and enables providers to send clinical care document summaries to Currentcare for their enrolled patients

- Health IT Certification training - The RI REC is one of just four Regional Extension Centers that have partnered with Health IT Certification, LLC to provide training in four professional certification programs, including: Electronic Health Records, Health Information Technology, Health Information Exchange, and Operating Rules Administration (Rhode Island Quality Institute).

HEALTH INFORMATION EXCHANGE

Rhode Island's Health Information Exchange, Currentcare, was initially created in 2004 through a AHRQ grant to the Department of Health in partnership with RIQI. In 2008, RIQI was designated by the state as its Regional Health Information Exchange organization and began to build operational capacity to oversee the management and operations of the statewide HIE. In addition to the operations of Currentcare, in 2010, RIQI received \$5.3 million in ARRA grants focusing on "implementing an integrated information exchange to improve health outcomes, reduce medical errors, and make our health care delivery system more effective and efficient" (Rhode Island Quality Institute, 2010). Currentcare is structured as an opt-in centralized HIE service where patients choose to have all of their information shared to create a longitudinal health care record (across health care entities) and available to designated health care providers. Specifically, when patients agree to have their information become part of CurrentCare (enroll), they also choose one of three options that outline the criteria in which providers can access their data: 1) all of their treating providers, 2) only those providers specifically named and in an emergency or 3) only in an emergency.

As of the end of December 2013, RIQI has enrolled 349,000 individuals (35% of the states population) in Currentcare. There are multiple health care organizations that are now contributing data on enrolled patients to current care, including ten hospitals sending ADT feeds, seven hospitals sending laboratory data (three more expected by end of year), two large clinical laboratories, 28 Medical practices (33 expected by end of year), two community mental health centers, seven large chain pharmacies and one large diagnostic imaging center for reports (MRI, CT, XRAY, US).

Additionally, the patient opt-in requirements have prompted private market initiatives centered around increasing the enrollment of Rhode Islanders in CurrentCare. In September 2013, BlueCross BlueShield of Rhode Island and RIQI released information on their joint incentive program for providers to assist in increasing patient enrollment. "Under the incentive program, eligible providers (those in family practice, pediatrics or internal medicine who are in compliance with BCBSRI's EHR Payment Policy) may receive up to \$10,000 in incentives per practice if they sufficiently enroll their patients and utilize current cares services, described below:

- CurrentCare enrollment –To qualify for incentives, PCP practices must enroll the greater of the following: at least 200 patients per affiliated PCP or enroll a number of patients, equivalent to at least 50 percent of their BCBSRI members.

- Use of the CurrentCare Viewer and Hospital Alerts—PCP practices can qualify for additional incentive if at least 75% of the staff is trained to use the online portal known as CurrentCare Viewer and the practice enables CurrentCare Hospital Alerts. The Currentcare alerts uses hospital admission, discharge and transfer data to notify a provider that their patient has been admitted to or discharged from the emergency department or hospital.
- Implementation of a Direct Messaging Account—This allows for secure electronic communication between providers that use different electronic medical record systems” (Rhode Island Quality Institute, 2013) and is the transport method for Currentcare to send hospital alerts and for providers EHRs to send clinical care documents (clinical summary data from an encounter) to Currentcare.

BEACON COMMUNITY COOPERATIVE AGREEMENT

In 2010, this program provided \$15,914,787 over three years to the State of Rhode Island as part of a demonstration of how health IT investments and Meaningful Use of EHR’s can support the movement toward patient-centered care (The Office of the National Coordinator for Health Information Technology, 2012). Rhode Island was one of 17 recipients of funds to support the efforts to strengthen the use of IT in health care. According to the program website, the key areas of focus for these projects were:

1. Building and strengthening the health IT infrastructure and exchange capabilities within communities, positioning each community to pursue a new level of sustainable health care quality and efficiency over the coming years;
2. Translating investments in health IT to measureable improvements in cost, quality and population health, and
3. Developing innovative approaches to performance measurement, technology and care delivery to accelerate evidence generation for new approaches.

The Beacon Communities Projects, as implemented in Rhode Island was coordinated by RIQI.

KIDSNET

The Rhode Island Department of Health maintains a separate health information database for its pediatric population called KIDSNET. KIDSNET is Rhode Island’s computerized child health information system designed to serve families, pediatric providers, and public health programs. Operational since January 1, 1997. KIDSNET captures information on all children born in the state, as well as from children born out of state who see a Rhode Island participating providers or receive services from a program participating in KIDSNET (Rhode Island Department of Health, 2013).

Focused on screenings and ensuring that children receive the right preventive care at the right time, KIDSNET collects information from:

- Birth Records
- Immunization information from health care providers that immunize children
- Laboratory reports from Newborn Bloodspot
- WIC (Special Supplemental Nutrition Program for Women, Infants and Children)
- Healthy Homes and Childhood Lead Poisoning Prevention Program
- Early Intervention
- Newborn Developmental Risk Assessment
- Rhode Island Hearing Assessment Program & audiologists
- First Connections Program (home visiting)
- Birth Defects Program (Rhode Island Department of Health, 2013)

Providers can use the KIDSNET web portal to look up any of the above information on their patient. It is important to note since KIDSNET is a public health program, it includes data on all children and does not require individuals to opt-in as Currentcare does. Additionally, discussions are underway as to how to best integrate KIDSNET data with Currentcare data and minimize a provider's need to log into both systems.

ALL PAYER CLAIMS DATABASE

Rhode Island is building an All Payer Claims Database (APCD) as a partnership initiative administered by a state government interagency workgroup which includes the Department of Health (DOH), Executive Office of Health and Human Services (EOHHS), the Office of the Health Insurance Commissioner (OHIC), and the HealthSourceRI. The APCD will allow for:

- Longitudinal tracking of individuals across insurance carriers at the individual provider level;
- Robust reporting and analysis to aid and improve the calculation of risk scores;
- Measuring utilization and spending;

At the time of submission, a data submitter workgroup reviewed and finalized the technical specifications and operationalization of the APCD. These regulations were finalized and include strong privacy protections for consumer data, including the need for a data review board. Additionally, the interagency group hired, through RFP processes, several vendors to build and operate the APCD. The vendors currently under contract include:

- Freedman Healthcare: project management vendor
- Onpoint Health Data: data aggregator responsible for preliminary data intake and collection, data structure and format checks, creating person level extract
- Arcadia solutions: (as a subcontractor to Onpoint) Encrypted Unique Identifier Vendor responsible for creating unique IDs for patients, attaching payer's eligibility files, and returning data to payers

Additionally the interagency workgroup issued a Request for Information (RFI) to inform the state how to best structure the data, analytic and hosting needs of the APCD. Based on that information, the IWG is developing an RFP that will be issued in Jan 2014 to select a vendor to perform these tasks.

TRAILBLAZERS

Organized by the State Health Information Exchange Program in the Office of the National Coordinator for Health Information Exchanges, the Trailblazer program is an effort to align Healthcare Information Technology with Health Care Reform Efforts. Rhode Island joined these efforts in Phase 2, in November 2012. Through this program, states are studying the best approaches to the collection of data and how to harmonize measures across providers and payers. Also of concern is reporting, and how to ensure that such data actually support improvements in day-to-day delivery of care. According to the program website, infrastructure will be developed to advance five critical goals:

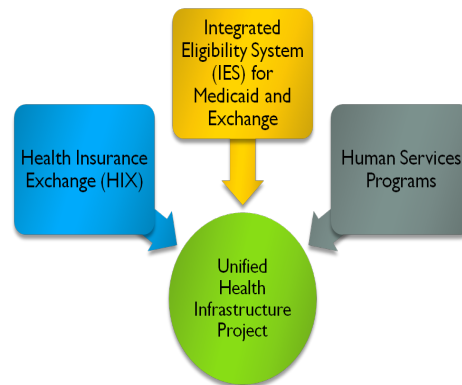
1. Measure state progress in furthering the triple aim of better care, better health, and lower costs.
2. Use validated performance measures to reward providers through payment reform.
3. Use provider-level performance data to strengthen quality improvement initiatives by offering timely and comprehensive feedback.
4. Reduce the reporting burden through a streamlined, electronic data gathering system.
5. Develop models (e.g., action plan templates) that other states can adopt when building quality improvement infrastructure.

UNIFIED HEALTH INFRASTRUCTURE PROJECT:

In recognition of the need for increased interoperability, Rhode Island created the Unified Health Infrastructure Project (UHIP) designed to be a single technical platform that will support the Health Benefits Exchange, Medicaid eligibility, and other state human service program eligibility. UHIP serves as a centralized resource for additional health information deemed necessary and appropriate. UHIP is an interagency initiative between HealthSourceRI, Executive Office of Health and Human Services (EOHHS), and the Office of the Health Insurance Commissioner (OHIC).

At the time of submission, the technical vendor for UHIP was chosen (Deloitte); user testing complete, functionality approved, and initial deployment occurred on October 1, 2013. The initial phase included information on HealthSourceRI and Medicaid (RiteCare) eligibility for the expanded population. Outreach and communication around HealthSourceRI and Medicaid expansion are underway via mass media and targeted marketing approaches. The state is in the final stages of creating a plan for metrics and evaluation around the continued use of UHIP. The state intends to incorporate publically reported quality measures in order to assist individuals with the purchase of insurance and the choice of a provider.

FIGURE 3: UHIP FUNCTIONS



History of Health Care Reform in Rhode Island

The State of Rhode Island has long been a leader in efforts to reform health care as a means to improving the health of its citizens. Even prior to 2010, when the Patient Protection and Affordable Care Act (ACA) was passed, Rhode Island had made a number of bold steps toward achieving the triple aim of better care for individuals, better health for populations and reducing per-capita costs.

Rhode Island's modern day efforts at systemic health reform started in the early 1990s when the state undertook an effort to move parts of its Medicaid population to managed care. The Rite Care program was initially created for low-income children up to 250% of the Federal Poverty Level (FPL), but expanded to Medicaid eligible parents (185% FPL) in 1998 with care delivered through an HMO network. As a result of this expansion, the number of uninsured Rhode Islanders decreased to 6.9% in 1999, the lowest uninsured rate in the country at the time. In 2000, legislation created the Rite Share Program that provides state premium assistance to families eligible for Medicaid with access to employer sponsored health insurance. The RI Department of Human Services was given the power to implement the program and public funds from CHIP, Medicaid and state dollars were used to subsidize the employer-sponsored insurance premiums for all eligible Rite Care participants who had access to such employer coverage. Today, Rite Care offers coverage to not only children and parents, but also to pregnant women (250% FPL). Participants can choose from 2 innovative managed care programs from either Neighborhood Health Plan of RI or UnitedHealthcare. The Rite Care and Rite Share programs cover roughly 120,000 Rhode Islanders.

In 2005, Rhode Island created the Executive Office of Health and Human Services (EOHHS) as a coordinating entity for those state departments that impact the publically-funded health care system. After legislation passed in 2006, EOHHS became a state agency led by the cabinet-level Secretary of Health and Human Services. EOHHS coordinates the fiscal matters, legal needs and policy direction of the Department of Health (RIDOH), Department of Human Services (DHS), the Department of Behavioral Health, Developmental Disabilities and Hospitals (BHDDH) and the Department of Children, Youth and Families (DCYF). In 2009, EOHHS was designated as the single state agency for Medicaid.

With strong interest in using policy levers to ensure that its citizens receive quality care at affordable prices, the state established the Office of the Health Insurance Commissioner (OHIC) in 2004, through legislative action in the General Assembly. OHIC is the first state agency in the nation that has a commissioner that is dedicated solely to health insurance oversight. Moreover, the Rhode Island legislature expanded the traditional role for insurance regulation beyond consumer protections and insurer solvency, to access and affordability and into such areas as mandated spending levels and the requiring of price transparency. Such a role, laid out in the OHIC *Purposes Statute* balances traditional regulation with policy development. The directive for the Office is laid out below:

- a. Guard the solvency of health insurers;
- b. Protect the interests of consumers;
- c. Encourage fair treatment of health care providers;
- d. Encourage policies and developments that improve the quality and efficiency of health care service delivery and outcomes; and
- e. View the health care system as a comprehensive entity and encourage and direct insurers toward policies that advance the welfare of the public through overall efficiency, improved health care quality, and appropriate access.

Since its inception, OHIC has introduced several key pieces of regulatory reform that have directly impacted the health of Rhode Islanders, notably the Affordability Standards and their associated requirements for primary care investments.

The Affordability Standards were created in 2009 and implemented in 2010. This is a set of criteria that directs commercial health insurance issuers with significant market share in Rhode Island. Together, these criteria are aimed at improving the affordability and quality of health care in Rhode Island. Specifically, the Affordability Standards require issuers to:

1. Expand and improve primary care infrastructure
2. Spread the adoption of the patient-centered medical home
3. Support CurrentCare, the state's health information exchange
4. Work toward comprehensive payment reform across the delivery system

In the first Affordability Standard, OHIC established requirements for primary care investment to facilitate delivery system reform in Rhode Island. The standard requires insurers improve the state's primary care infrastructure by increasing the share of total medical payments made to primary care by one percentage point per year from 2010 to 2014. The insurers are forbidden from passing these increases onto employers through higher premiums. OHIC also sets the percentage of primary care spending that must be paid through means other than fee for service rate increases. This is an example

of the transparency that Office of the Health Insurance Commissioner has the authority to encourage, monitor, and enforce.

The Rhode Island Chronic Care Sustainability Initiative (CSI-RI) is a collaborative, all-payer PCMH effort of over 45 practices and 14 Community Health Centers that date back to 2008 when it was initially established by the Office of the Health Insurance Commissioner. Today it provides care to 250,000 Rhode Islanders. This program includes the largest payers in the state: Blue Cross and Blue Shield of Rhode Island (BCBSRI), Medicaid, Neighborhood Health Plan of Rhode Island (NHPRI) and United Healthcare of New England and Medicare. All of the payers in CSI-RI agree to pay a per-member, per-month fee for care coordination, as well as pay for the services of a care management nurse (Robeznieks, 2008). Payment rates are tied to achievement of clinical quality, utilization and process improvement targets. Early results from the program show that CSI patients had lower inpatient stays than a comparison group of non-CSI patients (for the first five years of the program). However, while CSI patients overall had a higher number of ED visits than a comparison group of non CSI patients, there is a downward trend in ED visits per 1000 member months over the first five years of the program. The comparison group shows an upward trend. (Rosenthal, Friedberg, Singer, Eastman, Li, & Schneider, 2013)

In the Spring of 2010, Elizabeth Roberts, the Lieutenant Governor, established a 150-member Healthy RI Task Force to determine how Rhode Island could best respond to the opportunities and challenges presented by the ACA. This volunteer task force was made up of a broad range of stakeholders that ultimately became the foundation for the recent SIM design workgroup membership: hospitals, payers, providers, community activists and others. Their tasks were to look at such possible reforms in the areas of the insurance market coverage and expansion, opportunities in long term care, workforce development issues, payment realignment and delivery system reform, prevention and to begin to lay the foundation for the State's Health Insurance Exchange. The group issued a report in September of 2010 that presented the findings and recommendations of that Task Force.

Upon being elected Governor in November 2010, Lincoln Chafee established a Rhode Island Healthcare Reform Commission. As soon as he took office, he appointed Lieutenant Governor Roberts as its Chair. With its Executive Order, the Commission is directed to "address specific issues in health care reform, including but not limited to implementation of national reforms under the federal Affordable Care Act." The Commission established seven workgroups: exchange development, payment and delivery reforms, data and evaluation, workforce needs, policy and legal issues, communication and outreach, and long term care. To coordinate the activities, there is an Executive Committee within the Commission, which reports regularly to the Governor with specific recommendations.

The Governor formed Rhode Island's Health Insurance Exchange, HealthSourceRI, as a result of an additional Executive Order. Since this time, Rhode Island has been committed in its efforts to establish a public health insurance exchange, and is notable in that it achieved many of the required steps as one of the first states to do so. For example, the state was the first in the nation to receive a Level II Exchange Establishment Award from the federal government as a result of its bids for a planning grant and level

one establishment award (Urban Institute, 2012). HealthSourceRI opened successfully on October 1, 2013.

The Director of HealthSourceRI is committed to its development as a tool to continue to push for reform in the State. Integrated into HealthSourceRI is a “one-stop” enrollment opportunity for residents to enroll in State Programs for which they meet eligibility, and the Director’s ultimate plan is to use the site to publish quality data on each of the payers and their effectiveness at reaching specific population health goals. The State looks forward to the long term development of the Exchange and views its launch as a key moment of health care reform in Rhode Island history.

The State has been a leader in the efforts to expand Medicaid, which it first began in the 1990s when it raised the coverage levels to children and parents up to 250 and 175 percent of the federal poverty level, respectively (Urban Institute, 2012).

Rhode Island also has a long history in health prevention and wellness efforts. The Department of Health (RIDOH) is the only government public health entity in the state; the counties do not have local departments. RIDOH has numerous programs that seek to promote population health and to reduce the disparities in health by focusing on healthy child development and the prevention of disease and disability. RIDOH has provided leadership in many areas for the development of this SHIP, including establishing a model of community health workers with its Certified Diabetes Outpatient Program and its use of Certified Diabetes Outpatient Educators (CDOEs). RIDOH also supports a Family/Peer Resource Specialists program to support the needs of primary and specialty providers. Over 300 providers reached out to this program in 2012 (Rhode Island Department of Health, 2013). The RIDOH also supports efforts to reduce racial and ethnic health disparities. In the past, RIDOH was able to support Minority Health Promotion Centers that addressed health needs of minority communities. Although there are no county health departments, some of the cities, notably Providence and Warwick, have staff who focus on improving health in the community.

Current Federally Supported Programs in the State, including existing demonstrations and waivers granted by CMS:

Rhode Island’s health care system currently operates with the support of a number of federal programs, both within and outside of Centers for Medicare and Medicaid Innovation (CMMI). These programs serve as the foundation of the innovations that will continue to transform and improve Rhode Island’s health care in the coming years.

Current CMMI Projects and Awards

Health Care Innovation Awards: These are three-year grants that are provided to organizations to implement new ideas in order to deliver better care to Medicare, Medicaid and the Children’s Health Insurance Program CHIP recipients. The RI recipients are presently: Health Resources in Action, Women and Infants Hospital, and the University of Rhode Island.

From CMMI website:

The Health Care Innovation Awards are funding up to \$1 billion in awards to organizations that are implementing the most compelling new ideas to deliver better health, improved care and lower costs to people enrolled in Medicare, Medicaid and Children's Health Insurance Program (CHIP), particularly those with the highest health care needs.

The Health Care Innovation Awards Round Two are funding up to \$1 billion in awards and evaluation to applicants across the country that test new payment and service delivery models that will deliver better care and lower costs for Medicare, Medicaid, and/or CHIP enrollees.

FQHC Advanced Primary Care Practice: East Bay Family Health, Thundermist Health Center of Warwick and WellOne Primary Medical and Dental Care all are in their first year of funding for this PCMH demonstration project.

From CMMI Website:

The Federally Qualified Health Center (FQHC) Advanced Primary Care Practice demonstration will show how the patient-centered medical home model can improve quality of care, promote better health, and lower costs

This demonstration project, operated by the Centers for Medicare and Medicaid Services (CMS) in partnership with the Health Resources Services Administration (HRSA), will test the effectiveness of doctors and other health professionals working in teams to coordinate and improve care for up to 195,000 Medicare patients.

Participating FQHCs are expected to achieve Level 3 patient-centered medical home recognition, help patients manage chronic conditions, as well as actively coordinate care for patients. To help participating FQHCs make these investments in patient care and infrastructure, they will be paid a monthly care management fee for each eligible Medicare beneficiary receiving primary care services. In return, FQHCs agree to adopt care coordination practices that are recognized by the National Committee for Quality Assurance (NCQA).

Bundled Payments: Kent Hospital, Newport Hospital, Rhode Island Hospital, The Miriam Hospital and multiple home health agencies are operating with Bundled Payment Models Two and Three, in which payments are structured around an episode of care (Two: Acute and Post Acute, Three: Post Acute Episode Only.)

From CMMI website:

Under the Bundled Payments for Care Improvement initiative, organizations will enter into payment arrangements that include financial and performance accountability for episodes of care. These models may lead to higher quality, more coordinated care at a lower cost to Medicare.

In Model 2, the episode of care will include the inpatient stay in the acute care hospital and all related services during the episode. The episode will end either 30, 60, or 90 days after hospital discharge. Participants can select up to 48 different clinical condition episodes.

For Model 3, the episode of care will be triggered by an acute care hospital stay and will begin at initiation of post-acute care services with a participating skilled nursing facility, inpatient rehabilitation facility, long term care hospital or home health agency. The post-acute care services included in the episode must begin within 30 days of discharge from the inpatient stay and will end either a minimum of 30, 60, or 90 days after the initiation of the episode. Participants can select up to 48 different clinical condition episodes.

Community-based Care Transitions Program: Carelink, Inc. was awarded the Community-based Care Transitions Program (CCTP) from CMS under the Innovation Center. Carelink is in partnership with Lifespan's Rhode Island Hospital and Miriam Hospital, as well as Chartercare's Roger Williams Hospital and Our Lady of Fatima Hospital to target four diagnoses (CHF, COPD, MI and PENU) and improve the transition experience of discharged patients.

From CMMI Website:

The Community-based Care Transitions Program (CCTP), created by Section 3026 of the Affordable Care Act, tests models for improving care transitions from the hospital to other settings and reducing readmissions for high-risk Medicare beneficiaries. The goals of the CCTP are to improve transitions of beneficiaries from the inpatient hospital setting to other care settings, to improve quality of care, to reduce readmissions for high risk beneficiaries, and to document measurable savings to the Medicare program.

Advanced Payment ACO Model: This is composed of physician-based and rural providers that volunteer to provide coordinated Medicare delivery. Coastal Medical, the largest primary care group in Rhode Island, is participating in this effort.

From CMMI Website:

The Advance Payment Model is designed for physician-based and rural providers who have come together voluntarily to give coordinated high quality care to the Medicare patients they serve. Through the Advance Payment ACO Model, selected participants will receive upfront and monthly payments, which they can use to make important investments in their care coordination infrastructure.

State-wide CMMI Awards

Multi-Payer Advanced Primary Care Practice: Under this demonstration, fee-for-service Medicare joined the state-based "Chronic Care Sustainability Initiative" multi-payer medical home demonstration. RI is one of eight states chosen to participate in this unique state-federal partnership, where CMS agreed to join multi-payer demonstrations based on state-designed payment and delivery system reforms.

From CMMI Website:

Under this demonstration, CMS will participate in multi-payer reform initiatives that are currently being conducted by states to make advanced primary care practices more broadly available. The demonstration

will evaluate whether advanced primary care practice will reduce unjustified utilization and expenditures, improve the safety, effectiveness, timeliness, and efficiency of health care, increase patient decision-making and increase the availability and delivery of care in underserved areas.

Medicaid Emergency Psychiatric Demonstration: This is a test for Medicaid's ability to reimburse private psychiatric hospitals for services that were previously not reimbursable.

From CMMI Website:

The Medicaid Emergency Psychiatric Demonstration was established under Section 2707 of the Affordable Care Act to test whether Medicaid programs can support higher quality care at a lower total cost by reimbursing private psychiatric hospitals for certain services for which Medicaid reimbursement has historically been unavailable.

This demonstration will provide up to \$75 million in federal Medicaid matching funds over three years to enable private psychiatric hospitals, also known as IMDs, to receive Medicaid reimbursement for treatment of psychiatric emergencies, described as suicidal or homicidal thoughts or gestures, provided to Medicaid enrollees aged 21 to 64 who have an acute need for treatment. Historically, Medicaid has not paid IMDs for these services without an admission to an acute care hospital first.

