

Rhode Island State Innovation Model (SIM) Test Grant

Better Health, Better Care, and Lower Cost



Operational Plan

Version 3
April 25, 2018

Table of Contents

A. SIM Project Summary	4
Overview of Changes and Updates	4
Summary of Model Test.....	6
Overview	6
End State Vision of Transformation	10
Background: SIM Operational Plan.....	11
Core Metrics and Accountability Targets	20
Core Metric Set	20
Updated Master Timeline	21
Budget Summary Table	22
B. Detailed SIM Operational Plan	26
Narrative Summary of SIM Components	27
Rhode Island SIM Components.....	27
Investing in Rhode Island's Healthcare Workforce and Practice Transformation	29
Data Capability and Expertise	45
Other System Transformation Components.....	49
SIM Sustainability Strategies and Workplan	55
Risk and Mitigation Strategy	61
Risk Register	63
C. General SIM Operational and Policy Areas	70
SIM Governance	71
Governance and Management Structure.....	Error! Bookmark not defined.
Stakeholder Engagement.....	76
Rhode Island's Approach.....	76
Description of Stakeholders.....	76
SIM Outreach and Engagement	79
Strategies for Maintaining Stakeholder Commitment	82
Rhode Island State Improvement Plan	84
Overview	84
Future Directions.....	88
Healthcare Delivery System and Payment Transformation Plan with Detailed SIM Work Plans	90
Baseline and Vision.....	90
The Rhode Island Approach to Transformation.....	91
Leveraging Regulatory Authority.....	119
Quality Measure Alignment	123
Quality Measure Alignment Process.....	123
Aligned Measure Sets.....	125
SIM Alignment with State and Federal Initiatives	126
Current CMMI Projects and Awards.....	126
Federal Initiatives.....	128
Rhode Island Department of Health	132
Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals	138
OHIC	140
Governor's Office Initiatives	141
Other State Departments for SIM Alignment.....	142
Healthcare Workforce Transformation	144

Healthcare Workforce Transformation Report	144
EOHHS/SIM Healthcare Workforce Transformation Priorities and Strategies to Support Health System Transformation Goals	147
Emerging Healthcare Workforce Transformation activities	150
Health Information Technology Plan.....	156
HIT Adoption and Use.....	156
State HIT Governance.....	158
HIT Policy Levers.....	160
Existing State HIT Systems	163
SIM Test Grant HIT Components.....	166
SIM HIT Modular Functions	191
D. Program Evaluation, Monitoring, and Reporting	200
State-Based Evaluation Overview.....	200
Current Evaluation Efforts Summary.....	201
Data Collection and Sharing	209
Fraud and Abuse Prevention, Detection, and Correction	213
Conclusion	214
Acronym and Abbreviation List	215

A. SIM Project Summary

This section updates the outline of Rhode Island's SIM Test Grant. It provides a narrative for the overall goals and project approach, and contains the following five areas: project narrative, driver diagram, core progress metrics and accountability targets, master timeline, and budget summary table.

Overview of Changes and Updates

Version 4 of the Rhode Island SIM Operational Plan lays out our roadmap for the final year of our Test Grant, including our sustainability planning. This document now includes updates on our progress in Award Year 3 and modifications to our plan for Award Years 4, with more specificity than before.

Our focus for Year 4 will be to ensure that the work that we have done to institute health system transformation in Rhode Island can be sustained with the state administration and in the partnerships we have built throughout the community. Our workplan for Year 4 includes tasks that will allow us to sustain and institutionalize the changes we have achieved so far.

We have also integrated the newly-funded initiatives decided upon by our Steering Committee in November 2017 throughout the Operational Plan. These include the Preceptor Project, additional End of Life trainings, and the Social Service Database project described in our latest Annual Report.

Additional notable updates from Version 3 to Version 4 of our SIM Operational Plan include:

General Themes

- Throughout the document, we highlight ways that our fourth-year planning is part of our planning for the future of our health system integration and our overall SIM sustainability thinking.
- We provide updates on our Integration and Alignment initiative and other components of our work on social determinants of health (SDoH).

Project Summary

- Added information on our new initiatives, funded with savings from Year 2, updating our Driver Diagram and other sections with new information;
- Changed the Driver Diagram to reflect additional alignment;
- Pulled out our Metrics to an appendix, for easier review; and
- Updated the Budget Summary Table.

Detailed SIM Operational Plan

- Updated the summary of all SIM components, where applicable;
- Updated our SIM Sustainability strategies; and
- Revised our Risk Matrix to include changing mitigations and new risks, where applicable.
- Updated our Healthcare Delivery System and Payment Transformation Plan to reflect accomplishments in Award Year 3 and provide detail on Award Year 4 plans;

- Provided updates on Leveraging Regulatory Authority, Quality Measure Alignment, and SIM Alignment with State and Federal Initiatives; and
- Revised the Health Information Technology Plan.

Summary of Model Test

Overview

Rhode Island's history of health reform is impressive. We have been innovators, with expansion of Medicaid for children and their parents in the 1990's; steadfast, in our commitment to build on the market reforms and coverage expansions of the Affordable Care Act; and bold, as we embrace the task of multi-payer delivery system transformation and payment reform as the next crucial step in building a health care system that produces higher quality care, better health, and smarter spending.

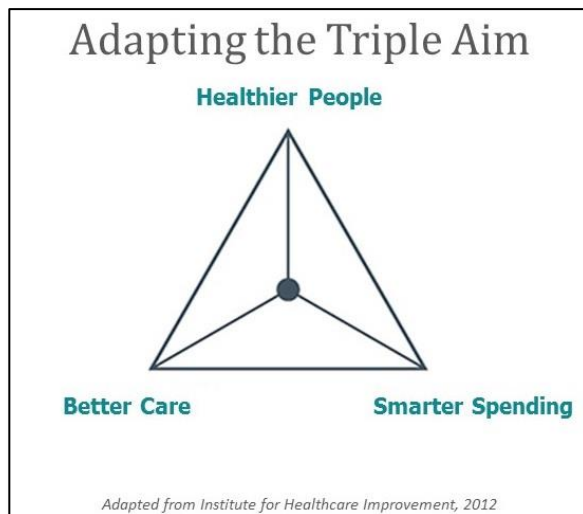
When we received the State Innovation Model Test Grant, we were excited about the opportunity that the dollars and the project structure gives us to take real strides for change while building on our history of reform.

Our challenge was to take this opportunity and use its component parts – the ability to tie our projects to specific metrics for planning and program implementation, the convening function that SIM gives us, and the ability to use our SIM staff and participants to make intentional connections between the related federal and state initiatives aiming at reform – to make more significant change than any of the reform efforts could do alone.

In Award Year 2, we embraced the fact that collaboration is key, and that our SIM investments will have the strongest impact if we make sure that they are aligned and integrated with other public and private activities throughout the state. The power of our SIM table is its ability to be the place where conversations and connections happen that might not happen elsewhere.

Our structure is an important part of our success so far. Having SIM staff embedded in five key state agencies, and engaging our diverse Steering Committee, key stakeholders, and the public in a transparent manner have allowed us to make progress in building a culture of collaboration in Rhode Island's healthcare system. In particular, the work that our Office of the Health Insurance Commissioner has done in working with our commercial insurers, matched with the work of Medicaid with our Managed Care Organizations (MCOs) has led to some significant health system transformation opportunities. Throughout this updated version of our Operational Plan, we track our accomplishments in our first two implementation years and lay out our health system reform and population health improvement plans for our final year of funding and the work we intend to continue into the future.

Figure 1: Rhode Island's Triple Aim



Vision

The vision of the Rhode Island SIM Test Grant represents the desired future state resulting from a transition to value-based care in the state. Our vision statement, borrowed from the Triple Aim, reads:

Better Care, by continuously improving Rhode Islanders' (including quality and satisfaction); **Healthier People**, by enhancing the **physical and behavioral health** of all Rhode Island's population; and **Smarter Spending** on healthcare for our residents.

Mission

The mission of the Rhode Island SIM Test Grant is to significantly advance progress towards making this vision a reality. To accomplish this, the SIM Steering Committee has adopted the following mission statement:

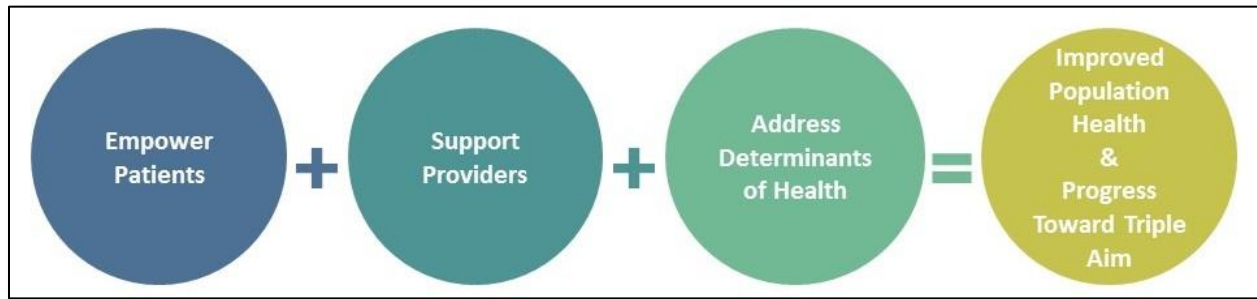
Rhode Island SIM is a multi-sectoral collaborative, based on data—with the patient/consumer/family in the center of our work. Rhode Island SIM is committed to an integrated approach to the physical and behavioral health needs of Rhode Islanders, carried out by moving from a fee-for-service healthcare system to one based on value that addresses the social and environmental determinants of health. Our major activities are providing support to the healthcare providers and patients making their way through this new healthcare system. We are building the system upon the philosophy that together—patients, consumers, payers, and policy makers—we are accountable for maintaining and improving the health of all Rhode Islanders.

Rhode Island SIM has maintained fidelity to its mission throughout year one, implementing the projects described below that ultimately aim to shift the healthcare delivery system toward value and high-quality care.

SIM Theory of Change

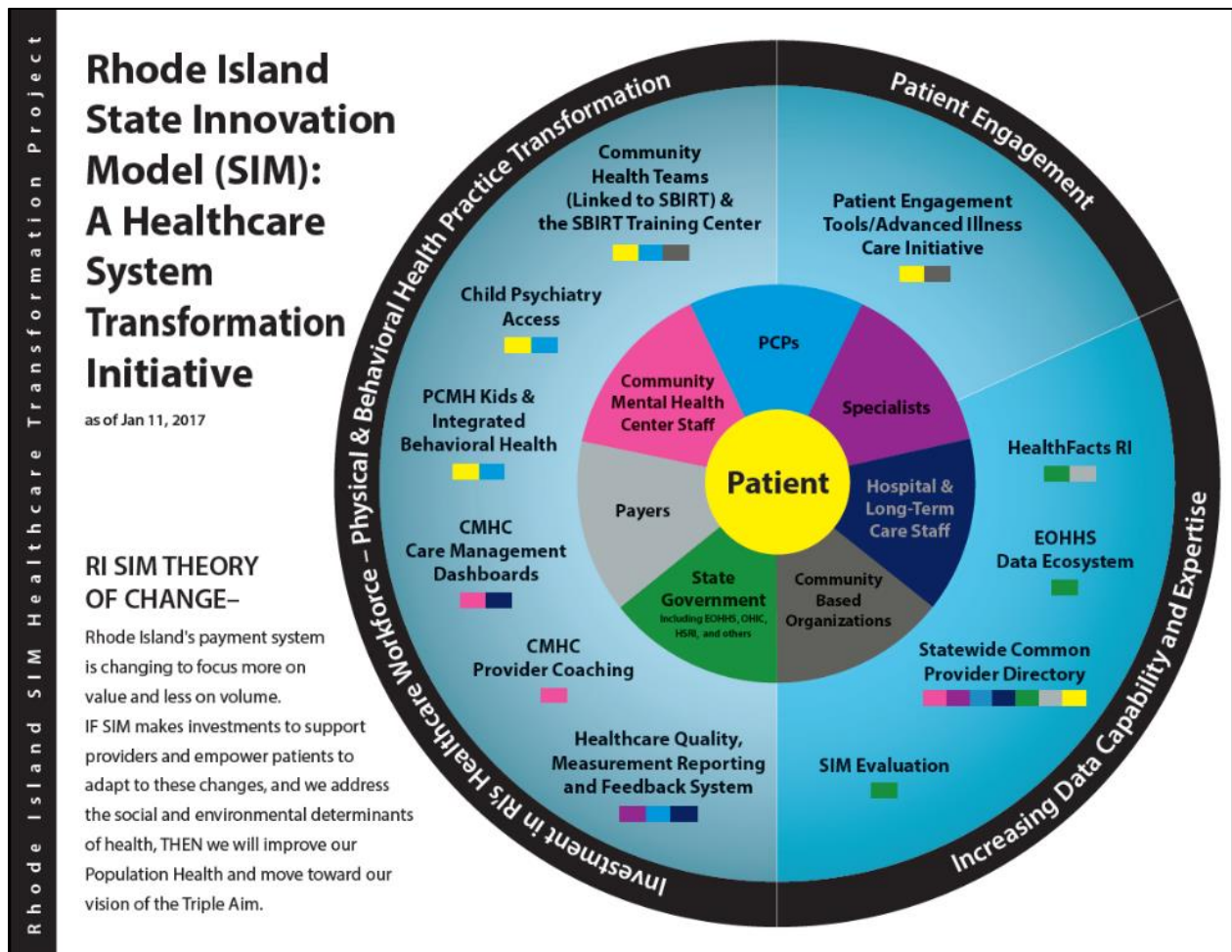
Rhode Island's payment system is changing to focus more on value and less on volume. IF Rhode Island SIM makes investments to support providers and empower patients to adapt to these changes, and we address the social and environmental determinants of health, THEN we will improve our population health and move toward our vision of the "Triple Aim."

Figure 2: Rhode Island's SIM Theory of Change



The Transformation Wheel below places our SIM Test Grant investments within our strategic vision for our healthcare system. With patients in the center, and the providers and others who serve patients around the circle, our investments focus on system transformation. Our SIM sustainability planning will help us determine how we will continue the transformation and behavioral health integration beyond the SIM funding.

Figure 3: Rhode Island SIM Transformation Wheel



SIM Health Transformation Strategies

SIM's approach to healthcare system transformation combines aspiration and pragmatism, as we align the state's current move away from fee-for-service to value-based purchasing with practice transformation and a focus on integrated population health. Rhode Island's SIM Test Grant is built on the premise that transitioning to healthcare payment models that reward value, as opposed to volume, and incentivize providers to work together, is a necessary step toward building a sustainable healthcare delivery system that reaches the following outcomes:

- Promotes high quality, patient-centered care that is organized around the needs and goals of each patient;
- Drives the efficient use of resources by providing coordinated and appropriate care in the right setting; and
- Supports a vibrant economy and healthy local communities by addressing the physical and behavioral health needs of residents, including an awareness of the social determinants of health.

During Year 4 as we prepare our End-State Vision for CMS, we will affirm these outcomes and determine if there are others (such as integrating physical and behavioral health) that we want to add to this list.

To achieve these outcomes, we identified three key strategies at the beginning of SIM, listed below. Our practice transformation funding supports efforts to link payment to outcomes. We invest in infrastructure both through our health information technology projects and our workforce strategic plan. Finally, we are committed to improving Rhode Island's population health, especially in eight key focus areas described in depth in our [SIM Health Assessment Report](#) on page 12). Our SIM budget limitations mean that we were not able to budget as much money in projects to address population health as we did in infrastructure projects.

This encouraged us to find more creative ways to carry out these activities, leading to our Integration and Alignment project. By identifying ways that state departments were already undertaking population health improvements, we have been able to spark collaborations that leverage people and dollars both inside and outside state government. Details of these three strategies are woven throughout the SIM Operational Plan.

Figure 4: SIM Health Transformation Strategies



End State Vision of Transformation

The following core elements of Rhode Island's Healthcare Delivery System Transformation Plan provide a roadmap for achieving the strategies listed above.

1. Coordinated and aligned approaches to expanding value-based payment models in Medicaid and commercial insurance through state purchasing and regulatory levers. Rhode Island has adopted the goal of having 50% of commercial and Medicaid payments under an Alternative Payment Model (APM) by 2018, and 80% of payments linked to value.
2. Support for multi-payer payment reform and delivery system transformation with investments in workforce and health information technology.
 - i. *Investment in practice transformation & development of the healthcare workforce:* These investments in training, coaching, and technology improvements aim to add to the skills and resources of the providers working within a transforming health system. This is the largest set of SIM investments, with a proposed budget of almost \$8 million.
 - ii. *Patient engagement:* In order to ensure that patients receive the greatest value from payment reform changes, and that they are maximally engaged in positive health behaviors including self-advocacy, SIM is investing \$1.5 million to provide patients access to tools that increase their involvement in their own care.
 - iii. *Access to increased data capacity and expertise:* Rhode Island's healthcare community agrees that we are not using data as effectively as we could be – and that we lack both standardized data collection, and training of staff responsible for collecting, inputting, and analyzing the data. SIM is investing approximately \$5.5 million in this data capability pillar to help tie data to quality and outcome improvements.
3. Significant stakeholder engagement in policy development and SIM investment decisions through the SIM Steering Committee, SIM Workgroups and agency-specific advisory groups. In Rhode Island, healthcare delivery system transformation is a public-private partnership.
4. Fidelity to our State Health Assessment Report to ensure that transformation is aligned with our vision of improved integrated physical and behavioral health for the state's residents, especially in our eight health focus areas.
5. A Multi-Sector/Multi-Agency Approach. One of SIM's main strategies is to reach a new level of alignment and integration of our existing healthcare innovation initiatives with each other, and with new SIM-funded activities. This is allowing us to build on our existing regulatory structure for reform (including OHIC's Affordability Standards and Rate Review capacity, Medicaid's Accountable Entity and MCO oversight), expand the reach of these initiatives, avoid duplication of funding, and, we expect, save money. The *SIM Integration and Alignment Initiative* aims to maximize impact of public and private investments by starting to build goal directed, sustainable partnerships that we believe will ultimately cultivate a transformational culture of collaboration in Rhode Island.

By the end of the grant period, we aim to produce marked improvements in health care quality, affordability, and population health. Indicators of success will be transformed provider practices poised to succeed under value-based payment arrangements, a capacity to use data more

effectively and creatively to make change and monitor system performance, more empowered patients (and families) who act as agents in their care, and a health care system that operates more *as a system* and delivers whole person care centered around the goals and needs of each patient.

As we approach the end of the SIM Grant period, we are finding that despite the significant progress we are projected to make by June 2019, there are areas that have been identified as priorities for further work to get us to the desired end state outlined above. These priorities include:

- Exploration of multi-payer APMs, such that public and private payers align in their payment methodologies to streamline administrative processes and clinical priorities for providers and to achieve a critical mass of payments falling under the model to improve the likelihood of meaningful provider behavior change. This exploration includes the potential of creating a primary care capitation model.
- Continue to move away from Fee-for-Service as a payment methodology. The predominant APM in Rhode Island is Total Cost of Care, and we recognize that when payments that fall under the TCOC arrangements continue to be paid on a Fee-for-Service basis, incentives across providers and payers will continue to have a degree of misalignment.
- Increase the adoption of downside risk arrangements with a meaningful enough amount of risk to encourage improvements in efficiency and quality, and reduce unnecessary utilization.
- Further integration of Behavioral Health and Social Determinants of Health in primary care. We are seeing that progress made in these areas is occurring in pockets throughout the state, and there is room for expanding models (including SIM-funded initiatives) that are shown to be effective.

Meaningfully address provider administrative burden without diminishing progress made to transform primary care practices throughout the state.

Background: SIM Operational Plan

The fundamentals of the Rhode Island SIM Test Grant are based on a vibrant body of healthcare reform work over the past decade that has been described and analyzed by healthcare leaders and stakeholders participating in a variety of initiatives, most notably the [Rhode Island State Healthcare Innovation Plan \(SHIP\)](#) process led by then Lt. Governor Elizabeth Roberts.

The Centers for Medicare and Medicaid Services (CMS) awarded Rhode Island \$1,631,042 to participate in the SHIP process, which was intended to “improve health system performance, increase quality of care, and decrease costs for Medicare, Medicaid and Children’s Health Insurance Program (CHIP) beneficiaries—and for all residents of participating states.”

By early 2014, Rhode Island had completed the work of round one through an extensive stakeholder engagement process led by Lt. Governor Roberts, with technical assistance from The Advisory Board. The result was the *Rhode Island State Healthcare Innovation Plan: Better Health, Better Care, Lower Cost* (SHIP Plan).

The SHIP Plan began with a description of Rhode Island's current health care system, highlighting the burden of chronic diseases. It identifies heart disease, stroke, diabetes and arthritis as among the most common and costly chronic diseases in the state, tying the presence of these conditions to age adjusted hospitalization and mortality rates. All of these diseases, except for arthritis, are among SIM's current Health Focus Areas.

The SHIP also identified behavioral health as the "largest single source of burden of disease" in Rhode Island, noting that behavioral health related conditions are among the top three diagnoses for Medicare, Medicaid, and commercial health insurance.

In July 2014, Rhode Island applied for the second round of SIM awards in order to test its model design. As part of round two, 32 awardees received \$660 million. Rhode Island has received a \$20 million award to test its healthcare payment and service delivery reform model using this Operational Plan as the guiding document. The Plan includes an in-depth description of our SIM components fulfilling all of the CMS requirements, and a significant Integrated Population Health Plan that looks equally at physical and behavioral health.

Historical Context

Aside from the SHIP, several other bodies of work have contributed to the landscape in which the Rhode Island SIM Test Grant Operational Plan is being built. Initiatives such as the Statewide Healthcare Inventory and the Truven Behavioral Health Report have been instrumental in quantifying the gaps and needs within Rhode Island's healthcare system. Furthermore, the following examples of initiatives that have preceded SIM or happened alongside SIM have contributed to the sense of urgency for healthcare transformation in Rhode Island:

- The Rhode Island Health Care Planning and Accountability Advisory Council, formed by the Rhode Island General Assembly;
- The Rhode Island Healthcare Reform Commission, created by Governor Lincoln Chafee and chaired by then Lt. Governor Elizabeth Roberts;
- Health Stakeholders Convention led by US Senator Sheldon Whitehouse and Rhode Island Foundation President and Chief Executive Officer Neil Steinberg; and
- Working Group for Healthcare Innovation, convened by Governor Gina Raimondo.

As Rhode Island noted in our SHIP document, 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." Rhode Island has the building blocks for a healthy society, including world-class healthcare providers; top medical, nursing, and social work schools; an environment with places to walk and play; a growing community committed to healthy, local food sources; and state leadership that understands how to leverage these building blocks to improve our population health. However, we also face difficult roadblocks to our population health, such as:

- Unacceptable levels of health risks, including lead in our housing stock;
- High opioid addiction rates;
- Rising numbers of children facing behavioral health challenges; and
- Intractable numbers of people with preventable chronic diseases.

Even with our high-quality healthcare providers, most would agree that our "healthcare system" has lacked coordination among providers, has rewarded providers with little or no regard to the quality of the care given, and has struggled to meet the needs of all patients in terms of access.

Now is the time to make the changes we need. Our SHIP plan paved the way with a call for real reforms, noting that “given the current environment of change in healthcare, the window of opportunity to change the healthcare system is open wider than it has been in a generation.” The implementation of federal reforms, changes in the market, aging of the population, and breakdown of the old business model have created an impetus for change. This impetus is further supported by the recent increase in the number of Rhode Islanders covered by health insurance.

Guiding Principles for SIM Implementation

The Rhode Island SIM Test Grant planning process has been guided by eight principles that together describe the overarching work of our efforts. These principles have been agreed upon by a diverse group of Rhode Island stakeholders from across the state. Our partners draw from state and local government, the private sector, academia, and various community organizations with expertise in both public health and clinical care. These principles guide our population health planning as well as this overall SIM Operational Plan:

1. *We are committed to empowering individuals, families, and communities to improve their own health.*

Any successful efforts to improve population health must include efforts to activate Rhode Islanders with the skills, knowledge, and motivation they need to live healthy lives. Rhode Islanders deserve access to clear and usable information about how their care is provided, what it costs, and how they are billed. We are also committed to making it easier for local communities to be involved in the development of goals, strategies, and policies that improve conditions impacting their health through effective planning, the use of key regulatory and policy levers, and community engagement. Workforce development is a key tool in these efforts. We aim to empower communities from within by helping residents with existing cultural and linguistic competence receive the training they need to take on new roles such as community health workers, clinicians, and behavioral health specialists.

2. *We embrace our reliance on multi-sector and multi-agency collaboration.*

Improving population health and decreasing inequalities in health requires a multi-agency, multi-sector, and public/private partnership approach that includes expanding our current understanding of what creates health and focuses on local, geographically based interventions whenever possible. The success of our SIM grant project will rely on significant collaboration among a range of partners, include those in mental health, substance use, primary care, education, public safety, social service, and faith-based communities. Strategic planning must be well coordinated to fully identify the impact of policies not only on overall population health, but also on health disparities. Such coordination will also help to prevent the duplication of efforts, to highlight gaps in service development, and to identify potential useful data linkages. Rhode Island recognizes that policies related to transportation, housing, education, public safety, and environmental protection will affect the health and well-being of residents as much as any policies specifically related to Rhode Island’s public health, medical, and behavioral health system. This requires a “no wrong door” and “health in all policies” approach where the potential health impact is considered.

3. *We are improving our ability to collect, share, and use data to drive action.*

Assessment of whole-person health outcomes, risk factors/determinants, interventions, and policy effectiveness requires usable, sustainable, and shared surveillance systems that produce timely measures for action and data. That data is also only truly useful if it

is available across institutional or organizational boundaries through accessible and user-friendly health information technology. Our Rhode Island SIM Test Grant Operational Plan and our Integrated Population Health Plan stress the importance of strengthening our data sources and empowering providers, policy makers, and patients to use those sources effectively to better coordinate care. Rhode Islanders deserve tools to help them make informed decisions about their personal health and the overall health of the state. The Rhode Island SIM Test Grant will use the data we produce and analyze to evaluate our activities on a regular basis and to ensure that we are spending our dollars as effectively as possible.

4. *We are taking an integrated approach to the physical and behavioral needs of Rhode Islanders.*

Rhode Island is committed to developing and implementing an integrated approach to population health that embraces the whole person and considers the physical and behavioral health needs of our residents. By behavioral health, we include mental health and substance abuse. All recommendations and metrics in the Operational Plan and Integrated Population Health Plan reflect this cohesive approach, which we refer to as “whole person care.” For example, although tobacco use, obesity, diabetes, stroke, and heart disease are traditionally considered “physical” diseases, our plans acknowledge and address how these health conditions are intertwined with the behavioral health needs of the state’s population. The plans recognize the significant role primary care practitioners play in addressing the relationship between patients’ physical and behavioral health needs throughout their lifespan, centering the “whole person care” approach as the hallmark of population health improvement efforts in our project.