Other Federally Supported Health Care Reform Efforts in Rhode Island

Medicaid 1115 Waiver: Rhode Island recently submitted an extension request to its current 1115 Waiver. The original waiver allowed Rhode Island to operate the entire Medicaid program under a single 1115 demonstration. The RI Medicaid Reform Act of 2008 directed the State to apply for a "global" demonstration under the authority of Section 1115(a) of Title XIX of the Social Security Act. The Rhode Island Global Consumer Choice Compact 1115 Waiver Demonstration (*1115 Waiver*) established a new Federal-State agreement that provides the State with substantially greater flexibility than is available under existing program guidelines. The State has used the additional flexibility afforded by the 1115 Waiver to redesign the State's Medicaid program to provide cost-effective services that will ensure beneficiaries receive the appropriate services in the least restrictive and most appropriate setting.

The 1115 Waiver has three major program goals: to re-balance the publicly funded long term care system, to ensure all Medicaid beneficiaries have access to a medical home and to implement payment and purchasing strategies that ensure a sustainable, cost-effective program.

The 1115 Waiver savings fell short of promised levels, in part because the State realized that many of the elderly Medicaid recipients who could have been eligible to be transferred out of long term care facilities did not have safe, community-based housing to return to. The State recently submitted an extension request with a specific focus on enabling funds to be used to support housing.

Medicaid Health Homes: Although CMS financial support recently ended, Rhode Island continues to support two of these Medicaid innovative complex care delivery models; one is for the pediatric population and builds upon a pre-existing program called Comprehensive Evaluation, Diagnosis,

Assessment, Referral and Reevaluation (CEDARR). The other is an adult focused program that is for the serious and persistent mentally ill population. The adult program is managed by Community Mental Health Organizations. According to CMS, health homes are designed to serve Medicaid enrollees who meet one of the following criteria (Centers for Medicare and Medicaid Services, 2010):

- Have 2 or more chronic conditions
- Have one chronic condition and are at risk for a second
- Have one serious and persistent mental health condition

Early data suggests that families using the CEDARR program have an improved quality of life.

Money Follows the Person (MFP): In April 2011, a Money Follows the Person demonstration grant was awarded to Rhode Island. This five year, \$27 million grant provides Rhode Island with support to achieve its goal of rebalancing the long term care systems. The goals are to support the transition of individuals out of long term care facilities and back into their home through the use of improved home and community-based services as well as to eliminate the barriers and mechanisms in state laws, state Medicaid plans or state budgets that prevent or restrict the flexible use of Medicaid funds.

Medicaid Adult Quality Measures Grant: This is a two-year grant designed to help state Medicaid agencies develop staff skills and capacity to collect, report and analyze data on the Initial Core Set of Health Care Quality Measures for Adults Enrolled in Medicaid (Centers for Medicare and Medicaid Services, 2013). Rhode Island is one of twenty-six states awarded this five-year grant.

Integrated Care Initiative (Commonly referred to as the “Duals Initiative”): This is a federal alignment initiative to better coordinate care for those individuals who are eligible for both Medicare and Medicaid. CMS has offered funding in order to test two models for States to improve the alignment between the financing of these two programs and integrate primary, acute, behavioral health and long term services and supports for their Medicare-Medicaid enrollees. One is a fully capitated model and the other is a managed fee-for-service model.

In keeping with Rhode Island’s desire to quickly implement those health care reforms that are expected to result in the highest quality care while decreasing the growth in cost, it has chosen the capitated care model for its 35,707 dual-eligible recipients. Three entities are participating in the Duals Initiative in Rhode Island: Neighborhood Health Plan of Rhode Island, which has long been a managed care payer for Medicaid, PACE, which has used a capitated approach to coordinate care since its inception in 2005 in Rhode Island and Rhody Health Partners, which manages care through a primary care medical home.

Safe Transitions Program: Managed by Healthcentric Advisors, the Safe Transitions Program is underway as a competitive Medicare Quality Improvement Organization effort. It was designed to decrease patient re-admission rates and therefore, Medicare expenditures, by coaching patients to better self-manage their care and by improving patient/provider communications.

D. THE BASIS FOR CHANGING RHODE ISLAND'S HEALTH CARE SYSTEM

During the course of Rhode Island's State Innovation Model Design Process, the current system of care in Rhode Island was examined and discussed. Specifically, the current model of care was evaluated against the vision of a new system of care, one that provides lifelong support of health and wellness, a focus on population health, coordinated models of care and payment transformation. A number of deficits in the current model of care were identified, both through review of data sources and in the 54 interviews with Rhode Island health care stakeholders conducted as part of the design process.

1. Current fee for service environment does not support population health, leads to higher unnecessary or inappropriate utilization and does not promote coordinated care delivery.

Most commercial insurance dollars in health care are spent in a fee-for-service manner (Rhode Island Office of the Health Insurance Commissioner, 2012). It is widely acknowledged that a fee-for-service payment methodology does not create incentives for providers to support the whole health of their patients, nor does it encourage or support coordination to maximize efficiency and quality for all care that a patient receives. Fee-for-service also neglects the patient's need for navigation among and between the patchwork of providers that support their health. (Wallack & Thompkins, 2003)

2. The system of care delivery is fragmented, which can lead to overutilization and higher costs.

In Rhode Island, there are a high number of independent practitioners and an insufficient infrastructure to coordinate and manage care across providers and health care systems. Physicians and other providers have few incentives and limited ability to follow patients as they proceed to specialists or change health care settings, such as transitioning back to the home after a rehabilitation stay in a long term care facility.

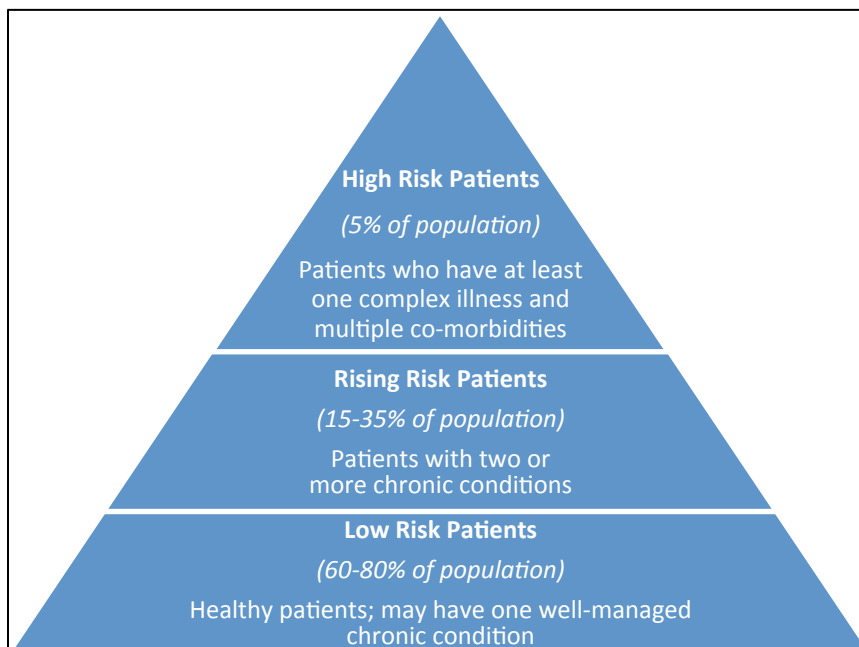
3. Current practice of care transitions increase vulnerability of readmissions/reduced adherence to evidence-based procedures, poorer health outcomes (all of which contribute unnecessary costs)

Care transitions, such as those from hospital to home or from a hospital to a long term care facility increase the vulnerability for risky events in the life of a patient. Poorly executed, they can diminish health and drive up costs (Health Affairs, 2012). Care plans must be understood by and communicated across caregivers. For vulnerable populations, such as the elderly, a poorly managed transition can result in a poor patient experience and outcome as well as an expensive and unnecessary readmission. These potential poor outcomes lead to higher costs and higher rates of morbidity and mortality for the patients. As the payment system pressures lengths and classifications of hospital stays, supportive and successful care transitions becomes much more challenging.

4. **The highest risk (top 5%) population is costly due to multiple co-morbidities and requiring a high intensity of services.**

Rhode Island has conceptualized its population health as being comprised of three groups: High Risk, Rising Risk and Low Risk. (See Figure 4)

FIGURE 4:



The populations with the highest levels of illness are responsible for a disproportionate amount of health care spending. For example, according to a Milliman actuarial analysis, in 2012 the top 1% of health care utilizers represented 29% of total spend for commercial, 23% for Medicaid and 13% for Medicare.

5. **Many Rhode Islanders in the population referred to as the “Rising Risk” population (those with one or two chronic conditions) receive uncoordinated and disparate preventive care that leaves them vulnerable to higher costs and in danger of rising to the high-risk category. Similarly, the low risk population has low engagement with the health care system due to their relative good health.**

The rising risk group represents about 15% of the population and the remainder fall in the low risk category. Without successful education, change in lifestyle and prevention efforts, the rising and low risk populations will move up the scale at the same or increased current rate due to behavioral patterns such as smoking or over-eating if no interventions are made.

6. **Rhode Island is concerned about the prevalence of mental illness and substance abuse, as well as the high cost of treating these conditions.**

Behavioral Health diagnoses appear in the top three highest diagnoses across Medicare, Medicaid, and commercial payers. Accordingly, behavioral health diagnoses represent significant costs to the health system.

The statewide community health needs assessment report provides additional empirical support to the widely acknowledged problem of Rhode Islanders having higher than average mental health illness (Hospital Association of Rhode Island, 2013). For example, Rhode Island residents were more likely to report “one or more days of poor physical or mental health in the previous month” than were residents across the nation. Looking specifically at substance abuse, Rhode Island ranks 35th in the nation on binge drinking measures (United Health Foundation, 2012) and roughly 48% of Rhode Island adults report smoking at least 100 cigarettes in their lifetime which is above the US figure (44.8%). Among Rhode Island residents who are still smoking, 63.2% have attempted to quit in the last year, which is also higher than the US average, indicating a motivated population to improve its health.

7. Lack of consistent transparency among providers and payers inhibits consumers from selecting care based on value.

There is no formal, reliable, centralized approach to inform consumers, payers or providers as to the cost and quality of health care services in Rhode Island. Furthermore, there is no ability to compare providers across the state. As consumers share more and more of the health care burden, transparency of cost and quality information becomes critical to the decision process.

8. There are unrealized opportunities for the health care system to incent higher levels of patient engagement.

Years of experience within fee-for-service structures have taught patients that their health care is something that can only be understood and managed by physicians. The stakeholder interviews conducted as part of the design of this state Health Innovation Plan (SHIP) revealed that there are many areas in which health care providers and payers will soon be expecting patients to take a higher responsibility for managing their own health and health care choices. Given the relative lack of familiarity with the delivery system for the average patient, this raises concerns that Rhode Island residents may not yet be fully ready to take on these responsibilities.

9. Community-based organizations are unevenly equipped to participate in health care and are poorly coordinated with the areas of greatest need.

The variation in ability to collect and analyze data, among community groups, became apparent during the hours of discussion with community-based organization representatives during the SIM Model Design efforts. If community-based organizations are going to be expected to support patients and

providers in their efforts to pursue healthy lifestyles and/or obtain needed social supports, then many of these organizations need to have more sophisticated tools and knowledge to support the tracking of patient outcomes.

10. The current health care system allocates few resources to incorporating social determinants of health into the care delivery and payment system.

It is known that it is the basics of social life that have the greatest impact upon the health of individuals. Influences on a person's life such as housing, access to nutrition, and safe neighborhoods are critical in the efforts of individuals to live healthy lives. Unfortunately, due to years of cost-cutting and political disagreement, the state has not had the ability to make significant investments in these areas.

Rhode Island understands that the social determinants of health affect the health of its population. Its housing stock is old, and according to the state Consolidated Plan, as of 2008, the median age of for the housing stock in the state was 1956. Over a third of the stock was built before 1939, which places it second in the nation for older housing, behind Massachusetts. Older housing carries significant health threats, especially when lower income families occupy these homes. This housing stock is directly related to the elevated rates of Childhood Lead Poisoning and asthma that plague residents of Rhode Island.

Additionally, the social environment can be challenging for Rhode Islanders in that the unemployment rate remains high (at time of this writing, it has the second highest unemployment rate in the nation), and the rate of single parent households is among the highest in the nation, at 34.8%. Furthermore, the percentage of people over the age of 65 that live alone is at 31.1%, which is also higher than the national average of slightly less than 30%. (Hospital Association of Rhode Island, 2013)

Ten percent of adults older than 65 live in poverty, compared to the national median of 8.4%. (Hospital Association of Rhode Island, 2013)

11. Data show that there are disparities between groups, e.g., Medicaid and commercially insured populations

One key disparity is that Rhode Islanders between the ages of 18 and 64 who are on Medicaid and/or Medicare (Dual Eligibles) have higher rates of chronic diseases, such as a diabetes rate of 15% compared to 5% for those with private insurance. Risk factors are also higher for the publically funded groups: 32% of Rhode Islanders on Medicaid smoke, compared to 13% for those with private insurance; and obesity rates are higher among the Medicaid population as well, at 36% compared to 25% for the privately insured population.

12. Community Health Workers under-recognized:

Despite the successful program at the Rhode Island Department of Health, in the marketplace that is considering new forms of value-based care, the definition of “Community Health Worker” remains unclear. Furthermore, awareness of the existence of this specialty and function is low among providers.

13. Limited knowledge of how the current and future health care workforce is prepared to provide care in a value-based system (both in training and in availability)

As the health care system has created structures and reforms to move away from fee-for-service in the past decade, there had been a recognized need for new types of health care workers. Rhode Island has seen the advent of Community Health Workers, Nurse Care Managers and Health Analytics Specialists. The state does not have current or complete data on its health care workforce, its training level or its distribution within the system. Additionally, the state does not have a forecasted demand for workforce needs under a system of population health management and coordinated care models.

14. Uneven expectations and knowledge around value-based care practices

As value-based care is still a relatively young concept in the planning efforts in Rhode Island, it appears that provider education programs are incorporating some of its principles into curricula at different rates and with different foci, if at all. The result is that providers are entering the workforce with different understanding of what’s needed in a new system. Many providers that have participated in the SHIP Design process have reported frustration with their employees or colleagues in that they lack necessary skills for this new method of practicing health care.

15. Populations with complex or specialized health care needs face ad hoc, non-standard or marginal care structures.

Rhode Island’s health care system has had varied levels of success in addressing the health care of persons with complex or specialized needs. Certain structures to address specific populations were created auxiliary to the traditional system. Others were created as alternatives to the system, often from dedicated funding sources. Other health care needs are poorly addressed due to gaps in the system.

E. RHODE ISLAND'S HEALTH CARE GOALS

Rhode Island aims to create a system of care that meets four key elements: lifelong support of health and wellness, a focus on population health, coordinated models of care and payment transformation. The purpose of this system would be to improve the health of Rhode Islanders, while at the same time “bending the cost curve” of health care in Rhode Island and improving the care experience for Rhode Islanders. By implementing the reforms outlined in this State Health Care Innovation Plan (SHIP), the state expects to achieve these goals across five years. A description of how Rhode Island would measure itself against these goals is included in the evaluation plan. (Section J)

Goal #1 Improve the Health of Rhode Islanders

The fundamental shift in the health care system away from episodic care and toward a population health orientation is done with the explicit goal of positively impacting the health of Rhode Islanders. There are three levels of measurement that can help Rhode Island understand its progress toward this goal. The first are measures that look at the indicators of overall health. An example of this is to examine, on a population-wide basis, Years of Potential Life Lost. The second level of measurement would look at the prevalence of specific diseases and conditions that contribute to a population's health. This might include the number of Rhode Islanders with Type II Diabetes per thousand residents or the number of Rhode Islanders with Body Mass Index (BMI) greater than or equal to 30. Finally, Rhode Island can measure behavioral and lifestyle indicators that impact the health of the population. These measures might include the number of Rhode Islanders that smoke and the age at which they began smoking and the number of Rhode Islanders that lead a sedentary lifestyle.

Goal #2 Improve the Quality of Health Care in Rhode Island

Quality and outcomes will be improved through the integration of primary care with community groups, hospitals and specialists. By building a robust analytic system at the individual and practice level, providers and payers will be supported in their efforts to deliver efficient and better-coordinated health care to Rhode Island residents.

Goal #3 Bend the “Cost Curve” of Health Care in Rhode Island

Through the transition to value-based care, it is also the goal of Rhode Island to slow the rate of growth of health care spending. Health care legislation passed in the General Assembly in early 2013 included the authorization to review Rhode Island's health system total cost of care, its drivers and to provide findings and recommendations.

Goal #4: Transition to Value-Based Care

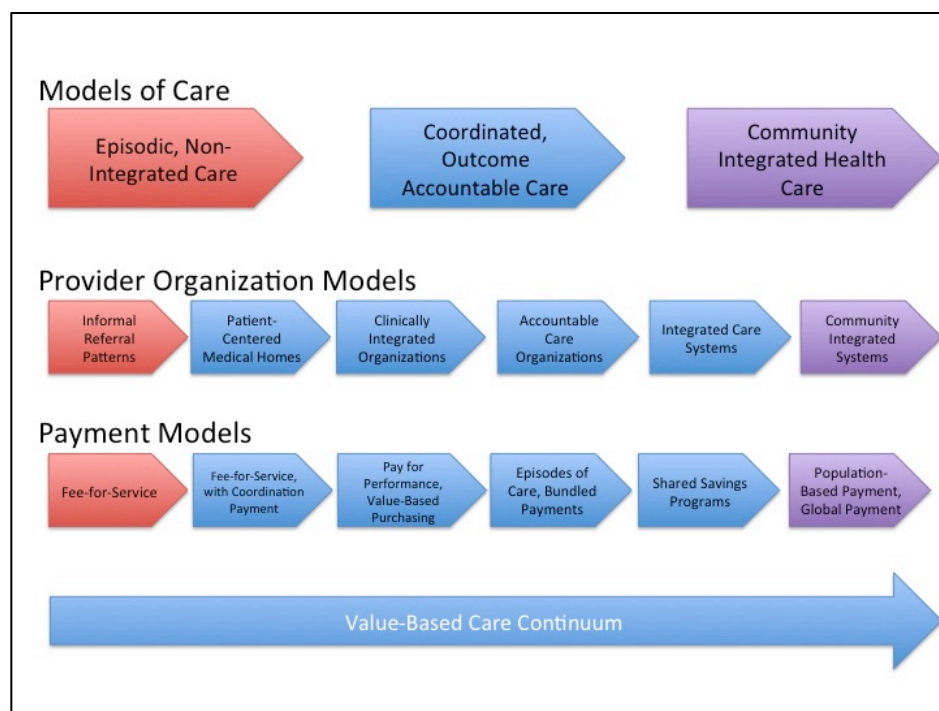
The system goal of the plan is to ensure that at least 80% of Rhode Islanders have access to care that functions in value-based care arrangements, building on PCMH's as a foundation and transitioning through CMS models of value based payment such as Pay for Performance, Bundled Payments, and Shared Savings. These models help develop provider capacity to bear shared financial responsibility.

F. RHODE ISLAND'S VALUE-BASED CARE PARADIGM

Rhode Island promotes a vision of a new system of care – one that supports lifelong health and has as its primary focus and goal, the health of the population of the state. This system is constructed on a foundation of a model of coordinated-care model, supported by a shift away from traditional fee-for-service payment models. While the plan does not specify a single coordinated care model with specific payment structures, there are characteristics that Rhode Island considers fundamental to value-based care.

Rhode Island considers the move to value-based care to be a fluid continuum, with both providers and payers starting at different points and moving at different paces toward the paradigm. The continuum construct speaks to the health care system on three levels – the model of care, the ways providers are organized, and the payment methods. Figure 1. Outlines the Value-Based Care Continuum.

Figure 1.



This value-based continuum is further defined by certain characteristics that are essential to the paradigm.

- **Population Health Management** – Fundamentally, the shift to value-based care is a shift in the health care system away from a primary orientation focused on providing care to treat instances of illness and injury to a primary orientation focused on keeping a population healthy. In order to make this critical realignment in the health system, there are a number of key evidence-based

strategies that provider organizations must engage. In general, Population Health Management consists of three key strategies:

- Empowering and enabling primary care providers to be the central coordinator of care
- Supplementing primary care with robust, patient-centered care management tools and resources based on a modernized data infrastructure
- Leveraging those care management tools and resources to effectively engage people in their own health.

The shift to population health management must be supported by effective provider relationships and a change in payment methods. Integral to a population health management orientation is a robust, scalable data infrastructure that supports both providers and patients. Finally, in a system that is oriented to population health, outcomes and measures must be clear, transparent, evidence-based and harmonized across payers.

- **Provider Relationships** – In a value-based system, providers must have formal relationships to coordinate the care of patients. For example, the patient-centered medical home model includes specific, formal arrangements for care coordination and other services through the medical home. Also, Clinically Integrated Organizations have formal agreements between providers, often between independent practice associations and hospitals or health systems. These agreements relate to the coordination of care and are often directly related to the payment models and arrangements with payers. Rhode Island’s Value-Based Care Paradigm relies on such formal arrangements that can range from formal care coordination agreements to contractual partnership in a care organization, to corporate integration and aggregation.
- **Payment Models** – The Rhode Island Value-Based Care Paradigm eschews traditional fee-for-service in favor of a model that rewards outcomes rather than volume. There are a number of payment models that have been developed to replace traditional fee-for-service in a way that supports providers in working with patients to attain and maintain health, while preserving the system of care to treat illness and injury. These models take many varied structures:
 - Patient-centered medical homes receive a payment on top of traditional fee-for-service to provide care coordination and other care management services that have not always been reimbursed in the past.
 - Pay for performance models have been discussed for years, and recent Medicare changes, along with the advent of reporting systems made possible by electronic medical records, have brought these to greater maturity. Most pay-for-performance models hold back percentages of fee-for-service payments and pay back an amount less than, equal to or greater than the hold-back depending on results on pre-defined performance measures.
 - Bundled payments or episodes of care are payment models that pay a set amount for care of a specific diagnosis or treatment modality. Examples include bundled payment for maternity and normal delivery, or for a knee replacement. These bundled payments

would represent the only payment for care leading up to a procedure or event, and then related aftercare for recovery. In order to ensure quality and protect patients, bundled payments are often paired with process and outcome measures. Provider organizations that are able to provide the appropriate services under a bundled payment arrangement at a lower cost than the payment share the savings among providers.

- Shared savings programs represent a newer innovation in provider payments. Under shared savings, a provider is held accountable for the costs of an attributed population of patients. In general, a provider organization takes on the role of care coordination and management for a population of patients and responsibility for the overall costs of care for that population. If the patients attributed to that provider organization have a lower cost of care than projected, the payer and the provider organization share in the savings. This arrangement is sometimes referred to as upside risk. Some shared savings programs also include downside risk, in which a provider organization is responsible for reimbursing payers a portion of the costs over projections if the care for the patient groups exceeds projected costs. Medicare has implemented a shared savings program, as have a number of other payers in collaboration with provider organizations.
 - Population-based payment, also referred to as global budgeting or global payment, is a payment method in which a provider organization receives a flat payment for the total care of a population of patients. The provider organization is then responsible for the provision of care under that population-based payment, in accordance with strict access and care quality requirements. Population-based payment, along with shared savings programs must include behavioral health payments in payment models. Ideally, the models should also include oral health payments.
- **Health Information Technology and Measurement** – Rhode Island’s Value-Based Care Paradigm relies on robust health information technology as a necessary element of infrastructure. Multiple factors dictate this reliance on technology. First, providers require technology solutions to allow for effective coordination of care. When multiple providers are attempting to coordinate the care of an individual, technology that allows for information sharing and tracking of critical health factors is a necessity. Second, engaging patients in their health requires an effective patient interface, supported by technology. Third, payment models that are based on the costs of care for a population require provider organizations to understand and address the trends of the costs for their population. Finally, if payment models are also oriented to outcomes, technology systems that effectively and accurately record and report those outcomes are essential.
 - **Outcomes Orientation** – Finally, the Rhode Island Value-Based Care Paradigm is rooted in the premise that value is derived from the outcomes attained by the health care system for the costs of provide care or supporting health. Therefore, any model of care in the value-based care paradigm must have an alignment and commitment to outcomes that match the needs and

objectives of the community. These outcomes should first address the health of Rhode Islanders and then the practices of the health care system. This prioritization would drive toward the vision of a health care system that supports the efforts to attain and maintain health in Rhode Island. The measures used to assess performance against the outcomes must be developed in a transparent manner, must be effective to determine performance, and must be harmonized across payers and providers.

G. INNOVATIONS TO ACHIEVE THE VALUE-BASED CARE PARADIGM

Rhode Island benefits greatly from the fact that a transition toward the value-based care paradigm is already underway. For nearly a decade, Rhode Island has been implementing efforts at both the provider level and the community-level to move away from the model of care that is episodic and non-integrated, with the pace of innovation increasing rapidly over the last 24 months. Even with this increase in efforts driving toward the value-based care paradigm, there is consensus that the complexity of changing the business model of the health care system requires further, concentrated effort to drive reform. This need for further effort is heightened given the variability in the readiness to adapt to the changing model of care.

Therefore, Rhode Island considers a number of policies and activities with purpose of simulating and fostering innovation to achieve the value-based care paradigm. These policies and activities fall broadly into five categories, though many could be classified in multiple categories. The categories are:

- Payment Transformation
- Delivery System Enhancements
- System Transition
- Health Information Technology and Measurement
- Population Health Efforts

It should also be noted that some of these efforts build upon each other, and build upon efforts that are already underway in Rhode Island.

PAYMENT TRANSFORMATION

Changing the model for payment for health care services is a fundamental step in achieving the value-based care paradigm. The creation of coordinated care models that support the health and wellness of the population rely on a move away from the traditional fee-for-service model of care. The following activities seek to use the regulatory and purchasing authority of the state to drive changes in how the health care system is paid for the care it provides.

Use regulatory and purchasing powers to set payment standards

Rhode Island has multiple opportunities to drive payment transformation through its regulatory and contracting authority. The Office of Health Insurance Commissioner (OHIC), through its statutory authority, has the ability to set specific standards relating to affordability and provider contracts. OHIC previously set spending targets for primary care for insurers in the fully insured market. In like manner, OHIC has the authority to require insurers under its jurisdiction to gradually increase, over a number of years, the percentage of its payments into care that is provided through the value-based care paradigm.

Additionally, the Executive Office of Health and Human Services, through the Medicaid program, has the authority to set standards for participation in the Medicaid managed care program. Any re-procurements of Medicaid managed care services could include a standard for a percentage of payments for care delivered under the value-based care paradigm. HealthSourceRI, which works with

OHIC to develop standards for Qualified Health Plans (QHP) to be offered for sale through HealthSourceRI, could also set phased-in targets for percentages of payments for care delivered under the value-based care paradigm.

Encourage value-based care options for state and municipal employees, and Medicaid fee-for-service members

Using the leverage of the state's role as a purchaser of employee insurance coverage, Rhode Island will incorporate the goals of the value-based paradigm to encourage new care options for state employees, municipal employees, early retirees and Medicaid recipients within a five-year time frame. Nearly all of Rhode Island's Medicaid population is under managed care. Medicaid can leverage the use of managed care to set targets for its managed care organizations to the amount of care delivered in a value-based care framework.

DELIVERY SYSTEM ENHANCEMENTS

The move away from episodic, non-integrated care cannot rely on payment changes alone. The current system of care exists with the support of the current payment system and a new system of care with new payment models will have different features. By supporting these features during the transition, the system of care can more easily evolve toward the model of coordinated, outcome accountable care. The following approaches are meant to accelerate the move to the value-based care paradigm by creating or supporting those necessary components of the new system of care.

Commit to full, statewide availability of Patient Centered Medical Homes (PCMH)

Building on the state's successful multi-payer demonstration, Rhode Island will expand the effort to ensure that every Rhode Islander that wishes to receive care in a Patient Centered Medical Home will have the ability to do so. In order to achieve this, Rhode Island will continue to support the Chronic Care Sustainability Initiative (CSI-RI), which is a program to support and expand Patient Centered Medical Homes in the state. There are already activities underway to support this initiative. OHIC requires participants in the fully insured market in Rhode Island to honor the common contract developed to support Patient Centered Medical Homes. HealthSourceRI offers QHPs that are built around patient-centered medical homes, and provide incentives to purchasers to select these plans.

Pediatrics will be included in the expansion of Patient Centered Medical Homes. In fact, recent discussions in Rhode Island have suggested the development of services in a Patient Centered Medical Home geared specifically toward adolescents to account for specific care needs of persons 12-21 years of age. Developing a medical home relationship during adolescence may also support continued engagement in care and healthy activities in their 20s and 30s.

Additionally, the state will work with CSI-RI to involve specialists and hospitals in the PCMH coalition in order to support the "Medical Neighborhood" concept and maximize the opportunity to coordinate care and decrease unnecessary utilization. The Patient Centered Medical Home model has served in Rhode

Island and the nation as the foundation for integrating and coordinating care, improving accountability and setting the stage for succeeding in financial risk models.

Expanding the use of Community Health Teams (CHTs)

The expansion of Patient Centered Medical Homes, and the transition of providers to the value-based care paradigm will create the need for greater levels of coordination and care management in the community. Additionally, the increased focus on aiding Rhode Islanders in maintaining health and achieving health goals requires a structure to engage Rhode Islanders in these efforts. Rhode Island considers the creation of community health teams as instrumental in supporting this increased need for management and coordination. Drawing inspiration from Vermont's Blueprint for Health, Rhode Island will build off the success of CSI-RI's pilot CHTs in the Pawtucket and South County communities, and the state will incorporate the lessons gleaned from the evaluation of the pilots as it rolls out CHTs incrementally over five years.

The Role of the Community Health Team

Community Health Teams in Rhode Island will fill the vital role of care coordination and management outside of the clinical setting, in addition to serving to support the health of Rhode Islanders through health and wellness coaching and enabling connection to community-based services to support health. Initially, CHTs will focus on the needs of the high-risk and rising-risk populations. Effective care coordination, treatment follow-up and connection with community-based health resources are essential to improving the health of these populations while ensuring that patients received the right care, at the right time and in the right setting given the complexity of their health needs. Rhode Island is also considering specialized CHTs to focus on specific needs of persons with behavioral health needs in addition to other chronic diseases.

As the model matures, CHTs would grow into a common resource for primary care practices for the entire population. CHTs would be part of the fabric of a person's care, supporting the needs of patients in off-hours or with community supports and supporting healthier communities that benefit the health of all residents. The relationships that can be created between the CHT and persons in the community represents the best tool to engage Rhode Islanders in their health on an individual basis.

Community Health Team as PCMH Enabler

PCMH practices supporting the needs of their patients rely on staff and relationships with collaborating provider organizations to provide the coordinated and care management services that bring so much value to the patient. One challenge to scaling the PCMH model across the state is the high number of small practices. A practice with one or two providers would likely not have the patient volume to support the staff necessary to provide the wide range of services that a PCMH includes. Therefore, Rhode Island envisions CHTs as a resource to allow the expansion of PCMH model to these smaller practices.

Community Health Teams as Coordinated Care Model Enabler

The models of coordinated care under the value-based care paradigm indicate the need for effective communication and collaboration between providers and provider organizations that have a formal care coordination arrangement. CHTs represent an ideal model to play that coordination role for systems of care. CHTs would be a primary point of contact after a hospital discharge or working to align the care of a patient that needs the services of multiple specialists. Primary care providers could use CHTs as the extension of their care oversight and management. Accountable care organizations and integrated health care systems could deploy CHTs to address the needs of patients that are unable to get to offices for visits or who needs regular follow-ups to ensure treatment adherence.

Implementation of Community Health Teams in Rhode Island

The model that Rhode Island envisions for Community Health Teams is teams that are directly linked to a person's source of primary care. In Rhode Island, this would mean that some CHTs are exclusive to, and likely employed by a provider organization, such as a large primary care practice or an accountable care organization. Other CHTs would be shared resources, likely distributed regionally, and connected to a practice. It is not envisioned that CHTs would have geographic catchment areas that would determine their patient panel.

Community Health Teams would have a nurse as care manager and clinical coordinator. The teams would also have a stable of care professionals that could be enlisted given a patient's care needs. This stable of professionals may include, among others, licensed clinical social workers, nutritionists and dietitians, clinical pharmacists and diabetes educators. Supporting the team would be community health workers who specialize in navigating the health care, social service and community organization systems.

Community Health Teams also require specific activities and changes to be a viable part of Rhode Island's health system. First, payment systems must support CHT structures. The traditional fee-for-service model has lacked consistent funding for care coordination services. Additionally, CHTs can provide value in both direct patient contact and coordinating activities between providers. Therefore, CHTs must be funded outside of the fee-for-service model.

CHTs also require a robust technological solution to support their care coordination and management efforts. CHTs must know when a patient is referred to them, who that patient's providers are and what treatment or care plans are in place. This requires effective information sharing between the providers and CHTs, and the ability for CHTs to access real-time information on a patient's care. CHTs also require a robust resource to enable the connection of patients to community-based resources. Rhode Island has a model for this connection tool in Health Leads, a community organization discussed earlier in this report, as well as local Community Action Programs that work with at-risk families.

The lack of consistency between the structures in Rhode Island's health care system results in the need for a phasing in of Community Health Teams to achieve the envisioned model. Rhode Island will support transition-models of CHTs, including those based in hospitals, behavioral health providers and payers, while the system of care continues its transition toward the value-based care paradigm.

Intermediary services for high utilizers

Recognizing that many of the highest utilizers of the Emergency Departments (ED) and Medicaid services also have behavioral health or substance abuse conditions, Rhode Island will continue develop a series of intermediate intensity services for the highest ED utilizers. Rhode Island's Medicaid program has implemented "Communities of Care," which identifies high end ED utilizers, offers them a progressive array of case management services (medical, behavioral and/or peer navigation) and tracks utilization before and after enrollment to assess the impact of the interventions on utilization patterns.

Other services may include Sobering Centers, Home-based primary care and "Ambulatory ICU's" for high-need patients. These patient-centric interventions offer the benefit of providing the high intensity support and services that this population needs in a more appropriate, lower-cost setting. Additionally, Rhode Island will develop and use Community Health Teams in key areas to support Medicaid and Medicare high utilizers. Data shows that Medicaid populations tend to have higher incidence of chronic conditions and concentration of ED visits, these specialized managers will include clinical specialists in the areas of ED visit reduction, behavioral health, substance abuse, chronic conditions and pre-natal care.

Improve integration of community-based groups with primary care teams

Rhode Island will encourage and support the integration of community-based organizations into the health care system. Traditionally, community-based organizations have operated outside of and ancillary to the medical care system, despite the evidence that many of these organizations have effective and cost-efficient programs to improve health. The value-based care paradigm relies on the integration of community-based organizations into care plans to support the health of the population.

Using Community Health Teams as a coordinator, community-based organizations will become resources for primary care practices in their efforts to support and promote healthy lifestyles, and/or to provide access to basic supports such as housing and job training to fill deficiencies due to social determinants of health. Rhode Island seeks to build upon its community assets rather than creating new structures or organizations. Many of the community-based groups in the state have been working successfully for many years; Rhode Island would best be served by these organizations taking larger leadership roles in our community in efforts to improve residents' health.

Navigators and System Ombudsman

This new value-based care system represents a significant change in structure and will therefore be unfamiliar to most patients and consumers. Building off of the anticipated successes of the HealthSourceRI navigator program, and in concert with Community Health Teams, Rhode Island will make sure that there are accessible and knowledgeable support workers available to patients and consumers to assist them with their health needs, especially in navigating the system of care delivery. Additionally, an agency or entity will be identified to monitor the effectiveness and ease of navigation of the system, from the point of view of the patient, and work to identify areas that may need

improvement. This Systems Ombudsman will take on that responsibility and ensure that areas of difficulty within the system are addressed.

Behavioral Health System Reform

Rhode Island's fragmented system of behavioral health care and segmented sources of funding for that care makes reform in this system even more challenging. Layering in Rhode Island's higher than average rate of behavioral health diagnosis, any reform efforts must support the care needs of the population. The fundamental goal of delivery system reform in behavioral health is effective, meaningful integration with the other parts of the system of care resulting in improved health. This integration is a complex and challenging effort that many states are grappling with. The following strategies will help to facilitate integration, but Rhode Island recognizes that true integration is an ongoing objective that will require continued attention of policy-makers and stakeholders.

- **Payment Transformation:** One critical step to integration is the inclusion of behavioral health payments in coordinated and integrated payment models. This will demand the inclusion of behavioral health in coordinated care models under the value-based paradigm.
- **Co-Location of Behavioral Health and Primary Care:** Rhode Island is already utilizing a dual model of co-locating services as an initial step toward integration.
 - **Co-Location Strategy #1:** Rhode Island will expand the co-location of behavioral health providers at Primary Care delivery sites and screen regularly for behavioral health problems. This intervention is most effective for those with a lower level of acuity in their behavioral health diagnosis. Rhode Island will encourage screening and referral through the leverage of requiring process and outcome measures as part of the payment transformation to value-based contracting. Screening measures including PHQ-9 and SBIRT do not require a medical doctor for test administration, so this approach will not adversely impact the already heavy burden on primary care physician workflow. This is a significant step in integrating care and using care managers appropriately in a team-based approach to primary care
 - **Co-location Strategy #2: Co-locate Primary Care Providers at Community Mental Health Clinics.** Building on the success of a number of efforts already underway, including the Health Homes project, Rhode Island recognizes that a crucial improvement tool to increase access to primary care for patients with behavioral health diagnoses is to bring primary care to the locations where populations who suffer from more acute needs are already located. This population is also likely suffering from chronic illness, and has a significantly shorter life expectancy as a result of many factors – but particularly due to lack of regular access to primary care (Merides, 2013). This is a patient-centric solution that acknowledges that such patients face many obstacles in their efforts to obtain basic health care, and by solving at least some of them, Rhode Island can improve their quality of life.

- **Community Health Teams:** As discussed earlier, the structure of Community Health Teams is designed to provide effective coordination and care management between providers. Using CHTs to support and coordinate behavioral health, including the use of specialized, behavioral health focused CHTs will support efforts for integration.

SYSTEM TRANSITION

Effectively moving from the current model of care to the value-based care paradigm will require significant work. Even with payment transformation and delivery system enhancements, the shifting of care models for health care providers will require hands-on assistance. Additionally, the size, distribution and skill set of Rhode Island's health care workforce is critically important. A health care workforce that is not in the right setting, or not the right size, or lacking the skills needed to support the value-based care paradigm will prevent the new model of care from succeeding.

The Rhode Island Care Transformation and Innovation Center

The Rhode Island Care Transformation and Innovation Center (RICTIC) is a concept that will accelerate Rhode Island's transition to value-based care. It is a public-private partnership that will assist Rhode Island's health care system transition to the value-based care paradigm by hosting and supporting convenings and collaboratives, by providing technical assistance to health care providers and community-based organizations, and by providing seed funding to organizations as they seek to move toward the value-based care paradigm.

Rhode Islanders that participated in Healthy Rhode Island and other reform efforts voiced a clear need for coordinated technical assistance in the shift to value-based care. For example, the March 2012 report of the Payment and Delivery System Reform Workgroup of the Rhode Island Healthcare Commission stated:

Providers must be assisted in the transition to any new models. At all levels, providers need transitional guidance, and potentially investment, to move from the current system to any new payment or delivery model. That assistance could be a ramping up of implementation or technical assistance in changing practice or operational models to ensure success in a new system (Rhode Island Healthcare Reform Commission, 2012).

The RICTIC will coordinate and offer guidance for providers in the transition to coordinated care models. Rhode Island recognizes that the RICTIC can build on several of these efforts – described below – that are already under way. The RICTIC will ensure these current and future technical assistance initiatives help practices meet the characteristics of the Rhode Island value-based care paradigm.

Selected Care Transformation Efforts Underway

Use of Health IT in Practices - As the Medicare Quality Improvement Organization for the State of Rhode Island, Healthcentric Advisors began working with some of the first practices in the state to implement Electronic Health Records and integrate them into existing clinical processes with *The Doctors' Office Quality Information Technology* (DOQ-IT) program. Healthcentric followed DOQ-IT with two additional EHR / Health IT quality improvement contracts for physician offices that supported early adopters of advanced quality endeavors and practices struggling with the pace of change.

In 2008, Healthcentric partnered with physicians to improve preventive health outcomes by helping them interpret and use clinical quality measures via consistent data capture, interpretive analytics, and electronic clinical decision supports. Healthcentric Advisors most recent physician office quality contract, which began in 2012 and is called *Improving the Health for Populations and Communities*, focuses on advanced EHR use, care team transformation, and patient engagement. Examples of their technical assistance include:

- Harmonizing project quality improvement measures such as:
 - Meaningful Use
 - Physician Quality Reporting System (PQRS)
 - Healthy People 2020
 - The ABCs of the Million Hearts Campaign
 - NCQA PCMH Standards
- Capturing, reporting and analyzing EHR data to identify trends and outcomes, and redesign workflows
- Promoting peer-networks, direct electronic messages and provider compacts between PCPs and specialists to support broad patient management
- Promotion of EHRs as a tool for patient education and visit summaries

Care Transitions -Healthcentric Advisors has worked with health care providers and other community organizations since 2008 to improve transitions of care for Rhode Islanders and reduce avoidable hospital readmissions through education, research, and technical assistance.

Healthcentric Advisors' Safe Transitions program supports individual providers who use evidence-based interventions to reduce hospital readmissions. The program has also formed regional coalitions that identify ways to improve transitions in their community. Safe Transitions also established Best Practice Measures for different settings to create measurable, community-wide standards for patient and provider communication.

These regional coalitions have demonstrated meaningful success. For example, CMS recognized one of the five coalitions, Washington County, for achieving a top Relative Improvement Rate (RIR) in readmissions per 1,000 Medicare fee-for-services beneficiaries. In late 2013, Healthcentric Advisors began expanding Safe Transition to an EOHHS-funded learning collaborative. This collaborative identifies communication opportunities between hospitals and community providers at the time of discharge.

Patient Centered Medical Homes (PCMH) – The two large PCMH projects in Rhode Island – Blue Cross Blue Shield’s PCMH and the state’s Chronic Care Sustainability Initiative (CSI-RI), offer a formal and successful structure for coordinated care led by primary care teams.

CSI-RI is Rhode Island’s multi-payer Patient-Centered Medical Home demonstration project. The project has helped primary care practices reach NCQA standards for patient-centered medical homes through an all-payer, collaborative approach. CSI began with five primary care practices that wanted to change for all their patients, not just for one insurer at a time, and needed help doing so. Today, CSI includes 38 practices that care for approximately 200,000 patients. Together, these practices share ideas, communicate openly, experiment, and used evidence-based techniques to change the way they interact with patients, particularly those with chronic conditions.

CSI partners with BCBSRI’s provider relations team and other technical assistance providers to offer formal practice transformation to all its member practices. These ongoing sessions, led by experts, reinforce and troubleshoot the PCMH model with more experienced sites and train new practices in team-based care. CSI-RI sites must also hire a nurse care manager, which is funded by the program, to ensure there is an employee dedicated to implementing these transformation lessons.

BCBSRI’s proprietary PCMH is similar to CSI-RI and funds additional elements such as physician champions and advanced quality measures. Similar to CSI-RI, the BCBSRI PCMH offers practice transformation and on-site case management and reports improved patient experience (patient *and* physician), outcomes, and spending trends. Because of their efforts, CSI-RI and BCBSRI PCMH practices provide higher-quality care and help their patients achieve better outcomes, such as fewer hospital admissions and readmissions.

In both cases, care transformation in Rhode Island centers on true collaboration among payers, providers and the state. Practices commit additional time for physicians, nurse care managers and other staff to attend regular internal and project-wide meetings. These gatherings help the project deepen its competencies by sharing best practices, developing new ways to care for patients, and agreeing to what outcomes the practices will be held. This collaborative model is transparent to all practices and lends well to expansion efforts to new practices.

Proposed Structure and Activities

Major Activities

The RICTIC will be a hub of innovation for Rhode Island’s health care system, and will lead transformation through three main functions: (1) Convening of the Accountable Care Collaborative, (2) Technical assistance for practice transformation and analytics and (3) Funding and capital pooling for transformative interventions. The RICTIC will promote care transformation, lead collaboration, share best practices, and provide training and technical assistance to reorient the delivery system towards population health and value-based care.

In the short term (0-3 years), the RICTIC will convene and assist providers in the move to value-based care. As Rhode Island's health care system transforms (likely beginning in year 2), the RICTIC will begin focusing on the population health alignment of the delivery system. This work will likely include training on techniques to promote healthy habits for patients, use of Health IT to identify patients at-risk of chronic diseases and provide targeted interventions, and coordination of efforts between health care providers and community-based organizations that support the health of communities. The activities envisioned for the RICTIC are meant to use, and build upon, similar or supporting activities already underway.

Convening – As the innovation center of the state's delivery system, the RICTIC will serve as the convener of providers and policy makers. A core convening activity for the RICTIC will be the coordination of the Accountable Care Collaborative. The goal of RICTIC's role at the center of care transformation is to promote evidence-based and actionable proposals. Additionally, the RICTIC will host learning collaboratives focused on elements of the Rhode Island Value-Based Care Paradigm. These collaboratives will include training on effective use of HIT in a collaborative care model. These techniques break down the silos that exist between care systems, such as between behavioral health and oral health, and better integrate the community-based organizations into primary and acute care plans.

- ***Coordinated care collaborative:*** The RICTIC will establish and support a multi-stakeholder collaborative to support and foster provider organizations to move toward the coordinated care models identified in the value-based care paradigm. The collaborative will address the analytical, financial and strategic complexities of shifting the business model of provider organizations away from episodic, non-integrated care to coordinated, accountable care. Key activities of the collaborative would be to develop contract strategies, measurement strategies and shared learning for provider organizations. This coalition will also be instrumental in further identifying appropriate policy and/or regulatory changes that may be needed in the future.

A collaborative structure is the same strategy used by the Office of Health Insurance Commissioner when it successfully sought to encourage the creation of Patient Centered Medical Homes. Market stakeholders have clearly articulated their desire for the state to retain its role as a convener as it seeks to implement health care reform in this state. Bringing together such a group as a multi-payer coalition will help drive accountability with payers and providers.

Technical Assistance – One challenge to Rhode Island's move to a value-based care paradigm is the readiness of providers to adopt and launch new care models and payment systems with their existing resources and training. The RICTIC will coordinate existing and future envisioned technical assistance efforts. Technical assistance may include: training in team-based population health management using electronic health records; developing systems for tracking patients and coordinating care plans with various providers; and incorporating techniques for shifting away from the fee-for-service mentality and engaging regularly with patients to monitor and maintain health. Assistance may also include training on how to use practice-based technology to meet outcome standards for payment systems.