5. *We are transforming our healthcare delivery system by moving away from a fee-for-service payment model to a value-based approach.*

Our plan embraces the evolving role of new models of health care delivery such as patient-centered medical homes (PCMHs), accountable care organizations (ACOs), and accountable care communities (ACCs) to improve population health. The plan also recognizes collaborative care approaches that integrate behavioral healthcare into primary care practices. The new system must be multi-payer and collaborative. Included in our approach is a recognition that physical and behavioral health approaches must transform from disease-focused treatment to care that focuses on prevention and early detection. Included in this approach is the integration of evidence-based interventions where appropriate and available. In all these cases, Rhode Island’s healthcare delivery system will accept responsibility for managing care and improving the health of populations through established multi-sector and multi-agency partnerships.

6. *We recognize the importance of addressing the social and environmental determinants of health and health equity.*

Health is created where we live, learn, work, and play. Therefore, Rhode Island’s SIM Project focuses not only on improving clinical care, but using the levers of public policy and state leadership to influence the various social, economic, and environmental factors that affect all Rhode Islanders’ health outside of the medical and behavioral healthcare delivery systems precisely where they live or work. These considerations include examining strategies that both promote whole community resiliency and recovery, and reduce inequalities in factors that influence health across the diverse populations in our state. Factors promoting and undermining the health of individuals and populations should not be confused with the social processes underlying their unequal distribution in the population. To ensure we capture both processes in Rhode Island, our Integrated

Population Health Plan examines not just statewide estimates for our specific health focus areas, but also disparities in those health outcomes across Rhode Island communities.

7. *We value consistent and reliable support for providers embarking upon practice transformation.*

Rhode Island is committed to empowering physical and behavioral healthcare providers to transform their practices “to improve the quality of care, the patient experience of care, the affordability of care, and the health of the populations they serve.” Specifically, providing assistance to grow and strengthen the presence of Accountable Care Organizations (ACOs), Patient-Centered Medical Homes (PCMHs) and Community Behavioral Health Centers of Excellence. This empowerment includes support for changes in approach and infrastructure, as well as opportunities to actively participate in the state’s overall efforts to transform our delivery system. Workforce development also plays a role in these efforts, giving providers the skills and additional team members they need to provide comprehensive whole person care.

8. *We have a commitment to addressing disparities on many levels.*

We begin with a focus on the individual consumer or patient, their family, and others in their care network—and we end with this focus too. Fundamentally, efforts in population health improvement attempt to bridge what happens in the healthcare delivery setting in the provider’s office, the clinic, or hospital bed to what happens in the places where people live their lives (e.g., home, workplace, school). The activities of our Rhode Island SIM Test Grant and findings within our Integrated Population Health Plan will guide our efforts to improve the health of the entire population of residents, as well as investigate and address why some population groups are healthier than others. This approach requires a focus on the overall distribution of the specific Integrated Population Health Plan priority areas in the state, and the differences between groups to highlight disparities in those health areas.

CMS’ \$20,000,000 investment in Rhode Island’s healthcare system is allowing the SIM Steering Committee and state staff team to bring the SHIP plan to fruition. This Operational Plan describes our system transformation approach, which is made up of several coordinated investments and plans to leverage the state’s regulatory levers to implement reform. The Rhode Island SIM Test Grant is committed to maintaining an energetic level of stakeholder engagement in reform that together, will help build a new, more sustainable healthcare system in the state. This system will be based on value-based payments for care rather than on volume, will prioritize equally physical and behavioral health, and will focus on addressing the social and environmental determinants of health to address our vision of the Triple Aim.

Table 1: Driver Diagram

This is our Rhode Island Driver Diagram, laying out our Aims, Primary and Secondary Drivers, Interventions, and associated Metrics.

Vision			
<p align="center">IMPROVE THE HEALTH OF RHODE ISLANDERS</p> <p align="center">Create measurable improvements in Rhode Islander's physical and mental health. Targeted measures include, but are not limited to, rates of diabetes, obesity, tobacco use, and depression.</p>			
AIM	PRIMARY DRIVER	SECONDARY DRIVER	INTERVENTIONS
<p>1. REDUCE RATE OF INCREASE IN RHODE ISLAND HEALTHCARE SPENDING</p> <p>Move to a “value-based” health care system that pays health care providers for delivering measurable high-quality health care, rather than paying providers for the volume of procedures, office visits, and other required services that they deliver.</p>	<p>1.A Change our payment system (all-payer) to 80% value-based by 2018, with 50% of payments in alternative payment methodologies</p>	<p>1.Aa Using regulatory and purchasing/contracting levers at OHIC and Medicaid, implement rules and conditions that expand value-based payment more broadly across the commercial and Medicaid markets</p>	<p>Continue to implement OHIC's Affordability Standards and Medicaid's Accountable Entities; ensure their alignment and integration with other state and private VBP activities</p>
		<p>1.Ab Aligning quality measures for healthcare contracting</p>	<p>Create an ongoing governance structure to implement the aligned measure sets (primary care, ACO, hospital, behavioral health, and maternity) and update metrics as needed</p>
		<p>1.Ac Enhance and/or create programs to address needs of high utilizers coordinated across payers</p>	<p>Support integrated Community Health Teams and Screening, Brief Intervention, and Referral to Treatment (SBIRT) in our unified project</p>
	<p>1.B Increase use of data to drive quality and policy</p>	<p>1.Ba Maximize the use of HealthFacts RI, Complete the Common Provider Directory, implement Care Management Dashboards, and create a Health Care Quality Measurement, Reporting, and Feedback System to create a data infrastructure that can support Value Based Payments (VBP).</p>	<p>Provide practices and payers with tools to easily and accurately identify high-risk patients through the Integration and Alignment initiative</p> <p>Maximize the use of HealthFacts RI: Support and maintain the claims data collection process; support advanced reports and analytics; and support the coordination of data validation, release, and analysis</p>

AIM	PRIMARY DRIVER	SECONDARY DRIVER	INTERVENTIONS
1. REDUCE RATE OF INCREASE IN RHODE ISLAND HEALTHCARE SPENDING , continued	1.B Increase use of data to drive quality and policy continued	1.Ba Maximize the use of HealthFacts RI, Complete the Common Provider Directory, implement Care Management Dashboards, and create a Health Care Quality Measurement, Reporting, and Feedback System to create a data infrastructure that can support VBP.	Complete the Common Provider Directory: Consolidate provider data from multiple sources into a single “source of truth” record; increase the understanding of provider-to-organization relationships; Provide a public portal to search for and locate providers; Provide mastered provider data extracts to integrate into state systems
			Create a Health Care Quality Measurement, Reporting, and Feedback System that will consolidate quality reporting requirements and facilitation in one place to reduce the reporting burden on providers; Create a provider benchmarking and feedback system to communicate quality back to those who provide care; Provide quality information to the public to support making informed healthcare decisions.
			Implement electronic dashboards with real-time, encrypted notifications to the CMHCs for their clients' hospital encounters.
		1.Bb Enhance state agencies' data and analytic infrastructure by modernizing the state's current Human Services Data Warehouse	Modernize the state's current Human Services data Warehouse to create an integrated data ecosystem that uses analytic tools, benchmarks, and visualizations
			Carry out qualitative and quantitative evaluation of the effect of alternative payment models in use in Rhode Island and the value of more closely aligning the models across payers
			Work collaboratively with state and community partners to encourage wider clinical data capture (particular focus on BMI) through the Integration and Alignment initiative

<p>2. SUPPORT PROVIDER PRACTICE TRANSFORMATION AND IMPROVE HEALTH CARE PROVIDER SATISFACTION Support health care providers in their transition to delivering health care in an environment in which the care is paid for according to a value-based payment arrangement. SIM will invest in work place transformation activities that build upon the professional expertise of x% of Rhode Island's healthcare workforce.</p>	<p>2.A Maximize & support team-based care</p>	<p>2.Aa Using plan design, regulatory and purchasing/contracting levers, and SIM investments, maximize support for integrated team-based models of care</p>	<p>Create up to 3 new CHTs; Investigate the need for a more formal CHT training and certification program, including Screening, Brief Intervention, and Referral to Treatment (SBIRT); Provide training to providers (PCPs, CMHCs and hospitals) to better incorporate CHTs into their practices</p>
	<p>2.B Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce</p>	<p>2.Ba Make investments in the following programs for practice transformation: Community Health Teams (CHTs), PCMH Kids, Child Psychiatry Access Program, Integrated Behavioral Health & PCMH-Kids, Community Mental Health Center supports, and Health Care Quality Measurement, Reporting, and Feedback System</p>	<p>Support the PCMH expansion to 9 pediatric sites</p>
			<p>Provide child psychiatry consultation services to pediatric primary care providers; Train PCPs to expand their ability to treat some behavioral health needs in their practices</p>
			<p>Support integration of behavioral health into primary care by providing resources and training for SBIRT in PC practices and evaluation/data collection for 12 Integrated Behavioral Health Model practices.</p>
			<p>Build workforce capacity to maximize the use of existing tobacco cessation resources through the Integration and Alignment initiative</p>
			<p>Support CMHCs with practice transformation and to receive data about their patients</p>
			<p>Support SUD providers with practice transformation</p>
			<p>Assist providers in aggregating data from their Electronic Health Records, to help make reporting and practice transformation easier; Provide training to providers in how to interpret the data to make positive changes within their practices; Pursue making this quality data available to patients.</p>

<p>3. EMPOWER PATIENTS TO BETTER ADVOCATE FOR THEMSELVES IN A CHANGING HEALTHCARE ENVIRONMENT AND TO IMPROVE THEIR OWN HEALTH</p> <p>Engage and educate patients to participate more effectively in their own health care in order for them to live healthier lives. Invest in tools (e.g., online applications, patient coaches – appropriate for the patient's demographic profile) to teach patients how to navigate effectively in an increasingly complicated health care system.</p>	<p>3.A Provide access to patient tools that increase their engagement in their own care. Assist with advanced illness care planning</p>	<p>3.Aa Patient engagement tools or processes</p>	<p>Create or implement existing processes or tools that allow patients more control of their health and healthcare decision-making; Train providers and patients in how to use these tools to maximize their effectiveness</p>
		<p>3.Ab End-of-Life/Advanced Illness Care Initiative outreach, and patient and provider education</p>	<p>Increase the number of Rhode Islanders with Advance Directives through training of providers and patients; Develop a platform so that Rhode Islanders can upload their Advance Directives to Current Care and a way to track assessments of Social Determinants of Health</p>

Core Metrics and Accountability Targets

Core Metric Set

For each milestone, or objective, core metrics have been developed to track progress over time and identify implementation barriers related to SIM. The measures are a combination of required items from the Centers for Medicare and Medicaid Services (CMS) and those identified as important by Rhode Island. These measures will be updated quarterly or annually as part of performance monitoring.

Please see our CMS-approved metrics chart that we use for our Quarter Reports [here](#).

Metrics, Baselines, and Accountability Targets

Baseline data for each metric was obtained from a variety of data sources. Below is a table that contains each metric, baseline, and target. Any relevant notes related to the data (e.g., lag times for reporting) are also noted.

We have noted that due to uncertainties around project scopes until actual procurements had taken place, we knew that some of the metrics and targets that are listed may require revision. We have made our best attempt to specify meaningful metrics and aggressive targets. We will notify CMMI promptly should metrics need revision and seek approval to change them. Any baselines or targets still listed as TBD will be populated within 3 - 6 months from the beginning of project implementation.

Not listed in the linked table are plans to report on a set of clinical quality measures. Once we have finished the Quality Measurement, Reporting, and Feedback System we may publicly report aggregate performance on the core quality measures discussed under the quality measure alignment section.

Please note: Some metrics are assessed over populations specific to the SIM programs, and others are assessed over the entire state population. Metric descriptions provide additional clarity on numerator and denominator definitions.

Updated Master Timeline

Our SIM Master Timeline is updated for 2017, with significant numbers of intermediate milestones included, as requested in 2016. For ease of review, please find the Master Timeline [here](#).

Budget Summary Table

Table 2: Budget Table

SIM Component	Projected Total Expenditure	Expected Carryover from Award Year 3	Proposed Spending - Award Year 4	Goal/ Primary Driver
Rhode Island Health System Transformation	In-kind from OHIC and Medicaid	--	--	Create measurable improvements in Rhode Islander's physical and mental health.
Community Health Teams	\$2,000,000 – Funding Community Health Teams to connect with providers	\$563,580.32	\$673,020.68	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
Child Psychiatry Access Program	\$770,000 - for psychiatrist phone consultation and face-to-face contact for pediatric practices	\$60,000	\$382,916.93	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
PCMH Kids & Integrated Behavioral Health	With CTC: \$500,000 – over 2 years for Practice Support Specialists, CAHPS pediatric survey, Quality Measurement and Reporting, and data analysis; \$370,000 for a Behavioral Health Practice Facilitator, Data Collection and Analytics, and Training Webinars.	\$26,392.77	\$189,611.48	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
Behavioral Health Transformation: <i>SBIRT</i>	\$480,000 for Training of SBIRT providers	153,783	168,670.01	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
<i>Care Management Dashboards</i>	\$150,000 (15 Dashboards @ \$10,000 each)	\$15,000	0.00	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce

SIM Component	Projected Total Expenditure	Expected Carryover from Award Year 3	Proposed Spending - Award Year 4	Goal/ Primary Driver
Behavioral Health Workforce Transformation: Practice Coaching at Community Mental Health Centers	\$993,301– For curriculum development and training for staff at 8 Community Mental Health Centers	\$430,830.33	\$392,470.67	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
Healthcare Quality, Reporting, Measurement, and Technology Feedback System	\$1,750,000 – An IT solution to allow providers to enter quality data once and submit and analyze it multiple times	\$170,000.00	\$950,000	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
Patient Engagement & End-of-Life/Advanced Illness Care Initiative	\$1,468,006.06 for End of Life and Patient Engagement activities			Provide access to patient tools that increase their engagement in their own care. Assist with advanced illness care planning
RIQI – Consumer Engagement Project	Creating the ability to upload end of life documents	\$298,407.00	\$124,870.00	
Hope Hospice	End of life provider training	\$10,601	\$130,779	
Healthcentric Advisors	End of life consumer engagement	\$5,917.58	\$177,571.19	
The Autism Project	Conscious Discipline training for teachers	0.00	\$136,844.52	
HealthFacts RI	\$2,039,673 – for Rhode Island's All-Payer Claims Database	No longer SIM dollars	No longer SIM dollars	Increase use of data to drive quality and policy
Statewide Common Provider Directory	\$1,640,000 – Single source of truth on providers	\$75,000	0.00	Increase use of data to drive quality and policy
Integrated Health and Human Services Data Ecosystem	\$1,800,000 – Staffing and computer hardware/software for the state data ecosystem	\$100,000	\$1,000,000	Increase use of data to drive quality and policy
Investing in HEZ	\$250,000 – to support RIDOH's Health Equity Zone Programs	\$125,000	\$125,000	

SIM Component	Projected Total Expenditure	Expected Carryover from Award Year 3	Proposed Spending - Award Year 4	Goal/ Primary Driver
Investing in SBIRT	\$235,000 – to support BHDDH's SBIRT Program	\$37,500	\$37,500	
Workforce Development – Preceptor Institute	\$200,000 – to create interprofessional training opportunities for community-based clinical providers	\$100,000	\$100,000	
Unified Social Service Database	\$100,000 – to help create a unified social service directory to assist with social determinants of health	\$50,000	\$50,000	
Billing and Coding Project	\$50,000 – to research opportunities for practices to integrating physical and behavioral health within their billing practices	25,000	\$25,000	
Measure Alignment	Included in the Project Management line item (sub-contractor to Project Management team)	Included in staffing	Included in staffing	Create measurable improvements in Rhode Islander's physical and mental health.
Leveraging Regulatory Authority	In-kind from all SIM participating state agencies	Included in staffing	Included in staffing	Create measurable improvements in Rhode Islander's physical and mental health.
Integration & Alignment Project	In-kind from SIM and agency staff	Included in staffing	Included in staffing	Create measurable improvements in Rhode Islander's physical and mental health.
Workforce Development	In-kind from EOHHS	Included in staffing	Included in staffing	Maximize & support team-based care Better integrate behavioral health into primary care Investments in Rhode Island's Healthcare Workforce
SIM Project Director and Staffing Across Five Partner Agencies	\$3,325,634.92 6 staff members, fringe, benefits for 3 years. Focus in AY4 is project implementation and sustainability planning.	\$309,218.93	\$1,003,315.98	Create measurable improvements in Rhode Islander's physical and mental health.

SIM Component	Projected Total Expenditure	Expected Carryover from Award Year 3	Proposed Spending - Award Year 4	Goal/ Primary Driver
Project Management	\$1,036,157.37 for Program Management and subcontractors to write Integrated Population Health Plan and support Measure Alignment	0.00	0.00	Create measurable improvements in Rhode Islander's physical and mental health.
Evaluation	\$906,248 – For a mixed method formative and summative evaluation and project consultant	\$185,406.00	\$336,457.54	Create measurable improvements in Rhode Islander's physical and mental health.
Other Expenses	\$52,500 – Including travel, audit, and other expenses	16,000	10,000	N/A
Totals		\$2,839,844.24	\$6,003,427	

B. Detailed SIM Operational Plan

This section provides detailed information on the specific operational components of Rhode Island SIM. The information provided covers the following three areas: Narrative Summary of Components, SIM Component Summary Table, and Risk Assessment and Mitigation Strategy.

Narrative Summary of SIM Components

Rhode Island SIM Components

The focus areas of the Rhode Island State Innovation Model (SIM) Test Grant reflected in the SIM Transformation Wheel are the foundational components for this funding investment. Given the overarching aims of SIM, Rhode Island's values, and the current landscape, the Steering Committee has committed to the following components aimed at overall health system change. We describe the components below.

SIM Governance

As described more fully on Page 71, Rhode Island SIM's governance and decision-making authority is shared among a coordinated group of people and agencies, managed by SIM project Director Marti Rosenberg whose office sits at the Office of the Health Insurance Commissioner. Ms. Rosenberg reports to both Commissioner Marie Ganim and EOHHS Secretary Eric Beane, and leads a team of individuals hired with SIM dollars and placed at SIM participating agencies. Ms. Rosenberg also leads the SIM Interagency Team that includes representatives from all SIM participating state departments, plus our Steering Committee Chair Andrea Galgay and Vice Chair Larry Warner. This team is responsible for the strategic implementation of the project.

The SIM Steering Committee is the public/private governing body for Rhode Island's SIM project and is comprised of community stakeholders representing health care providers/systems, commercial payers/purchasers, state hospital and medical associations, community-based and long-term support providers, and consumer advocacy organizations. The committee has approved several workgroups to obtain subject-matter expertise, stakeholder and community in-put, and implementation recommendations for SIM's transformation efforts. The current active workgroups are the Healthcare Technology Workgroup and the SIM Sustainability Workgroup.

Another key governance tool that we have are our Quarterly Vendor Meetings, so that all of our individual SIM vendors can learn about the larger SIM project as well as each organization's funded activities. The vendors appreciate the opportunity to come together to share information and participate in discussions and learning opportunities. Descriptions of key vendors can be found in the narrative section of this report starting on page 29.

Convening partners in this way enhances SIM's "culture of collaboration" across the key group of stakeholders, providing for greater awareness of other teams' initiatives and the breaking down silos that to support greater collaboration, and multi-directional communication. We go beyond hub-and-spoke communication between SIM leadership and vendors, and instead have communication around the circumference of the wheel, generating peer-to-peer conversations and partnering across projects.

Health System Transformation Plan

Rhode Island has been committed to significant system transformation for years. Rhode Island was an early supporter of primary care practice transformation, building a multi-payer patient centered medical home collaborative in 2008, which now comprises 73 adult and 9 pediatric practice sites and serves over 330,000 Rhode Islanders. Building on a solid base of transformed primary care, newly forming accountable care organizations, and initial steps toward value-based payment in the commercial market, our primary strategy is to scale value-based payment

statewide by setting regulatory targets for insurers to expand value-based payment models in Medicaid and commercial insurance.

Rhode Island is advancing the work of payment reform in a coordinated way. The goal of achieving critical mass for payment reform across Medicare, Medicaid, and commercial insurance is a necessary condition for transforming the healthcare system as a whole.

Rhode Island has adopted the goal of having 50% of commercial and Medicaid payments under an Alternative Payment Model (APM) by 2018, and 80% of payments linked to value. To achieve our system transformation goal, we are focusing SIM dollars on delivery system transformation with investments in workforce, health information technology, and data capacity, as described below. We also include significant stakeholder engagement in policy development and SIM investment decisions through the SIM Steering Committee, SIM Workgroups and agency-specific advisory groups. As we note throughout this document, in Rhode Island, healthcare delivery system transformation is a public-private partnership.

Rhode Island is poised to significantly advance the use of value-based payments and APMs through the implementation period of the SIM grant through regulatory and purchasing activity of both Medicaid and OHIC. As planned, in Award Year 2, Medicaid developed certification standards for Medicaid Alternative Entities (AEs), and our Medicaid Managed Care Organizations (MCOs) began to contract with them on a total cost of care basis for attributed populations, according to specific annual targets specified in the MCO's contract with the state. AEs also focus on the social determinants of health among their attributed populations. The AE contracting mechanisms are one of the primary means for Medicaid to achieve 50% of payments under an APM by the end of 2018. Medicaid is currently reviewing provider applications to certify qualifying AEs, that will then engage in contract negotiations with the MCOs. Managed care procurement, contracting, and Accountable Entity accreditation are three crucial purchasing and regulatory levers that are driving achievement of Rhode Island's payment reform targets.

OHIC tracks commercial insurer compliance with their annual APM targets on a semi-annual basis. In addition to semi-annual reporting of APM use, OHIC requires each insurer to develop plans for engagement of specialists in Value Based Payment (VBP) arrangements, including the development of APMs for high volume specialties and specialty care practices. These requirements build on extant rules that obligated insurers to have quality improvement programs with hospitals and tie hospital fee increases to quality performance.

Engagement of payers and providers around payment reform is important for our success. While we had planned to convene a learning collaborative comprised of providers and payers who are engaged in VBP and APMs, to discuss best practices around VBP contracting methodologies and implementation, to avoid duplicative meetings, we have instead kept these discussions within OHIC's existing committees, namely the APM Advisory Committee and the work groups that are established OHIC's annual APM plans.

Besides carrying out system transformation activities aimed at improving quality and lowering the cost curve, the state is also helping prepare our provider community for the new Quality Payment Program (QPP) under the Medicare Access and CHIP Reauthorization Act (MACRA). To ensure that Rhode Island understands the implications of QPP and to explore the alignment of existing SIM initiatives with QPP, Rhode Island has also embedded these discussions in existing stakeholder processes like the Alternative Payment Methodology

Advisory Committee, and ensured that our care transformation initiatives are preparing practices for meeting QPP delivery and reporting requirements. OHIC and other SIM activities have helped prepare providers in Rhode Island for the QPP, such building the HCQMRFS in a way that supports reporting QPP measures to CMS in the correct format, or adopting appropriate QPP measures in the Aligned Measure Sets.

Investing in Rhode Island's Healthcare Workforce and Practice Transformation

Community Health Teams (CHTs) and Screening, Brief Intervention, and Referral to Treatment (SBIRT) Sites

Aimed at reducing substance, opioid, and alcohol use, and reducing costly health care utilization, SIM and the Department of Behavioral Health, Developmental Disabilities, and Hospitals (BHDDH) have funded the Care Transformation Collaborative (CTC-RI) to launch new place-based CHTs in regions of the state, and to implement Screening, Brief Intervention, Referral, and Treatment (SBIRT) to address substance use and mental health disorders throughout Rhode Island. Working with primary care providers, CHTs assess high-risk patient's health needs and coordinate community-based support services. In addition to the existing CHTs in Washington County and Pawtucket/Central Falls, SIM is funding new CHTs which are being added to Providence, West Warwick, Woonsocket, Aquidneck Island, and potentially additional sites. CTC is developing an infrastructure to support SBIRT/CHT standards, data analysis, technical assistance, and reporting. The project is carrying out SBIRT screenings throughout the state in primary care, hospital emergency departments, in the community, and in the Department of Corrections (DOC). The braided funding from both and SIM aims to better support patients and improve population health by increasing access to community services and resources to address social, behavioral, environmental, and/or complex medical needs. Project goals include:

- Coordinating CHT and SBIRT activities to foster integrated care.
- Establishing a consolidated operations model for CHTs and SBIRT to implement integrated health programs in a way that streamline efficiencies.
- Establishing SBIRT implementation as part of ongoing care in various care settings.
- Supporting and expanding CHTs to serve those with greatly unmet clinical/social needs.

The CHT/SBIRT project has implemented partnerships with eight organizations to provide these integrated health services across Rhode Island. A total of eight CHTs, three of which are new, now fall within the CTC-RI umbrella. All three new CHTs are operational. Furthermore, SBIRT is occurring for all CHTs, three hospital emergency departments, and a few unique community-based settings. Screening is also happening at the DOC. Other progress to date includes:

- Submission of 3,333 SBIRT screenings via the Government and Performance Results Act, as of March 2018.
- Establishment of monthly implementation team webinars to best reach and educate staff.
- Submission of initial CHT-related data that will be formalized moving forward.
- Provision of ongoing support and technical assistance to sites as activities have started.
- Alignment with three Nurse Care Managers who are funded to provide Medication Assisted Treatment (MAT) within three of the CHT/SBIRT community health centers.

The long-term vision for the project will be solidified by participating partners as a result of an upcoming strategic planning session. The current vision is to advance practice transformation (including normalizing conversations about substance use), care integration/coordination, and population health improvements (both physical health and behavioral health). Sustainability planning has included conversations with accountable care partners and high-risk care management teams at Rhode Island's health insurance plans.

SBIRT Training and Resource Center

The Rhode Island College (RIC) School of Social Work serves as the SBIRT Training and Resource Center, providing centralized, statewide training and professional development for SBIRT in Rhode Island. The SBIRT Training and Resource Center provides training for all CHT/SBIRT staff, plus any other interested providers in the community. The trainings focus on ensuring these providers are proficient in screening for and identifying substance use disorders, and referring patients for additional services when necessary. The trainings use model design criteria, including visual/audio aids, adult learning styles, simulations, and mixed-method delivery. Initial project goals include:

- Training at least 240 healthcare workers in RI-SBIRT per year (i.e., 20 healthcare workers per month).
- Administering training to 12 unique agencies (including programs or organizations) in SBIRT per year (i.e., one per month).
- Certifying at least six healthcare workers as new RI-SBIRT Trainers for the SBIRT Training and Resource Center per year (i.e., one every two months).
- Providing support, as needed, for the overall implementation of the CHT/SBIRT initiative (and associated metrics).