Since providers across the state are in very different stages of readiness to move to the value-based care paradigm, the RICTIC must develop effective evaluation techniques to understand where a given provider is in regards to preparedness to transition to value-based care models.

Funding Activities – The RICTIC, given its administrative structure outlined below as well as its focus on innovation, is an ideal arrangement to organize and pool capital investment in Rhode Island’s health care provider system. The RICTIC will serve a grant-making role for provider, payers and community-based transformation activities.

The transition to value-based care implies some transition costs. Previous transformation efforts have offered some level of financial support, such as the transition to electronic medical records under the American Recovery and Reinvestment Act and the Advanced Payment ACO project funded by the Center for Medicare and Medicaid Innovation. Rhode Island envisions the RICTIC as the source of such capital investment to support fundamental care transformation.

Governance

The RICTIC is a project of the state, although it is envisioned that the work of the Center would be conducted by organizations in the community under contract with the state. A leadership team that consists of representatives from state agencies and departments with a health focus will oversee RICTIC operations, and provide it with strategic guidance and direction. In addition to this leadership team, the RICTIC will include a Transformation and Innovation Council consisting of leaders in Rhode Island’s health care innovation. The Council will serve a number of purposes, including advising the leadership team on policy direction, holding regular discussions on innovation and trends in Rhode Island and across the country, and reviewing the progress of Rhode Island’s health care system toward the value-based care paradigm.

Workforce Development

While changes to the payment, clinical, and technology models in the health care environment are all essential to building a value-based care system, it is the workforce delivering care to patients that is essential to executing on the vision for the future. Rhode Island is building a workforce model for the future that is focused on realizing the triple aim and is both person-focused and supports providers moving to value-based care. In order make the next move into a value-based delivery system, Rhode Island has identified several important areas to focus on for its current and future workforce:

- **Develop uniform credentials and requirements for Community Health Workers:** CHTs will be crucial in the success of value-based care, and require the work of Community Health Workers. In order to ensure that they are able to fully execute their responsibilities and allow the other members of the Community Health Teams to work at the top of their licenses, these members will need uniform credentials, training and licensing requirements. Uniform credentials will also allow for the ability of multiple payers to support their use.

- **Conduct a workforce assessment:** A focused strategic assessment will give Rhode Island an analysis of the current workforce in supply in comparison to future needs in a value-based delivery system and reform efforts outlined in this plan. In addition, the assessment will provide an on-going evaluation tool for Rhode Island to use as the system moves further into value-based care, which will continually assess and rationalize the workforce. This will be an important tool that will have continued value for building the appropriate workforce and workforce pipeline in Rhode Island.

The assessment will evaluate opportunities for further integration efforts around:

- Pharmacy
 - Co-location of services
 - Behavioral health (currently under consideration by Health Care Planning and Accountability Advisory Council)
 - Long term care
 - Certified professionals
 - Licensed professionals
 - Opportunities for Telehealth
- **Develop curricula for in-service training for professionals as well as students:** Using the results of the focused assessment as well as other reports produced from assessments by OHIC and related entities, Rhode Island will work to remove ‘siloes’ curriculum models and coordinate education and training of the health care workforce for a value-based system. In coordination with the Department of Labor and Training, the Department of Health, graduate training programs and other participating agencies, the state will launch programs that:
 - Retrain the existing workforce and bridge existing gaps in today’s workforce;
 - Address certification and licensure gaps and barriers for new and existing professionals;
 - Incentivize in-demand professionals to receive education and stay in Rhode Island through loan forgiveness programs or tuition payments; and
 - Coordinate and integrate the principles of the triple aim and a value-based delivery system across health care training programs for all member of the health care workforce with an eye toward future workforce needs.

Coordinated Health Planning

Rhode Island has broad statutory commitment to robust coordinated health planning. Broad health planning authority was developed and assigned to the Department of Health nearly 40 years ago. Numerous regulatory structures were then implemented to support the health planning process that remain today, including a robust licensure and certificate of need process. However, the state has been without an updated health plan for decades, leaving the regulatory authorities to rely on ad hoc,

circumstance-based decision making, rather than guidance from a health plan. An effort to re-ignite coordinated health planning was passed by the legislature in 2006 but budgetary constraints limited the activities until 2011. Investment in the planning effort began at a limited level, allowing up-to-date analyses of specific health care supply issues.

The transition to the value-based care paradigm requires in-depth and ongoing understanding of the Rhode Island health care system. It also demands an alignment of regulatory efforts to support plans to change the system. For this reason, Rhode Island needs an investment to support the creation of an up-to-date health plan for the state that supports the value-based care paradigm. The health plan will be developed through the Health Care Planning and Accountability Advisory Council, the legislatively created body charged with health planning activities.

HEALTH INFORMATION TECHNOLOGY AND MEASUREMENT

Rhode Island's transition to the value-based care paradigm cannot occur without technological innovation and data-fueled solutions. Despite significant investment in health information technology and analytics with strong early results, Rhode Island remains in a fragmented, un-coordinated system of data sharing, rather than a truly data-driven and measurement-focused networked health care system.

Moving away from fee-for-service health care requires powerful data and a coherent framework in which to share, analyze, and incorporate this information. For payers and providers to effectively transition away from fee-for-service, both sides will need timely, accurate, and standard information about patients. Such data are more accurate and easier to compile for large numbers of patients, which makes partnerships and other provider arrangements a necessary part of value-based care in a state as small as Rhode Island.

These arrangements are best built on centralized information, which encourages coordinated care across sites and a thorough understanding of organizational finances and care patterns. For instance, physicians can provide better, cost-effective care if they have the patient's complete clinical, claims, and quality data for each patient at the point of care. A large provider organization refines its approach to costly or poor care by attacking specific weak points. It supports and tracks its high-utilizers by monitoring data over an entire network of providers. A care team – physician, nurse care manager, medical assistant – plan for interventions for the next day's patients by reviewing custom screening and health status reports.

Beyond the raw data, excellent team-based care requires shared tools, training and continuous analytic support from human experts. Practices need technical assistance on how to properly document a visit in their electronic health record so that quality measures accurately reflect the care they provide and so key clinical information stays with the patient. Most practices also need help interpreting and using this information to better manage their entire panel (high-utilizers, low risk patients, rising risk patients) and support their colleagues in total practice transformation.

The State, as both a payer and steward of public health, can better spot emerging disease trends, coordinate and evaluate interventions, and measure spending if it has population-level information. Finally, consumers are better patients when they can easily access their own health care records, find simple cost and quality information, and know how to weave this information into their health care decisions.

Technology and analytics are necessary to implement the value-based care paradigm and will require major investment, trust and coordination among all parts of the health care system. This effort will require both common underpinnings – such as harmonized measures and shared infrastructure – and flexibility. Each entity must be able to build a unique solution on a common base. Most importantly, it will require a statewide commitment to analytic, evidence-based thinking.

The four strategies below will build the right technology and analytics, not merely for their own sake, but to provide better care at a lower cost for a healthier population:

1. **Enable real-time and point of care patient data:** To move away from fee-for-service, providers need timely, relevant, and trusted data on individual patients at the point of care and at the organization level for strategic analysis.
2. **Offer technical assistance, training and shared analytic resources to providers:** Train practices on how to document, analyze, use and communicate their clinical, claims and quality measurement data. Coordinate shared analytic tools and support.
3. **Align quality, cost and utilization measures among payers and government:** Reduce the burden on providers to generate different, but often similar, measures for each payer and program. A community alignment process will help identify the state's health care priorities.
4. **Use data to drive state health policy:** Empower policy makers with clinical, spending and use data to track statewide cost, disease trends, and program effectiveness. Develop statewide data monitoring systems such as the All Payer Claims Database (APCD) and Currentcare.

HITM Tactics:

To achieve the vision and meet the goals outlined above, Rhode Island's State Health Innovation Plan proposes the following specific innovations.

1. **Enable real-time and point of care patient data:** To move away from fee-for-service, providers need timely, relevant and trusted data on individual patients at the point of care and at the organization level for strategic analysis.

Expand the presence and usability of Electronic Health Records (EHRs):

Meaningfully using a certified EHRs and being connected to Currentcare improves patient care and strengthens organization and state strategic planning, decision-making and public health monitoring.

- Through RICTIC's measurement work (see Strategy 2 below for more information), align federal, state and private sector incentives and reporting requirements for EHR use.
- Provide additional funding for the Regional Extension Center (REC) and the state's quality improvement organization (QIO) to help providers, including behavioral health and rural practices, achieve Meaningful Use for their EHRs. These assistance centers will also help practices best use their EHR for quality and clinical reporting purposes by teaching physicians how to properly capture and record data, generate reports, and build the EHR into their workflow.
- During practice consultation, the REC advises providers to use only those EHR vendors that comply with the interoperability requirements of Meaningful Use.
- Develop a strategy for federated identity management or single sign-on capability among clinical databases. This strategy would allow providers to use one set of credentials to access one or more of the following: their EHR, Currentcare, hospital system or private HIEs for which they have viewing privileges, and the state's prescription drug monitoring program (PMPD). This would begin by pilot testing the concept between Currentcare and the PMPD.
- Coordinate RICTIC, RIQI (which operates the REC), Healthcentric Advisors, to ensure EHRs connect to Currentcare and take advantage of its features.
- REC: Assist providers in meeting Meaningful Use with specific focus on the transitions of care requirements for Meaningful Use Stage 2.
- RICTIC: Help providers generate and incorporate clinical quality data from their EHRs into practice transformation plans.
- RIQI (via the REC), Payers: Create a multi-payer incentive for practices to enroll in Direct (a secure email exchange), sign up for admission/discharge/transfer (ADT) alerts, and enable the Viewer.
- State government: Agencies such as Medicaid and the Department of Health incorporate these features into their provider reporting programs to bolster the business case for Currentcare and EHRs.
- OHIC: Require value-based care contracts between insurers and providers stipulate the provider must have an EHR that meets Meaningful Use and fully connects to Currentcare, as described above.

Increase Enrollment and Scope of Currentcare

The state's health information exchange promotes timely analysis of aggregate and individual clinical data, the power of which grows with rising patient enrollment, practice participation, and submissions from providers.

- Build optional electronic Currentcare enrollment into Healthsource RI (HSRI), the state health benefits exchange, and private sector health insurance process. Train patient navigators and the HSRI call center operators to discuss the benefits of Currentcare and encourage enrollment.
- For providers engaged in value-based care arrangements, OHIC may require that 90% of their patients be offered enrollment in Currentcare within two years of contract signature.
- Work with RIQI and the insurer community to design and fund enrollment incentives similar to the existing BCBSRI/RIQI initiative.
- Build patient engagement tools into Currentcare. Such tools would include a portal for patients to access their full Currentcare health record, a stand-alone medication list and the ability to complete a “common intake form” before visiting a new physician.
- RIQI and RICTIC collaborate to engage more data-sharing partners, with a focus on specialists, mental health centers, imaging centers, home health agencies and payers for claims data. Note that the majority of hospitals, laboratories and pharmacies already provide data.
- RIQI and EHR vendors collaborate to build bi-directional exchange of Care Continuity Documents (CCDs). While Currentcare can receive, store and consume CCDs from private EHR, the reverse is not true. Most EHR vendors are not yet able to fully consume a CCD, which inhibits total patient care coordination.
- The state convenes payers (private and public) to integrate claims feeds into Currentcare for enrolled patients. Ensure that this submission minimizes duplication with the payer’s APCD submission. For instance, ensure the file structures are as similar as possible and the filing dates are complementary.
- Expand the usefulness of DIRECT Messaging by encouraging payers to send reports to providers, and providers to send reports to HEALTH and other state agencies through Direct Messaging.
- Highlight the importance of statewide clinical health data by regularly publishing statistics and reports from Currentcare information. Focus on safe transitions, high-utilizers, and public health outcomes.

Provide timely (less than 3 months) claims feeds to providers engaged in value-based care until claims data can be incorporated into Currentcare or EHRs.

- Provide regular reports on high utilizers, prescription and hospital use trends and referral patterns using DIRECT Messaging as the communication method.
- Provide a monthly list of attributed patients to ensure providers and payers adjudicate their contract for an agreed-upon panel using DIRECT Messaging as the communication method.
- Structure claims feeds to meet contract adjudication and point of care needs, such as custom periodic reports and feeds that Currentcare or EHRs can read.

- Whenever possible, maintain the same file structure as the APCD or other claims reporting programs.

Establish a statewide authoritative Provider Directory that diverse data systems, agencies, and organizations can use. Such partners may include HealthSourceRI, the APCD, Currentcare, the medical licensure program, and Medicaid.

- The directory would support a variety of uses, including the ability to track relationships among providers and their affiliated organizations, accurately store data on practices and individual providers, and calculate a denominator for the number of provider practices in the state etc.
- Articulate the directory's governance, including the entities that oversee, operate, and maintain the database. Determine whether the directory should build off an existing system or be newly created.

2. Offer technical assistance, training and shared analytic resources to providers:

Train practices on how to document, analyze, use and communicate their clinical, claims and quality measurement data. Coordinate shared analytic tools and support.

- Establish the Rhode Island Care Transformation and Innovation Center (RICTIC) to coordinate analytic training and resource sharing.

One of the main functions of the RICTIC will be to develop analytic resource capacity – software, hardware, and people – and train provider groups on how to incorporate and communicate their data, and support providers as their own analytic capacity grows

- RICTIC will provide technical assistance and training to providers in analytics from HIT
- The priority users will include small, behavioral health and rural providers and those caring for complex patients such as high-utilizers, dually-eligibles, and those with developmental disabilities
- Analytic software and the accompanying technical assistance will analyze and learn from a practice's existing claims, clinical, quality, and financial data
- For all providers, offer initial and ongoing technical assistance for incorporating analysis into workflow and patient communication.
- Providers and consumers will test analytic tools to ensure they meet the needs of the practices, calculate accurate and relevant results and help practices meet core analytic competencies

3. Align quality, cost and utilization measures among payers and government:

Reduce the burden on providers from having to generate different, but often similar, measures for each payer and program. A community alignment process will also help identify the state's health care priorities.

- Harmonize metric definitions for cost, quality and utilization data.
- RICTIC will convene measurement alignment work to ensure that quality, spending and use metrics have common definitions.
- Develop a Data Intermediary structure to host and report on centralized quality data.
- The goal of the intermediary is to reduce the administrative burden for payers and providers involved in reporting similar, but slightly different, quality metrics to various oversight entities and health plans.
- The intermediary will store and aggregate data from providers, including from Currentcare, to calculate quality measures and report them to the respective oversight entities.
- These definitions will prioritize established national and state specifications.

4. Use data to drive state health policy:

Empower policy makers with clinical, spending and use data to track statewide cost, disease trends, and program effectiveness. Develop statewide data monitoring systems such as the All Payer Claims Database (APCD) and Currentcare and use these tools to support convening of alternative payment workgroups.

- Continue to invest in an APCD with de-identified claims data that supports population health management. Such a database may, for example:
 - Include claims data from many public and private sources.
 - Risk adjust the data using nationally-accepted risk adjustment method.
 - Produce regular, community-reviewed population-level reports on total and service-specific spending; disease trends by demographic categories, zip code, town and county; utilization reports by service types.
 - Include analytic capacity to calculate avoidable service use, such as potentially preventable readmissions and ambulatory-care-sensitive admissions.
 - Measure the frequency of volume sensitive conditions by provider.

- Measure the prevalence and frequency of services or diagnoses of interest, such as behavioral health care and substance abuse.
- Produce other reports and collect detailed claims data to support public health monitoring within state government.

Continue to invest in Currentcare's population health management capacity

- In addition to the enrollment, data submitter, provider engagement and technical assistance efforts described above, the state will coordinate with RIQI to deliver population-level reports on clinical and quality trends, disease surveillance and admission/discharge/transfer patterns.

Build the public reporting capacity of HealthSource RI (HSRI)

- Build data sharing capacity into the HSRI website to assist with health plan, provider networks and care selection. Such data may include information specific to health plans and providers, such as use, spending, and patient outcomes.
- Coordinate with the APCD and Currentcare to provide a consistent set of relevant data from these databases for public consumption

POPULATION HEALTH EFFORTS

Transitioning toward the value-based care paradigm in a way that supports the health of the community requires more than just realignment in the health care delivery system. Specific efforts to engage with the community in their health, along with affirmative support and efforts at prevention and health promotion, is a necessary component of the value-based care paradigm.

Social and community service resource directory. Providers will need access to up-to-date information on community services that can support the health goals of their patients for a team-based approach to providing quality care. Rhode Island will support the development of a web-based directory that will contain accurate, geo-located descriptions and contact information of the community-based services in Rhode Island. Services such as housing support, food/nutrition assistance, diabetes lifestyle management will be up-to-date and searchable, allowing members of the Integrated Care Teams to serve and connect their patients to valuable services

Through planning, encourage the state, cities and towns to understand social determinants of health. With increased emphasis on the importance of health prevention and patient engagement, and increased coordination within state government around health prevention issues, Rhode Island makes a commitment to ensure that the state, as well as its cities and towns, increases its awareness of the importance of population health as an outcome of sound planning efforts. This should increase the state's accountability for the health of its citizens when creating growth and development plans.

Communication. Rhode Island will leverage the integrated communications strategy developed by HealthSourceRI and the public health communication efforts led by the Department of Health. Building

on lessons learned and best practices in Rhode Island, the state will ensure that all health care reform messaging is well coordinated among entities. Through the development of Public Service Announcements (PSAs) and the use of social media, and other important channels, there will be fully coordinated (and appropriately translated) messaging to residents.

Create a sustainable, commonly available fund for prevention activities. The state of Rhode Island will standardize its prevention and public health efforts through a statewide funding mechanism that would provide services to all Rhode Islanders regardless of coverage type. Services could include vaccination efforts and the development of projects designed to improve the health of a community such as tobacco cessation, obesity prevention and disease-specific efforts. Rhode Island's base of community organizations will be further strengthened through these efforts.

Targeted, Sustainable Health Promotion Efforts. In an effort to meet Rhode Island's goal of improving the health of the population, the State will include efforts to reduce smoking, lower the level of obesity and the management of diabetes in the value-based care paradigm.

REDUCING SMOKING AMONG RHODE ISLANDERS

Rhode Island has a long and successful history at reducing the rate of smoking in its population. The state's efforts are coordinated through the Tobacco Control Program at the Department of Health. The Tobacco Control Program (TCP) works to eliminate tobacco-related disease by creating environments that make it harder for people to start using and continue using tobacco. Preventing tobacco use and exposure to second and third-hand smoke is critical to the health of our state and the TCP relies heavily on informative statewide educational initiatives, innovative traditional and social media campaigns, state and local data collection and dissemination, and funding of cessation services to accomplish this goal.

Accomplishments and Milestones

- **Rhode Islanders are kicking the habit.**
Rhode Island's adult smoking rate has seen a dramatic reduction from 23% in 2001 to 16% in 2010 ([RI BRFSS 2000, 2010](#)).
- **Rhode Island youth refuse to be "replacements".**
For every customer that dies, tobacco companies look for a replacement. However, tobacco companies are not finding young replacements in Rhode Island. The youth cigarette smoking rate has plummeted from 35% in 2001 to 11% in 2011. Rhode Island is proud to have the third lowest youth smoking rate in the US ([RI HS YRBS 2001, 2011](#)).
- **Rhode Islanders can breathe easier.**
Smoke-free Workplace Law: On June 29, 2004, Rhode Island became the seventh state in the nation to pass into law a bill that prohibits smoking in public places and workplaces in Rhode Island.
- **Rhode Islanders can get the help they need.**
If you or someone you know are ready to quit smoking, there are a number of ways to get help.

- Health insurers now cover cessation services. In August of 2009, The Office of the Health Insurance Commissioner's [Regulation 14](#) has required health insurers to offer broader coverage of smoking cessation services.
- The TCP has created www.QUITNOWRI.com to provide information on cessation resources available to all Rhode Islanders. The site also features video from its recent media campaign, motivational ring tones and encouraging personal stories.
- Cessation services can also be accessed through a toll-free number.
- **Smoking is an expensive habit.**
Rhode Island has consistently increased the cigarette excise tax rate, making smoking difficult to afford. RI currently has the second highest tax rate in the US at \$3.50 per pack. High prices for cigarettes increase quit attempts, especially among young and lower income smokers.

Rhode Island will continue its efforts to reduce smoking, building upon the requirement that cessation services are covered by insurers. Including evidence-based smoking cessation measures in the required outcome measures, on which provider organization will be evaluated, will support the efforts that are already underway.

REDUCING OBESITY

While Rhode Island's obesity rate is slightly below the national median, the percentage of Rhode Islanders at greater risk for chronic diseases due to being overweight or obese is a major concern for Rhode Island's health. In RI, 74% of adults do not consume five or more servings of fruits and vegetables daily. Fifty-seven percent(57%) of adults consume fast foods one or more times a week and 28% consume at least one sugar-sweetened beverage a day. In addition, 50% of adults do not meet physical activity recommendations and 60% watch two or more hours of TV a day. That means a combination of nutritional factors along with low levels of activity have created a perfect storm for the increase of overweight and obesity in our state (Rhode Island Department of Health, 2010).

Rhode Island intends to conduct the following activities to reduce obesity:

OBJECTIVE 1: By December 30, 2015, 6 core city neighborhoods will make at least two documented improvements in community walk ability, safety, access to recreation and access to healthy foods.

- Strategy 1a: Build community capacity to make policy and environmental changes.
 - Cultivate partnerships with non-traditional partners, such as smart growth advocates, neighborhood revitalization groups, and environmental groups.
 - Provide seed funding to core cities to coordinate communitywide efforts.
 - Assess the food and activity environment, identify strengths and gaps.
 - Develop community action plans to maximize strengths and address gaps by leveraging existing resources for policy and environmental change.
 - Mobilize community members and key stakeholders to advocate for community change.

- Identify and recommend model policies for food access, walk ability, safety, and recreation.
- Link communities with programs like Fresh To You (fresh produce delivered to community sites and sold at discount prices), Farm Fresh RI and Farmers' Markets to increase access to healthy foods.
- Strategy 1b: Strengthen city and town comprehensive plans to ensure healthy eating and active living are considered.
 - Contribute to the update of RI's Statewide Planning Handbook on the Local Comprehensive Plan to include access to healthy foods, walk ability, access to recreation, and safety.
 - Develop healthy eating and active living criteria that will be used to evaluate comprehensive plans and provide structured feedback to community planners.
 - Provide HEALTH recommendations and related model policies during the review process.

OBJECTIVE 2: By December 30, 2010, all full-service and fast food restaurants with 15 or more sites nationally will provide calorie information at the point of purchase.

- ***Completed through Patient Protection and Affordable Care Act***

OBJECTIVE 3: By December 30, 2015, 30 restaurants will be publicly recognized for providing healthy food and beverage options.

- Strategy 3a: Implement a restaurant training, technical assistance, and recognition program.
 - Conduct formative research with restaurant stakeholders.
 - Use research results to develop a training program on developing and preparing healthy meal options.
 - Develop a co-op program with Johnson and Wales University to place students in restaurants to provide additional training and technical assistance.
 - Recognize and promote restaurants that complete the training and co-op program and implement changes to their menus.
 - Provide ongoing training and technical assistance to restaurant

OBJECTIVE 4: By December 30, 2015, 25% of licensed childcare facilities will provide menus consistent with the Dietary Guidelines for Americans.

- Strategy 4a: Strengthen the knowledge and skills of food service providers, caterers, and childcare facility staff on purchasing and preparing healthier meals and snacks.

- Provide training and technical assistance to food service providers, caterers, and facility staff.
- Strategy 4b: Require that all childcare facilities serve meals and snacks that comply with Dietary Guidelines for Americans.
 - Build stakeholder support for strengthening nutrition criteria.
 - Develop nutrition guidelines for childcare centers that promote healthier eating.
 - Work to increase reimbursement for healthier foods.
 - Mobilize stakeholders to advocate for changes to childcare nutrition guidelines.
 - Provide ongoing technical assistance.

OBJECTIVE 5: Between January 1, 2009 and December 30, 2015, increase participation in selected best- and promising-practice community nutrition and physical activity programs.

- Strategy 5a: Expand and promote the We Can! Community Program.
 - Train community agencies and supply We Can! materials.
 - Provide ongoing technical assistance.
- Strategy 5b: Expand and promote the Department of Environmental Management's RI Great Outdoors Pursuit.
 - Expand the reach of the campaign to target low income, urban families.
 - Develop tools to evaluate impact in low income areas.
- Strategy 5c: Implement and promote the Operation Frontline nutrition education program.
 - Identify lead agency and key partners to provide chefs, dietitians, and program sites.
- Strategy 5d: Identify and promote evidence-based local healthy eating and active living programming.
 - Do an audit of local programs and identify those with evidence of effectiveness.
- Strategy 5e: Develop and maintain a web portal to provide residents and professionals with easily accessible program and resource information.
 - Identify sentinel programs to track enrollment for evaluation.
 - Develop comprehensive website, housed at www.health.ri.gov.
 - Compile program information through partner surveys.
 - Promote the website to partners, health care providers, and the public.

OBJECTIVE 6: By December 30, 2015, all RI Health Centers will integrate obesity prevention into routine primary care.

- Strategy 6a: Ensure coverage of preventive services, such as nutrition counseling, behavioral counseling, and patient reimbursement of weight management program costs by RI's four major health insurers.
 - Identify best practices for obesity prevention and management to integrate into an enhanced pediatric primary care model and develop a model appropriate for RI.
 - Work with insurers to provide coverage.
 - Pilot the model and evaluate effectiveness.
- Strategy 6b: Provide pediatric providers with tools and training to better address obesity prevention.
 - Research barriers and needs of providers.
 - Develop tools and training to assist providers.
 - Hold training series for pediatric providers.
 - Evaluate tools and training in multiple sites.
 - Expand the program statewide.
 - Build tools into KIDSNET to assist providers.
- Strategy 6c: Provide adult providers with tools and training to better address obesity prevention.
 - Implement a media campaign to cue patients to talk to their providers about reaching or maintaining a healthy weight.
 - Provide providers with tools and training to effectively and efficiently assess BMI, counsel patients, and make appropriate referrals.

OBJECTIVES 7 AND 8 OMITTED

OBJECTIVE 9: By December 30, 2015, all 6 core cities will have Safe Routes to Schools programs.

- Strategy 9a: Promote Safe Routes to School (SRTS) programs with core city districts and provide technical assistance.
 - Provide tools and training to interested core cities on walk ability assessments and safety to develop applications for SRTS funding.
 - Fund schools' SRTS teams in core cities.
 - Provide training and technical assistance.

OBJECTIVE 10: By December 30, 2015, 60 small-to medium-sized RI worksites (under 400 employees) will implement documented policy and environmental changes that support physical activity and healthy eating.

- Strategy 10a: Implement Shape Up RI worksite competition in work sites that employ lower income workers.
 - Outreach to smaller worksites and those serving lower income workers.

- Develop tools to assist worksites where employees may not have computer access or speak/read English.
- Provide ongoing technical assistance to worksites.
- Strategy 10b: Implement the Fresh to You worksite produce market in all RI core cities.
 - Outreach to smaller worksites and those serving lower income workers.
 - Develop tools to assist worksites where employees may not have computer access or speak/read English.
 - Accept Supplemental Nutrition Assistance Program Electronic Benefits Transfer (EBT) and/or WIC checks at worksite markets.
 - Provide ongoing technical assistance to worksites.
- Strategy 10c: Provide employers with tools and resources to make policy and environmental changes in the workplace.
 - Develop a website structure to serve as a clearinghouse for worksite nutrition and physical activity policy and program resources.
 - Compile tools (assessments, ROI calculators, toolkits, model policies, sample surveys, research) for the website.
 - Promote website among small- to medium-sized employers.

OBJECTIVE 11: By December 30, 2015, 40 worksites will implement policy and environmental supports for breastfeeding mothers.

- Strategy 11a: Promote DHHS's The Business Case for Breastfeeding employer lactation support toolkit among community partners and businesses.
 - Identify community partners and businesses for collaboration.
 - Distribute toolkit to community partners and businesses.
 - Provide ongoing technical support and guidance.
- Strategy 11b: Recognize worksites that effectively accommodate breastfeeding mothers through the annual Breastfeeding-Friendly Workplace Awards.
 - Promote Breastfeeding-Friendly Workplace Award to employers.
 - Sustain annual Breastfeeding-Friendly Workplace Award recognition.
 - Provide ongoing breastfeeding education and access to relevant community resources to employers and their employees.

OBJECTIVE 12: By December 31, 2015, have a state infrastructure for obesity prevention that will ensure adequate staffing, funding, and support to sustain the initiatives outlined in this Action Plan.

- Strategy 12a: Develop an annual Eat Smart Move More Policy Agenda and corresponding advocacy campaign.
 - Form a Policy Group of high-level leadership and community partners to develop RI's Eat Smart Move More Policy Agenda and campaign.
- Strategy 12b: Develop teams of trained community advocates in each core city.
 - Fund up to three core city teams per year to increase their advocacy capacity.
 - Work with School District Health and Wellness Subcommittees to expand their advocacy efforts.
- Strategy 12c: Develop a convergence of funders across sectors and fields to maximize investments in the policy and environmental changes in the Action Plan.
 - Convene funders and share information about the importance of addressing obesity prevention from a policy and environment perspective.
 - Provide technical assistance and support to funders.

DIABETES CARE MANAGEMENT

Rhode Island has identified the burden of diabetes on the health of its population, as discussed in Section XX. The management of diabetes has been a top priority in Rhode Island for more than three decades. The Diabetes Prevention and Control Program (DPCP) coordinates the Rhode Island Statewide Diabetes Health System (RI-SDHS), which is comprised of over 700 agencies and individuals. The goal of the DPCP is to prevent and control diabetes and diabetes-related complications. The DPCP adopts, implements, evaluates, and institutionalizes programs to improve the quality of diabetes clinical care. It expands the workforce available to address the burden of diabetes in RI by supporting multicultural diabetes self-management programs, education and pre-diabetes care. These programmatic elements work together synergistically and on multiple levels (i.e., individual, health system, environmental, community, state) to constitute a comprehensive systems approach to diabetes prevention and control. Specifically, the DPCP works to:

- Facilitate collaboration among public and private sector partners;
- Define the burden of diabetes and assess existing population based strategies for primary and secondary prevention of diabetes within the state;
- Develop and update a comprehensive state plan for diabetes prevention with emphasis on physical and social environmental change, and disparities elimination;
- Identify culturally appropriate approaches to promote diabetes prevention among racial, ethnic and other priority populations

Goals and Accomplishments

- The DPCP seeks to increase the number of RI Chronic Care Collaborative health center sites that have met 3 out of 4 clinical quality measures targets or improved those measures by least 5%. Clinical outcome measures include a Hemoglobin A1c less than 8mg/dl, an LDL of less than 100 mg/dl, a blood pressure of less than 130/80 and an increase in the number of patient with diabetes who have set a self-management goal. As of 2013, five health center sites have improved 3 out of these 4 clinical outcome measures by 5%.
- The Certified Diabetes Outpatient Educator workforce has increased to 303 Registered Dietitians, Nurses and Pharmacists. The DPCP and the Living Well RI programs have provided leader trainings to increase the workforce available to facilitate Chronic Disease and Diabetes Self-Management programs. Currently there are 32 Master Trainers and 71 Leaders. 541 participants with diabetes and other chronic diseases have completed a Living Well program.
- Rhode Island is ahead of the US national average for four out of six Healthy People 2020 objectives for which 2010 RI data were available including age-adjusted percent of adults with diagnosed diabetes who have had an annual dental exam, annual foot exam, annual dilated eye exam, and at least two hemoglobin A1c tests in the past 12 months. RI was behind the national average for percent of adults with diagnosed diabetes who have performed self-blood glucose monitoring at least once daily, and have ever received formal diabetes education.
- At 65.6%, there was a 14% increase in the percent of adults with diabetes in the RI Chronic Care Collaborative registry who have documented self-management goals.

Rhode Island's Value-Based Care Paradigm includes efforts to improve both prevention and care management of diabetes. In fact, Rhode Island's patient-centered medical home project, CSI-RI, includes three contractual performance measures for the management of diabetes. Diabetes measures, specifically the health outcomes of persons with diabetes will be included in the measure set for the value-based care paradigm. Additionally, the value-based care delivery system will utilize and build upon the efforts of the DPCP, especially the Certified Diabetes Outpatient Educator program, in conjunction with Community Health Teams.

H. IMPLEMENTATION OF RHODE ISLAND’S HEALTH CARE INNOVATIONS

The implementation of each of these innovations can be affected using a number of levers controlled by the state. Success also relies on continuing collaborative efforts with private sector partners – insurers, providers, consumers – with state support through regulatory and statutory reform as it is needed. Consistent with the development of this plan, any implementation, whether mandated or collaborative, should be made in coordination with a broad stakeholder group to ensure an effective program that meets the goals of this plan.

Payment Transformation

The necessary changes to payment models to support the transition to value-based care can be achieved using policy and regulatory levers currently at Rhode Island’s disposal. In the last year, Rhode Island passed legislation directing the Office of the Health Insurance Commissioner (OHIC) to “monitor the transition from fee for service and toward global and other alternative payment methodologies for the payment for health care services. Alternative payment methodologies should be assessed for their likelihood to promote access to affordable health insurance, health outcomes and performance. “ OHIC has already used this authority to require a growing investment in primary care by all commercial insurers. That requirement has helped build much of the foundation for the reforms underway and proposed in this plan. Given OHIC’s statutory responsibility, and the previous authority conferred to OHIC to consider affordability as a factor in reviewing proposed health insurance rates, the move to payment models that support the value-based care paradigm can be required by OHIC. This would impact the fully-insured market in Rhode Island, consisting of the individual market, the small-group market and those large groups that are fully-insured. Additionally, many employers in Rhode Island who are self-insured use Rhode Island’s commercial insurers to administer their plans. Therefore, OHIC’s regulatory efforts would likely have an impact on the self-insured market.

In addition to the regulatory efforts on payment transformation, Rhode Island has a number of contractual arrangements that could be leveraged to support the transition to the value-based-care paradigm. The state employee health plan, which covers over 50,000 Rhode Islanders between employees, dependents and retirees, can require its plan administrator to engage in payment models that support the value-based care paradigm. Additionally, Medicaid contracts with payers to provide managed care services to most of its members. These contracts can include the dual requirement to support the value-based care paradigm through its Medicaid managed care program, as well as setting a requirement for payment transition in its non-Medicaid business as a requirement to participate in Medicaid.

Changes to the Medicaid payment structure can be conducted as part of Rhode Island’s 1115 waiver authority in consultation with CMCS.

TIMELINE

The Office of Health Insurance Commission provides instructions for health insurers to file rates in the first quarter of the year. Due to the complexity of creating contracts that would fit the value-based care

paradigm, requirements on insurers should not be implemented until 2015. However, during the coming year, OHIC will work with insurers to develop requirements that are constructive and support the move to the value-based care paradigm. Due to contract renewal timing, the alignment of contracts can occur over the next three years.

The state Medicaid program is currently negotiating a waiver that has many reforms discussed here included in its initial proposal. They are also implementing an integrated care initiative that aligns payment and delivery in the long term care system with acute and primary care. Both of these initiatives are being designed and implemented during 2014 and 2015.

Delivery System Enhancements

Each of the delivery system enhancements has a different framework for implementation and each is already in its own phase of pilot or implementation. However, the enhancements build upon each other and must be pursued together.

Patient Centered Medical Homes

In 2011, Rhode Island codified its support for patient centered medical homes in statute. A law passed in 2013 requiring participation of the state employee health plan in the state's patient-centered medical home project bolstered that support. An amendment to the state's patient-centered medical home statute committing to state-wide scaling of patient-centered medical homes to provide access to any Rhode Islander will codify that commitment. The actual work of scaling up PCMHs in Rhode Island requires enhancements to the delivery system to support smaller practices that may have more challenges meeting the objectives of a PCMH. These enhancements are included in the effort to introduce Community Health Teams and provide them as a shared resource to smaller practices. The CSI program has also undertaken a major expansion during the past year that will expand capacity to 260,000 Rhode Islanders. However, there are some geographic limitations to CSI that would need to be addressed to meet the goals of state-wide access to a PCMH.

TIMELINE

The state will introduce legislation in 2014 to affirm the commitment to expand access to a PCMH to all Rhode Islanders by 2020.

Community Health Teams

CSI-RI is currently piloting Community Health Teams in two Rhode Island communities. A scaling of Community Health Teams as envisioned in this plan would require payment support as envisioned under the payment transformation section. It would also require investment. There is no policy or regulatory lever that can cause Community Health Teams to be created or used, rather they must be created to be used. Ongoing funding of Community Health Teams is sustainable and can be made through payments to primary care practices, as is done in the current pilot program.

TIMELINE

The state would create community health teams contingent upon a SIM model test award and develop the tactics for their implementation and required startup investment upon funding.

Behavioral Health System Reform

The first step in creating effective integration of the behavioral health system with the medical care system is to convene an action-oriented workgroup consisting of providers, payers, policy-makers and consumer advocates to tackle the issue. In 2013, the state legislature created a joint commission to study the integration of primary care and behavioral health in the state. The commission has been meeting regularly and their recommendations are expected in the spring of 2014.

The strategies of co-location are also underway already. The state's Health Home project, along with other private co-location efforts have shown promising results – provided the co-location leads to effective coordination of care.. Further support of this model is warranted given a commitment to integration. Due to the high level of state support for behavioral health services, co-location of services can be driven by state payment policies.

TIMELINE

The state will continue to support the model of co-location and evaluate proposals to further integration in 2014.

System Transition

Rhode Island Care Transformation and Innovation Center (RICTIC)

As discussed earlier, a number of efforts at care transformation are already underway in Rhode Island. The creation of the RICTIC would only need two elements for start-up: the payment transformation that creates the needs for practice transformation, and funding to support the contracts for the activities of the RICTIC.

A key factor in the value of the RICTIC to the provider community is the regulatory structures surrounding provider organization under the value-based care paradigm. The state is currently conducting a detailed analysis of the state's statutory and regulatory construct as it impacts the value-based care paradigm. Legislation addressing value-based care and financial responsibility by provider organizations is expected in 2014. The RICTIC would take a prime role in assisting providers to adapt to any changes in the regulatory or statutory structure.

TIMELINE

During the first half of 2014, a RICTIC implementation workgroup will be convened to create the framework for the initial 12-month strategy for the RICTIC. Additionally, the creation of the procurement documents for the RICTIC will be developed. In the second half of 2014, the state will convene the initial meeting of the Accountable Care Collaborative. Further efforts of the RICTIC would require a dedicated source of funding.

Workforce Development

COMMUNITY HEALTH WORKERS

The development of credentialing for Community Health Workers must be conducted in coordination with the implantation of Community Health Teams, and building on the 2011 legislation creating an explicit role for Community Health Workers in Rhode Island to address health disparities in the state. As Community Health Teams are created, the role of Community Health Workers must be clearly defined in the context of the CHTs. As this role is defined, a process for ensuring that Community Health Workers are trained to perform that role must be developed. There is currently a Community Health Worker training program managed by a community-based organization. This program can be easily leveraged to address the needs of CHTs.

WORKFORCE ASSESSMENTS

The state Health Care Planning and Accountability Advisory Council has already undertaken an examination of primary care capacity in the state. Based on a legislation passed in 2013, the council is starting an in-depth study of the behavioral health system in the state, including a profile of the workforce. Further workforce assessments are dependent upon funding for work and this funding is included in the work of Coordinated Health Planning discussed later.

EDUCATIONAL ALIGNMENT

In coordination with the Rhode Island Care Transformation and Innovation Center, the curriculum for value-based care in-services will be developed in 2014 for educational opportunities in 2015. Additionally, a number of educational facilities that train health care workforce have expressed an interest in including elements of collaborative care model in their curricula. The state's only medical school, the Alpert Medical School at Brown University, has also announced a new program focusing on primary care and has expressed interest in incorporating aspects of value-based care into its training.

TIMELINE

As the requirements and structure of CHTs are developed through 2014, the role of Community Health Workers can be defined. By the start of 2015, any needed changes to the state's Community Health Worker law can be identified and forwarded to the legislature for the 2015 session. The behavioral health system assessment will be underway by the second quarter of 2014. Depending on funding further assessments could be started within six months. Educational curricula for RICTIC supported in-services will be created during 2014 with support from the Accountable Care Collaborative.

Health Information Technology and Measurement

New and expanded utilization of technological resources is a necessary component of the value-based care paradigm. However, this new technology requires significant investment in infrastructure, staff and training. In fact, a Rhode Island provider organization that is well under way in the transition to the

value-based care paradigm has suggested that the IT transition is more difficult than adapting to new payment structures. Until EHR infrastructure catches up to the needs presented by provider organizations in the value-based care paradigm, there will need to be thoughtful, adaptive support for providers to draw more from their technology.

ENABLE REAL-TIME AND POINT OF CARE PATIENT DATA

Complete, real-time data is the ultimate goal of an effective, system-wide EHR system. State support for creating the structures to enable the health care system will accelerate the development of real-time access. A key element to this infrastructure is the All Payer Claim Database (APCD). The APCD is under active development with data feeds beginning in 2014. Additionally, the state's Health Information Exchange, Currentcare, is a key element to real-time data. Both of these systems are created through statute and each statute has strict privacy protections that may impact the ability to leverage the systems for the value-based care paradigm. Ongoing examination of these programs is necessary to ensure their utilization in the value-based care paradigm.

OFFER TECHNICAL ASSISTANCE, TRAINING AND SHARED ANALYTIC RESOURCES TO PROVIDERS

The RICTIC, as part of its implementation plan will consider the resources available now to practices through a number of Rhode Island organizations. Efforts of Healthcentric Advisors and the REC program of RIQI have been underway to assist providers as they incorporate technology into their practice. The RICTIC would work closely with those organizations to identify providers that are ready to progress to the next level of using HIT to report quality measures and develop analytic capacity to support population health efforts.

ALIGN QUALITY, COST AND UTILIZATION MEASURES AMONG PAYERS AND GOVERNMENT

Rhode Island is currently preparing a request for information to determine available strategies to harmonize measures for the purposes of payment transformation. Implementation of these tactics will depend in large part on information learned through the RFI process. Requiring measures to be harmonized across payers is critical to the success of the value-based paradigm. OHIC authority over commercial insurers provides necessary leverage to require payers to use the same measures under the value-based paradigm. However, the state's experience with the CSI-RI program suggests that if providers develop a set of measures that they are focused on attaining and improving upon, the payers in our state will accept them without regulatory obligation. Key to statewide adoption of the harmonized measure will be policy changes in the Medicaid payment system that allows flexibility to adopt community-derived measures.

TIMELINE

The most time-sensitive piece of the Health Information Technology and Measurement strategy is the harmonization of quality measures. This work has been underway through CSI-RI for measures used by the state's PCMH project and new measures must be developed that meet the state's population health goals. This expansion work will begin in the second half of 2014 to be included in payment structures in 2015. As quality measures are integrated into payment systems, providers will need assistance and

support to leverage their IT systems in 2014 and 2015. This will be an early area of focus for the RICTIC as it begins its work.

I. DRIVER DIAGRAM / LOGIC MODELS

In this section is a series of tables that lays out specific objectives that this plan attempts to reach. Also included in these tables are the identification of potential outcome measures, the sources of potential data and an indication of how each intervention incorporates one or more of the key pillars of Rhode Island's reform efforts.

AIM 1: REDUCE FEE-FOR-SERVICE PAYMENT MODELS

Innovation Activity/ Intervention	How	Outcome	How to measure outcome	Pillars
Form coalition to encourage creation of ACO-like organizations in the commercial and public market	With the state as convener, bring players to the table to form work group –, to create contracting standards, identify regulatory and policy changes needed, new relationships between providers and payers	Lower overall health costs to state and payers; less duplication of services; lower utilization rates.	Cost of care project by OHIC; 33+ NCQA quality measures; PQRS	Multi-Payer Payment Transformation Accountability
Encourage the development of value-based options for state employees, retirees and municipalities to ACO-like structures	State as payer can increase # of RI's in value based care and payment arrangements by using its purchasing power to change the payment system.	State's health care costs decrease through lower utilization and improved quality of care	Claim data; quality metrics based on NCQA 33 measures; PQRS	Multi-Payer Payment Transformation Accountability
For Medicaid recipients and Dual Eligibles, develop state contracts for a primary-care led ACO that will manage and deliver full services on a shared-savings basis.	State as payer can increase # of RI's in value based care and payment arrangements by using its purchasing power to change the payment system	State's health care costs decrease through lower utilization and improved quality of care	Claim data; quality metrics based on NCQA 33 measures; PQRS	Multi-Payer Payment Transformation Accountability
Support steps : from P4P, Bundled services, Shared Savings, to global capitation	Lower cost and utilization, improved primary care	33 quality measures(NCQA); PQRS		Multi-Payer Payment Transformation

AIM 2: CREATE A MORE COORDINATED SYSTEM OF CARE

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
ACO-like organization's will create integrated delivery systems	Possible OHIC regulatory changes and ACO coalition; benefit design that encourages (doesn't limit) staying within network, within RI.	Better integration of clinical services, reduced duplication of services, improved communication and teamwork between providers	Increased EMR adoption; APCD, invest in business intelligence tools such as care and disease registries at state and provider levels , provider directory, increased adoption and use of CurrentCare	Patient / Consumer Centric
Incent data reporting, transparency, and consistency across providers, e.g., Provider Directory, CurrentCare, APCD. Maintain a common set of input and reporting standards for all data aggregation tools, including a harmonized set of measures for all payers and shared quality reporting infrastructure to serve as data intermediary for quality reporting and to provide feedback to providers and public	With state as convener, provide tools for provider organizations to communicate across interoperable systems; provide financial incentives for small and independent primary care practices to adopt and use technology that reduces fragmentation; develop and implement shared quality reporting infrastructure (intermediary) promote further expansion of Currentcare	Better integration of clinical services, reduced duplication of services, improved communication and teamwork between providers	Assess increased EMR adoption; APCD, invest in and monitor business intelligence tools such as care and disease registries at state and provider levels , provider directory, increased adoption and use of CurrentCare' monitoring of aggregated quality measures, monitoring of changes in practice based on quality measurement feedback to providers	Accountability Transparency
Grow the presence of PCMHs in Rhode Island	Incent independent primary care doctors to transition into PCMHs and to contract with entities developing toward an accountable and shared risk structure.	Reduced hospitalizations including ED use, reduced duplication of services, improved health care experience/health for patients, better management of chronic diseases, reduction of high utilizers.	Track number of practices participating and patients being treated within model.	Multi-Payer Payment Transformation Patient / Consumer Centric

AIM 3: CREATE SAFE TRANSITIONS OF CARE TO IMPROVE HEALTH OUTCOMES

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Expansion of Community Health Teams will provide resources to support, coordinate and aid patient transitions from hospital to/or LTC then home	Regulatory changes will be needed to ensure that payers contribute to the finance of this expansion over time. Some support will be provided from Medicaid under 1115 waiver, facilitate data sharing during transition of care through EHR adoption and meaningful use (MU) state 2 (has transition of care requirements to share data), alignment of MU and state Continuity of Care form, Currentcare adoption	Reduction in admissions, reduction in duplicate services, better patient experience and outcomes, reduction of high utilizers, fewer transitions overall	APCD, state continuity of care form, Currentcare, patient satisfaction surveys	Multi-Payer Patient / Consumer Centric Community Assets