To date, the SBIRT Training and Resource Center has provided RI-SBIRT training directly to all Lifespan hospitals and Women & Infants hospital. Since the inception of SIM, SBIRT staff embedded on CHTs (i.e., Blackstone Valley Community Health Center, East Bay Community Action Plan, Family Services of Rhode Island, South County Hospital, and Thundermist Health Center) have been trained along with staff at The Providence Center (who are embedded in Kent and Butler hospitals) and the other CHT/SBIRT partners (such as Comprehensive Community Action Program, Rhode Island Parent Information Network, and South County Health). To summarize these efforts, the SBIRT Training and Resource Center has achieved the following:

- Trained 146 healthcare workers in year one and, to date, 648 healthcare workers in year two for a total of 794 healthcare workers.
- Trained three unique agencies in year one and, to date, 19 unique agencies in year two for a total of 22 unique agencies.
- Trained one certified SBIRT trainer in year one and, to date, three certified trainers in year two for a total of four certified trainers.
- Trained over 60 Dentists, Dental Assistants, and Dental Hygienists as part of a Dental Mini-Residency, allowing for the expansion of SBIRT practice into the dental arena to help close the gap in separation between oral, physical, and behavioral health.
- Obtained anecdotal data which support that patients and providers are becoming more comfortable having conversations about substance use in healthcare settings and education and identification of unhealthy substance use.

The long-term project vision is to integrate RI-SBIRT as a regular practice into all of Rhode Island's integrated health practices, hospitals, urgent care centers, and primary care practices, including community health centers. To ensure sustainability post-SIM, the SBIRT Training and Resource Center is developing certified RI-SBIRT trainers within partner organizations to support continued professional development of staff within agencies that have begun integrating RI-SBIRT into practice. The SBIRT Training and Resource Center has developed certification standards and curriculum for proficiency to this end.

PediPRN – Rhode Island's Child Psychiatry Access Program

The SIM project is funding a pediatric mental health consultation service to work with primary care providers. Called [PediPRN](#), the program is designed to assist pediatric primary care providers in their efforts to manage children and adolescents with mental health conditions in a way that is preventive and responsive to each patient's needs. SIM has contracted with the Emma Pendleton Bradley Hospital for this service, with a three-year, \$650,000 commitment.

The program is based on the Child Psychiatry Access project implemented in Massachusetts, which provides real-time telephone consultations with child psychiatrists, face-to-face appointments for mental health evaluations and assistance with accessing community-based behavioral health services. A 2014 article in Health Affairs concluded that pediatric primary care providers enrolled in the Massachusetts project reported a dramatic improvement in their ability to meet the psychiatric needs of their patients.

We have known about the severe need for psychiatric services for children in Rhode Island for a long time – and there is evidence that this program is working to address the need. One in five (19%) children ages six to 17 has a diagnosable mental health problem, and one in ten has significant functional impairment (Kids Count Factbook, 2017). Pediatricians and other pediatric primary care providers are the front line trusted partners of parents and children.

Bradley Hospital's Pedi-PRN service can respond to the immediate needs of children with mental health concerns by providing pediatric primary care providers with telephone consultation/support within 30 minutes and response to emergent situations which is invaluable for families and children.

Since its December 2016 start date, PediPRN has enrolled a total of 56 primary care practices in the program. These practices include 336 pediatric primary care practitioners. To date, Bradley's PediPRN program has provided 415 telephone consultations on behalf of 311 children and adolescents. Of the 336 enrolled practitioners, 118 have used the service to date.

In Award Year Three, the project's accomplishments have included the following:

- The PediPRN team continued outreach efforts to pediatric primary care providers and practices to inform them about the new service.
- The team also maintained communication with psychiatric providers in Rhode Island to assure referral sources statewide for children and adolescents who may require follow-up psychiatric and other mental health services after a primary care consultation.
- In fall, 2017, PediPRN delivered a three-part educational series including Continuing Medical Education units (CME) to pediatric primary care practitioners. The following topic areas were covered:
 - Primary Care Management of Depression in Youth.

- Attention Deficit Hyperactivity Disorder: A Guide to Psychopharmacology in Primary Care.
- Management of Pediatric Anxiety Disorders and Obsessive-Compulsive Disorders in Primary Care.
- In Spring, 2018, PediPRN will carry out another three-part educational series to pediatric primary care practitioners and offer two trainings in Youth Mental Health First Aid to pediatric primary care staff.

In Award Year Four, the PediPRN project will:

- Continue outreach and education to pediatric primary care practitioners to boost awareness about the project and increase use of this consultation service.
- Enhance the project's current website, communicating further information about childhood behavioral health conditions and their risks for children and families as well as information about the consultation, education, and treatment resources available through PediPRN, Bradley Hospital or other community resources.
- Offer additional in-person educational series including CMEs to pediatric primary care practitioners to help them build their knowledge and skill in responding to the behavioral health needs of children and adolescents.
- Explore funding opportunities for sustainability of the program after the SIM grant ends, including possible support from private foundations as well as from both commercial and public payors.

Further, during Award Year Four, Bradley Hospital, in conjunction with PediPRN, will expand services to address youth in crisis. During Award Year Three, the SIM Steering Committee awarded the project an additional \$120,000 in SIM funding to be expended by June 30, 2019 (Award Year Four). These funds will be used to augment a Bradley Hospital service that is funded by the Rhode Island Department of Health (RIDOH) through a grant from the federal Substance Abuse and Mental Health Services Administration (SAMHSA). The Bradley service is addressing the needs of youth experiencing behavioral health crises including risk of suicide.

These additional dollars will strengthen training efforts in schools and pediatric practices regarding signs and symptoms of youth in crisis, including assessment and referral information. The funds will also enhance current staff coverage for the Bradley Hospital's Kids' Link crisis line by schools, pediatric practices, and families, and offer Youth Mental Health First Aid training to school faculty as well as support staff working in public, private or charter middle/junior high and high schools.

Behavioral Health Workforce Development

A key investment related to our practice transformation focus area will be a workforce development project offering provider coaching and staff development for the behavioral health providers licensed by BHDDH. These providers are Rhode Island's primary resource for people who rely on publicly funded behavioral healthcare (e.g., Medicaid). BHDDH has licenses with 22 providers, including Community Mental Health Centers (CMHCs) and Substance Use Disorder (SUD) behavioral health organizations. Together, these providers employ approximately 4,000 staff who serve approximately 5,000 children/adolescents and over 40,000 adults per year.

Among the behavioral health services offered by the CMHC and SUD providers are "health homes" that address the complex behavioral health needs of persons with serious and complex

mental health conditions (e.g., schizophrenia) and substance use disorders (e.g., opioid dependence). Many of these individuals have co-occurring conditions, including physical health needs. These providers are also adapting to new payment methods, moving from fee for service to bundled rates with consumer outcomes as key. To secure a provider for this important SIM-funded workforce initiative, we carried out a competitive bid process. The project has been awarded to JSI Research and Training Institute, Inc. (JSI) with two key subcontractors: Substance Abuse and Mental Health Leadership Council of Rhode Island (SUMHLC) and Rhode Island College (RIC). The total contract amount is \$933,000 covering the remaining months of Award Year Three as well as Award Year Four.

The primary goals of the project are to:

- Improve skills and effectiveness of BHDDH licensed providers and staff in delivery of core competencies, Evidence-Based Practices (EBPs) and best practices.
- Change staff perceptions of themselves and their work effectiveness through strategies that include:
 - Leadership/supervisor development.
 - Effective recruitment/on board processes for new staff.
 - Empowerment of staff to choose how/at what pace to develop new skills to help build a personal career ladder.
 - Introduction of more flexible, sustainable learning methods through technology (e.g., E-learning; web-based approaches).
 - Creation of a tighter working relationship and more direct pipeline from academia to BHDDH providers.
 - Alignment of goals with federal Substance Abuse Mental Health Services Administration (SAMHSA) National Behavioral Health Quality Framework.

This project began in March 2018 and will be carried out during the last months of Award Year Three and continue through Award Year Four. Project activities will include the following:

Staff will receive coaching and staff development in core competencies, EBPs and best practices through:

- Use of multiple learning methods based on staff and provider needs:
 - Audio/video/web-based learning.
 - Personal study with links to reading material.
 - Competency-based classroom learning (basic and advanced) to include practice opportunities, role plays and interaction among learners.
 - “In vivo” workforce practice with ongoing support, observation, consultation, side by side monitoring and feedback provided within specific programs (e.g., ACT, IHH).
 - Booster training and consultation as needed.
- Assistance to providers to help their employees develop personalized staff development plans.
- Leadership and supervisory development.
- Effective on boarding process for new employees using a “train-place-train” approach.
- Train the Trainer initiatives.
- Web-based, E-learning.

Solutions will be pursued to create closer partnerships among providers, educational institutions as well as credentialing and licensing bodies:

- Increase student course work as well as internship, field placement and training opportunities for core competencies and EBPs.

- Establish standard competencies for EBPs that will be recognized by licensing and certification bodies.
- Create CEUs and opportunities for academic credits in EBPs for public sector behavioral healthcare staff.
- Establish new career ladders and lattices for behavioral healthcare staff who achieve EBP competencies.

The design of the initiative is aimed at building in sustainability from the start, with significant focus on leadership development, a learning collaborative approach, training additional trainers, and web-based modules that will last beyond Award Year Four of the SIM grant

Patient-Center Medical Homes for Kids & Integrated Behavioral Health

SIM has contracted with the Care Transformation Collaboration of Rhode Island (CTC) for both PCMH-Kids and the Integrated Behavioral Health Program, with a three-year, \$870,886 commitment.

PCMH-Kids

PCMH-Kids builds off CTC's successful adult patient-entered medical home (PCMH) initiative in Rhode Island. PCMH-Kids is extending the transformation of the state's primary care practices to children. PCMH Kids' mission is to engage providers, payers, patients, parents, purchasers, and policy makers to establish:

- PCMHs for families, children and youth that will assure optimal health and development.
- Commitment to quality measurement.
- Accountability for costs and outcomes.
- Data-driven system improvement
- Focus on population health.

A group of engaged stakeholders and pediatric leaders has been working over the past several years to develop this PCMH-Kids program. A pediatric medical home initiative is an opportunity to standardize and to improve the patient and family centered care already delivered in pediatric primary care offices around our state. PCMH-Kids is convened by the state's Executive Office of Health and Human Services (EOHHS, Rhode Island Medicaid program, and the Office of the Health Insurance Commissioner (OHIC). PCMH-Kids has garnered participation from all four major health plans in Rhode Island.

CTC is working with nine pilot practices, with a total target population of 30,000 patients under 18 years of age. The practices have created a common contract with payers. Practices are receiving supplemental payments and on-site, distance and collaborative learning and coaching to support practice transformation and quality improvement. SIM funding enables CTC to assist PCMH-Kids practices with the following:

- Practice facilitation and coaching including optimal use of primary care staff serving in care coordination roles and movement towards team-based care.
- Development of workflows and processes to support quality assurance.
- Analysis and improvement in the quality of electronic health record (EHR) data and development of reports based on data.

The PCMH-Kids evaluation includes the use of the Pediatric Consumer Assessment of Healthcare Providers and Services (CAHPS) PCMH Survey, quality measurement and reporting, and utilization measurement. Included in this evaluation are methods to determine how patients experience care, how to support practice improvements, how to assist practices in measuring their clinical quality measures, and how to best help practices measure their patients' use of high cost services as a proxy for direct cost and effective care coordination data.

Throughout Award Year Three, the PCMH-Kids practices have continued to work together on best practices, identifying high-risk patients and improving the health of the youth as they grow into adulthood. Noteworthy accomplishments during this award year:

- All PCMH-Kids projects have successfully reported on standardized measures for quality, customer experience and utilization. All achieved the highest level of NCQA PCMH recognition prior to the “due date.”
- Seven out the nine PCMH-Kids practices reached or exceeded the threshold for their quality measures (Developmental Screening and BMI Assessment and Counseling) The remaining two practices were within 10% of the threshold.
- In addition to the nine original PCMH-Kids pilot practices supported through SIM, Rhode Island's health plans supported the expansion of PCMH-Kids to 11 other pediatric practices for a total of 20 PCMH-Kids practices in Rhode Island. Together, these 20 practices cover more than half of Rhode Island's pediatric covered lives.
- In March 2018, PCMH-Kids practices participated in a CTC-sponsored learning collaborative event that included presentations from seven practices involved in a PCMH Kids postpartum depression screening initiative as well as presentations from Screening, Brief Intervention, Referral, and Treatment (SBIRT) adolescent content experts.

In Award Year Four, the PCMH-Kids Project will:

- Enable 12 of the state's 20 PCMH-Kids practice sites that provide adolescent care to participate in a year-long behavioral health learning collaborative focused on SBIRT. This project is being funded by Tufts Health Plan and the American Academy of Pediatrics Healthy Tomorrow 2020 effort.
- Continue a focus on care coordination services within PCMH-Kids practices, including implementation of a high-risk framework to identify children and families at risk and introduction of care coordination training resources for practices.
- Examine ways to support sustainability, including: continued collaboration with the state's four health plans; building-in a special focus on PCMH-Kids in CTC strategic planning efforts; meeting with Rhode Island College School of Nursing and School of Social Work to explore the development of pediatric practice transformation efforts; and advocating for a strong focus on pediatric population needs within the system of care arrangements developing in Rhode Island (ACOs; AEs).

Integrated Behavioral Health

Behavioral health issues are frequently an important area of concern for individuals who visit their primary care practitioners. Behavioral health includes mental health, substance use and health behaviors. There is evidence in medical literature that primary care practices can effectively treat and support many individuals who have mild to moderate behavioral health issues. It is widely acknowledged that, to be successful, the behavioral health focus must be well-integrated into the primary care practice, not simply co-located. CTC began a primary care

behavioral health integration effort with support from The Rhode Island Foundation and Tufts Health Plan. The SIM project added resources to support practice facilitation and evaluation activities.

CTC originally selected twelve practices for the Integrated Behavioral Health (IBH) Pilot program, with a target population of 58,000 adults 18 and over. The program was rolled out in two phases, with Cohorts One and Two.

Practices were required to demonstrate the ability to:

- Complete universal screening for depression, anxiety, and substance use for all patients over the age of 18 in primary care across two years, and for persons assessed to have one or more of these conditions, to rescreen within six months.
- Embed a behavioral health clinician as part of the PCMH care team and offer evidence-based treatment and referral as needed.
- Commit to on-site participation in monthly one-hour practice facilitation meetings with a psychologist having expertise in primary care-behavioral health integration.
- Carry out Plan/Do/Study/Act (PDSA) projects including addressing high Emergency Department (ED) use.
- Participate in an evaluation conducted by Brown University, including both qualitative and quantitative analysis. To support the evaluation, CTC received approval from the All Payer Claims Data (APCD) Review Board to obtain claims data for a matched comparison study of utilization and total cost of care.

Award Year Three accomplishments include:

- Ten of the 12 original IBH practices have fully participated in the project. Two practices were not able to continue participation: one due to organizational changes in leadership and one due to an inability to hire a bi-lingual clinician.
- The CTC Integrated Behavioral Health Committee, which meets monthly, brings together primary care practices, the four major Rhode Island health plans and key stakeholders to address issues related to the integration of behavioral health and primary care.
- Of the five practices who participated in the IBH project's Cohort I, all have:
 - Achieved depression, anxiety, and substance use screening rates of 90%.
 - Demonstrated lower Per Member Per Month (PMPM) costs than those incurred by non-PCMH as well as PCMH comparison practices
- CTC partnered with Bradley Hospital to provide Mental Health First Aid Training to 39 primary care staff who work in the IBH primary care practices including medical assistants, receptionists, practice managers and community health workers. Mental Health First Aid is an eight-hour course that teaches people how to identify, understand and respond to signs of mental illnesses and substance use disorders.
- CTC published an article "Integrated Behavioral Health Practice Facilitation in Patient Centered Medical Homes: A Promising Application," in the June 2017 Special Edition of *Family Systems and Health*, a publication of the American Psychological Association (a peer review journal).

In Award Year Four, the CTC IBH project will:

- Place four nurse care managers into primary care services operated by community health centers to increase access to Medication Assisted Treatment (MAT) for patients with opioid disorders. This initiative is funded by Rhode Island BHDDH through SAMHSA State Targeted Response (STR) funding.
- Partner with Rhode Island College School of Social Work to support workforce development of behavioral health clinicians who have the skills to practice in primary care settings. As an example of a specific project, Rhode Island College, in conjunction with the Rhode Island Foundation and Tufts Health Plan, is supporting CTC to implement a new Integrated Behavioral Health Practice Facilitation Program. This new program recently chose three seasoned behavioral health clinicians to receive specialized training and coaching as IBH practice facilitators.
- Continue to support quantitative and qualitative evaluation plans being carried out by Brown University for the project, including a matched comparison study of emergency department (ED) and hospital inpatient use to assess whether the participating IBH practices have reduced costs. They are also conducting a qualitative study.
- Examine ways to support sustainability of these 10 IBH projects and foster expansion of the IBH primary care model across the state. Through additional SIM funds, a content expert in billing and coding for behavioral health will provide assistance to the IBH primary care practices. Rhode Island's health plans will play a key role in promoting and financially supporting the ongoing integration of behavioral health within primary care.

Improved Administrative Processes for Integrated Behavioral Health

Entities in Rhode Island have begun to implement Integrated Behavioral Health (IBH) initiatives, including the SIM supported pilot that incorporates behavioral health providers into the primary care team. Other efforts in the state are integrating primary care services in behavioral health settings. As progress is being made to integrate care, participants in these models have identified several administrative challenges, creating barriers to success. As a primary tenet of the RI SIM grant, the integration of behavioral health is a priority and in response to this feedback, the SIM Steering Committee has asked that a deeper dive be taken to understand and recommend solutions to these barriers.

Using SIM dollars, Rhode Island will fund a consultant to collect information from CTC-RI, providers, and insurers to identify the specific barriers that are being experienced as part of these or other initiatives, with a focus on billing, coding, and other processes that are impeding the successful integration of behavioral health services. The consultant will also conduct a literature review to identify best practices and approaches taken in other states. Following this information gathering, the consultant will facilitate a dialogue with payers and providers to address the identified challenges and work toward administrative simplification.

Community Mental Health Center Care Management Dashboards

An additional priority for the SIM Test Grant has been the deployment of advanced technology to build a real-time communication system between Rhode Island hospital providers and Community Mental Health Centers (CMHCs), which are mutually responsible for the care of approximately 8,500 publicly insured individuals with serious mental illness.

SIM entered a \$150,000 contract with the Rhode Island Quality Institute (RIQI) to implement Care Management Dashboards in all CMHCs and the Medicaid Community Health Team.

Specifically, SIM funds were used to implement electronic dashboards that deliver real-time, encrypted notifications to the CMHCs when consumers under their care experience a hospital emergency department or inpatient encounter. All of the dashboards are now live in the CMHCs. We also deployed a Dashboard with our Medicaid fee-for-service Community Health Team, which was called CareLink. The Medicaid CHT dashboard was shut down when the Medicaid CHT closed in November 2017.

These dashboards put critical health information in the hands of the appropriate providers at exactly the right time. This prompt information sharing is beginning to facilitate targeted, appropriate clinical interventions, improve care coordination, and reduce re-admissions. RIQI conducted a return on investment analysis in 2017 which indicated that the dashboards services for all their clients reduced inpatient readmissions by 18.9%, reduced ED visits after inpatient discharges by 18.4%, and reduced ED returns by 16.1%, which helped to avoid approximately 3244 events with an estimated savings of \$7.5 million. Ongoing funding for operation of the dashboard will come through a PMPM cost to the CMHCs. In addition to implementations of the dashboard tool, SIM Test Grant covers the cost to train providers in use of this new technology.

There is still one Dashboard implementation to be completed in the contract. This last implementation was initially identified for use in a state agency, but after further discussion among our state agency partners, such as Medicaid, BHDDH, and DCYF, we have learned that there is a lack of need for real-time patient hospital utilization report. We are currently reevaluating the use of the remaining \$15,000.

Healthcare Quality, Measurement Reporting and Feedback System

As part of the Rhode Island SIM Test Grant, the state convened a Technology Reporting Workgroup based on a directive from the SIM Steering Committee. The workgroup is led by the State Health Information Technology (HIT) Coordinator and the SIM HIT Specialist. This workgroup began meeting in January 2016 and consists of representatives from state agencies, payers, provider organizations, and quality improvement organizations. The workgroup also conducted a survey of healthcare providers in the state in order to receive additional input on the concept of a centralized quality measurement, reporting, and feedback system. The Technology Reporting Workgroup recommended using SIM funding for the development of a statewide quality reporting system with the goals of:

- Improving the quality of care for patients and driving improvement in provider practices by giving feedback to providers, provider organizations, and hospitals about their performance based on quality measures;
- Producing more valuable and accurate quality measurements based on complete data from the entire care continuum;
- Leveraging centralized analytic expertise to provide valuable and actionable reports for providers and to drive improvements in population health;
- Reducing the duplicate reporting burden upon providers and provider organizations by having a common platform for reporting;
- Publicly reporting quality measurements in order to provide transparency and support patient engagement in making informed healthcare decisions; and

- Using existing databases, resources and/or systems that meet our needs, rather than building from scratch.

The RFP for the Healthcare Quality Measurement Reporting and Feedback System (Feedback System) was posted on February 1, 2017, and closed on March 29, 2017. SIM selected IMAT Solutions, Inc. to implement the Feedback System, and the contract was finalized in January 2018. The selected solution will involve the collection of data directly from EHRs and other data sources (such as HealthFacts RI), and the implementation of a web-based portal to access measure results. The web-based portal is capable for live manipulations of data using pre-set parameters, or the creation of measures for those with additional coding expertise.

Unified Social Service Directory

Healthcare providers increasingly recognize the role social and economic factors have on health and well-being. Because of this, several healthcare providers, healthcare systems, and partnerships in Rhode Island have made significant commitments to develop the capacity to screen for and refer patients to community-based services and public benefits that can meet various social and economic needs.

Additionally, Rhode Island's healthcare transformation efforts – under SIM and the Accountable Entity program – incorporate addressing Social Determinants of Health (SDOH) in their plans. The state has explored best practices in identifying “High Risk Patients,” and stakeholders have expressed interest in using data beyond the traditional focus on utilization, cost of care, and chronic diagnoses, to include SDOH as risk factors. Accountable Entities will soon be required to have a robust infrastructure and capacity to identify and help patients address the social and economic challenges that influence their health.

As SIM has talked to healthcare providers about working with their patients to address SDOH, one response has been that they may not feel comfortable asking their patients about their risk for problems within the SDOH domains (i.e. are they at risk for experiencing homelessness?). Providers can feel worried about asking about the problem and not feeling prepared to help address the problem - concerned that they do not have the resources their practice needs to help their patients.

In response to these concerns, the SIM Steering Committee has determined that it would be very helpful for both community organizations and state agencies to help ensure that we have one resource system that providers and community organizations could use to help address SDOH. At first, the resources would likely be consulted by staff at hospitals, health centers, and community organizations, but we have a vision that the resources eventually could be tied in to providers' electronic health records and part of an e-Referral system.

SIM is collaborating with several partners to guide this initiative, including Integra, Lifespan, United Way of Rhode Island, and state agencies, and has actively engaged a number of other organizations in discussions. To finance the development of the Directory and initiation of connections with participating organizations' HIT platforms, SIM dollars will be braided with investments from these entities as they come available.

Summary of Program Goals

The Unified Social Service Directory (USSD) funded by Rhode Island's SIM grant is designed to:

- 1) Explore the opportunity to develop an integrated, coordinated, statewide infrastructure for addressing SDOH. This common infrastructure could begin with the development

and maintenance of a single statewide database of community-based organizations, services, and public benefits.

- 2) Bring together state agencies and community organizations to participate in the development of this plan.
- 3) Begin with a pilot project: a statewide resource database that will deliver real value to healthcare providers across Rhode Island. It will also be of value to non-healthcare organizations that identify and seek to address social and economic challenges such as schools, social service agencies, and government agencies serving constituencies as diverse as veterans and senior citizens. In order to ensure results provided to participating patients are high-value, the founding subscribers, and other partners, will collaborate on developing a common framework for categorizing, organizing, displaying, and reporting information.
- 4) Build connections with existing IT platforms in community healthcare organizations. While many provider groups in the state have made progress toward SDOH assessment and referral, they are at different points of maturity in terms of infrastructure and establishing processes. Some organizations rely on internet searches and paper referrals, while others are developing systems to make and track referrals and facilitate case management. To maximize the utility of a centralized resource database, connections will need to be created such that EHRs or other IT systems can pull data from the database to facilitate referrals and case management.

Patient Engagement Tools and End-of-Life/Advanced Illness Care Initiative

In order to ensure that patients receive the greatest value from payment reform changes, and that they are maximally engaged in positive health behaviors including self-advocacy, SIM is in the process of investing funds to provide patients access to tools that increase their involvement in their own care, including:

- Creating the infrastructure and strategies to allow patients to be more actively involved in their own care across their entire life course. One SIM project in this area is to determine whether we can assist patients to more easily share their advanced care directives and healthcare proxies with their providers;
- Developing patient engagement tools such as health risk assessments; and

In early 2017, RI SIM put out a Request for Proposal focusing on Patient Engagement and End of Life. Guided by the SIM Patient Engagement Workgroup and to maximize the impact of SIM patient engagement funds, all applicants were directed to submit proposals that addressed one or more of the physical or behavioral health focus areas outlined in the SIM Integrated Population Health Plan. Additionally, all proposals were required to include one or more of the following strategies:

- Maximize relationships and coordination between existing population health efforts within communities
- Focus on the specific points of interaction between targeted populations (e.g., adolescents) and the objective or goal of that interaction (e.g., engaging them in their reproductive health, healthcare, and their privacy rights)
- Address patient ‘disengagement’ or lack of participation in their own healthcare
- Focus on populations with the highest-risk and greatest known disparities

- Focus on prevention, detection and diagnosis, triage and treatment, and/or end-of life
- Improve patients' health literacy and ability to self-manage their own health and health choices (specifically in the health focus areas listed above)

There were nine responses to the RFP and we chose four vendors' projects:

Complex Care Conversations

Hope Hospice and Palliative Care Rhode Island (HPCRI) is the second oldest, not-for-profit hospice and palliative care provider in the US, the largest provider in Rhode Island, and one of only a few organizations nation-wide with an outpatient and home-based Palliative Care program. HPCRI is also the major teaching affiliate of the Warren Alpert Medical School of Brown University for hospice and palliative medicine. A recognized leader, HPCRI has extensive experience in end-of-life care and goals of care conversations.

HPCRI is leveraging their expertise by implementing an education program that supports providers in carrying out patient engagement activities with their patients with advanced illnesses. The overarching goal of this initiative is to increase engagement among providers, patients, and families in advance care planning and to improve the health literacy of patients and families around goals of care and treatment options in the face of advanced illness.

The Complex Care Conversations Training (CCCT) project is helping patients and families who are facing complex care decisions and end-of-life choices have the information and understanding they need to make informed decisions regarding their treatment plans. The strategy to achieve this is to train generalist care providers throughout Rhode Island on advance care planning and complex care conversations. The training promotes experiential learning, including defining the role of the clinician in complex care conversations, prognostication, goals of care and delivering serious news.

In support of this, HPCRI has the following goals:

- 1) Providers will have additional and more effective communication with their patients that are seriously ill, related to goals of care and advanced care planning
- 2) Seriously ill patients will report greater satisfaction as it related to end of life planning
- 3) Provider satisfaction will be improved using learned tools and strategies for having complex care conversations
- 4) Patients will be get the right care, at the right place at the right time and per their wishes

The project builds on HPCRI's pilot training program aimed at increasing and enhancing provider/patient communication regarding serious illness. Planning, design and evaluation for this pilot began in Fall 2017, working in partnership with Coastal Medical leadership. HPCRI has created a coordinated project plan for the Complex Care Conversations training, including a full curriculum, designed for small groups of participants in a single intensive 8-hour session, to providers throughout Rhode Island. The project plan incorporates tools and communication/marketing strategies used to train providers in how to have advance care planning conversations with patients and effectively engage with their patients around end-of-life decision-making. The project anticipates 36 training sessions for 10-12 providers per session over the project term, directly impacting the complex care conversation skills of roughly 480 providers and indirectly benefitting over 144,000 patients and family members cared for by these trained providers each year.

As part of HPCRI's communication and marketing strategy, they have collaborated and will continue to collaborate with representatives from the University Medicine Foundation (UMF) to promote participation, smooth registration, base-line data collection and evaluation of provider needs. Registration, program promotion, logistics, accreditation and evaluation are supported by staff of the Alpert Medical School Office of Continuing Education. HPCRI will also continue to work with the Alpert Medical School Office of Continuing Education to promote course publicity and advertising on the Alpert Medical School CME Website, electronic announcements and mailed publicity to target audiences state-wide.

From October 2017 through February 2018, HPCRI has trained over 95 providers and initial provider feedback is very promising from pre- and post-training evaluations: Before the training, 53% of respondents reported that they were somewhat or very skilled overall in having complex care conversations and after the training the result was 91%. Indeed, the survey feedback and initial response from the SIM-funded trainings were so positive that the SIM Steering Committee voted to allocate \$75,000 in additional funding to HPCRI to increase the number of trainings available to Rhode Island providers.

During the remainder of AY3 and AY4, HPCRI will focus on implementing these trainings and collecting the survey information for providers three months post training. Completion the three-month follow up survey is a requirement for providers to receive their continuing education units (CEUs). AY4 will also focus on continued promotion of the training program by HPCRI's Care Transition Team and Alpert Medical School Office of Continuing Medical Education and developing a refresher course for Coastal Medical and a class for their nurse managers to "activate" the providers to have these conversations.

Advance Care Planning Training Program for Consumers and Providers

Healthcentric Advisors (HCA), in partnership with Rhode Island Improving End of Life Care Coalition (the Coalition), is implementing a project to facilitate end of life discussions and advance care planning (ACP) among Rhode Island residents. The project will increase statewide awareness of and patient engagement in end of life discussions and ACP through 1) consumer education and outreach, with targeted engagement of the Latino, Spanish speaking community through partnership with Progreso Latino; 2) cross-setting provider education and outreach; and 3) implementation of an ACP group medical visit pilot project for Medicare beneficiaries within primary care practices in the state. Together, these parts combine to maximize resources, reach the largest number of Rhode Islanders, and produce actionable outcome measures that can inform future work and promote sustainability.

The implementation plan for the ACP Training program includes curriculum development, outreach (consumer and physician), and the 12-month advance care planning group medical visit pilot project. Curriculum development will be focused on developing communication and materials for consumer and provider education/outreach components and for the ACP group visits. Consumer education and outreach is focused on dissemination of information through various communication vehicles such as print, radio and web, with an emphasis on the Latino community with subcontractor Progreso Latino. Significant work has been done to develop a website in both English and Spanish with resources and tools on ACP for consumers. The website includes pages that also provide specific content for faith-based communities and veterans.

Provider outreach has been largely focused on bringing the developed materials to provider groups within Care New England, one of the primary healthcare systems in Rhode Island. Materials for providers are center on the benefits of having early ACP conversations, how to deliver difficult news, and how to bill and code for services provided specific to ACP.

The last part of the project implementation is the Pilot ACP Group Visits. The visits are targeted physician practices with a specific focus on the Medicare/Medicaid population. Primary activities include:

- Developing physician recruitment plan with physician advisors with a minimum target of 25 practices over length of the pilot (months 6-18)
- Rolling recruitment throughout project by clinical coordinator in collaboration with 2 Physician Advisors
- Practice education, for 1-2 nurse care managers per practice to support pilot
- Training for 30 primary care clinicians and their staff on ACP billing codes
- Collaborating with practices to facilitate group sessions using developed curriculum
- Administering pre- and post-surveys to practitioner participants to measure baseline and follow-up knowledge/confidence related to ACP

Throughout the two-year project, Healthcentric Advisors will collect qualitative and quantitative data from providers and consumers to evaluate the public education impact and pilot impact on providers and consumers. The evaluation plan will measure the following:

- Participation in stakeholder and consumer subcommittee
- Number of consumers reached through consumer education and outreach component
- Practitioner participation in ACP group visit pilot
- Patient participation in ACP group visit pilot
- Patient knowledge and confidence in participating in end of life/ACP discussions with their caregivers and PCPs
- Patient evaluation of effectiveness of ACP group discussions
- Practitioner knowledge and confidence with ACP discussions
- ACP CPT Codes billed for participating providers (Codes 99497, 99498)

To date, Healthcentric Advisors and their subcontractors have reached over 17,374 individuals through their social media campaign and expect this number to continue to climb through AY4. Recruitment for the pilot component of the project continues to gain ground and practice recruitment currently stands at 92% of our target goal. Thirty-four providers within 23 practices have agreed to participate in the project. AY4 of this project will be largely focused on continuing the outreach and engagement activities, including hosting several public forums and implementation of pilot program.

Consumer Engagement Platform

Under the Patient Engagement and End-of-Life/Advanced Illness Care Initiative, Rhode Island Quality Institute was awarded \$650,000 to implement a Consumer Engagement Platform attached to the Health Information Exchange. This Consumer Engagement Platform has two major purposes through this grant funding: 1) provide the ability for consumers or their providers to upload advance directives for sharing among other providers; 2) create an electronic platform for social determinants of health screening. The platform will have a consumer-facing and provider-facing view.

The Platform is being built now. It will be piloted with 6 primary care practices that work with CTC-RI, including community health teams, and we expect it to go live by August or September 2018.

Health Equity Zones

The Health Equity Zone (HEZ) initiative is an investment by the Rhode Island Department of Health (RIDOH) aimed at developing sustainable community infrastructure within geographically-defined locations to collectively work towards system-level changes and community improvements that ultimately improve health outcomes. Alignment of SIM resources with community and other resources to create sustained investments that address community-identified needs will be an expanded priority of this project. With funding from SIM in AY4, RIDOH staff working on the HEZ initiative will provide support to SIM staff, SIM vendors/partners, and local HEZ collaborative members to foster a culture of collaboration that results in measurable progress towards the integration and alignment of mutually-beneficial efforts. The partnership and alignment between HEZ and SIM will work to achieve community-level system changes surrounding the social and environmental determinants of health that complement the healthcare system changes surrounding the provision of quality medical care to improve population health, including SIM's eight aligned health focus areas. Project goals include:

- Coordinating and linking the large network of community organizations across the state engaged in the HEZ Initiative to key aspects of SIM, such as: funded vendors carrying out SIM projects, SIM Integration and Alignment activities, and the SIM Interagency Team.
- Fostering and strengthening the community-clinical connections aimed at improving community and system wide health outcomes across SIM (and other) health focus areas.
- Maximizing the effectiveness and reach of SIM interventions within the community, including increasing patient/resident engagement, and facilitating systems change on the local level that complements the work of Accountable Care Organizations, Accountable Entities, and Accountable Health Communities.
- Aligning SIM with local HEZ efforts by targeting the social determinants and policies affecting integrated health, including the SIM health focus areas (e.g., opioid epidemic).

Investment of SIM resources within the HEZs supports the aims of the patient engagement strategies put forward by SIM, including: maximizing relationships and coordination between existing population health efforts within communities; addressing patient 'disengagement' or lack of participation in their own healthcare; and focusing on populations with the highest-risk and greatest known disparities. A full listing of SIM/HEZ Alignment Opportunities can be found [here](#). Pre-SIM accomplishments of the HEZ Initiative include:

- Collaborative Building: One HEZ agency started partnering with four agencies in year one and has now mobilized 56 stakeholder organizations by year three, all actively working together to address obesity and mental health in South County.
- Opioid Prevention: Because of HEZ, one community now, for the first time ever, has a joint, community-driven program between the health center and local law enforcement that focuses on substance use prevention, with an emphasis on opioids.
- Healthy Places by Design: One HEZ worked with public transportation officials to create a senior bus line that went from the senior center, to the health center, to the pharmacy,

and then to grocery store on Fridays. The community now has providers holding walk-in appointments on Friday mornings specifically for this population.

The long-term vision of this project includes making positive improvements to the local socioeconomic and environmental determinants of health negatively affecting population health outcomes. From a sustainability perspective, the HEZ work addresses SIM's theory of change by changing the non-clinical determinants of health to further support the transition to a value-based health system. This partnering opportunity enhances the potential for success and lasting change.

Data Capability and Expertise

HealthFacts RI

The Rhode Island SIM Test Grant invested funds to support the implementation and maintenance of the All-Payer Claims Database (APCD), named HealthFacts RI. SIM contracted with Onpoint (data aggregation and analytics) and Freedman Healthcare (project management) for HealthFacts RI, with a three-year commitment of approximately \$2.1 million. Rhode Island received approval for an MMIS IAPD to support the transition of HealthFacts RI and implementation of analytics tools beginning in May 2017, and we have transitioned the project away from SIM funding support. In the end, SIM funded \$1.84 million.

The purpose of HealthFacts RI is to ensure transparency of information about the quality, cost, efficiency, and access of Rhode Island's healthcare delivery system. It provides state agencies and policy makers with the information needed to improve the value of healthcare for Rhode Island residents, illuminating how Rhode Islanders use the healthcare system, the effectiveness of policy interventions, and the health of our communities. HealthFacts RI collects, organizes, and analyzes health care data from nearly all major insurers that cover at least 3,000 individuals in Rhode Island. This information allows users to benchmark and track Rhode Island's health care system in ways that were previously not possible, such as evaluation of hospital readmissions, total cost of care, and utilization of preventive or disease management services.

HealthFacts RI is being used to help the state better understand the healthcare delivery system by:

- Identifying areas for improvement and growth in the healthcare system;
- Understanding and quantifying overall health system use and performance;
- Evaluating the effectiveness of policy interventions; and
- Assessing the health of communities.

In early 2017 the data vendor for HealthFacts RI was reprocurd and the contract was awarded to Onpoint Health Data. The scope of work for this vendor includes continuing the data aggregation work as well as assisting the state with setting up an analytics platform for HealthFacts RI within the state data center. Additionally, the Data Release Review Board has received eight applications for data and has approved those requests. It has completely fulfilled three requests and the other five are in process.

Rhode Island submitted an MMIS IAPD in December 2016 to support the move of HealthFacts RI to the State Data Center and the implementation of analytics tools for Medicaid uses, including to meet the new Access Monitoring Review Plan requirements. The state received

approval for this IAPD plan, and transitioned HealthFacts RI from its SIM funding and into Medicaid funding in May 2017. For long-term sustainability, HealthFacts RI will charge for responses to data requests.

Statewide Common Provider Directory

Payers, providers, and consumers alike need access to accurate provider information. This information ranges from current name, address, and contact information, to specific health plan network information or direct e-mail addresses. In order to maintain accurate provider directories for facilitating payment, care coordination, data analysis (such as with HealthFacts RI), or health information exchange (HIE), each type of organization expends considerable resources attempting to maintain their own internal provider directories. Additionally, per legislation, Rhode Island's HIE now offers three consent options for providers regarding the visibility of their data: in emergencies only, for all providers, or for only specific providers. Facilitating this last option for only specific providers' visibility on a participants' data requires an accurate provider directory be in place. Finally, there is no central location from which to quantify the number of providers within the state and to which organizations they are affiliated.

Using SIM funds, Rhode Island contracted with its state designated entity for HIE, Rhode Island Quality Institute to build a Statewide Common Provider Directory, with an overall investment of \$1.64 million. The directory consists of detailed provider demographics as well as detailed organization hierarchy. This organization hierarchy is unique and essential to being able to maintain both provider demographic and contact information, and their relationships to practices, hospitals, ACOs, and health plans. The intent of this project is to:

- Allow for the mastering and maintenance of provider information and organizational relationships to only occur once in the state in a central location;
- Provide a web-based tool that allows a team of staff to maintain the file consumption and data survivorship rules, error check flagged inconsistencies or mapping questions, and manually update provider data or enter new providers;
- Develop and institutionalize the appropriate data mastering and maintenance system to allow for useful data export via a flat file to ensure readiness for a June 2016 launch;
- Provide iterative data exports that allow for hospitals, payers, and state agencies to incorporate the centrally-mastered provider data within their own databases; and
- Increase data availability and transparency with a provider portal and a consumer portal.

SIM funding supported a variety of activities, including the intake and aggregation of 14+ data sources, the mastering over 10,000 providers (mostly MD, DO, NP, PA) and 3,500 behavioral health providers, the initial development of a website for access by consumers and providers, and the export of some data files for use by state agencies.

The software now works, but data needs to be cleaned and verified on an ongoing basis. The sustainability model for the project calls on customers to pay for the provider directory service, which would support the ongoing mastering. At this time, customers are not ready to accept this data and pay for it.

Therefore, in December, RIQI requested and after consultation with CMS, the state agreed that it would be appropriate to pause the project and undertake a reassessment, with a focus on the

business case and how best to work with potential customers to get to our end goal of a successful Provider Directory. CMS also made available technical assistance from ONC. With ONC's guidance, RIQI is currently meeting with providers and carriers in the community to reconfirm the sustainable business case and market interest. The state is also carryout out interviews with state agency colleagues who would potentially use the Directory.

All of these potential customers will help RIQI determine if there are any additional components of the PD to make it attractive for the expected fee-based service and whether they would anticipate being ready to engage with RIQI within the next year. We anticipate the results of this reassessment to be ready in May 2018, and will be used to determine the next steps.

A Provider Directory advisory committee consisting of community partners, SIM staff and state agencies has guided the work of this project, and the SIM Steering Committee has been fully briefed on its progress.

Since SIM funding for this project ends at the conclusion of the contract deliverables, anticipated to be in early 2018, the State has already included additional development and implementation work in the HITECH IAPD-U submitted in December 2016. We have received approval, but there are challenges with identifying state match, and next steps will also be guided based on the results of the reassessment discussed above.

Rhode Island's Integrated Health and Human Services Data Ecosystem

Rhode Island has lacked a modern system for integrating person-level information across our EOHHS agencies (Medicaid, the Department of Behavioral Health, Developmental Disabilities, and Hospitals (BHDDH), the Department of Children, Youth and Families (DCYF), the Department of Human Services (DHS), and the Department of Health (RIDOH)). These agencies share a mission of providing essential services, safety net support, and public health promotion, while often serving the same people and collecting substantial amounts of data on these beneficiaries.

By integrating and better analyzing these data, we can obtain critical information about the needs of our population, the effectiveness of our programs, and how to responsibly spend valuable public resources.

Therefore, with funding from SIM, EOHHS is developing the Rhode Island Executive Office of Health and Human Service Ecosystem, to develop an integrated data system for EOHHS to improve agency performance and operational analytics, quality improvement, and data-informed decision making among EOHHS and partner Rhode Island agencies. Rhode Island is part of a learning collaborative with Actionable Intelligence for Social Policy (AISP), which affords us technical assistance from around the country.

The Ecosystem is supported by two key state partners: Data Integration is provided by the Rhode Island Innovative Policy Lab (RIIPL) at Brown University and analytic support is provided by DataSpark at the University of Rhode Island. The ecosystem has also brought on Abilis as an external vendor to support data modeling and optimization.

In addition, EOHHS has developed an internal EOHHS Project Team of approximately eight personal at varying levels of commitment responsible for the leadership, management, and technical and operational oversight of the project. The Project team includes the SIM Director, as well as two SIM staff.

At the end of 2017, the Ecosystem established its Governing Board, chaired by the Secretary of EOHHS with board representation from all EOHHS agency Directors or their designees and the SIM Project Director. At the start of 2018, all agencies signed a single data use agreement to support data sharing and collaboration.

During the February board meeting, ecosystem staff submitted approximately twenty potential project ideas or “use cases” to the Governing Board and the board approved three of them for the ecosystem’s initial work.

SIM State-Based Evaluation

The University of Rhode Island (URI) is conducting SIM’s state-based evaluation, studying the effectiveness of our overall initiative, as well as a select set of interventions. URI is conducting the evaluation using the SIM Overarching Mixed-Methods Evaluation Plan (both qualitative and quantitative) and aims to ensure that our State-led evaluation efforts complement the Federally-led evaluation. URI is responsible for developing a comprehensive, overarching evaluation plan for the SIM Test Grant. The evaluation plan will result in a continuous process for identifying areas of improvement through program evaluation and recommending solutions. This includes ensuring effective collaboration and efficient sharing of evaluation results. Project goals include:

- Assessing planning efforts and collaboration among SIM strategic partners.
- Identifying root causes for intervention successes and challenges related to practice transformation, patient empowerment, and population health improvements.
- Detailing efficiencies created by policy and regulatory changes.
- Documenting the importance of increasing the capacity for supporting infrastructure such as workforce development and data availability.
- Providing data-driven recommendations for sustainability beyond SIM.
- Coordinating effectively with other SIM-related evaluations led by other vendors or handled in house through staff review of metrics.

The SIM State Evaluation Team has completed and gained SIM Steering Committee approval to implement the Overarching Mixed-Method Evaluation Plan. This plan sets the framework for overall evaluation and serves as a template for project-specific evaluation plans in five areas. A project-specific evaluation plan for the Child Psychiatry Access Program (PediPRN) has been created and implemented. The CHT/SBIRT project participants have engaged in numerous meetings with the stakeholders to discuss stakeholder-derived evaluation questions and potential metrics to finalize this project-specific evaluation plan. The evaluation team has also begun discussions with the end-of-life project vendors to refine and finalize that project-specific evaluation plan. A consultant was hired to provide sustainability planning and other project support to SIM leadership and staff, as well as expertise on the culture of collaboration to the evaluation team. Lastly, having met successfully with SIM leadership to design and implement a baseline survey on the culture of collaboration, the evaluation team is now working to complete this project-specific evaluation plan. These project-specific evaluation plans are anchored by five overarching evaluation questions developed from SIM’s vision, mission and guiding principles:

- To what extent did the SIM Test Grant foster collaboration, align efforts across sectors and between partners, and increase data-driven decision-making?
- To what extent has the SIM Test Grant implemented its Operational Plan and adhered to the theory of change (i.e., SIM Wheel, Drivers, and Components)?

- To what extent has the SIM Test Grant strengthened population health?
- To what extent has the SIM Test Grant transformed the healthcare delivery system?
- To what extent has the SIM Test Grant decreased per capita healthcare spending?

The long-term vision of the project is to successfully provide program evaluation that has assessed adequately whether or not designed activities achieved the desired results once implemented. From a sustainability planning lens, the evaluation team acknowledges the ability to conduct this type of program evaluation will be based partly on the ability to obtain vendor-driven data and access to individuals engaged in SIM. Because of this, relationships between vendors and the evaluation team are being built through the Quarterly Vendor/Partner Meeting and advocacy for evaluation post-SIM funding remains a priority.

Other System Transformation Components

Measure Alignment

Quality measurement and improvement are integral components of value-based contracting. As value-based payment arrangements become more widely used in Rhode Island, it is important to ensure consistency and coherence in quality measures, to ease administrative burden on providers, and drive clinical focus to key population health priorities. Toward this end, in June 2015, the SIM Steering Committee charged a workgroup comprised of payers, providers, measurement experts, consumer advocates, and other community partners to develop an aligned measure set for use across all payers in the state.

The first product for this committee was a menu totaling 59 measures. Included within the menu were core measure sets for ACOs (11 measures), primary care providers (7 measures), and hospitals (6 measures). In the fall of 2016, the committee reconvened to create two specialty measure sets: maternity (1 core measure, 9 menu measures) and behavioral health (3 core measures, 18 menu measures). The full list of measures in the [SIM Aligned Measure Sets](#) (including ACO, Primary Care, Hospital, Behavioral Health, and Maternity) are posted online.

Then, between July and October 2016, SIM convened two Specialist Measure Alignment Workgroups to develop recommendations for maternity care and behavioral health measure sets.

Through OHIC's regulatory power, Measure Alignment was added to an amended version of OHIC's Affordability Standards¹, requiring Rhode Island insurers to implement the updated SIM Aligned Measure Sets (above) in any contract that includes a financial incentive tied to quality. With the intention of aligning processes between commercial and public payers and reduce administrative burden for providers, Medicaid is also requiring MCOs and AEs to adopt the SIM Aligned Measures in their performance-based contracts. OHIC regulation also stipulates that a Measure Alignment Review Committee, convened by the Commissioner, meet annually to review measure sets, and add, update, or remove quality measures as needed. This committee met in the summer and fall of 2017, and final measure sets and reference materials can be found [here](#).

¹ OHIC Regulation 2 Section 10(d)(3)

Regulatory Levers

Rhode Island is committed to using multiple regulatory and purchasing levers to advance the policies described in the healthcare delivery system transformation plan above. All the state agencies that are a part of the interagency team are engaged in this work. Starting on Page 73, we have described the key regulatory levers held by our participating state agencies that we will use to help us reach our goals. For example, to facilitate us moving toward our goal of 80% of payments linked to value by 2018, we will use OHIC's Affordability Standards. The standards hold insurance carriers to specific benchmarks to advance value-based purchasing; promote practice transformation and increase financial resources to primary care for population health management; and around hospital contracting.

In another example, Medicaid contracts with Managed Care Organizations (MCOs) and pays them a capitated rate for Medicaid enrollees across different programs. In turn, Medicaid imposes conditions on the MCOs through contracting. The contracting conditions structure how MCOs reimburse providers, measure quality, and support multi-payer programs, such as the state's multi-payer patient-centered medical home program. Medicaid and OHIC have been working together closely over the past year to align their regulatory oversight in insurance carriers as closely as possible, given their different roles and regulatory tools (OHIC as a regulator and Medicaid as a payer). This has been particularly important as Medicaid begins to implement Accountable Entities, described on Page 90.

The Office of Regulatory Reform is finishing their statewide project to review – and if needed, revise or delete – all regulations in the state. SIM participating agencies have been participating in this process, which will provide a new level of access to information about current regulations and the regulation revision process in the state. The end result of the endeavor will be a single code of regulations that will be available online. SIM staff have assisted their agencies in reviewing healthcare regulations, where appropriate.

Integration & Alignment Project

Rhode Island's size provides us with a set of opportunities and challenges. The challenges include an economy that must rely on a relatively smaller set of economic drivers than those found in larger states, and a healthcare system that is thus a higher percentage of our economy than in other states. However, our small size provides us with a number of positive opportunities, including the strong relationships that we can build statewide between existing and new interventions.

The number of federal- and state-funded initiatives listed beginning on Page 126 of this plan show that we do have a significant level of reform activities underway. It is often easier for state departments to carry out the grants they have received or the statutory requirements they must fulfill without taking the time to align with other projects. However, the SIM Interagency Team provides us with a forum to share this information and to ensure that state agency activities can be as aligned as possible with each other – to maximize the value of the interventions, serve more people, avoid duplication, and save money.

Therefore, we determined that one strategy of Rhode Island's SIM project would be to pursue a new level of alignment and integration of our existing healthcare innovation initiatives with each other, and with new SIM-funded activities. The SIM convened workgroups bring people from multiple agencies and backgrounds into the same room to collaborate and plan together. One major benefit of this collaboration is that the needs of all agencies were discussed during the

planning phase of our projects, meaning that the results will be more likely to meet each stakeholder's needs.

For example, the Patient Engagement Workgroup brought together a variety of stakeholders, including all our SIM state agencies, and helped us determine a clear set of the highest priorities for patient engagement in the state. This allowed voices and needs to be heard and it resulted in a different end result to our procurement than if only one agency had determined the type of patient engagement activities to procure. It has also meant that if an agency's priority is not chosen to be developed, representatives from that agency will have a better understanding of why and may agree with the decision.

Another example that we have described elsewhere in this document is the set of system transformation goals set by OHIC. When Medicaid began to build its Accountable Entity program, SIM set up a dialogue between the two agencies resulting in Medicaid adopting OHIC's language on APM implementation.

A final example is our collaboration on the Consumer Engagement Platform, one of our Patient Engagement procurements, that enables patients and providers to complete assessments and upload documents that are then incorporated into the patient's CurrentCare (Health Information Exchange) record. Because of the feedback we received from state agency staff and community partners indicating that certain areas of population health should be prioritized more by SIM, we directed RIQI to adapt the platform to enable Social Determinants of Health (SDOH) assessments, allow Advance Directives to be uploaded and shared with providers, and to facilitate SBIRT screening.

As we work with our vendors to build the Consumer Engagement Platform, we continue to tap into the expertise of our stakeholders to inform the development and application of the tool.

In addition, in AY2 we decided to create what we are calling the Integration and Alignment Initiative, which is focused on leveraging SIM's interagency structure and diverse stakeholder network to have positive impact on population health. This initiative began with the realization that while SIM investments focused more on system change than population health improvements, state agencies and community organizations in Rhode Island are already carrying out activities that have a positive impact on population health, specifically in our health focus areas. We agreed that SIM was well positioned to act as a convener of these state agencies and community groups. The Integration and Alignment project identified state activities that address population health within the SIM health focus areas, and line them up with each other - and with projects and activities outside of state government as well, to move the needle on population health and maximize the impact of every dollar spent.