AIM 4: CREATE STRUCTURES THAT REDUCE OVER-UTILIZATION OF UNECESSARY SERVICES

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Community Health Teams: based outside of provider practices: includes lower care-giver to patient ratio, telemedicine, coordination with community resources; the use of Extensivists – especially for the Medicaid/Medicare populations specifically with behavioral health and pregnancy conditions; include Recovery Coaches in CHT's	Form care-giver teams of nurses, allied and community health teams within an ACO-like structure to address the needs of the top utilizers. Place case managers in ED's.	Reduced ED visits Reduced pre-term births Reduced readmission Higher recovery rates	Claim data; quality metrics (NCQA); hospital admission/readmission rates	Multi-Payer Patient / Consumer Centric Community Assets
Intermediate intensity services for highest cost Medicaid/Medicare population; provide an alternative to the Emergency Department where their needs can be met in a more appropriate setting;	Develop ambulatory ICU, sobering centers, home-based primary care – more work is needed to define these interventions.	Reduced ED visits, reduced hospitalizations		Payment Transformation Patient / Consumer Centric Accountability

AIM 5: INCREASE PREVENTION ACTIVITIES AND SCREENING FOR RISING RISK POPULATION

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
<p>Promote healthy life styles</p> <p>Manage preventive care through the PCMH model</p> <p>Use technology, health risk assessments to track and report on progress at the provider or group level</p> <p>Use technology (e-health tools, patient portals), patient generated data to support patient engagement</p>	<p>Expand PCMH availability through positive incentives; marketing campaign in increase education and awareness for well and preventive care; develop patient portals and e-health tools for Currentcare</p> <p>Consider developing specialized PCMH's for behavioral health and/or substance abuse patients</p>	<p>Reduced number of patients entering into the high risk category in order to sustain savings realized by high risk interventions.</p>	<p>Increased collection and reporting on health status of RI; Community Needs assessment from HARI; tools connected to APCD</p>	<p>Patient / Consumer Centric</p> <p>Transparency</p> <p>Community Assets</p>

AIM 6: INCORPORATE ALL RHODE ISLANDERS IN LIFELONG SYSTEM OF CARE

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Public education and health promotion campaigns, e.g., PSAs, that emphasize the importance of good health; focus on behavioral and maternity care; Increased preventive screenings, health risk assessments	Increase PCMH access, marketing campaign for education on the importance of well-care	Healthier more engaged consumers especially among young adults; increased patient engagement and activation; increased PCP visits	Community Needs Assessment, tools reporting on social determinants of health in coordination with the APCD	Patient / Consumer Centric Transparency Community Assets

AIM 7: INTEGRATE BEHAVIORAL HEALTH SYSTEM INTO OVERALL HEALTH SYSTEM

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Co-location of behavioral health and primary care providers: Ensure adequate infrastructure for the most acute BH conditions; integrate lower level conditions with primary care.	This will be incented by all payers – including Medicaid paying for some services through the support of CHT specialists; sharing of behavioral health data through Currentcare	Improved access to BH for low acuity patients and improved access to primary care for SPMI	Lower costs; improved mental health outcome data; annual survey	Multi-Payer Payment Transformation Patient / Consumer Centric
Programs to support recovery programs for substance abuse treatment participants	Peer-led, voluntary support services	Improved outcomes		Patient/Consumer Centric

AIM 8: PROVIDE GREATER ENGAGEMENT AND UNDERSTANDING THROUGH TRANSPARACY

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Improve ability to collect, analyze, find and distribute/report health care information through the introduction or improvement of HIT tools, such as statewide shared quality reporting infrastructure to benchmark and feed results back to providers and to support public reporting program	Identify an entity to take responsibility for creating/managing these tools and their governance; promote sharing of cost and quality information to the public	Provider Directory, APCD, Currentcare, harmonized measures, quality reporting data intermediary, increased HIE and EHR usage, Social Service Agency/Org. Directory, and identification of further options to promote interoperability	Claims data, quality measures, HealthSourceRI	

AIM 9: ENGAGE RHODE ISLANDERS IN THEIR HEALTH

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Provide Navigators, Require Personal Health Risk Assessments, Design Marketing and Communication campaign, patient engagement tools and currentcare patient portal, health promotion activities	Strengthen HealthsourceRI to take on these responsibilities, build out Currentcare portal, develop marketing communication campaign	Improved awareness and understanding of how health system works, and how to reduce one's own risk factors	Provider surveys, Hospital Association of Rhode Island's Community Health Survey	Patient / Consumer Centric Accountability Transparency Community Assets

AIM 10: INTEGRATE COMMUNITY-BASED ORGANIZATIONS INTO HEALTH CARE SYSTEM

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Provide technical assistance services, collaboration group, empower CBO's to more directly address social determinants of health	Identify an entity to take responsibility for creating/managing these efforts	Improved integration of these organizations in the health care system; they will provide lifestyle supports and resources for providers	Tracking and monitoring number of organizations entering into partnerships with providers;	Community Assets

AIM 11: RENEW FOCUS ON SOCIAL DETERMINANTS OF HEALTH

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Establish inter-agency education and information programs that articulate impact of social determinants of health on different agencies. Information will be routed in improved data collection and research on the social determinants of health of Rhode Islanders, and will include robust reporting on the economic and social implications of the relevant SDHs to each department	Incorporate health care awareness into city/state planning	Dissemination of information will incorporate the full definition of health into agency priorities and budget and agenda setting will start to reflect health of Rhode Islanders.	Tracking and monitoring the inclusion of health outcome oriented programs, policies, etc. over time.	Transparency Community Assets
Creation of a Health Care Innovation Trust Fund	Provide continual funding for programs designed to address this need	The state and community will discover the best ways to influence these causes of poor health and health disparities; will increase awareness of and importance of the social determinants of health	Documenting the process of development and determining whether the goals of the intervention are being met.	Payment Transformation Community Assets

AIM 12: REDUCE HEALTH DISPARITIES

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Access through ACO-like organizations, common care protocols/guidelines and incentives will improve access and outcomes.	Move Medicaid population into ACOs that take on multi-payer clients; move payment to value-based with the potential for bonus or shared savings payments.	Decreased differences in key health outcome measures between groups.	Claim data; quality data (NCQA)	Payment Transformation Patient / Consumer Centric

AIM 13: DEFINE AND BETTER UTILIZE COMMUNITY HEALTH WORKERS

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Develop uniform credentials and license requirements for CHWs.	Integrate services within the PCMH model; include in provider directories; ensure awareness among care teams	A clear career path and opportunities for people with this credential; the creation of a pool of workers to support the expansion of value-based care.	Process evaluation and #'s of CHW's licensed or hired over time.	Multi-Payer Community Assets

AIM 14: UNDERSTAND THE HEALTH CARE WORKFORCE NEEDS OF THE FUTURE

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Conduct thorough and comprehensive workforce assessment that provides a detailed understanding of the current and projected workforce available in Rhode Island as it's needed to provide value-based care to Rhode Islanders.	Use SIM grant funding to conduct thorough assessment that will use of DLT specialists and provide the state a model to manipulate as changes are implemented	Rhode Island will identify gaps in the existing workforce and the appropriate workforce pipeline to deliver value-based care at a lower cost to its residents. The identification of gaps will allow to strategic planning and solutions for the provision of cost effective, efficient, and appropriate care	Process evaluation/TBD	Transparency

AIM 15: INCORPORATE VALUE-BASED CARE CONSIDERATIONS INTO HEALTH CARE TRAINING

Innovation/ Activity/ intervention	How?	Outcome	How to measure outcome	Pillars
Develop curricula for in-service training and schools. Develop coordinated curricula and programs/opportunities for previously siloed training programs to practice coordinate care in a training setting before graduating, also promote development of training programs that produce workers skilled in data analytics and interpretation	Utilize the findings of the focused assessment to identify the biggest perceived gaps for the future and work with involved parties to develop coordination programs.	Current workforce able to provide right care right time right place at the right cost for patients and their employers.	Process evaluation/TBD	Accountability Patient / Consumer Centric

J. EVALUATION PLAN

The fundamental hypothesis of Rhode Island’s State Healthcare Innovation Plan is that the transition to the value-based care paradigm will improve the health of Rhode Islanders, improve the efficiency of and satisfaction in their care and result in reduced costs of care from projections. This hypothesis aligns with the goals in the plan. The determination of the plan success required identifying effective measures that are available to provide baseline data and tracking those measures longitudinally through the implementation of the plan. The following table outlines the evaluative questions (goals of the plan), metrics for evaluation, sources of data, and objectives for the metrics to provide effective assessment.

Evaluative Questions	Metrics	Sources of Data	Assessment Objective
Is the Value-Based Care Paradigm improving the health of Rhode Islanders?	Years of Potential Life Lost	CDC’s Web-Based Injury Statistics Query and Reporting System (WISQARS)	Annual reductions of YPLL value
	Self-Reported General Health Status	Behavioral Risk Factor Surveillance System (BRFSS)	Annual increase in average score, Annual increase in percentage of Rhode Islanders responding “Good, Very Good or Excellent”
	Number of days impacted by poor physical or mental health	Behavioral Risk Factor Surveillance System (BRFSS)	Decrease in days impacted, with a target to reduce days to national average
	Percentage of adults who participated in enough aerobic and muscle strengthening exercise to meet recommended guidelines	Behavioral Risk Factor Surveillance System (BRFSS)	Annual Increase in percentage
	Percentage of adults with diabetes who reported receiving a foot exam in the previous year	Behavioral Risk Factor Surveillance System (BRFSS), potentially, All Payer Claims Database	Annual Increase in percentage
	Percentage of adults with diabetes who reported receiving a dilated eye exam in the previous year	Behavioral Risk Factor Surveillance System (BRFSS), potentially, All Payer Claims Database	Annual Increase in percentage

	Percentage of adults with diabetes who reported receiving 2 or more A1c tests in the previous year	Behavioral Risk Factor Surveillance System (BRFSS), potentially, All Payer Claims Database	Annual Increase in percentage
	Four Level Smoking Status	Behavioral Risk Factor Surveillance System (BRFSS)	Annual Increase of Percentages of Rhode Islanders who have never smoked or are former smokers
	Percent of adult smokers who have made a quit attempt in the past year	Behavioral Risk Factor Surveillance System (BRFSS)	Annual Increase in percentage
Is the Value-Based Care Paradigm resulting in better health care and are patients more satisfied?	Post-Acute Unplanned Care Utilization	Unplanned Care Composite Measure ¹	Annual reduction in utilization
	All-cause Emergency Department Utilization	Department of Health – Hospital Data Program	Annual Reduction in Emergency Department Utilization
	Percentage of patients satisfied with access to health care services	CAHPS Access Composite Measure	
	Percentage of patients satisfied with providers of health care services	CAHPS Provider Rating	
	Percentage of patients satisfied with communications from providers	CAHPS Communications Composite Measure	
Is the Value-Based Care Paradigm reducing costs from projected trends?	Health Care Expenditures	Medicaid Annual Cost Report, National Health Expenditures, All-Payer Claims Database	Expenditure Reductions from trend (adjusted for risk)
Is the Value-Based Care Paradigm propagating through the Rhode Island Health Care System?	Percentage of claims payments made through value-based care arrangements	OHIC Rate Review, Medicaid payment data	Increases in percentages of payments made through value-based arrangements

1. (Baier, Gardner, Coleman, Jencks, Mor, & Gravenstein, 2013)

K. STATE HEALTH CARE INNOVATION PLAN FINANCIAL ANALYSIS

The State of Rhode Island used State Innovation Model Design funds to employ the services of the Advisory Board Company and Milliman throughout the design process. Milliman performed actuarial analysis of claims data sets to estimate the health care spending on a per member per month (“PMPM”) basis, of the following populations listed in the table below. Milliman utilized many data sets in this analysis, some of which contained claim level detail. The latter data sets included:

- A complete set of 2011 and 2012 Medicaid claims
- A sample of approximately 75% of commercial Rhode Island claims from 2011
- A sample of approximately 5% of Medicare claims from 2011¹

TABLE 21: MONTHLY BENFICIARY SPENDING ESTIMATES

Payer	Population	Population Estimate	Spending Per Member Per Month (PMPM)
Medicaid/CHIP	Adult	43,545	\$416
Medicaid/CHIP	Child	82,122	\$216
Medicaid/CHIP	Dual Eligible	23,326	\$1,542
Medicaid/CHIP	Disabled/Elderly	42,593	\$1,096
Private/Other	Individual	150,948	\$436
Private/Other	Family	430,391	\$362
Medicare	Dual Eligible	43,940	\$1,171
Medicare	Fee for Service/Non-Duals	149,771	\$1,058

Trends reflecting annual spending increases by service line and population were used to estimate 2013 PMPM spending. The state of Rhode Island has estimated the spending on each beneficiary per month as follows in Table 16 below.

The methodology for calculating this was as follows: the 2011 CMS report, “Health Expenditures by State of Residence”² listed \$8,309 in Rhode Island health care expenditures per capita in 2009. The average annual percent growth in spending from 1991 to 2009 was 6.0%. Assuming the per capita rates have not significantly decreased or been negative since 2009, this figure suggests health care expenditures in Rhode Island will exceed \$8.7 billion in 2013. If the historical growth rates continued from 2009 to 2013, health care spending in Rhode Island could be as high as \$11.0 billion in 2013.

¹ Pertains to Fee-For-Service claims only and contained only Part A and Part B claims as pharmacy claims were not included in the sample. A secondary Milliman database containing Part D data was accessed to estimate prescription drug PMPMs for the SIM model.

²Centers for Medicare & Medicaid Services (2011). Health Expenditures by State of Residence. Retrieved (November 2013) at <http://www.cms.gov/NationalHealthExpendData/downloads/resident-state-estimates.zip>.

The following table depicts estimated 2013 health care expenditures on a per member per month (PMPM) basis by payer group and by service category³:

TABLE 22: HEALTH CARE EXPENDITURES BY MONTH BY PAYER GROUP AND SERVICE CATEGORY

Cost of Care by Service Category	Medicaid PMPM	Medicare PMPM	Commercial PMPM
Inpatient Hospital	\$ 70.31	\$ 348.76	\$ 83.08
Outpatient Hospital (total)	111.09	148.96	92.13
<i>Emergency Dept (subtotal)</i>	<i>22.30</i>	<i>26.99</i>	<i>17.76</i>
Professional Primary Care	16.19	41.69	31.44
Professional Specialty Care	33.71	119.25	59.59
Diagnostic Imaging/X-Ray	3.27	22.30	11.99
Laboratory Services	3.06	15.15	5.87
DME	6.73	13.18	3.87
Dialysis Procedures	0.08	0.07	0.33
Professional Other (e.g., PT, OT)	28.01	0.04	10.09
Skilled Nursing Facility	0.90	109.33	1.65
Home Health	10.38	44.39	2.73
Nursing Home	138.29	-	-
ICF/MR	3.58	-	-
Home and Community-Based Servi	36.90	-	-
Other	82.82	58.07	1.98
Professional Specialty Care	33.71	119.25	59.59
Subtotal	\$ 579.04	\$ 1,040.42	\$ 364.34
Prescription Drugs (Outpatient)	41.34	162.72	76.29
Total	\$ 620.38	\$ 1,203.14	\$ 440.63

³ Estimates based on results from Milliman actuarial analysis; Includes Dual Eligibles

Estimated Cost of Investments

It is estimated that the required investment totals for all of the SHIP innovations articulated in the Innovation Section will be approximately 1.5% to 2.0% of the overall cost of health care spending in Rhode Island, or approximately \$150 million to \$160 million annually. These estimates are informed by Advisory Board experience, case studies, white papers, Sherlock Company benchmarks, and direct estimates of the individual components. These costs are intentionally conservative. The Advisory Board Company believes these cost estimates are conservative for the following reasons:

- The high-end of benchmark cost ranges were chosen to inform The Advisory Board Company estimates
- The costs exclude any “repurposing” of existing costs (i.e. lower variable costs from decreased utilization and/or the repurposing of clinical staff with excess capacity to care manager roles)
- The costs exclude any value-based-care infrastructure start-up costs that have already been deployed in the market
- Cost estimates were grossed up to ensure a conservative total investment was projected in the SHIP

These costs are intentionally conservative because of potential inefficiencies and unintended costs associated with the direct, initial investment in the initiatives set out in the SHIP.

The cost of this investment will be shared by providers, health systems, payers, and government. The State intends to use State Innovation Model Test (“SIM”) funding to advance and catalyze the private industry’s progression from today’s economic and operational models to those of value-based care and increased population health management. The state anticipates that receipt of the Model Test funding and market forces will incent payers, providers and other stakeholders to share in the total investment to the extent negotiated in newly formulated value based care arrangements. The state recognizes that its role is not to prescribe which stakeholders will ultimately bear certain costs. As an example, care managers – a critical resource for population health management – may be employed by a small primary care group, a larger health system, a company operating a self-insured benefits plan, or a large commercial payer. These staffing costs will be necessary to deploy a care management strategy (a SHIP initiative), but whoever funds the expense will not be mandated in the SHIP. Ultimately, the understanding of cost-benefit analyses move parties to cover costs.

The success of the innovations put forth within the SHIP will rely on collaboration across all stakeholders within the Rhode Island market. The State intends to use SIM Model Test funding to catalyze the value based care economy. Government payers have already started to shift risk to providers through value based purchasing arrangements, readmission penalties, and other initiatives (e.g. bundled payments, share saving programs, etc.). With over half of the medical spending in Rhode Island already tied to government payers the State sees the SHIP as the opportunity to instigate transformation in its health care system. The SIM grant offers payers and providers a unique chance to take advantage of resources essential to transformation that will be made available by the State. It will both expedite the transformation and provide some financial

relief to offset costs associated with the transition from a fee-for-service to a value-based health care system.

Model Testing Summary Budget Expenditure Plan

The SIM Test grant will support health care innovation and transformation by providing immediate funding to three necessary components of the SHIP including:

- 1. Grant and SHIP operations (inclusive of the formation of the RICTIC)**
- 2. Request-for-proposal funding to advance SHIP initiatives**
- 3. Centralized Information Technology and Analytics Support**

Personnel and Operations

Rhode Island will operationalize the SIM Model Test funding in direct coordination with creation of the RICTIC to drive the SHIP initiatives. The operational staff across the administering body of the grant and the RICTIC will consist of approximately 18 FTEs. Ten of these positions are temporary positions that will be dedicated to creating the appropriate infrastructure to operationalize SHIP initiatives and will conclude with the SIM grant. Significant attention will be paid to incorporating knowledge transfer from the temporary FTE positions to permanent staff to ensure the continuity of SHIP initiatives. Eight FTE positions will be permanent across appropriate departments dedicated to maintaining SHIP initiative operations. Five of these permanent staff members will operate the all-payer-claims-database and three additional analysts will provide analytical support to providers and payers. It is estimated that approximately \$1.0M will be dedicated to salaries and benefits for these permanent positions. The temporary positions will engage payers, providers, policy-makers and other stakeholders and administer the request-for-proposals advancing various SHIP initiatives. The temporary positions will require approximately \$1.4M in salaries, benefits, and overhead, and they will expire after four years. In recognition that the pace of transformation will require technical assistance and learning collaboratives as described in this plan, the RICTIC, grant administrator, and analytic FTEs will also coordinate and collaborate across these efforts.

Promotion of Market Activity through Request for Proposal

The State of Rhode Island believes that \$50 million is crucial to catalyze the health care market's move toward covering 80% of the state's population under value-based contracts within five years. In recognition that a significant portion of the foundation for this transition currently exists in part or in whole through state-wide and market place initiatives, the state will use a significant portion of the funds to expand and advance these initiatives. In accordance with the innovations illustrated in this plan, grant money will be allocated based on a strict request-for-proposal process to those with demonstrated ability to advancing the innovations of the SHIP stated in this plan, including but not limited to:

- Creation of additional collaborative care organizations (e.g. Accountable Care Organizations, Clinically Integration Networks, etc.)
- Expansion of PCMH recognition and adoption among primary care providers

- Creation and deployment of Community Health Teams
- Advancement of value-based contracting
- Deployment of intermediate intensity services to high-utilizers (in coordination with CHTs)
- Co-location of behavioral health and primary care providers and/or additional behavioral health delivery innovations
- Improvement of patient engagement
- Workforce and curricula development

Centralized Information Technology and Analytics Support

To facilitate payer and delivery transformation efforts, the state will invest in building, improving on, and coordinating across the following information technology initiatives.

1. All-Payer-Claims-Database (APCD)

One of the immediate benefits that will be apparent to multiple stakeholders within the Rhode Island health care system will be the analytical support made available related to the all-payer-claims-database (APCD). To successfully transform payment and delivery systems in the state of Rhode Island, the state will require comprehensive information on health care costs and utilization. An All-Payer-Claims-Database (APCD) will allow the state to understand how and where health care is being delivered and how much is being spent. The proposed APCD database seeks to include data on commercial, self-insured, Medicare and Medicaid populations. Data collected on the APCD will include data regarding claims, payments, providers, eligibility and de-identified patient information. Collected claims data will encompass data from a full range of services, including primary care, specialty care, outpatient services, lab testing, dental services, and pharmacy data. However, the APCD will not duplicate information being collected on the HIE. A state-operated APCD will enable Rhode Island to further the goals and objectives of the health care reform: ensure price transparency for purchasers, improve quality, improve market function and provide better information to policymakers.

Proposed expenses include hardware and software purchases, staff salaries and vendor contracts. Using market rates for staff salaries and software licensing costs, it is estimated that Rhode Island's APCD will require approximately \$1.4M in annual operating expenses (\$1.0M in staff and \$0.4M in annual software licenses). Additional start-up costs of \$0.3M are anticipated in the first year. The SHIP recognizes that certain entities within the state have already reserved dollars in their operating budgets for "super-user" analysts and other positions that may be high-utilizers of the APCD. The costs listed above do not include these expenses and are in addition to any "super-user" positions already budgeted, and intend to build upon existing competencies to further the function of the APCD for providing valuable, relevant information to multiple stakeholders.

2. Provider Directory

The State seeks to create a state-wide authoritative comprehensive provider directory to provide information on demographics, credentials, license number, NPI, specialty, insurance network participation, languages spoken, office hours, and communication preferences. The provider directory will provide relation and consistent information to state agencies, providers, payers, and the public for information on the providers of care in Rhode Island. The state will conduct a strict request-for-proposal process to technical vendors to ensure that provider directory is built to address all components necessary to provide the additional foundations needed to transform to a value-based health care system. It is estimated that the provider directory will cost approximately \$0.6 million during the start-up phase with \$50k to \$60k in annual operating expenses.

3. Patient Portal

Rhode Island must address the challenge of managing operational costs while improving patient access and satisfaction through the initiatives to transform care delivery. A patient portal serves as a secure, HIPAA-compliant two way communication channel between patients and their providers. Some of its features include test results notification, prescription renewal, demographic changes, new patient registration, health summaries, appointment requests, electronic payments, and more.