Through an iterative process, SIM held discussions with state leaders, agency staff, community stakeholders, and subject matter experts. Between August and December 2016, state staff proposed, researched, refined, and critically assessed several Integration and Alignment Collaborations designed to improve population health within one or more of our health focus areas: obesity, tobacco use, chronic disease, maternal and child health, depression, children with social and emotional disturbance, serious mental illness, and opioid use disorders. After presenting the projects to the SIM Steering Committee for strategic guidance, three emerged as leading priorities:

- Chronic Disease – Identification of high-risk patients/Social determinants of health;
- Tobacco Use – Aligning best practices; and
- Obesity – BMI data collection.

This alignment stems from good, ongoing communication between agencies, facilitated by the SIM process that has been embraced by seven state agencies to this point, and can be joined by other related state departments. For example, as SIM builds up its activities on social and environmental determinants of health, we have reached out to the Divisions of Elderly Affairs and Veterans Affairs. Both departments are talking with us about their resource directories for their respective populations, focused on the social determinants of health.

Over AY4, we have the opportunity to bring their topic areas into the larger SIM portfolio, to lift up the types of conversations that will bring about a “health in all policies” orientation to state government.

Thus far, SIM has been implementing the high risk and tobacco projects, and is beginning the obesity project in the spring of 2018. Each project has brought together a diverse array of in-state and community experts to the table to identify areas of common priority and opportunities to maximize impact by working collaboratively. Key accomplishments include:

Tobacco:

- Development of Cessation Benefits Matrices for providers
- Movement toward embedding Quitworks in HIT platforms
- Inclusion of tobacco cessation in SBIRT Training and Provider Coaching RFP
- Partnership with CDC funded 6|18 initiative at RIDOH
- Interagency learning:
 - Using claims to answer questions about utilization and reimbursement
 - Reviewing regulatory framework for CTTS workforce
- Support streamlining of CTTS and other professional training programs
- Continued promotion of Quitworks and the Quitline
- Strategic alignment across state agencies

High Risk Patient Identification/Social Determinants of Health (SDOH):

- Collaborative learning process to understand and share best practices in high risk patient identification
- Consensus on importance of unified strategy on defining and measuring SDOH
- Leverage Consumer Engagement Platform (CEP) project to build HIT platform for SDOH assessment and standardized data collection
- Planned implementation of a pilot for screening and referral
- Align CEP pilot with the development of Unified Social Service Directory
- Partner with CHTs and other providers to work toward standardized data collection using Z-codes

Workforce Development

In June 2016, EOHHS launched a Healthcare Workforce Transformation (HWT) planning process to assess Rhode Island's current and projected healthcare workforce needs and educational capacity, and to identify priorities and strategies to align healthcare workforce education and training programs with the objectives of the state's Health System Transformation Program (HSTP). We describe the work briefly here and in more detail in the Healthcare Workforce Transformation section below, on page 144.

The HWT process involved the active participation of more than 250 healthcare partners representing providers, educators, policy-makers, payers, community-based organizations, advocates, professional associations, and labor organizations to identify the knowledge, skills, training, and experience that will be needed by the current and future healthcare workforce to support health system transformation.

This initial phase of the EOHHS HWT initiative culminated in early May 2017, with the publication of the EOHHS Healthcare Workforce Transformation Report, which includes data (labor market, education, and licensure), best practices (national and local), a compendium of "transformative" occupations, and an inventory of healthcare workforce development resources in RI. Most importantly, the Report identifies three overarching priorities to guide the state's support for, and development of, the healthcare workforce that Rhode Island will need to achieve its health system transformation goals.

- 1. Healthcare Career Pathways: Skills That Matter for Jobs That Pay**
Prepare Rhode Islanders from culturally and linguistically diverse backgrounds for existing and emerging good jobs and careers in healthcare through expanded career awareness, job training and education, and advancement opportunities.
- 2. Home and Community-Based Care**
Increase the capacity of community-based providers to offer culturally-competent care and services in the home and community and reduce unnecessary utilization of high-cost institutional or specialty care.
- 3. Core Concepts of Health System and Practice Transformation**
Increase the capacity of the current and future workforce to understand and apply core concepts of health system and practice transformation.

In June 2017, EOHHS convened a HWT Summit which was attended by over 200 healthcare partners. The Summit featured presentations and workshops that focused on transformative healthcare workforce innovations from throughout the U.S. and Rhode Island that are related to the priorities and strategies outlined in the HWT Report.

In August 2017, EOHHS began the implementation phase of the HWT initiative through the Medicaid Health System Transformation Project (HSTP) by engaging RI's public institutions of higher education (and other education and training providers) and Medicaid Accountable Entities (and other healthcare providers) to help address the state's health system transformation and population health objectives.

EOHHS has established a formal Medicaid-IHE partnership as part of HSTP, and representatives of EOHHS, Medicaid, RIDOH, and BHDDH meets monthly with IHE partners to develop education and training projects that align with the priorities and strategies identified in the HWT Report and that support the development of Accountable Entities. EOHHS has also gathered valuable input from Accountable Entity leadership regarding healthcare workforce needs to further inform and connect the work of IHEs with the needs of AEs. EOHHS is currently funding thirteen HWT projects at IHEs, and additional projects will be established in the coming months.

The EOHHS HWT initiative is closely aligned with, and supportive of, all SIM-funded projects that include a workforce development component, including Community Health Teams, SBIRT, and Behavioral Health Provider Coaching. In addition, the EOHHS HWT initiative is leading the development of the SIM-funded Community Preceptor training program, which will provide training and support for community-based healthcare and social service providers to serve as preceptors for interprofessional teams of healthcare students who will gain knowledge and experience working in community health settings.

Finally, the EOHHS HWT initiative is integrated with, and supportive of, the workforce-related programs and objectives of all EOHHS partner state agencies, as well as other public workforce development agencies.

Community Preceptor Training Institute

The EOHHS Healthcare Workforce Transformation Initiative is leading the development and implementation of a RI Interprofessional Community Preceptor Institute (ICPI). ICPI is a unique collaboration of the University of RI, RI College, Community College of RI, Warren Alpert Medical School, RI Executive Office of Health & Human Services, RI Medicaid, RI Department of Health, and RI State Innovation Model Test Grant.

ICPI will provide SIM-funded training and support for community-based healthcare and social service providers to expand expertise in the provision of interprofessional preceptorships for health professional students at both the undergraduate and graduate levels.

Preceptor trainees will enhance their knowledge in the following areas:

- Concepts and skills associated with interprofessional education (IPE) and practice (IPP), and core principles of community health practice
- Advanced skills for facilitating interprofessional student experiences, including reflection, individual, and interprofessional debriefings
- Strategies for designing and advocating for enhanced interprofessional curricula, experiential learning, faculty professional development, and services in their agency

SIM Sustainability Strategies and Workplan

In AY3, we noted that as the Rhode Island SIM team's efforts were shifting from planning to implementation, we were continuing to design our sustainability model. Throughout AY3, we have begun our sustainability plan in earnest, creating an overall sustainability framework for our overarching system changes and population health improvements.

In Award Year 3, SIM planned for overall sustainability by carrying out the following:

1. Establishing a SIM Sustainability Planning Workgroup

The Workgroup consists of members of the SIM Staff and Interagency Teams, as well as members of the Steering Committee and our Interested Parties – and is chaired by SIM Steering Committee Vice-Chair Larry Warner. This group is charged with continuing research on sustainability, reviewing and discussing the initiative updates and evaluations, conducting an environmental review of the supports available for sustainability, exploring stakeholder entity readiness and willingness to sustain specific projects, developing the transition plan for projects, and bringing data and recommendations to the Steering Committee around sustainability.

We launched the workgroup in December 2017 and have carried out two additional meetings since then. We also began our research and learning process including participating in CMS sustainability webinars, attending the ONC in person meeting in February 2018, and additional conversations with healthcare entities in other states.

2. Leveraging the Learnings from SIM Evaluations and Reporting

SIM will use the results from both the State Evaluator's Assessment as well as the RTI federal evaluation to better understand the effectiveness and impact of each SIM component. The State Evaluator will be conducting a qualitative analysis in addition to a quantitative analysis of four specific SIM projects and our overall Culture of Collaboration (see Page 199 on our evaluation plan). We are looking to capture perceptions of key stakeholders on the success or failure of SIM projects, which will provide additional insight into the community buy-in and long-term viability of these projects. We are collecting and tracking data and metrics to better understand our progress and potential impact across the initiative. This effort will be more robust in AY4 now that almost all of our procurement is complete.

3. Maintain the Culture of Collaboration

The SIM grant has been instrumental in cultivating a culture of collaboration in Rhode Island, and we continue to rely on the culture of collaboration built through SIM to achieve our objectives and maintain high engagement. We expect that the partnerships forged in planning and implementing SIM initiative will outlive the SIM grant cycle. By ensuring widespread community buy-in through the Steering Committee's governance structure, the Integration and Alignment Project, and SIM's interagency structure throughout the lifetime of the grant, we will be able to determine the best ways to sustain our health system transformation and population health improvements, as well as garnering the support needed to sustain successful funded projects.

Award Year Four: Sustainability Planning Process and Products

What follows is an outline of our sustainability planning process now underway and continuing into Award Year 4. It includes:

- Planning Goal and Definitions
- Sustainability Planning Workplan
- Key Stakeholders and Roles
- Expected Final Sustainability Products

Our Sustainability Planning Goal:

By June 2019, we will have successfully implemented a set of strategies that will ensure the future sustainability of the health system reforms and population health improvements that have been supported by the overall SIM initiative once the grant period ends in June 2019.

Our Working Definition of Sustainability:

The ability to maintain or support an activity or process over the long term – or the endurance of systems or processes.

We are keeping in mind the following:

- *Some elements of the initiative may be sustainable but others not*
- *Some particular SIM investments may be “one-time” only, requiring few resources to maintain*
- *Other elements may not have worked as intended so may be ended, modified, or combined with other models or programs**

** Definition Adapted From: Slide Presentation on “Sustaining SIM Programs: Lessons Learned from Multi-Stakeholder Initiatives” led by Dr. Kelly Devers, NORC, University of Chicago, October 2017*

The primary aim of our sustainability planning process is to focus on what steps we must take to ensure that RI stays firmly on the path toward health system transformation and population health improvements. In order to achieve this goal, we are using four key SIM components as a framework for our sustainability planning.

Sustainability Planning Framework: Key Components:

1. Rhode Island’s interagency model and promotion of a “Culture of Collaboration” – By looking at the value of this internal state collaboration, what can we learn about what structures will allow us to maximize health system transformation and improvements in population health?
2. SIM’s public/private collaboration, including our SIM Steering Committee and individual workgroups – Similarly, what is the right, ongoing structure for the collaboration between community partners and the state in achieving health system transformation?
3. Individual SIM-funded projects – As noted above, which of our funded projects can be sustained and how?
4. Shared knowledge and learning from the overall SIM initiative – What else should we take from the initiative, to ensure that we maximize learning from the entire enterprise?

Sustainability Planning Workplan (as of April 25, 2018)

1. Open the Conversation

The first two meetings of the Sustainability Workgroup, plus a conversation at the SIM Steering Committee, were intended to surface ideas, concerns, questions, and external considerations from stakeholders to inform our process, within the four key SIM components noted above.

The staff team is reviewing the information gleaned from these conversations and will ensure that the stakeholder input is included in the process moving forward. Most of the feedback is centered in the following categories:

- System transformation & payment reforms
- Population health improvement
- Collaborative, system-wide, state level health planning
- Understanding and sustaining successful infrastructure supported by SIM, especially public/private partnership, and the culture of collaboration
- Financial Considerations and Funding Strategies
- Key environmental considerations, both internal and external
- Evaluation & Measuring Value, Impact & Return on Investment
- Strategies for shared knowledge and learning

2. Specific Sustainability Planning Activities

Using the following key considerations as the starting point for our investigation, the staff and Interagency Team are taking the lead in reviewing our overall transformation efforts. The Sustainability Workgroup will provide feedback and guidance at critical junctures.

Key Considerations:

- a) Impact/Reach: What do we know now? What else do we need to know in the future? Are we collecting the metrics needed to answer future questions?
- b) Environmental Review: What questions do we need answered?
- c) Key Stakeholders/Partners: Who needs to be involved in determining future of this project/aspect of SIM? What level of support – and from whom – currently exists?
- d) Are there Other Considerations for Sustainability? i.e. external/internal forces, cost, infrastructure, other dependencies, policy direction, etc.
- e) What Will Sustainability Cost?: This can include necessary financial investments and HR/staff time.

Inputs: We will consider the following types of data and information to inform this assessment:

- Metrics collected from SIM-funded projects
- State population health goals & other priorities of the state administration
- Data and evaluation results from SIM-funded projects and other SIM activities
- Environmental scan and other research
- Research from other initiatives outside of Rhode Island
- Use of national TA resources through CMMI

We will also be meeting and working with the CMS All Payer Team, to discuss the possibility of creating an all-payer model for Rhode Island with Medicare, as a part of our work to sustain our health system transformation model.

3. Recommendations to the Steering Committee

The outcome of the work noted above will be a set of recommendations to the SIM Steering Committee, at its June or July meeting. The staff and interagency teams will carry out the analysis of the inputs referenced above, and craft an initial draft of recommendations to the Steering Committee. We will vet them with key leadership and stakeholders before presenting the recommendations to the Steering Committee.

The recommendations will include action steps and strategic priorities for AY4 to ensure the future sustainability of the health system reforms and population health improvements that have been supported by the overall SIM initiative once the grant period ends in June 2019. Our goal is to bring this work to the Steering Committee, presenting a draft for initial feedback in June and completing the approval process at the July Steering Committee meeting.

The recommendations will include:

- Strategic priorities that reflect the SIM Steering Committee's commitment to achieving Rhode Island's End State Vision, to be submitted to CMS in Quarter 1 of AY4.
- Actions to be taken in AY4 to clarify health system sustainability planning, population health improvements, and specific sustainability activities reflecting the Sustainability Planning Framework's Four Key Components. Specific actions are included throughout our AY4 Workplan.

4. Implementation of Recommendations

A major thrust of our AY4 activities will be to implement the action steps referenced above, as we continue the oversight of our SIM-funded projects and other activities, such as Integration and Alignment. Our staffing resources will be split between this ongoing oversight and sustainability activities (and thus our staffing budget will be split in this way as well). Our Interagency Team will split its work between ongoing project oversight and sustainability planning and implementation as well. The Sustainability Workgroup will continue to provide insights and support as we look forward.

We will communicate with CMS on the progress and outcomes of this work in the following ways:

- Biweekly calls with our Program Officer Gigi Kuberski
- Regular materials sent to Ms. Kuberski and our TA team
- Quarterly Reports
- Operational Plan – Sustainability Sections Parts 1 & 2
 - Part 1: End State Vision, State Accomplishments, and Changes in Environment
 - We will submit this document by September 30, 2018. It will include:
 - Rhode Island's detailed End State Vision – We will document our targets and our desire to continue the payment and delivery system reforms that we have been undertaking within OHIC and Medicaid.

- Our state accomplishments to date, with a focus on our SIM work, and the work throughout our state agencies that has been SIM's foundation.
- A review of any expected changes in state leadership
- Our lessons learned thus far through SIM
- Part 2: Roadmap for Sustaining SIM Investments
 - We will submit this document by December 31, 2018. It will include:
 - A detailed plan for sustainability our major SIM investments to achieve our End State Vision. We have included sustainability planning throughout our project workplans in this document. We acknowledge that some investments may continue by transitioning to other state agencies and/or funders, some may evolve, and some may end.
 - We will include an analysis of the work to that point, focusing on the implementation and effectiveness of our model and individual funded activities.
 - We will discuss the scaling and other activities that it will take to sustain our initiatives.

We look forward to requesting additional TA for our sustainability work if necessary.

Stakeholders and Roles

With an effort this large, we plan to use our human resources effectively. Here are the roles that our stakeholders are playing:

Workgroup:

The SIM Sustainability Workgroup, chaired by SIM Steering Committee Vice Chair Larry Warner, includes SIM Steering Committee members, SIM Interested Parties from throughout the Rhode Island healthcare and social service community, SIM vendors, state agency leadership and staff, and SIM core staff members. As noted above, the Workgroup's main objective is to help guide the development of a set of Sustainability Recommendations for consideration by the full Steering Committee in Spring 2018 and then to continue to inform and guide the implementation activities. As noted above, the adoption and implementation of the final recommendations to ensure future sustainability will direct SIM's work in the fourth year of the federal grant (July 2018 – June 2019). All Sustainability Workgroup sessions are open, public meetings and SIM encourages diverse and full participation. Meeting materials are posted on the RI Secretary of State website as well as on the [SIM Meetings and Agendas](#) webpage.

SIM Staff and Interagency Teams:

As described above, members of the SIM Staff and Interagency Teams are charged with preparing the recommendations to be presented to the Steering Committee after vetting by state leadership and Sustainability Workgroup members – and then with carrying out the approved activities. State staff will consult subject matter experts from inside and outside state government, including our SIM vendors.

SIM Steering Committee:

As the SIM decision-making body, the SIM Steering Committee will approve a final Sustainability Plan and oversee its implementation by state agency leadership, the state Interagency Team, and SIM Staff.

State Government Leadership:

Throughout this process, EOHHS, OHIC, and HSRI leadership play a key role in guiding and vetting ideas to be put forward to the Steering Committee.

Healthcare and Social Service Sector Leadership:

Our stakeholders include key healthcare leaders (including those from the areas of primary care, behavioral health, oral health, hospital, and carrier communities) plus those leaders focused on the social and environmental determinants of health with diverse perspectives to share in this process. SIM will be sure to gather their opinions through the Steering Committee, Sustainability Workgroup, and through other discussions throughout the spring.

Final Products

By December 2018, we will have a multi-part Sustainability Roadmap that will include:

- A documented sustainability planning process
- The set of recommendations voted on by our Steering Committee to move our work in AY4 toward continuing our health system transformation and population health improvement work.
- Rhode Island's End State Vision Document and Roadmap for Sustaining SIM Investments (described above)
- Together, the work products will reflect:
 - Buy-in from key state leaders to ensure that our end state vision is aligned with the state's health planning priorities
 - Integration of CMS Sustainability Planning Deliverables and deadlines.
 - Alignment with other SIM streams of work that will have an impact on and inform the planning effort including:
 - Communication & Outreach – SIM, vendors, partners, state agencies that highlight SIM
 - SIM-led Evaluation – both efforts commissioned by SIM and led by individual vendors
 - Vendor management – to ensure that all metrics needed are collected in a timely manner
 - National Evaluation – including any information gleaned from RTI reports

Risk and Mitigation Strategy

Rhode Island has been pursuing health transformation for many years, and the SIM Test Grant builds on prior research, policy, law, economics, regulation, and clinical innovation in healthcare reform. As a small state, we have the opportunity to work closely with stakeholders statewide, often in face-to-face encounters. As we've noted throughout this document, Rhode Island has a strong tradition of collaboration between federal, state, local, academic, business, and community stakeholders to identify issues and seek collaborative solutions.

Accordingly, we have been aware of risks and issues that might have affected the success of the SIM Test Grant project in the state, and have worked actively in the past year to mitigate those risks.

As a result, few of the risks have materialized as issues, and as the program has moved into implementation, a number of the risks have been downgraded as the program has matured. The single class of risk that has materialized across multiple instances—as we forecast and reported over the past year—has been delays in procurement. We were able to mitigate that to some degree by conducting frequent work sessions and engaging in close communication with the other state entities responsible for various approval processes. With experience, we have managed to minimize delays within the team, and since our last Operational Plan, we have finished all of our original procurements plus almost all of the additional projects that we created in November 2017.

Given this procurement, we are seeing some implementation-dependent risks now. They include “Challenges to achieving expected program outcomes” and “Project implementation does not work as planned.” SIM staff are actively monitoring those risks across the projects, and we are tracking those risks with our state leadership, CMS project manager, and technical assistance advisors.

Approach

The Rhode Island SIM team has created a risk and mitigation matrix based on standard project management practice, where each risk is assessed based on likelihood of occurrence, impact of occurrence, and assigned a 1-5 (low-high) scale value. The likelihood and impact are multiplied to produce a risk score. These scores have no intrinsic meaning, other than to allow relative comparisons of risks.

Risk Mitigation Principles

The following are the general principles that Rhode Island SIM proposed last year and that we are continuing to use to address project risks:

- **Involvement of a diverse group of stakeholders, with significant communication.**

By engaging stakeholders across the spectrum of our work, we increase our ability to call on subject matter experts for assistance in our projects – and decrease the chances that we will encounter problems that we cannot solve. All SIM activities follow Rhode Island's Open Meetings laws, ensuring public notice of all meetings and transparency of meeting proceedings. This year, community participation has been

heavy, and most stakeholders attend regularly. We have not experienced any issues resulting from lack of involvement or input.

- **Robust and active project management.**
Project management was at the top of Rhode Island's priorities when engaging consultants to assist with the SIM Model Test Grant, and the teams are following project management best practices in developing, managing, and tracking activities. Moreover, we have implemented an oversight structure for the SIM investment projects that will ensure that the SIM staff managing the vendors can provide active monitoring and controlling of risks during the project lifecycle.
- **Following evidence-based practices.**
We have engaged experts in population health planning and behavioral health planning, as well as measure development and other technical specialties for SIM. Their expertise is being heavily leveraged in researching policies and best practices that can be applied to Rhode Island from within and outside of the state.

Identifying and mitigating risks is an ongoing process. Periodic reassessment is the best means for addressing currently unidentified risks. Success at early and active mitigation may prevent later risks from developing. And while SIM leadership has been satisfied with our current risk mitigation strategy, we remain alert to potential new risks during implementation. If we need to define additional risk mitigation strategies, we will work through our Interagency Team and with our state leadership.

Rhode Island has a unique advantage for a project of this size. A large proportion of the stakeholders already know each other and have worked together previously throughout our long history of healthcare transformation. This has made early SIM work well-informed, collaborative, and efficient. Points of view on issues – even if people are not always in agreement – are usually understood. Methods for problem-solving have been tested, and are effective.

Finally, one of the most significant mitigating factors is that the political leadership in the state is well aligned around the issues and needs for Rhode Island, and they are prepared to work together to meet those needs. As such, they have been strong supporters of the SIM Test Grant, and we expect that support to extend throughout the life of the project.

Risk Register

The Rhode Island SIM team identified nineteen key risks and the mitigation strategies to address them. They are ordered within Risk Category, then by highest Risk Score in the following table.

Table 3: Risk Register

		<i>Likelihood it will occur</i>	<i>Impact if it occurs</i>	Risk Score	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
Procurement					
1	<p>Deadlines for procurements are missed</p> <p>Purchasing process is lengthy; funds cannot be disbursed and applied to the objectives sufficiently rapidly, making it more difficult to achieve our goals.</p>	5	4	20	<p>Prioritize procurement in our work plan above other projects. The SIM team will work collaboratively and efficiently to minimize delivery time to Purchasing. To that end, the SIM team:</p> <ul style="list-style-type: none"> Created a small procurement staff team dedicated to expediting the process end-to-end. Conducted initial exploration with all approving entities to ensure we understand their rules and process Met with Department of Administration leadership to engage them in grant goals and get their commitment to timely purchasing and contract administration <p>Current contractors will be enlisted for support in any processes where there is not a conflict of interest.</p> <p>Update: These mitigations were consistently applied, and while there were delays, all original procurements are complete and most of the new projects we took on in November 2017 have closed as well.</p>

		<i>Likelihood it will occur</i>	<i>Impact if it occurs</i>	<i>Risk Score</i>	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
2	Protracted contract negotiations once a vendor is selected	4	4	16	Send out state contract template/terms and conditions with RFP and request that vendors identify what issues they have with the state contract and alternative language when they submit their proposal so the state can be prepared ahead of time for contract negotiations with the vendor. Update: Our contracts are almost all in place.
3	Inadequate bids on Specific RFPs	2	2	4	Provide thorough bid guidance in RFP. Conduct robust RFP distribution efforts through current stakeholders and the wider state healthcare network Update: Solicitations have been widely publicized, and this has not been an issue to date.
Metrics and Measures					
4	Project implementation does not work as planned	4	4	16	Hold regular internal evaluations to assess implementation and find problems quickly. Work with stakeholders to find solutions to the problems without delay. Update: This is becoming an issue as we have noted, with our Provider Directory project. For the others, we are continuing our robust project reporting, tracking, and management system for our investments (#12, below), and all vendors receive training to ensure a consistent approach across the portfolio.
5	Lack of Data Availability to Meet Need	2	2	4	Aggressively pursue data availability early, to establish parameters of what is possible. Work within the state's current data teams and offer to add SIM staffing resources if necessary. Prioritize other data for acquisition at a later time. If there is a lack of data about "net new" or unstudied program activities to identify benchmarks or targets, set targets and reassess at mid-year to determine they reliability and validity. Work with stakeholders to assure access to data at the provider and payer level. Update: This has not been an issue to date, and we foresee no risk at present.
Technology & Data					
6	IT development lifecycle takes longer than expected.	4	3	12	Set realistic goals during the planning phase, prioritizing activities that must be done by deadlines versus those that can wait. Use iterative IT development life cycle process and implement incrementally so as to accomplish most critical functionality first.

		Likelihood it will occur	Impact if it occurs	Risk Score	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
					Update: We have noted challenges with the Provider Directory. There have been other projects where development is slower than we expected, including our Care Management Dashboards (which are now complete) and our HCQMRFS (because of slow procurement). We continue to work with our vendors to manage the risks and ensure that delays do not pose a risk to accomplishing our goals by extending contracts and incorporating service level credits in new HIT contracts to discourage future delays.
7	Technology does not exist to support needs	2	2	4	Conduct thorough assessment of business requirements; make technical selection based on priorities and cost benefit of build vs. buy. Implement infrastructure that is extensible and scalable and can easily be modified to meet users changing needs Update: The assessments of business requirements as well as the use of ONC TA through SIM has allowed us to accurately judge the industry and issue RFPs for which technology already exists or can be developed. Throughout all of our RFPs, we have encouraged the use of existing technology which has allowed vendors to be creative and resourceful.
8	Technology or Data is Not in Compliance with Standards	1	4	4	Identify standards before conducting technical assessment Update: This has not been an issue to date, and we do not anticipate it becoming one.
9	Privacy concerns disrupt project plans or timelines	2	2	4	Involve the community of stakeholders in any decisions that may have privacy implications and discuss the potential for duplication of data systems and interfaces as a result of limiting data sharing. Seek to identify how widespread the privacy concerns are to gauge the implications for moving ahead or not and/or identifying alternate options for achieving the same goal. Update: Privacy concerns have slowed some of the plans for our projects, such as HealthFacts RI and Provider Directory, however privacy concerns are not the reason for the Provider Directory challenges.
10	Internal staffing lacks skills to achieve goals	2	2	4	Assess current staff skill levels related to data analytics as well as IT development, incorporate training opportunities for existing workforce, and in any new hiring, choose new staff with needed skillsets to fill in gaps. Leverage staff experience within stakeholder organizations. Update: This has not been an issue to date.

		<i>Likelihood it will occur</i>	<i>Impact if it occurs</i>	<i>Risk Score</i>	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
Program Implementation					
11	Challenges obtaining a no-cost extension	3	5	15	<p>We recognize that there are no guarantees for No Cost Extensions, but our procurement delays and some implementation challenges continue to make obtaining a no-cost extension an important consideration so that we may get the full benefit of our investment activities that we have approved with our vendors.</p> <p>As we have stated before, projects falling at the end of the procurement cycle tend to be some of the most complex and correspondingly have a significant likelihood of making significant and durable contributions to Rhode Island's healthcare transformation.</p> <p>We do hope that the opportunity for a no-cost extension may be available to us, and we will work closely with CMS to determine the best ways to allow these projects to reach their full potential.</p>
12	Challenges achieving our expected program outcomes	4	3	12	<p>Base solutions on evidence. Set clear, concrete goals for initiatives, with achievable objectives and work with our subject matter experts and other stakeholders to address challenges. Provide sufficient funding to achieve success. Ensure robust quality assurance, measures, and metrics capture mechanisms. Carry out regular monitoring of progress, tied to data on quality.</p> <p>Update: As noted above, we are dealing with implementation challenges with strong vendor management, regular reporting and check-ins, and open communication about potential mitigations. Longer-term, we will be looking closely at program outcomes, since evidence of success will be vital for sustainability.</p>

		<i>Likelihood it will occur</i>	<i>Impact if it occurs</i>	<i>Risk Score</i>	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
13	Vendors for SIM funded projects do not perform as planned, e.g. timeline, deliverables, quality, or budget	3	3	9	<p>Each SIM vendor received Orientation and Training to give them a consistent overview of SIM, and an overview of program management roles and process, supported by a set of project management templates. This set included templates for monthly reporting (monthly progress, next steps, and key strategic decisions made, Gantt chart, milestone update, and key risks/issues for escalation), as well as an Excel-based timeline. We have also provided Training in Vendor Management 101 to all our Agency Project leads. This focused on managing the key project variables of time, cost, and quality. Our process for managing vendor progress includes:</p> <ol style="list-style-type: none"> 1. Monthly calls with the vendors and Agency Leads 3-5 days after receipt of the Monthly Report. An agenda typically covers these topics: <ol style="list-style-type: none"> a. Progress made since the last call. b. Receipt of deliverables as required and of required quality. c. Actions planned for the next 30-60-90 days (or other relevant time period). Challenges anticipated in that time period and associated recovery plans. d. Actions the vendor, agency lead, or others can take to remove roadblocks. e. Effects of the above on overall project timeline. f. Billing or other financial issues 2. SIM Staff provide updates at the first Staff meeting post their call with the vendor. This short verbal update covers: <ol style="list-style-type: none"> a. All on track except (scope, schedule and deliverables, budget, or resources) b. Brief summary of what is not working and recovery plan c. What help is needed and from whom

		<i>Likelihood it will occur</i>	<i>Impact if it occurs</i>	<i>Risk Score</i>	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
14	Lack of alignment between federally funded projects and difficulty aligning existing state projects	1	2	2	<ul style="list-style-type: none"> Continue outreach to state agencies and community agencies with federal funds, maintaining close contact with stakeholders Increase sense of ownership by involving stakeholders in incremental policy development process. If funding is pursued through other sources, maintain contact with those stakeholders. Active, consistent engagement of executive leadership across the Executive Office of Health and Human Services, OHIC, HealthSource RI, and the Governor's Office <p>Update: This has not been an issue to date.</p>
15	Participation in SIM activities by providers or patients does not meet expectations, reducing the chance of achieving expected outcomes	1	2	2	<p>Make and set realistic goals for participation based on historical experience; incorporate stakeholder outreach plans into vendor contracts; increase outreach efforts if participation falls short of expectations.</p> <p>Update: This has not been an issue to date, and we don't anticipate it becoming one. Participation has been strong by community stakeholders, including community advocates and providers.</p>
16	Timeline or Timeframe Interruption (e.g., staff illness, other issue)	1	2	2	<p>Prioritize scope elements. Cross-train staff in each other's initiatives. Be prepared to de-scope lower priority elements if needed.</p> <p>Update: This has not been an issue to date.</p>
Staffing					
17	Non-SIM Agency Infrastructure Staff	3	4	12	<p>Agency staff from organizations that are not aligned with SIM priorities may not be able to expedite processes, or seek accelerated decisions in order to minimize SIM activities, including procurements and related financial and contractual activities.</p> <p>Update: This has not been an issue to date.</p>

		<i>Likelihood it will occur</i>	<i>Impact if it occurs</i>	<i>Risk Score</i>	
	Risk Category/ Risk	(1-5)	(1-5)	(=Likelihood X Impact)	Mitigation Plan
18	Staff departures – Project Director	1	3	3	<p>Our Project Director has made a commitment to the state to the end of the grant period. While she is playing a significant role in engaging stakeholders and facilitating the work of the SIM Steering Committee, the structure of the project means that she has back-up from other SIM-specific staff and colleagues throughout SIM participating agencies. We are also cross-training staff in the Director's initiatives.</p> <p>Update: This has not been an issue to date.</p>
19	Staff departures – Other Staff	2	2	4	<p>As noted above, we are confident that our broad staffing structure and culture of sharing information would make a staff departure manageable from a risk perspective. Additionally, within our team (and noted in our timeline), staff have been paired up for many of the SIM-related activities to ensure coverage in the event a staff member departs the team and/or has a personal emergency and may not be available during critical implementation times.</p> <p>Update: This has not been an issue in the past two years.</p>

C. General SIM Operational and Policy Areas

This section of the SIM Operational Plan document describes core operational components of the SIM Test Grant and discusses their alignment with the Integrated Population Health Plan. Discussion items include but not limited to governance, stakeholder engagement, healthcare transformation, payment delivery models, and regulatory authorities. Also included are cross-cutting topics such as measure alignment, workforce development, health information technology, and evaluation.

SIM Governance

SIM Project Leadership

Rhode Island SIM is at heart a public/private partnership, as well as an interagency collaboration. Therefore, its governance structure and decision-making authority is shared among a coordinated group of people and agencies, managed by SIM Project Director Marti Rosenberg. Hired in October 2015, Ms. Rosenberg's office sits at the Office of the Health Insurance Commissioner, and she reports to both Commissioner Marie Ganim, and EOHHS Secretary Eric Beane.

Ms. Rosenberg leads a staff team made up of individuals hired with SIM dollars and placed within other State agencies. These staff members officially report to staff at each agency, but come together in a team that meets weekly and works together on all SIM projects. In addition to regular staff meetings, the team holds regular meetings specific to: communications, outreach, and engagement; SIM workgroups; procurement; and vendor contract management. The attached SIM Organizational Chart depicts the SIM staffing structure, including SIM designated staff and other state staff who support SIM efforts.

The next level of SIM activity takes place within our SIM's Interagency Planning Team, facilitated by Ms. Rosenberg. The Interagency team includes staff at various levels from all SIM participating state departments, plus our Steering Committee Chair, Andrea Galgay and Vice-Chair Larry Warner. The SIM Interagency Planning Team is responsible for the strategic implementation of the project: financial and planning oversight, organizing SIM goals and deliverables, overseeing stakeholder engagement, and tracking metrics.

While regulatory promulgation and procurement processes will always be carried out by state government, the SIM Steering Committee is the public/private governing body for Rhode Island's SIM project. The committee's primary function is to set strategic direction, create policy goals, approve the funding plan, and provide oversight over SIM implementation. The committee meets monthly and is comprised of community stakeholders who represent health care providers and health systems, commercial payers, state hospital and medical associations, community-based and long-term support providers, and advocacy organizations. We understand that resting SIM decision-making in this public/private Steering Committee is unique in the country.

Another way that we benefit from the public/private partnership nature of SIM is through our workgroups. The workgroups allow us to garner subject-matter expertise, receive stakeholder and community input, and secure implementation recommendations for SIM's transformation efforts. Our currently active workgroups are our Technology Reporting and Sustainability Workgroups. The scope and nature of these groups will be further discussed in the next section on Stakeholder Engagement.

Governor's Office Engagement in SIM

In February 2013 Rhode Island was awarded a CMMI State Innovation Model Design Grant to develop a State Health Care Innovation Plan (SHIP). Then-Lt. Governor Elizabeth H. Roberts led the project known as Healthy Rhode Island, engaging multiple stakeholders to review current state payment and delivery system reform initiatives; identify data sources and baseline data for outcomes measures and financial analysis; and identify available and needed policy lever changes. The resulting SHIP document defined the strategy and mechanisms for moving

Rhode Island's health care delivery system to a value-driven, community-based, and patient centered system.

With a change in administration in January 2015, Rhode Island's Governor Gina M. Raimondo appointed Ms. Roberts as Secretary of the Executive Office of Health and Human Services (EOHHS) where she continued to champion the SIM effort in Rhode Island until she left the position in February 2017. Now, Secretary Eric Beane provides leadership and support for SIM.

Governor Raimondo's office retains a strong connection to the project with representation on the SIM Interagency Team, the SIM Steering Committee, and the ability to attend SIM workgroups. The SIM Project Director engages in regular updates with Governor's Office staff to keep the administration aware of SIM activities and ensure coordination of efforts across all state healthcare innovation efforts.

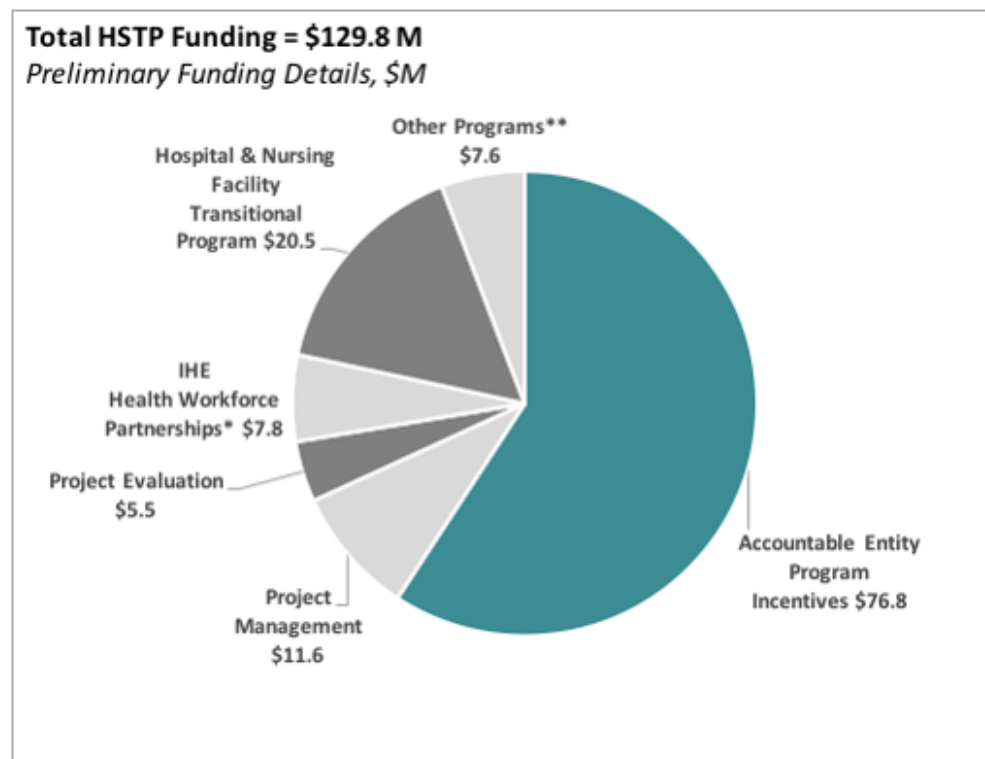
Health System Transformation Project

On February 26, 2015, Governor Gina Raimondo issued Executive Order 15-08, establishing the Working Group to Reinvent Medicaid. In July 2015, the Working Group delivered a multi-year plan for the transformation of the Rhode Island (RI) Medicaid program. In May of 2016, Rhode Island submitted an 1115 Waiver request to CMS to implement the Rhode Island Health System Transformation Project (HSTP) to support and sustain this transformation. CMS subsequently approved this request in October of 2016, with up to approximately \$130 million available for Rhode Island's use. The HSTP proposes to foster and encourage this critical transformation of Rhode Island's system of care by supporting an incentive program for hospitals and nursing homes, a health workforce development program, and Accountable Entities.

To be more effective, health care must transform at the level of the patient and provider. The health care delivery system at this level of care cannot transform without a significant infusion of new health professionals as well as retraining of the current workforce. In partnership with the Rhode Island's SIM project, EOHHS is providing statewide leadership to develop plans, policies, programs, and resources that align Rhode Island's healthcare workforce education and training programs with Rhode Island's health system transformation and population health goals.

EOHHS recently hired Laretta Converse as Director of the HSTP project. Laretta attends our SIM Interagency Team meetings and has become engaged with SIM staff. We understand that the connection between SIM and HSTP is very important to help us sustain our overall health system transformation and collaboration between Medicaid and OHIC.

Figure 5: Total Health System Transformation Project Funding



*Health Workforce Partnerships includes \$5.4 M for Workforce Development and \$2.4 M for Program Operations.

**Other Programs includes: Consumer Assistance, Wavemaker Fellowship, TB Clinic, RI Child Audiology Center, and Ctr for Acute Infectious Disease Epidemiology. Includes some unavailable funding.

Regulatory Authority

Our SIM leaders understand that some of the key tools that we have to implement our transformation agenda are the regulatory levers that each participating state agency holds. Examples of these levers are OHIC's rate review responsibilities, and their Affordability Standards regulations. The Department of Health is responsible for licensing hospitals and healthcare providers, and issuing Certificates of Need. Our specific plan for using regulatory levers to meet our transformation goals is included in the Leveraging Regulatory Authority section of this plan. Additionally, all of Rhode Island's state agencies are completing the process of reviewing and updating current policies and regulations through the Office of Regulatory Reform (ORR). SIM has had some discussions with these state agencies in conversations around regulations that impact health system transformation and population health within Rhode Island.

Staffing Roles and Responsibilities

Our SIM teams continue to work together efficiently, with clearly defined responsibilities, managed by Project Director Marti Rosenberg. Each of our SIM-funded staff people were hired with specific job descriptions laying out the work that they would do in their individual departments and thus, the expertise and relationships they bring to the staff and interagency teams.

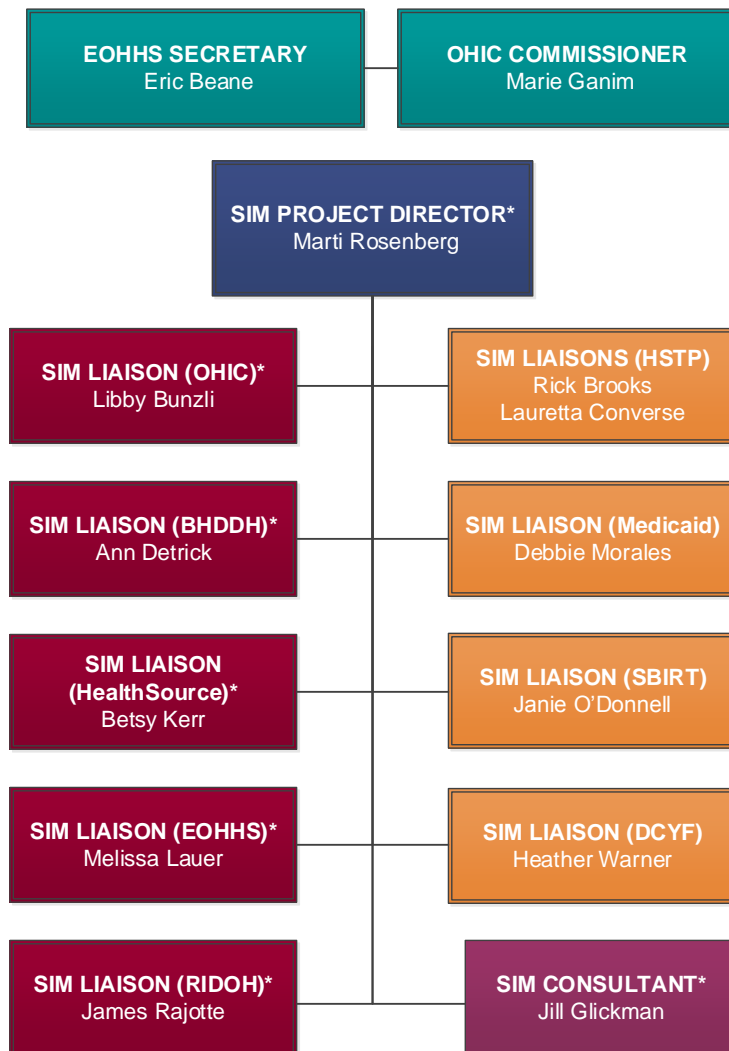
The following chart details how our staff roles and responsibilities are generally divided. They have not changed significantly in the past year:

Table 4: Staffing Roles and Responsibilities

Agency	Staff Title	Roles and Responsibilities
SIM	SIM Project Director	Oversee the implementation of the SIM grant, managing the staff and interagency teams, and staffing the Steering Committee. Oversee the procurement of the SIM transformation agenda, as well as the vendors hired to carry out the funded activities. Serve as the SIM liaison to the Governor's office, agency directors, and other state health leaders, and SIM's federal program officers and technical assistance providers. In this leadership role, guide the Multi-Sector/Multi-Agency alignment approach and SIM's sustainability planning process.
Behavioral Health, Developmental Disabilities, and Hospitals (BHDDH)	SIM Project Manager	Represent BHDDH on Interagency Team. Link behavioral health to physical health change components and serve as BHDDH lead on Integrated Population Health plan. Oversee behavioral health transformation elements, including managing procurement and implementation of projects such as Community Mental Health Center Provider Coaching, Child Psychiatry Access Project, and SBIRT. Carry out tasks as team member on BHDDH's CCBHC effort which aligns with state's value-based purchasing goals. Participate in SIM sustainability planning.
Executive Office of Health and Human Services	HIT Specialist	Represent the HIT division of EOHHS on the Interagency Team. Provide oversight to the implementation of the technology components of our transformation agenda, ensure that technology information and data are available to SIM workgroups to weave in our HIT activities throughout all transformation work. Assist with sustainability strategies to ensure the continuance of HIT investments beyond SIM funding. Participate in SIM sustainability planning.
Rhode Island Department of Health	Chief Health Program Evaluator	Represent RIDOH and assists SIM in leading the SIM Interagency Team. Oversee the creation and implementation of the State Health Improvement Plan, ensuring alignment with the physical and behavioral health components of our transformation agenda. Manage the implementation of the Community Health Team, SBIRT Sites, SBIRT Training and Resource Center, State-Based Evaluation, and EOHHS Data Ecosystem projects. Provide oversight of strategic partnerships, leveraging regulatory authority, and SIM project management. This position also serves as backup for the SIM Project Director, as needed. This position provides coordination with an estimated 20 programs at RIDOH. Participate in SIM sustainability planning.
HealthSource RI	Value-Based Purchasing Analyst	Represent HealthSource RI on the Interagency Team. Work with commercial carriers, Medicaid, and others to help guide the design of insurance plans, both QHP and Medicaid Managed Care, in support of value-based care and our transformation agenda. Also, lead HealthSource RI in

Agency	Staff Title	Roles and Responsibilities
		reviewing and analyzing plan filings, and support the exchanges implementation of approved plans. Advise EOHHS efforts to develop models for value based purchasing in Medicaid. Participate in SIM sustainability planning.
Office of the Health Insurance Commissioner	Principal Policy Associate	Represent OHIC on the Interagency Team. Provide subject matter expertise and technical assistance to the SIM team on value-based purchasing, alternative payments models, and the regulatory activity needed to achieve our transformation goals. Provide technical expertise on practice transformation for health system reforms, including how our funded activities and uses of regulatory levers will help us reach our overall system change goals. Participate in SIM sustainability planning.

Figure 5.1: SIM Staffing Chart



Stakeholder Engagement

Rhode Island's Approach

Rhode Island has always valued the inclusion of public and private stakeholders in efforts to transform our health care system. Our SIM Test Grant proposal was built on the intensive stakeholder engagement that was a hallmark of the State Health Innovation Plan creation that led to the SIM Model Design process. Expanding on the Healthy Rhode Island Stakeholder Work Group of 150 participants, SIM has extended its reach to over 300 stakeholders representing state government, payers, hospitals, physicians, long-term-care and behavioral health providers, community organizations, employers, and patient advocates.

The goals and objectives of the SIM effort can only be attained through continuing a robust and inclusive process that engages our stakeholders. Rhode Island is relying on its experience in facilitating meaningful stakeholder engagement and the participation of an expansive and representative group of participants to meet the challenges of health system transformation. Under the Rhode Island SIM Test Grant, Rhode Island is continuing in that tradition and implementing this grant in an open and transparent manner. Rhode Island is pursuing the implementation with active collaboration within state government and in explicit partnership with external public and private sector entities.

From SIM's beginning, we have held that the success of Rhode Island's SIM Test Grant rests on our ability to implement three foundational changes in state government: improved internal alignment, explicit external partnerships, and effective use of information technology. To achieve these changes and meet the grant objectives to implement health system transformation and improvement in population health, Rhode Island has focused on engaging key stakeholders representing state government, community organizations, payers, and providers.

Description of Stakeholders

SIM identifies our stakeholders in three working groups:

- SIM Core Staff Team;
- SIM Interagency Team; and
- SIM Steering Committee.

SIM Core Staff Team

The Core Staff Team meets weekly and is comprised of staff from the Executive Office of Health and Human Services, the Department of Health, HealthSource RI, the Department of Behavioral Health, Developmental Disabilities, and Hospitals, Medicaid, and the Office of the Health Insurance Commissioner. We have also included the Project Director for our aligned SBIRT program, and the EOHHS Workforce Development staff person. SIM project director Marti Rosenberg is responsible for communicating with the Center for Medicare and Medicaid Innovation (CMMI) and organizing the goals and deliverables of the SIM State Interagency Team, including development of project materials.

SIM State Working Group & SIM Interagency Team (formerly the SIM State Working Group)

At the beginning of the SIM grant, Rhode Island had a multi-agency team, identified as the SIM State Working Group, which met on a weekly basis, comprised of staff from EOHHS and OHIC. The team was responsible for the implementation of the SIM Grant with the original charge to:

- Pursue the goals related to improved coordination of regulatory, fiscal, and policy levers;
- Work with other entities to ensure state efforts on data collection, reporting, and analyses are integrated and not duplicative; and
- Lead the transformation of state health and human services agencies, operating in a well-coordinated, cost-effective, transparent environment that is focused on the people of Rhode Island and the improvement of the state's health care system.

In May 2015, the Working Group expanded to include core staff members and additional agency leads to create the SIM Interagency Team. The Team continues to evolve and expand, including additional staff member participation from the following state departments: Behavioral Health, Developmental Disabilities, and Hospitals, Children Youth, and Families; Executive Office of Health and Human Services; Health; HealthSource RI, Medicaid, Department of Corrections, and the Office of the Health Insurance Commissioner.

Most recently, the Director of Rhode Island's Health System Transformation Project (HSTP), which supports Medicaid's work with Accountable Entities and workforce transformation, and the Policy Director for RI's Children's Cabinet, a decision-making body convened by the Governor to address critical issues affecting children, have both joined the SIM Interagency team.

Meeting weekly, the team is responsible for the strategic implementation of the project, including organizing SIM goals and deliverables, and tracking metrics. It is led by Marti Rosenberg.

SIM Steering Committee

The SIM Steering Committee is the public/private governing body for Rhode Island's SIM project. Membership initially fell into five categories: medical providers and systems, commercial payers and purchasers, professional associations, consumer advocacy organizations, and state government leaders.

In 2016, we expanded the membership to include additional community clinicians, consumer advocates, higher education, and housing. At that time, we also executed a seamless leadership transition to a new Steering Committee Chair and Vice Chair. The Chair, Andrea Galgay, is Director of ACO Development for Rhode Island Primary Care Physicians Corporation, a 350-member, statewide multi-specialty physicians Independent Practice Association. The Vice Chair, Larry Warner, is the Healthy Lives Strategic Initiative Officer at the Rhode Island Foundation—one of the nation's oldest and largest community foundations, and the largest funder of Rhode Island's nonprofit sector.

The Steering Committee is charged with setting SIM's strategic direction and policy goals. While regulatory promulgation and procurement issues will continue to rest with the state government, the Steering Committee exercises leadership discretion over the implementation of the SIM grant. The current Steering Committee is comprised of several members of the original

Healthy Rhode Island Steering Committee (convened during the SIM Model Design process) who were actively engaged in the development of the SIM Grant.

The official members of the Steering Committee are the organizations, and each organization has identified an individual to provide guidance and subject matter expertise to the committee. This person is expected to participate for the full four-year grant period – and if he or she is unavailable for a meeting, it is expected they ensure that an organizational representative attends in their absence. Each stakeholder may also be asked to participate in a workgroup to be established as required by the Steering Committee (See Table [G2](#)). Each stakeholder organization is also expected to facilitate the transformation of the health care system and the work of the Steering Committee as it relates to their organizations and the community at large. They are also expected to assure coordination between their organization and the Steering Committee.

The Steering Committee meets monthly (excluding a summer hiatus). All meetings are subject to the state's statutory open meeting requirements, through the Secretary of State's website. Steering Committee agendas, minutes, and supporting documents are also posted on the EOHHS Rhode Island website. Members of the public are welcome and are given the opportunity to provide comment at every meeting.

Steering Committee membership has remained stable through AY3 and we expect the current membership, including the Chair and Vice Chair, to remain through the end of the grant. Table [G3](#) provides a full list of Steering Committee member organizations, their representatives on the Committee, their workgroup participation, and rationale for being involved.

SIM Outreach and Engagement

AY 4 Outreach and Engagement Strategic Plan

One of SIM's top priorities is to engage the stakeholders noted above as well as other strategic state and community partners in our work, paying close attention to how we communicate with each of these entities.

Our SIM outreach and engagement strategic plan, informed by and linked to our sustainability planning, includes four main components:

1. Strengthen and maximize outreach and engagement with key SIM stakeholders;
2. Increase community and strategic partner awareness of SIM initiatives and objectives;
3. Focus strategic partnership development efforts where there is potential to support sustainable transformation efforts;
4. Share what we are learning through SIM as widely and broadly as possible to positively impact system transformation and improved population health efforts in RI and beyond.

The first three components build on previous operational plans. The fourth component is a new focus for AY4. Sharing what we have learned informally as well as through formal evaluation is a key element of our sustainability planning and implementation strategy. In addition to sharing overall SIM evaluation findings as they are available, we will work closely with our vendors, individually and collectively, to engage them in developing effective communication strategies to share what they are learning and to connect their efforts to the larger landscape of payment reform and population health improvement in Rhode Island.