Below is a summary of benefits to both patients and providers from establishing a patient portal⁴:

TABLE 23: BENEFITS TO A PATIENT PORTAL

For Patients	For Providers
Improves patient access and engagement in care process	Increases administrative efficiency
Enhances chronic disease management capability	Improves responsiveness to patients needs
Providers instant access to lab results and centralized prescription refills	Enhances cost savings, i.e. lower incoming calls, call-backs, and phone messages
Problem and medication list viewing	Strengthens physician-patient relationship

⁴ Judi Painter, "The Patient Portal: A Secure and Easy Way To Communicate With Your Patients", Quality Improvement Organizations

Savings opportunity: Studies such as the California Healthcare Foundation’s examination of patient portals have shown that there are significant savings opportunities to providers⁵. Additionally, studies show increased patient engagement and satisfaction resulting from the increased use of patient portals.

**TABLE 24: POTENTIAL SAVINGS
FROM PATIENT PORTALS**

Provider Savings	Amount (\$)
Per appointment	\$0.62
Per phone call to patients	\$1.75
Each lab result delivery	\$2.69
Mailing cost	\$0.63

A Journal of Healthcare Information Management study⁶ also showed that patient portals did not result in reduced physician productivity; telephone volumes dropped significantly and patient satisfaction score were higher. The state estimates a patient portal will require \$0.5M to develop, roll-out, and support end-users.

4. Single Sign-On (SSO)

As health care information technology evolves, providers are beginning to utilize multiple systems. If uncoordinated, each system can require a distinct log-in process. Rhode Island stakeholders expressed strong interest in identifying opportunities to reduce multiple sign-on processes for patient facing providers. According to a survey report from The Ponemon Institute, a single-sign-on (SSO) can significantly decrease the amount of time clinicians spend on accessing various forms of electronic medical records (EMR)⁷. In addition to improving provider productivity, a SSO will provide overall increased security and efficiency in health care organizations. On average, a clinician spends 122 hours a year in accessing various forms of EMR that require different login credentials. Findings from a survey conducted by The Ponemon Institute found that SSO technology saves clinicians an average of 9.51 minutes per day, which translates into an estimated \$2,675 in savings per clinician per year. If approximately 4,700 physicians and mid-levels adopt SSO at an annual cost of \$85/provider, these improvements would cost the state of Rhode Island \$0.4 million annually.

⁵ Emont S. “Measuring the impact of patient portals: what the literature tells us” [Internet]. Oakland (CA): California HealthCare Foundation;[2011 May] [cited 2013 Nov 15]. Available from: <http://www.chcf.org/~media/MEDIA%20LIBRARY%20Files/PDF/M/PDF%20MeasuringImpactPatientPortals.pdf>

⁶ Liederman, E.M., J.C. Lee, V.H. Baquero, and P.G. Seites. 2005. “The Impact of Patient-Physician Web Messaging on Provider Productivity.” *Journal of Healthcare Information Management* 19;81-86

⁷ Ponemon Institute Research Report: June 2011; “*How Single-Sign On Is Changing Healthcare: A Study of IT Practitioners in Acute Care Hospitals in the United States*”

Accordingly, the State will allocate a portion of the SIM grant to identify opportunities for SSO capabilities across state-run health information technology and between state-run and market-run technologies such as EMRs and CurrentCare.

Expected Total Cost Savings and Return on Investment

To measure the net financial impact of the SHIP strategy, the Advisory Board and Milliman researched numerous case studies that were similar in nature to initiatives set forth in the SHIP. Milliman reviewed findings from Case Study Research and applied PMPM cost savings percentages to the SIM model. In some instances, dampening factors were applied to case studies with atypical savings estimates based on Milliman experience. This universe of case studies was used to inform estimates of related but distinct plans being proposed in the SHIP. To account for limitations and overlap of case studies, conservative estimates were developed for each initiative, and then a summary rate was calculated to reflect a savings rate of all initiatives in the SHIP. Each payer group was assigned a unique PMPM savings estimate (listed below) informed by the case study research, Milliman's actuarial analysis and The Advisory Board Company's experience estimate savings rates are listed in the following table:

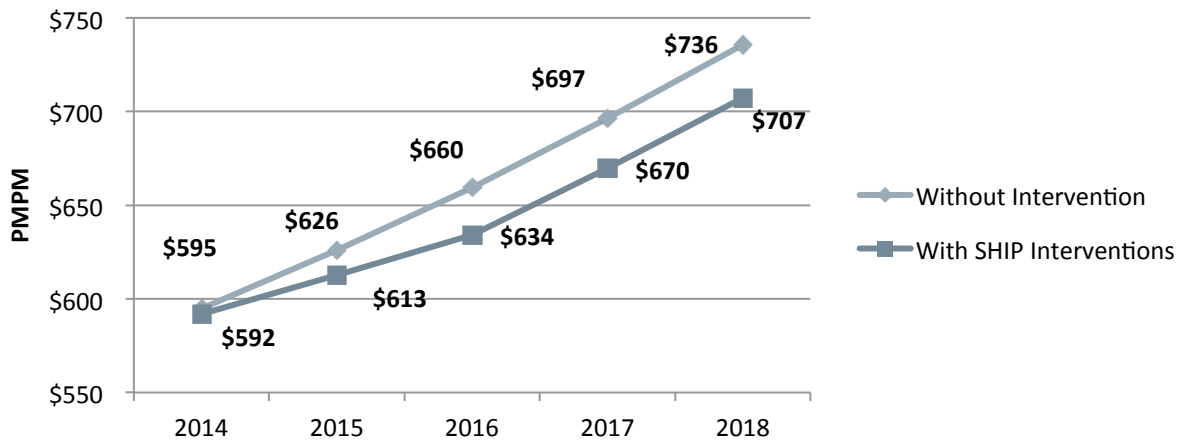
TABLE 25: ESTIMATED SAVINGS RATES

Population	Estimated PMPM Savings (vs. growth trends)
Medicaid	5.50%
Medicare	3.50%
Commercial/Other	3.00%

The PMPM savings are fully realized in the financial model by the end of the third year of the SHIP implementation.

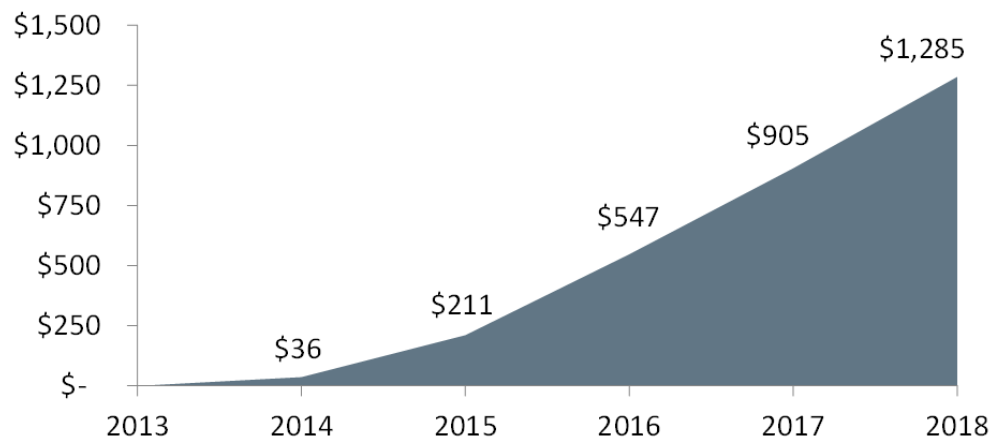
The Advisory Board Company estimates total cost of care reductions (versus the trend) of over \$1.25 billion over a five year period. The primary driver of this will be increased care management that effectively reduce preventable utilization and improve health.

Projected Health Care Expenditures Trend Lines (Zoomed In)



The area between the two curves represents the total cost of care reductions. Below is a graphical representation of these projected reductions.

Cumulative Cost of Care Reduction Projections vs. Trend (\$ Millions)



Net Annual Financial Impact vs. Trend (\$ Millions)

<i>\$ Millions</i>	Year 1	Year 2	Year 3	Year 4	Year 5	Cumulative (3 yrs)	Cumulative (5 Yrs)
Cost of Care Savings	\$36	\$174	\$336	\$358	\$380	\$547	\$1,285
Estimated Investment Required	(152)	(158)	(159)	(160)	(161)	(\$469)	(\$791)
Net Savings	(\$116)	\$17	\$177	\$197	\$219	\$78	\$494

After factoring in the costs of the SHIP initiatives (estimated to be ~2.0% of health care spending annually), the net savings are nearly \$0.5 billion over a five year time frame. Savings versus the trend are over \$200 million per year beginning in year five.

The return on investment (ROI) after 3 years is 17%, with bulk of the return on investment occurring in the third year. After year three, the cost of care savings estimates (versus trends) take off, propelled by a value-based care economic model that is no longer in its infancy stage . The five-year ROI is more than 60%. It is important to note that conservative methodologies were used throughout the financial modeling process, including the process to estimate both the required investment to achieve the savings in addition to the projected cost of care reductions. Successful implementation of the SHIP and quicker adoption throughout the state could lead to significantly increased cost of care savings.

While the SHIP does not address nor solve all health care challenges in the state of Rhode Island, the innovations proposed demonstrate the ability to definitively slow the rapid growth of health care spending in the state. The transition from the volume-based payment models to value-based-care payment models through proven and evidence based practices will improve medical outcomes and increase patient satisfaction. In addition, this transition will incentivize stakeholders to pursue new and innovative strategies, adding value to the system for years to come.

L. DESIGN PROCESS REPORT

The State Innovation Model (SIM) Design Process in Rhode Island was conducted from April 2013 through the end of November 2013. During this time, no fewer than 35 internal State government stakeholders and 100 community stakeholders weighed in and supported the development of a vision of a near-future, value-based health care system for the residents of Rhode Island. Convened and led by the efforts of the Lieutenant Governor, Elizabeth Roberts, her staff and a group of state Directors, the SIM design process brought together participants from all elements of the Rhode Island health care system, as well as patients, advocates and journalists. The Advisory Board Company provided project management assistance and support throughout the 8-month time period.

The external stakeholder groups ranged from hospital organizations, insurance providers, community health organizations and patient advocacy groups – the commitment that these organizations demonstrated by opening their doors and sending representatives to work group meetings, was impressive and reflective of their commitment to the goal of improving health in Rhode Island.

There were six distinct activities within the Design Process, which included interviews with Key Internal and External stakeholders, the bi-weekly convening of Workstream Workgroups, a series of internal and public events, the focused State Health Innovation Plan (SHIP) writing and revision period, and the Public Tour/Comment period. The sections below provide overviews of these efforts and outcomes. Further details may be obtained in the Quarterly and Final reports submitted to the CMMI office during and after the Design Process time period.

1. Stakeholder Interviews
2. Workstreams
3. Special Events
4. Actuarial Analysis
5. SHIP Document development/revision period
6. Public Tour/Comment Period

The timelines for these activities overlapped considerably.

1. Stakeholder Interviews.

The Advisory Board completed more than 60 interviews with stakeholders both inside (“internal”) and outside (“external”) state government. The Advisory Board staff received a comprehensive list of the key members of the Rhode Island health care community, provided by the Lieutenant Governor’s office,

and was amended to include an additional 10 to 15 people as recommended by others. There were four distinct objectives for the interviews:

- a. To help the Advisory Board consultants obtain independent knowledge of the health care community in RI;
- b. To obtain and further encourage stakeholder involvement in the SIM design process;
- c. To provide an opportunity to answer questions or comments about the SIM planning process
- d. To collect input regarding their needs, concerns and opinions of health care reform in the State.

The interviews were structured by an open-ended interview guide that was designed to inquire about the interviewees' roles in the health care marketplace, their concerns and their needs regarding health care reform. Each interview took approximately an hour to complete, although some took longer when organizations chose to have more than one representative participate at a time. Interviewees included representatives from the State (including the Department of Health, the Executive Office of Health and Human Services, the Office of the Health Insurance Commissioner, HealthSourceRI, the Governor's Office and the Lieutenant Governor's office) as well as many groups outside of the State.

2. Workstream Workgroups

The work for the SHIP creation was divided into six categories: Clinical and Payment Innovation, Health Information, Technology and Measurement, Workforce and Practice Transformation, Community Health Initiatives, Population-Focused and Policy and Regulatory Work. The activities and considerations of each workgroup are described below. Appendix ___ contains the charter statements for each workgroup, the final output or reports produced by each workgroup and a summary of the level of participation by external stakeholders.

Each workstream was led by two State staff members, who structure and facilitate the meetings. The meetings occurred every two weeks and ran for approximately 90 minutes each. The attendance in each workstream ranged from approximately 25 participants in the smaller groups to almost 60 in the larger ones.

Each workstream was responsible for identifying the key objectives that were to be included in the SHIP, as well as the key levers that will be used to achieve these objectives. While different workstreams took different approaches, ranging from presentations of best local practices on certain topics to deep

discussions of advantages and disadvantages of different practice models, each group ultimately produced a number of recommendations to the SIM team, for inclusion in the SHIP.

The following sections describe the work of the workstream workgroups, and specifically address the 14 topic requirements as outlined in the SIM Special Terms and Conditions:

1) Clinical and Payment Innovation

This group, which had as many as 25 members at any of its 7 meetings, reviewed and identified options for creating multi-payer strategies to move away from payment based on volume and toward payment based on outcomes. The primary method that this group used for its work was to have current Rhode Island providers and payers to present their best practices of value-based payments, as well as looking into a number of successful efforts in other states.

After considering the options currently available: pay for performance, shared savings, clinically integrated organizations and Accountable Care Organizations, the workgroup concluded that “it is necessary to encourage and support the organization of payers, physicians, hospital and other health care providers into coordinated care models.” Further, the group determined that “it is anticipated that the ACO approach will be adopted by multiple payers in Rhode Island.” The group identified the PCMH model, as practiced by the Chronic Sustainability Initiative – Rhode Island, to be a foundation for growth for these future coordinated care organizations.

CSI-RI demonstrated how it was formed through a state-convened coalition of providers and payers, and such a model will support the efforts of all payers: commercial and state, to effectively identify the needed structures and contracts to successfully move forward in health care reform transition. Through building upon CSI-RI’s models of how to work together, share learning, identify metrics for success and use technology, Rhode Island has the potential to move most of its residents into these high quality, lower cost arrangements.

2) Health Information, Technology and Measurement

This group met 8 times with approximately 20 people attending each meeting. They first assessed the needs of a new value-based care system and then worked to identify where the gaps are in Rhode Island’s health information infrastructure. They assessed the state of the current systems, which included:

- The All-Payer Claims Database
- The Health Information Exchange (CurrentCare)
- KIDSNET
- Unified Health Infrastructure Project (UHIP)
- EHR adoption and interoperability
- Provider Directory

Each was evaluated and areas for improvement were identified. These are outlined in the innovation section of this document. Throughout the eight months of the design process, it became increasingly clear that these platforms must be complete and interoperable in order to meet the needs of a value based system: longitudinal tracking of individuals, robust reporting and analysis in order to support the calculation of risk scores, accurate assessment of insurance and entitlement eligibility, measurement of spend, monitoring of risk scores to name but a few.

In order to move quickly towards capturing the savings promised by a new value-based system, it is necessary to ensure that the foundational technological platforms identified above are complete and enjoy widespread adoption as soon as possible. This is the focus of Year One activities of the Health Care Innovation Plan

3) **Workforce and Practice Transformation**

The workforce and practice transformation workstream workgroup met 8 times throughout the summer and fall, and as many as 17 individuals participated across this time period. This group had as its mission the responsibility to determine how to build a people-focused workforce that keeps the health people well, keeps the at risk population from entering into the risky high-utilizer category and supports the high utilizers in the state and helps them improve their health through lower-cost care. Additionally, this workstream worked to identify ways to support providers in their transition to value-based payment through the recognition that additional types of workers and skill sets will be needed in practices to make this kind of health care possible. This workstream considered itself to be a continuation of the efforts spearheaded by Healthy RI Task Force of September 2010, as that Task Force effort had a subcommittee focused on workforce development.

This workstream workgroup structured its work around identifying the requirements for the future workforce, the current gaps in the workforce, and identifying solutions to close these gaps. While there are some gaps in the current RI health care workforce, It became clear that the state requires a full health care workforce assessment to support adequate planning and preparation of value-based health care curricula.

An example of an identified gap identified by the workstream, based on current knowledge of licensure and value-based need, is that definition around the role, “Community Health Worker” is needed. It is also clear that Rhode Island’s current “scope of practice” statutes are appropriate for future workforce needs, with the exception of “medical assistants,” which is already being revised at the time of this writing. It was determined that there is an adequate supply of primary and specialty care physicians in the state relative to physician supply in other states. However, the extent to which new curricula is needed within local medical and allied health training is, as yet, unknown. Brown University has recently expanded its graduate Family Practice education program and has formed a partnership with the University of Rhode Island to form a new school of Nursing. There is some evidence that change in training is already

underway, but more study will be needed by the Rhode Island Care Transformation and Innovation Center.

4) Community Health Initiatives

The Community Health Initiatives workstream workgroup met 8 times during the Design Process period, and had as many as 65 participants from a range of organizations at any one meeting. This group chose to look at how various community based groups and local agencies or schools are currently participating in the health care system, how similar groups across the nation are participating in the health care system and how to best support the further movement of these organizations into health care in support of keeping Rhode Islanders physically and mentally healthy. This group also took time to explore how the social determinants of health, including city and town planning efforts, can be positively affected in the efforts to reform health care.

Through the presentations and discussions of this group, it was learned that these organizations had varying levels of skills, knowledge and practices with regards to managing private health information and collecting outcome data. While a few organizations already were pursuing integration with specific hospital system electronic health records, most were not. The need to provide training and support to such organizations to participate in value based care was apparent and has been identified as a key responsibility of the proposed Rhode Island Care Transformation and Innovation Center.

It is also expected that through the expansion of these capacities, these organizations will be eligible to participate in the Health Care Innovation Trust Fund sub-grant process, thereby continuing to support economic development (through additional job creation) and low-income community stabilization with attention and resources being focused on the social determinants of health. These community-based groups are the best positioned to support value-based care teams in their efforts to provide safe housing, transportation and nutrition to Rhode Island's most vulnerable populations. In this manner, it is expected that the value-based health care system will be able to support the financing and delivery of some public health services and community prevention strategies over time.

Additionally, a number of participants in the Community Health Initiatives workstream were representatives of the Rhode Island Department of Education or organizations that work within the school system. As a result of the presentation of their concerns and past success stories, the workstream recognized the importance of continuing to integrate public health concerns and the practice of health care providers into the primary and secondary school systems. While most schools in the state are too small to support the full-time location of providers within a school, the sharing of providers between schools was identified as a model worthy of consideration in the future. One such provider that might be explored as appropriate for school visits are oral health professionals, as Rhode Island is currently expanding its efforts to promote oral health in young children through the Teethfirst initiative of the Rhode Island Oral Health Commission and Rhode Island KIDS COUNT.

5) Population-Focused

The population focused workgroup focused on the potential impact of value-based care on special populations: the elderly, children, people with special needs, people with behavioral health problems and populations that suffer disproportionately due to the disparate effects of the social determinants of health. This group met 8 times during the summer and fall, and had as many as 18 participants at any given meeting.

This workstream studied the following topics: access to primary care, access to acute and specialty care, access to behavioral health care, integration of care, care transitions, continuity of care, system navigation, and information technology issues. For each of these topics, participants discussed what is currently working well, and where the gaps are. Then, participants studied how each group might benefit (or suffer) from proposed changes to a value-based care system. Based on presentations from several Rhode Island success stories in the benefits of integrated care to vulnerable populations (the elderly, and Medicaid high utilizers) – the workstream concluded that the building of Community Health Teams that contain specialized resources (for example, specialists trained in how to treat children with autism, or those with training in substance abuse) was an ideal effort to pursue, because the patient experience and clinical outcomes for these groups both require improvement.

Additionally, the value in creating co-location strategies for behavioral health patients was explored. Critical to the success of co-location practice is the understanding the different struggles that different types of patients undergo. To this end, the group recommended that to the greatest extent possible, expanding the availability of primary care at behavioral health clinics is desirable. Furthermore, providing these primary care providers with training to understand the needs and struggles of those that suffer from behavioral health or substance abuse problems is also an important factor in making this kind of intervention a success.

This group emphasized the value of models such as PACE, or the expanded Medicaid Waiver request and Money Follows the Person– recognizing that local agencies and the state need to work together to continue to develop safe, successful programs that allow vulnerable residents to pursue a healthy lifestyle with as much community support as possible.

6) Policy and Regulatory Work

The Policy and Regulatory Group met only two times during this time. This was due to the fact that it became clear that some policy questions were so narrow that an entire group was not required to pursue the answers. Rather, the model of the SIM staff reaching out to subject matter experts on specific questions was determined to be a more valuable use of participants' time. Nevertheless, as many as 20 participants were present at either of the two meetings.

Policy questions were raised throughout the SIM workstream meetings, in all topic areas. As discussed within the SHIP policy section, it was ultimately determined that Rhode Island has done an excellent job in laying the legal and regulatory foundations for health care reform, in

large part due to the work done by the 2010 Healthy RI Task Force, the leadership expressed in the creation and execution of both the Office of the Health Insurance Commissioner (OHIC) and HealthSourceRI and the continued efforts of the Rhode Island Department of Health (RIDOH) over time. For example, OHIC has already mandated a certain level of primary care spend by commercial insurance payers and HealthSourceRI plans to require the reporting of quality measures on its website in order to promote consumer engagement.

Additionally, the state has undertaken an internal assessment of how to best re-structure the health-focused agencies to support the market shift to value-based care. This is currently underway and the conclusions are not yet available. The state has a goal of aligning agencies to promote cross-agency work towards shared goals. The state also has made strides in engaging the private market in its coordinated planning efforts through the General Assembly's creation of the Health Care Planning and Accountability and Advisory Council. This Council is responsible for identifying gaps in the health care system in order to support coordinated planning over time.

Towards the end of the Workstream Workgroup meeting timeframe, the leaders of the workstreams came together for a two and a half hour "cross-pollination meeting." The goal of this meeting was to ensure that the leaders of each workstream were aware of the concerns and ideas that were being strongly considered by the other workstreams. While each workgroup was assigned to provide recommendations around a key component of the health care system, the groups often arrived at similar solutions to different challenges to creating a value-based health care system. Accordingly, the SIM staff found it important to ensure that each group was aware of the others' recommendations to this point, and to identify areas of overlap or potential discontinuity.

Following the "Cross-Pollination" meeting, one Workstream meeting (the Community Health Initiatives Workstream) was announced and opened up to participants of all of the workstreams, and a report-out on the cross-pollination meeting was presented during this time frame. A high-level overview of the Stakeholder Interview findings was also shared during this meeting. More than 80 people attended.

3. Additional Topic-Focused efforts

At times, during the eight months of meeting and planning, special internal state government meetings or discussions were held. These occurred within the SIM leadership group and some occurred within different departments or agencies, such as Medicaid. These were efforts to discuss certain topics that seemed to fall outside of the workstream workgroup efforts, but were nonetheless integral to the success of the SHIP design.

For example, the SIM leadership group discussed the expected impact of HealthSourceRI in the coming few years. Additionally, the planning for the design and launch of HealthSourceRI included the goal of the website being a place for Rhode Islanders to determine eligibility for certain state programs, as well as a place to shop for appropriate health insurance plans. HealthSourceRI expects to incorporate quality

metrics of Rhode Island health care providers and payers in order to support the pillars of transparency and accountability, and to promote informed patient engagement.

The Medicaid leaders also met in a half day retreat in September. They reviewed the early data being reported from the Milliman analysis, as well as their own internal reports. With their understanding of Medicaid innovations underway in other states and recognizing what is succeeding in Rhode Island, they decided to focus on the creation of Community Health Teams, Specialized Community Health Workers and the development Intermediate Intensity Services. They also continued the ongoing discussion of the options of how to support the further movement of Medicaid recipients into value-based care arrangements. Further discussions led to the examination of the presence and use of Medicaid supplemental payment programs. It is as yet unclear as to the potential for the use of this payment mechanism to align incentives to support the payment and delivery reform model.