AY2 and 3 Outreach, Engagement, and Partnership Development Activities:

Since April 2017, specific outreach and engagement activities include:

- Released the Health Assessment Report, a significant step forward in creating a State Health Improvement Plan. The report, discussed elsewhere in this document, is available [here](#).
- Organized a series of presentations for the Steering Committee aimed at promoting awareness of key issues within the SIM Health Focus areas as another vehicle for partnership building between key stakeholders. One example of this was a panel on housing access, within a discussion of social determinants of health.
- Launched our new SIM Sustainability Workgroup. With strong attendance from key partners, including SIM-funded vendors and key system transformation partners, we have been able to move forward swiftly with our sustainability planning process, as described starting on Page 55.
- Assisted with the convening of a Healthcare Workforce Transformation Summit in June 2017 with over 150 participants from diverse healthcare sectors in Rhode Island.
- Participate as an ongoing member of the Hunger Elimination Task Force convened by the Governor's Food Strategy Director and chaired by Dr. Nicole Alexander-Scott, Director of the RI Department of Health.
- Participate in quarterly meetings of the Health Equity Zones, a strategic SIM partnership strengthened during AY3
- Participate in ongoing meetings on health system transformation held by OHIC

The following sections, listed below, outline where we intend to focus our efforts in AY4:

- Internal State Engagement
- SIM Workgroups
- Agency and Partner Communication
- Payer and Provider Participation in the Transformation Model

Internal State Engagement

As noted in the description of our sustainability planning and throughout this Operational Plan, our interagency structure and aligned work has been critical to our plan and our success so far. Therefore, we have prioritized interagency collaboration whenever possible. To that end, SIM staff participate in the following committees:

- Weekly Public Affairs meetings at the Executive Office of Health and Human Services (EOHHS)
- Bi-weekly policy and planning meetings at EOHHS
- Embedded SIM Staff attend their departmental staff meetings on a weekly or monthly basis, and
- Ms. Rosenberg attends OHIC staff meetings and has just begun attending EOHHS Senior Staff meetings.

These meetings allow SIM staff to share information about SIM and identify opportunities for more effective collaboration between agencies, toward our shared goals.

SIM Workgroups

The Steering Committee has commissioned five of our own Workgroups to provide subject-matter expertise, community input, and recommendations for action. Right now, two of the workgroups are active. The newest Workgroup, launched in Fall 2017, is the Sustainability Workgroup.

All Workgroups are open, public meetings and SIM encourages diverse and full participation. As described throughout this plan, current workgroups include:

Active Workgroups:

- **Technology Reporting** – providing subject matter expertise on the creation and implementation of Rhode Island’s Healthcare Feedback System and potentially other IT-related SIM projects.
- **Sustainability** – providing strategic input and guidance on the development of a set of Sustainability Recommendations for consideration by the full Steering Committee in Spring 2018. These Recommendations will inform and direct SIM’s work in AY4 to sustain health system reform and population health improvements that have been supported by SIM. The Workgroup will continue into AY4.

This Workgroup has transitioned to OHIC, for sustainability purposes:

- **Measure Alignment** – providing subject matter expertise for the creation of Rhode Island’s aligned measure set and governance for the measure set, responsible for an annual review and updates to the set.

Because we are in the midst of implementing our funded projects, these workgroups are not meeting on a regular basis now:

- **Integrated Population Health** – providing subject-matter expertise and strategic oversight of the creation of Rhode Island’s Integrated Population Health Plan and alignment of measures across the physical, behavioral, and overall health care continuum.
- **Patient Engagement** – assisting with an inventory of current patient engagement activities taking place in Rhode Island and providing recommendations for filling patient engagement gaps.

Agency and Partner Communication

A significant part of the SIM Outreach and Engagement Strategy is to strengthen lines of communication and proactively share SIM work with community and state partners. Fostering and maintaining a culture of collaboration is a central principal underlying our work, relying on strong and consistent communication to keep our stakeholders engaged and successfully implementing healthcare system transformation in Rhode Island.

SIM staff members continue to give presentations at community organizations and state meetings whenever requested. gave 55 presentations since September 2016. The most recent deck is available [here](#) and a full list of presentations can be found [here](#). We have also turned the deck into a Fact Sheet, found [here](#). Outreach has included presentations about SIM to other groups as well as including community stakeholders in SIM meetings to share their work and engage in concrete discussions on where our work interests and action steps overlap.

In addition, SIM maintains strong agency and partner communication through these strategies:

- Highlighting a different activity or initiative each month in RIDOH's monthly Health Connections newsletter which is distributed to all healthcare providers in the state.
- Expanding our 300+email list of SIM Interested Parties for all major communications, including notice of public meetings.
- Expanding our weekly Interagency team to include new ongoing partners such as the new HSTP Director and Children’s Cabinet Program Director, as well as invited speakers from within and outside of state government.
- Posting all materials from Steering Committees and Workgroups on our website.
- Continuously updating our SIM slide deck to stay relevant and tailored to specific audiences.

Notably, SIM was featured in the Health Insurance Advisory Council’s 2018 report. This Council serves as a consumer advisory group and is convened by OHIC, a key SIM state partner.

We expect our emphasis on communication to continue throughout the final year of the grant period and, as noted above, expand to include lessons learned and evaluation results from the Test Grant as we move forward.

Payer and Provider Participation in the Transformation Model

As we have shared previously, Rhode Island's SIM Theory of Change is based on our pre-existing health transformation structure, based on the work of the Office of the Health Insurance Commissioner and Medicaid.

Through OHIC's regulatory framework, called the Affordability Standards, payers are required to carry out significant health transformation activities, including supporting patient-centered primary care, implementing value-based payment reforms, and data collection. Payers work with providers, who participate in PCMH activities and practice transformation. All of these activities are described in our Healthcare Delivery System and Transformation Plan, starting on Page 90 of this document.

Strategies for Maintaining Stakeholder Commitment

The Rhode Island SIM Test Grant is committed to the public/private partnership that is the hallmark of our structure and process. While it may be possible for state government to work alone to transform our health care system by amending statutes and imposing new regulations on payers and providers, the participation of stakeholders is fundamental to achieving a coordinated transformation, ensuring community consensus, and achieving our goals of supporting better patient care, improving population health, and reducing the cost of health care. Community organizations bring a clear understanding of the risks and benefits, barriers and drivers, and overall impact of a transformed health care system on their constituents. Payers bring a wealth of information about the implications of a transformed payment system on the insurance market and the health care system. The participation of providers, both hospitals and physician groups, is needed to share an assessment of the work they have already begun in developing alternative payment models, and the impact of these changes on Rhode Island's healthcare workforce.

What makes the Rhode Island SIM Test Grant unique among SIM-recipient states is the extent to which our public/private partnership has had decision-making authority over the entire grant spending priorities from its inception. Though EOHHS is responsible for coordinating the organization, finance, and delivery of services and supports provided through state agencies, the steering committee is the key force behind Rhode Island SIM Test Grant activities including defining stakeholder outputs and deliverables. This level of engagement from the private sector in implementing a federal grant is new and notable. These private sector organizations are in true partnership with the state, determining how Rhode Island SIM Test Grant funds will have an impact on the overall health system of Rhode Island—not just helping in an advisory capacity. The Steering Committee assisted in the hiring of our SIM Project Director and, as the law allows, helped with the strategic thinking behind the procurement of our transformation activities.

The dual role of the Steering Committee chair is an integral component of our method for stakeholder engagement. The Chair and Vice-Chair are also active participants in the SIM Interagency Planning team, attending our weekly meetings. This dual role provides a direct communication link between the two groups and ensures stakeholder input into all SIM Test Grant activities. Andrea Galgay has served as Steering Committee Chair since August 2017. Her energy and input has been integral to ensuring open communication between the two groups and helping to develop the state's system transformation implementation. Vice-Chair Larry Warner's role as Chair of the SIM Sustainability Committee provides important community input into this critical planning effort.

SIM Project Director Marti Rosenberg works with partner agencies to lead and coordinate the accomplishment of grant deliverables. Key functions of this position related to stakeholder engagement include:

- Supporting and facilitating Steering Committee operations;
- Coordinating the development and preparation of all materials to support the deliberations of the Steering Committee;
- Presentation of subject matter information and data to Steering Committee;
- Convening and coordinating the work of the SIM Interagency Planning Team; and
- Establishing and maintaining relationships within partner state agencies, with community stakeholders, and workgroups to successfully accomplish project objectives.

Over the past six months, we have been working to ensure that Steering Committee meetings maximize public discussion about important health system transformation and population health topics. For example, the February 2018 meeting was an update on SIM's Integration & Alignment project, with representatives from all three of the projects, and the March 2018 meetings showcased presentations by Medicaid Director Patrick Tigue and Health Insurance Commissioner Marie Ganim, on how their offices are each working – and collaborative together – on health system transformation.

Besides the organizations officially on the Steering Committee, SIM works with several critical partners that have been engaged in transformative work for many years. These include the Rhode Island Quality Institute (the state's Regional Health Information Organization), Healthcentric Advisors (the state's quality improvement organization), and the Care Transformation Collaborative of Rhode Island (a patient-centered medical home initiative), as well as other organizations. Due to their clear commitment and their past, present, and future efforts to transform health care, they are actively engaged in SIM implementation as members of Workgroups, but because it was recognized early on that they were likely to be contractors at some point in the process, they were not officially appointed to the Steering Committee.

Similarly, SIM engages with other stakeholders who are not official Steering Committee members, such as leaders of community action agencies, advocacy groups, and other interested parties. Much of the outreach at this level is conducted through Steering Committee workgroups as identified in Table G2 and by the opportunities we create internally to bring in community partners and opportunities we respond to in the community, as described above.

Rhode Island has a strong history of community-based engagement in our healthcare system. SIM's structure, process, goals, and planned strategies all flow from that history and commitment to the idea that it will take all of us working together to create the healthcare system that will improve population health, improve healthcare, and hold down costs.

Rhode Island State Improvement Plan

Overview

The SIM Test Grant, through partnership with RIDOH, revised and transformed RIDOH's previous Community Health Assessment into a living document called the Health Assessment Report (HAR). The HAR is the first of what will be four components of the State Health Improvement Plan (SHIP). The SHIP was designed to meet SIM's population health requirements from CMS, RIDOH's legislative requirements for a State Health Plan, and the Public Health Accreditation Board's requirements for a Community Health Assessment and Health Improvement Plan.

SIM Health Assessment Report

The [Health Assessment Report \(Component A\)](#) answers the question:

- *What Are Some of Our Health Problems?*

The HAR provides an initial profile of eight aligned health focus areas across the State's and community partners' assessments. Profiles include historic trends, existing disparities, co-occurrences and co-morbidities between physical and behavioral health conditions, considerations across the life span, and, where applicable, attributed costs. These profiles inform Rhode Island's population health planning efforts. Since the finalization of the HAR in 2017, work has continued to be aligned in to the remaining components of the SHIP.

Rhode Island Population Health Strategy

Rhode Island's [Population Health Strategy \(Component B—Page 84\)](#) answers the question:

- *What Are Our Goals and How Are We Organizing?*

The initial draft of this component encompasses the State's leading priorities, core strategies, and integrated population health goals (inclusive of key metrics) for improving population health. Specifically, this component will be further developed to articulate the commitment to developing the culture of collaboration across agencies and ensuring the collective impact required to improve population health outcomes for Rhode Islanders. Emphasizing the current and future states of Rhode Island's approach to improving population health, this component will delineate the roles that health system transformation, social and environmental determinants of health, and integrated physical and behavioral health have in improving health and addressing disparities. The figure below is a snapshot of these leading priorities, strategies, and integrated population health goals.

Figure 6: Integrated Population Health Goals



Health Improvement Plan

The [Health Improvement Plan \(Component C--Example\)](#) answers the question:

- *What Are We Doing to Achieve Our Goals?*

This component currently provides specific details on activities being implemented to advance the State's integrated population health goals, organizing and delineating agency-specific key investments, activities that are essential to making health improvements a reality in Rhode Island. At this time, RIDOH-specific activities have been delineated and a robust set of intermediate measures used to set targets for and assess progress toward implementation of key investments have been established. This component will ultimately be expanded to represent a multi-agency, cross-sector action plan for population health. The figure below demonstrates the alignment of SIM's activities with the 23 integrated population health goals and eight aligned health focus areas. *Please note that the new SIM projects will be added to this matrix in the future.*

Figure 7: Crosswalk of SIM Activities and Population Health

			1, 7, 8, 11, 13, 14, 15, 20, 21, 23	2, 4, 6, 11, 13, 14, 15, 20, 21, 23	6, 9, 11, 13, 14, 15, 17, 19, 20, 21, 23	1, 2, 3, 5, 7, 9, 10, 11, 13, 14, 15, 17, 19, 20, 21, 23	5, 11, 13, 14, 15, 20, 21, 23	3, 5, 10, 11, 13, 14, 15, 17, 19, 20, 21, 23	4, 5, 10, 11, 13, 14, 15, 18, 20, 21, 23	5, 6, 11, 13, 14, 15, 16, 17, 20, 21, 23
		Cross Cutting	Obesity	Tobacco Use	Chronic Disease	Maternal and Child Health	Depression	Children with Social Emotional Disturbance	Serious Mental Illness	Opioid Use Disorders
	Component & Activity/ Budget Item:									
Investing in Rhode Island's Healthcare Workforce and Practice Transformation	Community Health Teams (Linked to SBIRT) & the SBIRT Training Center		X	X	X		X			X
	Child Psychiatric Access Program					X	X	X		
	Practice Transformation - PCMH Kids & Integrated Behavioral Health		X	X	X	X	X	X		
	CMHC Provider Coaching		X	X	X		X	X	X	X
	Care Management Dashboard				X	X	X		X	X
	Integrated Population Health Plan	X								
	Healthcare Quality, Reporting, Measurement and Technology Feedback		X	X	X	X	X			X
	Patient Engagement Tools/ Advanced Illness Care Initiative				X		X	X		
	HealthFacts RI	X								
	Statewide Common Provider Directory	X								
	Integrated Health and Human Services Data Ecosystem	X								
	Measure Alignment		X	X	X	X	X			X
	Regulatory Levers	X								
	Integration and Alignment		X	X	X					
	Workforce Development	X								
Planning and Governance	SIM Steering Committee	X								
	SIM Project Director and Staffing	X								
	Project Management	X								
Rhode Island Health System Transformation	Transformation through regulatory action and payment reforms	X								
Evaluation	Evaluation	X								

SIM Investments in and Resources for Population Health Improvement

SIM has invested in the Integration and Alignment project work (see page 50) to leverage resources and coordinate interagency efforts around select health focus areas (e.g., tobacco use). Through partnering with SBIRT (see page 29), SIM is more actively investing in addressing the behavioral health needs of the population (e.g., depression, tobacco use, opioid use disorder) in addition to the physical population health needs. Moving forward, SIM is investing in the Unified Social Services Directory (see page 39) and the HEZ (see page 44) as the project's approach to systemically addressing social determinants of health as part of SIM's Theory of Change, along with the existing investment in CHTs.

Performance Monitoring Updates

The [Performance Monitoring Updates \(Component D\)](#) answers the question:

- *How Will We Know and Demonstrate How We Are Doing?*

This component is, at this point, comprised of RIDOH's annual progress updates and reports reflecting the performance of key investments toward reaching the State's population health goals. Using the key metrics, intermediate measures, and other quantitative/qualitative reports, this evaluation of Rhode Island's approach toward improving population health will provide a continual opportunity for quality improvement. Other project updates are also being aligned and included, such as for the Opioid Overdose Task Force and the Community Health Assessment Group.

Key Metrics

Key metrics that have been pre-established for the eight health focus areas prior to alignment with SIM include those listed in the chart below. These key metrics are in the process of being updated based on RIDOH's Annual Review process. Over time, additional key metrics will be added to reflect the important indicators to track from an interagency perspective.

Table 5: Original RIDOH Key Metrics by Health Focus Area

Health Focus Area	Integrated Population Health Goal	Original Key Metrics (Revisions Underway)
Obesity	Reduce obesity in children, adolescents, and adults	Decrease the proportion of Rhode Island adults who are obese from 27% to 24% by 2020.
		Decrease the proportion of Rhode Island high school students who are obese from 12% to 10.8% by 2020.
		Increase the proportion of Rhode Island adults participating in physical activities during the past month from 77.5% to 86.5% by 2020.
Chronic Disease	Reduce chronic illnesses, such as diabetes, heart disease, asthma, and cancer	Increase the proportion of the diabetic population with an A1c value less than 8% from 68.2% to 73.8% by 2020.
		Increase the average percentage of weight-loss among participants who complete the diabetes prevention program from 5.7% to 7% by 2020.
	Improve emergency response and prevention in communities	Decrease stroke deaths from 33.4/100,000 to 38/100,000 by 2020.
Maternal and Child Health	Promote the health of mothers and their children	Increase the proportion of adults aged 20 years and older who are aware of the early warning symptoms and signs of a heart attack and the importance of accessing rapid emergency care by calling 911 or other emergency number from 37% to 40.9% by 2020.
		Decrease the proportion of children ages 3-5 with dental caries experience in their primary teeth from 29.4% to 26.5% by 2020.
		Maintain the proportion of screen-positive children who receive follow up testing with in the recommended time period at 100% through 2020.
		Increase the proportion of children in participating primary care practices who receive regular standardized developmental screening to from 54% to 75% by 2020.
		Increase the proportion of children aged 6 to 9 years with dental sealants from 11 % to 20 % by 2020.

		Increase the number of women with Medicaid insurance who visit the dentist during pregnancy from 28% to 32 % by 2020.
		Increase the percentage of adolescents (ages 12-17) with a preventive medical visit in the past year 68.3% to 74.5% by 2020.
	Reduce environmental toxic substances, such as tobacco and lead	Decrease the statewide incidence rate of Rhode Island children aged 1-5 years with blood lead levels ≥ 5 ug/dL from 4.1% to less than 2% by 2020.
	Improve access to care include physical health, oral health, and behavioral health systems	Increase the proportion of children, adolescents and adults who used the oral health care system in the past year from 42.1 % to 40 % by 2020.
		Increase the number of RI children with special needs (birth to 18) who participate in enhanced medical home practices to double the number 1495 Number to 2990 Number by 2020.
	Improve emergency response and prevention in communities	Increase RI's Hospital Pediatric Emergency Readiness score from 61.2 to above national median (69.1) by 2020.
	Ensure that quality public health data are collected consistently using current technology	Increase the number of immunization data submitters who submit data at least once annually, using HL7 standards from 122 to 200 by 2020.
		Increase the number of annual hits on KIDSNET by all healthcare providers from 1,124,177 to 1,600,000 by 2020.
Tobacco Use	Reduce environmental toxic substances, such as tobacco and lead	Decrease cigarette smoking by Rhode Island adults from 16.3% to 12 % by 2020.
		Decrease the proportion of Rhode Island adults exposed to secondhand smoke in the home 7.8% to 4.8% by 2020.
Depression		Decrease the RI suicide rate from 12.6/100,000 to 10.2/100,000 by 2020.
Children with Social and Emotional Disturbance	Improve access to care include physical health, oral health, and behavioral health systems	Increase annually the number of Rhode Islanders who have access to primary care (medical, behavioral, and oral) services through implementation of primary care workforce programs from 85,500 to 90,000 by 2020.
Serious Mental Illness		
Opioid Use Disorder	Reduce substance use disorders	Decrease the proportion of adults reporting use of any illicit drug during the past 30 days from 14.75% to 7.1% by 2020.
		Decrease the proportion of high school students reporting use of marijuana during the past 30 days to from 23.6% to 21.2% by 2020.
		Decrease the proportion of high school students who report they ever used prescription drugs (e.g., OxyContin, Percocet, Vicodin, codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription from 11.6% to 9 % by 2020.
		Decrease the number of overdose drug deaths annually from 257 to 160 by 2020.
	Analyze public health data to monitor trends, identify emerging problems, and determine populations at risk	Increase the monthly average of unique providers checking Prescription Drug Monitoring Program (PDMP) each month from 1,062 to 2,500 by 2020.

Future Directions

Rhode Island's SIM Test Grant has provided critical resources to begin this work, but will not last beyond the designated award years. From a sustainability perspective, a long-term commitment by the State's leadership to continue this connection between organizing, planning, and action for improving population health remains a priority. Given this approach, SIM plans to advocate for the following as the grant moves forward:

- Continued exploration of the data about the State's population health to add health focus areas associated with the challenges ahead.
- Sustained examination of population health questions requiring answers to inform a more holistic approach to health system planning, with a focus on the life-course approach to health (from pre-birth to death), health disparities, a comprehensive, integrated continuum of care, and co-occurrences/co-morbidities.

- Maintained focus on aligning value-based purchasing and other healthcare reforms with health equity to have a more comprehensive, positive impact on Rhode Island's population health.
- Increased monitoring and management of a comprehensive set of health improvement activities implemented to reach our integrated population health goals.

Healthcare Delivery System and Payment Transformation Plan with Detailed SIM Work Plans

Traditional state functions for advancing policy consist of the state as convener, purchaser, regulator, infrastructure funder, and evaluator.² Rhode Island's State Innovation Model (SIM) Test Grant is structured such that its footprint marks each of these domains of state action and, at a high level, SIM acts as a collaborative space, or hub, for interagency policy alignment and coordination as well as a public/private partnership with its Steering Committee and other stakeholders. Rhode Island is committed to transform the local healthcare system through the coordinated use of regulatory and purchasing levers, direct investment in workforce and health information technology infrastructure, and public-private collaboration.

Baseline and Vision

Rhode Island's current healthcare system is not built to achieve the socially desirable results of improved physical and behavioral health for the state's residents, nor is the system financially sustainable. Rhode Island's current healthcare system relies on fee-for-service reimbursement, which rewards volume generation and promotes fragmentation of care, resulting in duplication of lab and imaging services, unnecessary hospitalizations and emergency department visits, and unmet patient needs. There remain important gaps in health information technology, data infrastructure, and support for Rhode Island's healthcare workforce as well.

Through the assistance of a State Innovation Model Design grant in 2013, and the development of the Rhode Island SIM Test Grant proposal in 2014, Rhode Island's healthcare stakeholders, public and private, have asked what resources, policy initiatives, and market rules are necessary to transform the local healthcare system to meet the goals of the Triple Aim.

As noted above, Rhode Island's SIM Test Grant is built on the premise that transitioning to healthcare payment models that reward value, as opposed to volume, and incentivize providers to work together, is a necessary step toward building a sustainable healthcare delivery system that:

1. Promotes high quality, patient-centered care that is organized around the needs and goals of each patient;
2. Drives the efficient use of resources by providing coordinated and appropriate care in the right setting; and
3. Supports a vibrant economy and healthy local communities by addressing the physical and behavioral health needs of residents, including an awareness of the social determinants of health.

Changing financial incentives is necessary, but not sufficient, for building a healthcare system that meets our vision. Rhode Island's SIM Test Grant coordinates state agency purchasing and regulatory initiatives along with private sector efforts to promote value-based payment and integrated delivery system structures, such as accountable care organizations (ACOs), which support population health management. At the same time, the Rhode Island's SIM deploys direct investments in system transformation, encompassing support for Rhode Island's healthcare workforce and health information technology infrastructure.

² Recommendations Regarding State Action to Promote and Regulate Accountable Care Organizations (ACOs). A Legislative Report Required by Section 6(n) of the Rhode Island Health Care Reform Act of 2013 RIGL 42-14.5-3.

Rhode Island views payment reform as a necessary ingredient toward building integrated delivery models, such as accountable care organizations (ACOs) in the commercial space and Accountable Entities (AEs) in Medicaid, which can manage population health, provide high quality services, and reduce cost. We envision ACOs as relying on a foundation of patient-centered medical homes (PCMHs) which have links to the community through community health teams (CHTs). In order for providers to form partnerships and work in an integrated way, the prevailing payment models which incent and reward integration must achieve critical mass across all payers. While payment reform is already underway in Rhode Island, below we articulate an innovative regulatory approach that will spur greater uptake of value-based payment in Rhode Island, ultimately shaping the pace and content of system transformation. Our hypothesis is that payment reform will drive the continuing development of existing ACOs, incent continuing practice transformation in primary care, and change the economic dynamics of our healthcare system. To facilitate this transformation, we will use SIM dollars to make investments in infrastructure and untested, but promising, models of care delivery.

Robust primary care infrastructure represents necessary groundwork for system transformation and successful implementation of payment models that reorient provider financial incentives toward value. At the outset of the SIM project, Rhode Island had a strong base of transformed primary care practices to build on. In 2015 about 55 percent of primary care network clinicians (including Nurse Practitioners and Physician Assistants) were based in practices that had achieved NCQA Level 3 accreditation or were on the path toward achieving NCQA Level 3 accreditation. Two long-standing initiatives have prepared this groundwork for system transformation and payment reform. The first is Rhode Island's multi-payer patient-centered medical home (PCMH) initiative, Care Transformation Collaborative of Rhode Island (CTC), which includes 81 practice sites. The second was a concurrent PMCH initiative through Blue Cross Blue Shield of Rhode Island. Additional opportunities have also emerged to support practices through transformation, including Medicaid AEs, CPC+, the Transforming Clinical Practices Initiative (TCPI), and ACO sponsored activities.