4. Special Events

There were a number of special events held throughout the six-month period. Several were internal, for State SIM committee members, and several were open to the public.

- **April 2013: Presentation to the Boards of Directors of Rhode Island Hospitals by Chas Roades, on the need for and impact of health care payment reform for hospitals.**
- **April 2013: Lt. Governor's SIM Kick-off meeting: The Lieutenant Governor held a public meeting to "kick off" the SIM efforts.** She described the goals of the SIM design grant, and the need for community participation. This provided a public Q&A opportunity on the goals, and a specific request for participation in the workstream workgroups. The invitation list was compiled from the 2010 Health Rhode Island task force and was used as a starting point for invitations to participate in the workgroups related to the SIM effort.
- **May 2013: DC Roundtable: the ABC team conducted a roundtable discussion at the D.C. headquarters with the leading experts within the company, collecting their thoughts on what makes for a successful Innovation Plan as well as how Rhode Island can ensure success with these efforts.** From these early discussions came a framework that served as the foundation for Rhode Island SHIP development efforts.
- **May 2013: SIM State Leadership retreat: Leading the Transition to Value-Based Health Care Delivery and Payment Models.** This retreat was a full-day meeting attended by the SIM Leadership Committee and the Steering Committee. It was facilitated by Dick Wright, (Senior Partner) of the Advisory Board Company. Within this meeting, the leaders took the framework proposed by the DC Roundtable discussed and agreed and/or modified the input as they understood it to apply to Rhode Island. At the conclusion of the meeting, the staff had discussed and agreed upon a "Pillar" framework that served as the guidelines for all SHIP related work.

- **June 2013: Lecture on “Integrating Clinical Care” by Chris Rowe, Value Based Care Consultant at the Advisory Board.** This presentation was to the state leadership staff about the business model of Clinical Integration as a potential foundational platform for creating value-based contracts.
- **June 2013: Payment Reform Summit: This half day conference, open to the public, was on the topic of health care reform.** Mr. Roades returned to Rhode Island and gave an opening talk at the Summit while the second half of the morning was dedicated to a panel discussion (moderated by the Lt. Governor) on specific health care reform efforts to date in Rhode Island. The goal of Mr. Roades’ talk was to educate the audience on the various types of payment reform underway across the nation. The participants on the subsequent panel were presidents and CEOs of various organizations, including Dr. Al Kurose, President and CEO of Coastal Medical, Dennis Keefe, President and CEO of Care New England, Gus Manocchia Senior VP and Chief Medical Office of Blue Cross and Blue Shield of Rhode Island, Lou Giancola, President and CEO of South County Hospital, Joan Kwiatkowski, CEO of PACE-RI and Chuck Jones, President and CEO of Thundermist Health Center. Well over a hundred members of the community attended the conference.
- **August 2013: Cross-pollination meeting: The objective of this meeting was to ensure that ideas generated in each workgroup were shared with the other workgroups.** The SIM Steering Committee was concerned that any given idea or innovation from one workgroup would potentially overlap or have implications with ideas and innovations being generated in other workgroups. The SIM Steering Committee wanted to make sure that these potential implications and overlap were identified before the final meetings of the workgroups, in case there was an impact on the recommendations being prepared by the workgroups. The results of this meeting were presented at an “open” workstream meeting in early September.
- **September 2013: Technical Assistance (TA) Site visit: There was a CMMI/SIM TA Visit from the National Governor Association, Centers for Health Care Strategies and State Health Access Data Assistance Center on September 10th.** The objectives of the meeting were for the TA team to provide substantive support on quality measurement and reporting, and on the topic of behavioral health integration. This meeting was attended by SIM steering committee staff and a number of additional representatives from the Department of Health and HealthSourceRI (the Exchange). The information received during this meeting supported the efforts of the SIM Steering Committee to integrate workgroup recommendations and ensure that all innovative ideas are consistent with current best practices in these areas.

5. Actuarial Analysis

The Lt. Governor's Office and The Advisory Board subcontracted with Milliman Actuarial Services (Milliman) to perform an assessment of the current health care expenditure patterns in the State of Rhode Island. Further, Milliman was contracted to produce the financial model used in this SHIP to estimate cost savings over time, as the innovations are implemented.

This effort required the identification and transfer of all relevant data from the respective Rhode Island agencies to Milliman. In doing so, it was discovered that not all cost data were available and Milliman was able to supply proxy data for some hospital charges/costs. Once the data were merged into a sufficient dataset, they were cleaned and validated. The validation efforts took a good bit of discussion between Milliman staff and SIM staff to ensure that the baseline cost and utilization numbers were consistent with pre-existing Rhode Island (primarily Medicaid) analyses. Subsequent to the validation, initial data runs were able to answer fundamental questions about Rhode Island utilization and cost patterns.

A Rhode Island "Technical Advisory Group" was formed to ensure that the analyses performed by Milliman were valid and consistent with the developing initiatives for the SHIP. By the end of the SIM grant period, they were working with the Milliman staff in the production of the financial model. The model was produced, showing an expected net savings of nearly 500 million dollars over a five year time period, and shared at a public workstream meeting on November 20th.

6. SHIP Document development/revision period

Once the Workstream Workgroups concluded, a second SIM Leadership Meeting was held in which the top innovations identified by both the SIM Staff Committee and the Workstream Workgroups were clear and able to be supported by State leadership. This was a half-day meeting held at the Rhode Island Foundation. Subsequent to this meeting, the actual drafting of the SHIP began. The first public draft of the SHIP was sent to workstream workgroup participants on October 23st. Two public workgroup meetings were held to present the draft, on the 24th of October (morning and afternoon sessions). Additionally, there was one final open workstream meeting on November 20th, where the results of the financial analysis were presented publically.

7. Public Tour/Comment Period

On November 6th, the Lieutenant Governor posted the full draft of the SHIP on her website, kicking off a 21-day public comment period. The public comment period closed on November 28th.

M. GLOSSARY

Accountable Care Organization (ACO): A health care organization that ties doctor and/or hospital payments to quality outcomes and cost of care for a population that has been assigned to them. The ACO contracts with a group or groups of providers to deliver highly efficient and effective care to its patients. The organization is accountable to the population it cares for and the payers that pay it money to provide care. If care is provided at a lower cost, the providers may share in a portion of the savings but only if quality targets are also met.

“ACO-like structures”: the title “Accountable Care Organization” or ACO refers to an organization that is recognized by the federal government (the Centers for Medicare and Medicaid Services or CMS) as one that meets the definition described above and as such are eligible to treat Medicare or Medicaid recipients. There are other types of organizations that are similar in structure and goals and may mirror the ACO exactly, but they may not be recognized by the federal government. These organizations may be referred to in a variety of ways, such as collaborative care, accountable care, or coordinated care businesses. Their requirements for business operations fall under state laws as opposed to a combination of state and federal regulations for the ACO.

Attributed population or Attribution: in health care, this term refers to the assignment of a provider, or providers, to service a population of patients based on where claims data indicate the provider a member has primarily used in the past. That provider is deemed to be responsible for the patient’s costs and quality of care (regardless of which providers actually deliver that care) in exchange for payment.

Bundled Payments: There are a number of terms that may be used to describe a bundled payment: episode-based payment, case rate, global or packaged pricing, and so forth. Essentially, it refers to payment to a provider or group of providers for the expected cost for a clinically-defined episode of care for certain conditions or diagnoses. This may include inpatient, outpatient or any other services rendered to treat the condition of the patient. The team of providers involved in the episode of care receive one lump sum for all needed care while individually they are paid fee-for-service for the care they deliver. As such, they are responsible for coordinating treatment within the prescribed budget while meeting or exceeding quality metrics.

Clinical integration: a network of doctors working (most often) in collaboration with hospitals. It includes a program of initiatives to improve the quality and efficiency of patient care, developed and managed by physicians, and supported by a performance management infrastructure. Clinical integration provides a legal basis for collective negotiation by independent physicians for improved reimbursement based on achieving better clinical outcomes and efficiency.

Community Health Teams (CHT): a coordinated team of often non-traditional care providers that interact or are integrated with traditional care teams like doctors, hospitals and long term care organizations. The CHT may include a nurse coordinator, social workers, dietitians, community health workers and care coordinators, or public health prevention specialists. As such, social determinants of health like housing, a person’s sense of security, access to education, availability of healthy foods, and so forth can also be addressed in addition to more traditional physical and mental health. Operations

are often supported by centralized technology systems that can “talk to each other” and share critical health information among the team such as electronic medical records, provider directories, and tools for predictive modeling of the health of the population served. CHTs work well when integrated with patient centered medical homes, provider groups, and accountable care-type organizations.

Patient Centered Medical Home (PCMH) or Medical Home: A model of care that emphasizes care coordination and communication among providers. There are five functions of a PCMH: 1) it is patient centered meaning care is individualized and reflective of patient needs, culture, values and preferences; 2) care is comprehensive which means the organization is accountable to deliver a large portion of what its population needs like physical and mental health care needs, including prevention and wellness, acute care, and chronic care; 3) coordinated care means that the PCMH is responsible to the patient to ensure all aspects of their care and their providers are working toward the same goal, the patient’s health. This may include hospital, outpatient or community services; 4) access to care means that patients are able to be seen when needed, experience shorter waiting times for urgent needs, around-the-clock telephone or electronic access to the care team; and 5) quality and safety are assured through the use of medicine and treatment that is “evidence-based” meaning there is clinical evidence for its effectiveness. PCMHs use systems-based tools to help in the measurement and reporting of the effectiveness of care including patient experience and satisfaction.

Risk: Today there is much discussion about doctors and hospitals “taking on risk.” This means that a provider (a doctor or hospital) agrees to be responsible for the quality and cost of some or all of the care delivered to a set of patients. The risk they assume may be “assigned” to them through a contract with a payer like an insurance company or an employer. The contract may be as simple as receiving a bonus for improved quality. These arrangements are often referred to as pay-for-performance and are designed where a portion of the provider’s payment is withheld or tied to performance based on process or outcome measures that are pre-determined. Some forms of risk payments may also include Bundled Payments; an arrangement where a group of providers are paid a lump sum to treat a specific condition from beginning to end, regardless of the care setting. Providers must collaborate to improve quality and reduce costs in order to receive the bundled payment. A shared-savings model is one where providers are paid a negotiated fee for their services but held responsible for the total expense for a given patient population through comparison to a benchmark or budget, e.g., the cost of care for the same population in the previous year. Providers share in savings but are not at risk for losses. Finally, capitation is a payment method that pays providers on a set amount for every member of the population they are responsible for. The payment is made on a “per member, per month” or PMPM basis. The provider in this instance is responsible for both upside (savings) and downside (losses) risk.

Shared Savings: at least part of a provider’s income is directly linked to quality and the financial performance of a health plan. If costs for a specific population are lower than projected and quality is at the same level or better, a percentage of the savings is paid to the providers.

Transparency: in health care, this term refers to the sharing, publicly, of cost and quality information. It is meant to 1) provide doctors and hospitals with benchmarks for improving their performance, 2) encourage consumers and payers to reward quality and efficiency by purchasing from those

organizations with the highest quality and lowest cost, and 3) to help consumers make informed decisions about their health care purchases. It is NOT the sharing of individual or personal patient information but rather an aggregation of severity-adjusted cost and quality information of a treatment or condition by provider, geographic area, or by other demographic data. For “value-based purchasing,” both quality and price information are essential to know in order to compare and make decisions. Transparency of cost and quality information has become more important as the cost burden has begun to shift to the consumer in the form of high deductibles, co-insurance or full fee-for-service in the case of the uninsured.

Value based care or purchasing: In contrast to the prevalent “fee-for-service” system of provider payment, value-based purchasing and care rewards the provider for delivering high quality, efficient care that is safe and at a low cost. Rewards, bonus payments, or shared savings to providers are conditional on achieving pre-determined goals for quality and cost. The financial incentives are designed to discourage inappropriate, unnecessary, or costly care when other equally acceptable alternatives are available.

N. REFERENCES

- American Hospital Association. (2013, January). *Engaging Health Care Users: A Framework for Healthy Individuals and Communities*. Retrieved October 15, 2013, from American Hospital Association: <http://www.aha.org/research/cor/engaging/index.shtml>
- American Hospital Directory. (2013, January 24). *American Hospital Directory*. Retrieved October 28, 2013, from American Hospital Directory: www.ahd.com
- Blue Cross and Blue Shield of Rhode Island. (2013, July 31). *Blue Cross and Blue Shield of Rhode Island and University Medicine Announce Multi-Year Patient Centered Contract*. Retrieved October 31, 2013, from BCBRI Announcements: <https://www.bcsri.com/about-us/news-events/news/blue-cross-blue-shield-rhode-island-and-university-medicine-announce-multi>
- Center on Budget and Policy Priorities. (2012). *How Would the Medicaid Expansion Affect Rhode Island*. Retrieved November 5, 2013, from Center on Budget and Policy Priorities: <http://www.cbpp.org/files/healthtoolkit2012/RhodeIsland.pdf>
- Centers for Disease Control and Prevention. (2013, June 5th). *Smoking and Tobacco Use*. Retrieved November 3, 2013, from Centers for Disease Control and Prevention: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/
- Centers for Medicare and Medicaid Services. (2013). *Adult Medicaid Quality Grants*. Retrieved November 6, 2013, from Medicaid.gov: <http://www.medicare.gov/Medicare-CHIP-Program-Information/By-Topics/Quality-of-Care/Adult-Medicaid-Quality-Grants.html>
- Centers for Medicare and Medicaid Services. (2010). *Health Homes*. Retrieved October 11, 2013, from Medicaid.gov: <http://www.medicare.gov/Medicare-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Integrating-Care/Health-Homes/Health-Homes.html>
- Centers for Medicare and Medicaid Services. (2011). *Nursing Home Compendium*. Washington, D.C.: Centers for Medicare and Medicaid Services.
- Chronic Sustainability Initiative - Rhode Island. (October 2013). *CSI-RI Chart Book*. Shrewsbury, MA: Commonwealth Medicine.
- Enthoven, A. (2009). Integrated Delivery Systems: the Cure for Fragmentation. *American Journal of Managed Care*, S284-90.
- Evans, M. (2013, July 16). *Why one Medicare Pioneer ACO failed to save money*. Retrieved October 22, 2013, from ModernHealthcare.com: <http://www.modernhealthcare.com/article/20130716/NEWS/307169956/why-one-medicare-pioneer-aco-failed-to-save-money>

Health Affairs. (2013, February 14). *Health Policy Brief*. Retrieved October 21, 2013, from HeathAffairs.org: http://www.rwjf.org/content/dam/farm/reports/issue_briefs/2013/rwjf404446

Health Affairs. (2012). *Health Policy Brief: Improving Care Transitions*. Washington D.C.: Health Affairs.

Health IT Dashboard. (2013, July 26). Retrieved October 21, 2013, from Health IT Dashboard: <http://dashboard.healthit.gov/HITadoption/>

Hospital Association of Rhode Island. (2013). *Community Health Needs Assessment*. Cranston, RI: Hospital Associatio of Rhode Island.

Institute for Healthcare Improvement. (2013). *Triple Aim: Better Health and Better Care at Lower Cost*. Retrieved November 3, 2013, from Institute for Healthcare Improvement: <http://www.ihl.org/explore/tripleaim/pages/default.aspx>

Merides, E. (2013, April 4). *Preventable Chronic Conditions Plague Medicaid Population*. Retrieved 10 15, 2013, from Gallup Well-being: <http://www.gallup.com/poll/161615/preventable-chronic-conditions-plague-medicaid-population.aspx>

Office of the Health Insurance Commissioner of the State of Rhode Island. (2013). *Rhode Island Commercial Insurance Enrollment*. Providence, RI: Office of the Health Insurance Commissioner of the State of Rhode Island.

Parker, P. E. (2013, August 31). *Report ranks RI the nation's 12th most Hispanic State*. Retrieved November 5, 2013, from Providencejournal.com: <http://www.providencejournal.com/breaking-news/content/20130831-report-ranks-r.i.-the-nations-12th-most-hispanic-state.ece>

Rhode Island Department of Health. (2013). *Family/Peer Resource Specialist Program*. Retrieved October 29, 2013, from State of Rhode Island Department of Health: <http://www.health.ri.gov/programs/familyandpeerresourcespecialist/>

Rhode Island Department of Health. (2013, November 3). *KIDSNET*. Retrieved November 3, 2013, from Rhode Island Department of Health: <http://www.health.ri.gov/programs/kidsnet/>

Rhode Island Department of Health. (2013). *Publications*. Retrieved 11 6, 2013, from Rhode Island Department of Health: <http://www.health.ri.gov/publications/qualityreports/physicians/HealthInformationTechnology/SurveySummary2013.pdf>

Rhode Island Department of Labor and Training. (2012). *Rhode Island Employment Trends and Workforce Issues*. Providence: Labor Market Information Unit.

Rhode Island Office of the Health Insurance Commissioner. (2012). *Primary Care Spending in Rhode Island, 2012*. Cranston, RI: Rhode Island Office of Health Insurance Commissioner.

Rhode Island Quality Institute. (2010, February 12). *Currentcare Documents*. Retrieved October 22, 2013, from CurrentCareRI.org:

[http://www.currentcareri.org/matriarch/documents/Rhode%20Island%20Quality%20Institute%20to%20Receive%20Over%20\\$11%20Million%20for%20Health%20Information%20Technology.pdf](http://www.currentcareri.org/matriarch/documents/Rhode%20Island%20Quality%20Institute%20to%20Receive%20Over%20$11%20Million%20for%20Health%20Information%20Technology.pdf)

Rhode Island Quality Institute. (2013, September 4). *The Rhode Island Quality Institute and Blue Cross & Blue Shield of Rhode Island Launch Program to Boost Enrollment in the State's Health Information Exchange*. Retrieved November 3, 2013, from Rhode Island Quality Institute:

http://www.riqi.org/matriarch/documents/RIQI%20CC%20Incentive%20Program%20release_9_3_final.pdf

Rhode Island Quality Institute. (n.d.). *RI Regional Extension Center*. Retrieved October 8, 2013, from The Rhode Island Regional Extension Center - Doc EHR Talk: <http://www.docehrtalk.org/>

Robert Graham Center. (2013). *Coordinated Health Planning Project: Final Report of Findings*. Washington, DC: AAFP Center for Policy Studies at the Robert Graham Center.

Robeznieks, A. (2008, November 8). Small states, big progress. *Modern Healthcare*.

Rosenthal, M. B., Friedberg, M. W., Singer, S. J., Eastman, D., Li, Z., & Schneider, E. C. (2013). Effect of a Multipayer Patient-Centered Medical Home on Health Care Utilization and Quality: The Rhode Island Chronic Care Sustainability Initiative Pilot Program. *Journal of American Medical Association*, E1-E7.

South County Hospital. (2013). *Blue Cross and Blue Shield of Rhode Island, South County Hospital and South County Orthopedics Collaborate on New Initiative*. Retrieved November 3, 2013, from South County Hospital:

<http://www.schospital.com/SouthCountyHospitalNewsEvents/ViewArticle/tabid/164/ArticleId/178/Blue-Cross-Blue-Shield-of-Rhode-Island-South-County-Hospital-and-South-County-Orthopedics-Collaborat.aspx>

State Health Access Data Assistance Center. (2012). *Rhode Island State Profile*. Chicago, IL: National Opinion Research Council at the University of Chicago.

Substance Abuse and Mental Health Services Administration. (2011). *The National Survey on Drug Use and Health*. Washington, DC: Center for Behavioral Health Statistics and Quality.

The Lewin Group. (2013). *Rhode Island Coordinated Health Planning Project: Final Report*. Falls Church, VA: The Lewin Group.

The Office of the National Coordinator for Health Information Technology. (2012, November 29). *Rhode Island Quality Institute*. Retrieved November 3, 2013, from Health IT.gov:

<http://www.healthit.gov/sites/default/files/beacon-factsheet-ri.pdf>

Tufts Health Plan. (2013). *Tufts Health Plan*. Retrieved November 5, 2013, from Tufts Health Plan:

<http://www.tuftshealthplan.com/>

United Health Foundation. (2012). *America's Health Rankings: Rhode Island*. Fall River, MA: United Health Foundation.

United Health Foundation. (2013). *Rhode Island 2013*. Retrieved October 11, 2013, from America's Health Rankings: <http://www.americashealthrankings.org/RI/2013>

United States Census Bureau. (2013, June 27). *State and County Quick Facts: Rhode Island*. Retrieved October 15, 2013, from United States Census Bureau: <http://quickfacts.census.gov/qfd/states/44000.html>

UnitedHealthCare. (2013, February 27). *Lifespan Announces Accountable Coordinated Care Organization with UnitedHealthCare*. Retrieved October 30, 2013, from UnitedHealthCare: http://www.uhc.com/news_room/2013_news_release_archive/lifespan_launches_accountable_coordinated_care_organization.htm

Urban Institute. (2012). *ACA Implementation-Monitoring and Tracking: Rhode Island Site Visit Report*. Washington D.C.: The Urban Institute.

WorldAtlas.Com. (2009). *United States (by highest population density)*. Retrieved September 16, 2013, from WorldAtlas.com: <http://www.worldatlas.com/aatlas/populations/usadensityh.htm>

ⁱ America's Health Rankings®–2013 Edition.
<http://americashealthrankings.org/RI>

ⁱⁱ HealthyPeople.gov. Healthy People 2020. Tobacco Use Objectives.
<http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=41>

ⁱⁱⁱ Halfon N, Larson K, Slusser W. Associations between obesity and comorbid mental health, developmental, and physical health conditions in a nationally representative sample of US children aged 10 to 17. *Acad Pediatr*. 2013;13(1):6-13.

^{iv} Greenlund K, Zheng Z, Keenan N, et al. Trends in self-reported multiple cardiovascular disease risk factors among adults in the United States, 1991-1999. *Arch Intern Med*. 2004;164:181-8.

^v Wilson P, Kannel W, Silbershatz H, D'Agostino R. Clustering of metabolic factors and coronary heart disease. *Arch Intern Med*. 1999;159:1104-9.

^{vi} Kaukua J et al. Clustering of cardiovascular risk factors in type 2 diabetes mellitus: prognostic significance and tracking. *Diabetes Obes Metab*. 2001;3(1):17-23.

^{vii} Basu S, Yoffe P, Hills N, Lustig RH. The relationship of sugar to population-level diabetes prevalence: An econometric analysis of repeated cross-sectional data. *PLoS ONE*. 2013; 8(2).

^{viii} Paper presented by Xiao-Chuan Liu at the 2011 annual meeting of the American Chemical Society. Anaheim, California and reviewed on line by WebMD Health News.
<http://diabetes.webmd.com/news/20110328/nicotine-and-blood-sugar-bad-combination>

^{ix} National Council of State Legislators. 2013 State Unemployment Rates.
<http://www.ncsl.org/research/labor-and-employment/2013-state-unemployment-rates.aspx>

^x Austin A. Unemployment rates are projected to remain high for whites, Latinos, and African Americans through 2013. Economic Policy Institute. February 25, 2013.

<http://www.epi.org/publication/unemployment-rates-whites-latinos-african-americans/>

^{xi} Rhode Island Department of Labor and Training. Employment Bulletin. January 2012.

<http://www.dlt.ri.gov/lmi/pdf/eb/jan12eb.pdf>

^{xii} Torio CM, Elixhauser A, Andrews RM. Trends in potentially preventable hospital admissions among adults and children, 2005–2010. Agency for Healthcare Research and Quality. H-CUP Statistical Brief #151. March 2013.