The Rhode Island Approach to Transformation

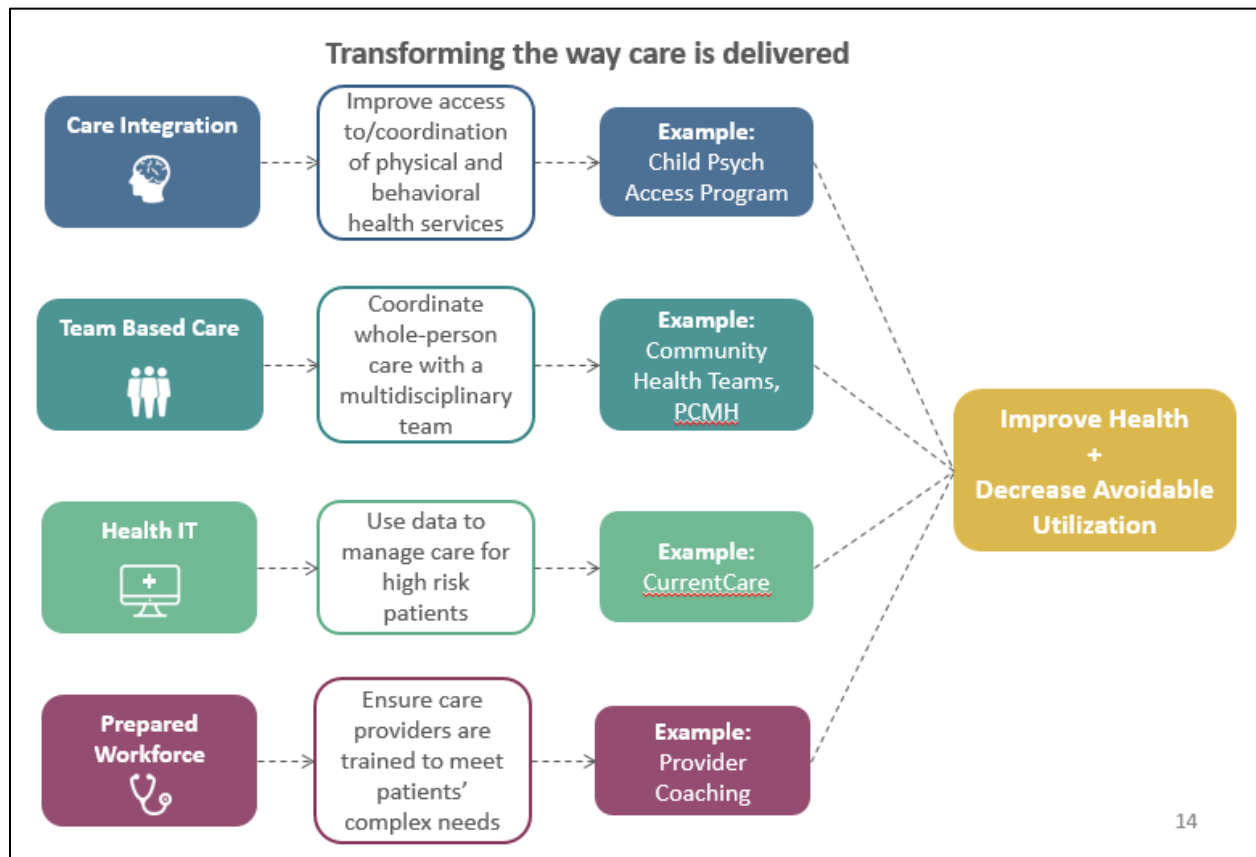
The Rhode Island approach to healthcare system transformation is statewide, and SIM sees itself as one part of a larger whole that is composed of existing policy and infrastructure. Conceptually, Rhode Island approaches payment reform and care transformation as two sides of the same coin, where alternative payment models will not be successful unless providers have established clinical processes to maximize access, data tools to monitor performance, and the appropriate team composition to coordinate care. Conversely, providers will not have the capacity to optimize the efficiency and quality of their care if they are bound to fee-for-service payment structures.

Rhode Island is unique in that it is the only state to have a designated *health* insurance regulator, the Office of the Health Insurance Commissioner (OHIC), which has the ability to establish contingencies for commercial payers to abide by as a condition of rate approval. Further, OHIC is statutorily obligated to “view the health care system as a comprehensive entity and encourage and direct insurers towards policies that advance the welfare of the public through overall efficiency, improved health care quality, and appropriate access.”³ To this end, OHIC has promulgated regulations, most notably the Affordability Standards (described more on page 140), intended to encourage wider adoption of alternative payment methodologies, or

³ R.I. Gen. Laws § 42-14.5-2 (emphasis added).

those that reward value over volume, and to increase investments in high quality, transformed primary care. Additionally, the state Medicaid program is making investments in VBP through its AE initiative, where contracts are being made on a total cost of care basis, and providers are held to certification standards for care delivery that established the foundations and sets forth the expectations of a Medicaid Accountable Entity

Figure 8: Transforming the Way Care Is Delivered in Rhode Island



SIM is building on this existing theoretical and policy framework to approach healthcare transformation in a way that is additive and not duplicative, and comprises the following elements:

1. Coordinated and aligned approaches to expanding value-based payment models in Medicaid and commercial insurance through state purchasing and regulatory levers. Rhode Island has adopted the goal of having 50% of commercial and Medicaid payments under an Alternative Payment Model (APM) by 2018, and 80% of payments linked to value⁴ with a regulatory strategy to achieve these goals.
2. Support for multi-payer payment reform and delivery system transformation with investments in workforce and health information technology.
3. Significant stakeholder engagement in policy development and SIM investment decisions through the SIM Steering Committee, SIM Workgroups and agency-

⁴ Rhode Island will track payments linked to value by crediting the total dollar value of provider contracts with performance-based incentives (such as P4P) toward the numerator of the ratio.

- specific advisory groups. In Rhode Island, healthcare delivery system transformation is a public-private partnership.
4. Fidelity to our State Health Improvement Plan to ensure that transformation is aligned with our vision of improved physical and behavioral health for the state's residents.
 5. A Multi-Sector/Multi-Agency Approach. One of the main strategies of Rhode Island's SIM project is to pursue a new level of integration and alignment of our existing healthcare innovation initiatives with each other, and with new SIM-funded activities. This will allow us to build on current achievements, expand the reach of these initiatives, avoid duplication of funding, and, we expect, save money.

The transformation activities executed and planned within each of these elements are discussed below.

Value-Based Payment Using Purchasing and Regulation

Coordinated and aligned approaches to expanding multi-payer value-based payment models (Medicaid and commercial insurance) through state purchasing and regulatory levers.

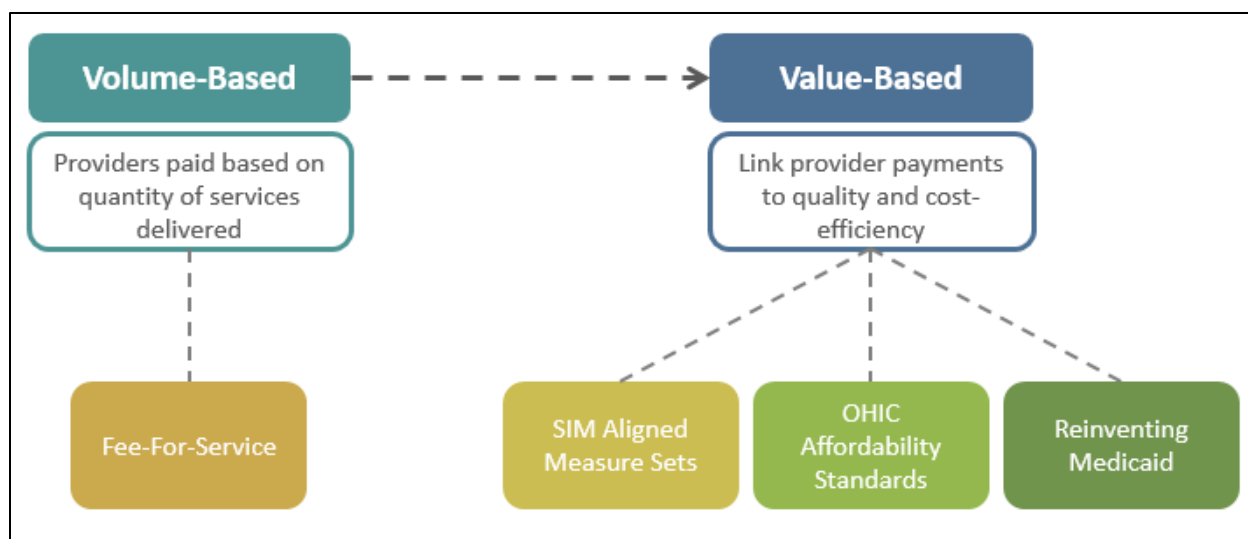
Current initiatives through the Centers for Medicare and Medicaid Services (CMS) and the Health Care Payment Learning and Action Network (LAN) emphasize the importance of reaching a “**critical mass**” of payers engaged in payment reform to ensure that the attendant financial incentives of value-based payments are strong enough to support system transformation.⁵ Rhode Island has derived great benefit from the Alternative Payment Model Framework developed by the LAN and published in January 2016. In what follows, the terms *value-based payment* (VBP) and *alternative payment models* (APM) are consistent with APM Framework categories 2 – 4 (VBP broadly) and 3 – 4 (APM), respectively.

At the outset of the SIM project, uptake of VBP and APMs was uneven across the local Rhode Island healthcare market. Commercial insurers and their provider networks had the longest experience contracting under VBP and APMs. In 2014, 24% of commercial insured medical payments were made under an APM, largely comprised of fee for service payments made under population-based APMs with shared savings. These contracts were generally no more than two years old. Moreover, all commercial insurers with a minimum of 10,000 covered lives were required by the Office of the Health Insurance Commissioner to have quality improvement programs with hospitals, and to tie at least 50% of annual hospital price increases to quality, which are subject to an overall inflation cap. Commercial insurers also had pay for performance contracts in place with most of their primary care networks.

By July 15, 2016, Rhode Island provided updated data on the penetration of APMs in the commercial market and baseline data on uptake of VPB models, the latter of which was projected to touch 50% of medical spending. VBP models and APMs were in an early stage of development in the Medicaid market. Baseline figures show that 36% of medical payments in the Medicaid market were made under stage 3 APM arrangements, according to the LAN framework, in 2016. The same figure was 24% in the commercial market, as shown in the table below. . Quality measures used for value-based contracting were not aligned across major payers, thus creating demands among provider organizations to align quality measures as a means to facilitate implementation of innovative payment models and ease administrative burden.

⁵ Rajkumar R, Conway P, Tavenner M. CMS – Engaging Multiple Payers in Payment Reform. JAMA. 2014; 311(19): 1967-1968.

Figure 9: SIM's Volume to Value-Based Healthcare Strategy



Award Year 1 (Pre-Implementation)

To accelerate payment reform, and coordinate action across all payers, the Office of the Health Insurance Commissioner (OHIC) and Medicaid stewarded two closely aligned processes to advance VBP and APMs in their respective market jurisdictions. OHIC and Medicaid have explicitly aligned payment reform targets with those announced in January 2015 by then Secretary of Health and Human Services Sylvia Mathews Burwell,⁶ later adopted by the LAN, and those articulated in the SIM Round Two Test Grant Funding Opportunity Announcement. As a core component of its model test, Rhode Island intends to drive achievement of the CMS/LAN goals at the state level using significant regulatory levers at Medicaid and OHIC.

In Award Year 1 the SIM Project Director coordinated meetings between OHIC and Medicaid to ensure alignment of these initiatives. The SIM project has initiated an unprecedented level of interagency coordination and alignment in Rhode Island. The use of state regulatory and purchasing levers to achieve the state's payment reform targets are discussed in turn.

Commercial Insurance Regulation

Payment Reform

In February 2015, the beginning of the Rhode Island grant period, OHIC promulgated regulations that required commercial insurers to “significantly reduce the use of fee-for-service payment as a payment methodology, in order to mitigate fee-for-service volume incentives which unreasonably and unnecessarily increase the overall cost of care, and to replace fee-for-service payment with alternative payment methodologies that provide incentives for better quality and more efficient delivery of health services.”⁷ To carry out this provision OHIC convened an Alternative Payment Methodology Advisory Committee, which held two rounds of

⁶ U.S. Department of Health and Human Services. (2015). *Better, Smarter, Healthier: In historic announcement, HHS sets clear goals and timeline for shifting Medicare reimbursements from volume to value* [Press Release]. Retrieved from <http://www.hhs.gov/about/news/2015/01/26/better-smarter-healthier-in-historic-announcement-hhs-sets-clear-goals-and-timeline-for-shifting-medicare-reimbursements-from-volume-to-value.html>

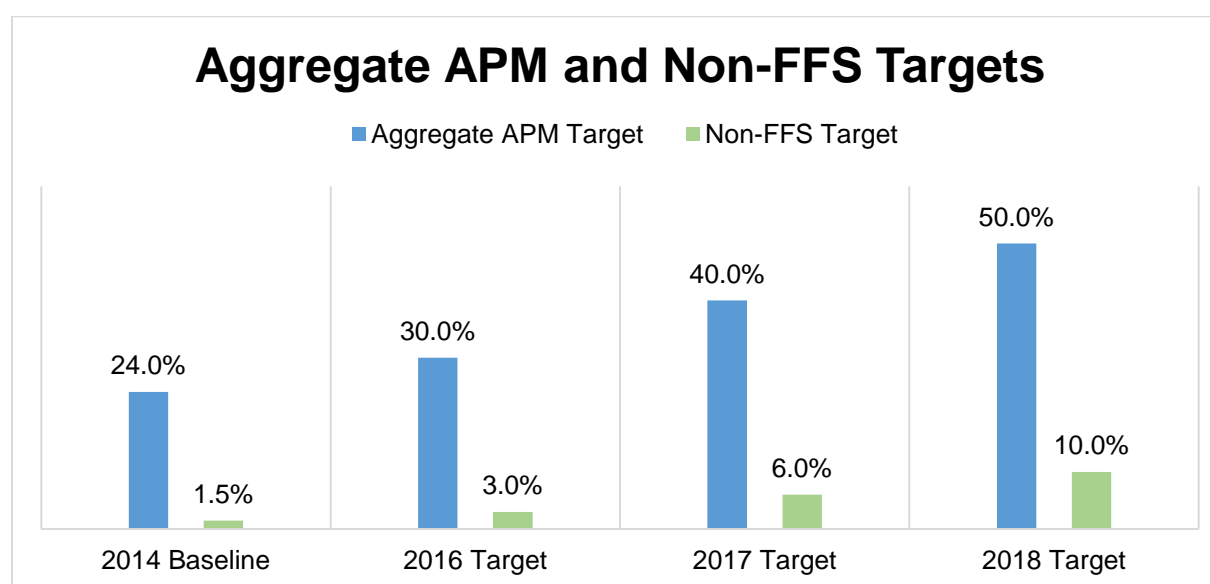
⁷ OHIC Regulation 2 Section 10(d)(2)

meetings, in the spring and fall. The key objectives of the meetings were to define APMs, collect data from health plans to measure the baseline rate of APM uptake, and to develop **binding annual regulatory targets** for commercial insurer use of APMs through 2018. The outcome of the OHIC process was the promulgation of regulatory targets for commercial insurers based on percent of insured medical spending that is made under an APM according to the following schedule:

Table 6: Alternative Payment Model Regulatory Targets

	2014 Baseline	2016 Target	2017 Target	2018 Target
APM Target	24.0%	30.0%	40.0%	50.0%
Non-FFS Target	1.5%	3.0%	6.0%	10.0%

Figure 10: Rhode Island Commercial Payment Reform Targets



In consultation with stakeholders, OHIC developed the following specific definition of APMs:

“Alternative Payment Methodology means a payment methodology structured such that provider economic incentives, rather than focus on volume of services provided, focus upon:

- *Improving quality of care;*
- *Improving population health;*
- *Reducing cost of care growth;*
- *Improving patient experience and engagement, and*
- *Improving access to care.*

To qualify as an APM, the payment methodologies must define and evaluate cost performance relative to a “budget” that may be prospectively paid or retrospectively reconciled. Providers are rewarded for managing costs below the budget (should quality performance be acceptable), by retaining some or all of the savings. Providers may also be responsible for some or all of the costs that exceed the budget.

While generally not employing the aforementioned budget methodology, pay-for-performance payments and supplemental payments for patient-centered medical home functions paid to PCPs or to ACOs will be included in the calculation of an insurer's APM target for calendar years 2016 and 2017.

Health plans shall also receive credit for pay-for-performance payments and supplemental payments to specialists intended to provide incentives to improve communications and coordination among PCPs and specialists.

Approved Alternative Payment Methodologies include:

- Total cost of care budget models;*
- Limited scope of service budget models;*
- Episode-based (bundled) payments;*
- Infrastructure payments and pay-for-performance payments for 2016-2017, and*
- Other non-fee-for-service payments that meet the definition above as approved by OHIC.”*

The targets promulgated by OHIC, and presented in Figure 10 above, are defined as follows:

- (1) “Alternative Payment Methodology Target” means the aggregate use of APMs as a percentage of an insurer’s annual commercial insured medical spend. The APM Target shall include:*
 - All fee-for-service payments under a population-based total cost of care contract with shared savings or shared risk;*
 - Episode-based (bundled) payments; primary care, specialty care or other limited scope-of-service capitation payments, and global capitation payments;*
 - Supplemental payments for infrastructure development and/or Care Manager services to patient-centered medical homes, specialist practices, and accountable care organizations, and all pay-for-performance payments for 2017, and*
 - Shared savings distributions.*
- (2) “Non-Fee-for-Service (FFS) Target” means the use of strictly non-fee-for-service alternative payment methodology payments as a percentage of an insurer’s annual commercial insured medical spend. The Non-FFS target defined in this subsection (2) is a subset of the APM Target defined in subsection (1), above. The Non-FFS Target shall include:*
 - Episode-based (bundled) payments, either prospectively paid or retrospectively reconciled, with a risk component;*
 - Limited scope-of-service capitation payments and global capitation payments;*
 - Quality payments that are associated with a non-fee-for-service payment (e.g., a quality payment on top of a bundled payment or PCP capitation);*
 - Shared savings distributions, and*
 - All supplemental payments for infrastructure development and/ or Care Manager services to patient-centered medical homes, specialist practices, and accountable care organizations, for 2017.*

We know that it is important to determine the impact of APMs on the entire market, including the self-insured market. While OHIC's jurisdiction spans fully insured plans only, and regulatory targets for use of APMs are established on the basis of fully insured medical spend, it is reasonable to expect that the use of APMs measured on the basis of self-insured medical spend will track closely with fully insured due to insurers' use of single contracts with providers that do not differentiate members by funding status. Baseline data on APM use in the commercial market in 2014 found that the percentage of medical payments made under an APM was roughly the same when evaluated over self-insured spend and fully insured spend. Therefore, we expect the effects of commercial insurance regulation with respect to health care payment models to have a spill-over effect on self-insured medical spend. In addition, Medicaid has developed requirements for its Medicaid Managed Care Organization, "Transitioning to Alternate Payment Methodologies: Requirements for Medicaid Managed Care Partners", which align with the definitions of APMs established by the Office of the Health Insurance Commissioner.

Care Transformation

As noted earlier, robust primary care infrastructure represents necessary groundwork for system transformation and successful implementation of payment models that reorient provider financial incentives toward value. Thus, care transformation is also a crucial piece driving the healthcare system toward a critical mass of value-based payment. Commercial insurers are required by OHIC to expand the percentage of their primary care networks that are functioning as patient-centered medical homes. OHIC aims to have 80% of insurer network primary care clinicians practicing in a PCMH by 2019. Working with its Care Transformation Advisory Committee, OHIC has adopted a more rigorous definition of PCMH and a payment model geared toward sustaining transformed practices.

Beginning in 2017, commercial insurers will have to meet targets for percentage of primary care clinicians practicing in a PCMH based on the following definition of PCMH, updated as a part of the 2017 APM Advisory Committee process:

1. *Transformation Experience:*

- a. *Practice is participating for the first time in a formal transformation initiative with the expectation that the practice will obtain NCQA recognition within two years of entry into the transformation initiative. **OR***
- b. *Practice holds current NCQA PCMH recognition status. Practices meeting this requirement through achievement of NCQA recognition may do so independent of participating in a formal transformation initiative.*

2. *Cost Management:*

- a. *Practice has implemented at least 80% of the following specific cost-management strategies:*
 - i. *develops and maintains a high-risk patient registry that tracks patients identified as being at risk of avoidable intensive service use in the near future;*
 - ii. *uses data to implement care management, focusing on high-risk patients and interventions that will impact ED and inpatient utilization;*
 - iii. *implements strategies to improve access to and coordination with behavioral health services;*
 - iv. *offers expanded access to services both during and after office hours;*

- v. develops and implements service referral protocols informed by cost and quality data if provided by payers, and
- vi. develops and maintains an avoidable ED use reduction strategy. **OR**
- b. Practice is affiliated with an ACO that has contracts with its two largest commercial payers, and those contracts each meet the minimum downside risk requirements defined in the 2018 OHIC APM Plan.

3. *Meaningful Performance Improvement:*

- a. Practice has demonstrated meaningful performance improvement. For 2018, the measures for assessing performance are as follows:

Adult practices

- Adult BMI Assessment (HEDIS)
- Screening for Clinical Depression and Follow-up Plan (NQF)
- HbA1c Control (<8) (HEDIS)
- Controlling High Blood Pressure (HEDIS)
- Tobacco Cessation Intervention (NQF)

Pediatric practices

- Weight Assessment and Counseling for Nutrition and Physical Activity (HEDIS - all-or-nothing measure including 3 sub measures)
- Developmental Screening (OHSU)

- b. Practice has reported performance relative to the following additional measures:

Adult practices

- Colorectal Cancer Screening (HEDIS)
- Comprehensive Diabetes Care: Retinal Eye Exam (HEDIS)

Pediatric practices

- Adolescent Well-Care Visits (HEDIS)

- c. For 2018, “meaningful performance improvement” is defined as follows:
 - i. For each measure: 3 percentage point improvement over one or two years **or** performance at or above the national 66th percentile, **or** performance at or above the state 25th percentile in the absence of an NCQA HEDIS rate;
 - ii. Performance at or above the national 66th percentile alone if the practice did not previously report a prior year rate in addition to the performance measurement period rate;
 - iii. First-time reporting practices: For practices submitting data for the first time, data will be recorded as baseline. Performance improvement in future years will be assessed against these first-year baseline rates.
 - iv. Adult practices must achieve the above stated level of improvement on at least 3 of the 5 measures to achieve “meaningful performance improvement.” Pediatric practices must achieve the above stated level of improvement on at least 1 of the 2 measures to achieve “meaningful performance improvement.” Practices that report on both adult and pediatric measures must achieve the above stated level of improvement

on at least 3 of the 5 adult measures and at least 1 of the 2 pediatric measures to achieve “meaningful performance improvement.”

Each year, practices that meet the three components of the OHIC PCMH definition will be counted toward achievement of the insurers’ PCMH targets. We intend, with CMMI approval, to report data on five clinical quality measures currently being reported by PCMHs in the state. While this approach does not provide a statewide number, it does represent clinical quality performance for patients who receive their care in PCMHs, which are an important component of Rhode Island’s delivery system transformation strategy.

Once a practice has completed a formal transformation initiative and achieved NCQA Level 3 accreditation, and demonstrates annual implementation of cost containment strategies and performance improvement, the practice will be entitled to an ongoing care management payment and an opportunity to earn a performance bonus. The levels of payment will be negotiated between the practice and the health plans, but the Commissioner has articulated to the health plans that the payment must be meaningful.

As noted above, the Care Transformation Collaborative of Rhode Island, launched in 2008 and jointly overseen by OHIC and EOHHS, brings together key health care stakeholders to promote care for patients with chronic illnesses through the patient-centered medical home (PCMH) model. CTC began with five pilot sites in 2008 and has grown to 550 providers in 81 practice sites, with pediatric sites added in 2016 (72 original sites plus 9 pediatric sites). CTC expanded in the summer of 2017, conducting outreach to encourage adult and pediatric practices to apply. Currently, over 330,000 Rhode Islanders receive their care from practices participating in PCMH system reforms. The PCMH program is sustained through a multi-payer effort in the form of a per member per month contribution from the carriers based on attributed membership.

Rhode Island has also been selected as one of 14 geographic areas throughout the U.S. that participate in CPC+, as three out of four commercial payers and Medicaid fee-for-service applied. Currently, 31 Rhode Island practices are participating in the advanced payment model. Payers and stakeholders are making diligent efforts to align with SIM and with existing initiatives such as CTC and TCPI.

Because of the strength of our current practice transformation work, our SIM project decided to fund the smaller CTC-led Integrated Behavioral Health (IBH) program referenced above, with 58,000 participants. The SIM funds being used to pilot this IBH program will help us identify if there is a return on investment. If a ROI is realized, CTC, along with interested state agencies and the SIM team will work with the insurers to invest some of the savings into expanding the program to additional sites. OHIC and EOHHS will continue to identify potential regulatory levers to incent such an expansion.

Enforcement

To implement and enforce the commercial payment reform targets, OHIC leverages its statutory authority and prior approval rate review process. Two of OHIC’s statutory purposes grant the Office a clear directive to improve the healthcare system as a whole:

- Encourage policies and developments that improve the quality and efficiency of health care service delivery and outcomes; and
- View the health care system as a comprehensive entity and encourage and direct health insurers towards policies that advance the welfare of the public through

overall efficiency, improved health care quality, and appropriate access. (R.I.G.L. 42-14.5-2).

Furthermore, the Health Insurance Commissioner possesses authority to consider whether an insurer has implemented effective delivery system and payment reform strategies in the context of the annual rate approval process. Operationally, OHIC's regulatory levers facilitate collective action across commercial payers to invest in delivery system transformation and implement payment reform to improve the system as a whole and to make health insurance more affordable.

State Medicaid Reforms

Rhode Island's Medicaid program contracts with three Managed Care Organizations (MCOs). In 2015, Medicaid, as regulator and purchaser, embarked on a lengthy public process to transform the state's Medicaid program and drive transformation of the healthcare system as a whole. This process resulted in several key reforms, including a Medicaid Accountable Entities (AE) Coordinated Care Pilot Program. Under the Coordinated Care Pilot Program, pilot AEs entered into contractual arrangements with Medicaid MCOs to manage a population of Medicaid members under a total cost of care arrangement. The Coordinated Care Pilot offered two tracks:

- **Type 1 Coordinated Care Pilot: Total Population, All Services:** This track offered an opportunity to contract for all Medicaid attributed populations, for all Medicaid services.
- **Type 2 Coordinated Care Pilot: All Services to Populations of Persons with Severe and Persistent Mental Illness (SPMI)/Severe Mental Illness (SMI):** This track offered an opportunity to contract for a specialized Medicaid population, for all Medicaid services. Type 2 pilots were only established for persons with SPMI or SMI.

AEs were expected to develop and prove competency in two priority areas: 1. Integration and coordination of long-term services and supports; 2. Physical and behavioral health integration. Experience from the Coordinated Care Pilot Program informs the next phase of the Medicaid AE program currently under implementation as discussed further under Years 2-4: Implementation, below.

Medicaid also developed a one-year incentive payment program that provided transitional funding to support the transition to new Accountable Entity structures for hospitals and nursing homes under the Rhode Island Health System Transformation Program (RIHSTP).

Medicaid AEs must demonstrate the capacity to integrate and manage the full continuum of services starting with the integration of physical and behavioral healthcare, from preventive services to hospital based and in the future inclusive of long-term services and supports. AEs must also focus on the social determinants of health among their attributed populations. The Medicaid AE total cost of care model is one of the primary means for Medicaid to achieve 50% of payments under an APM by 2018. Accountable Entity certification, managed care contracting requirement that transition to APM models such as the Accountable Entities under a total cost of care model with an eventual move to risk over time, and targeted financial performance incentive to support the infrastructure and capacity building of Accountable Entities through Rhode Island's Health System Transformation Project approved by CMS in an amendment to Rhode Island's Medicaid 1115 Waiver in October 2016. These three crucial purchasing and regulatory levers will drive achievement of Medicaid's payment reform targets.

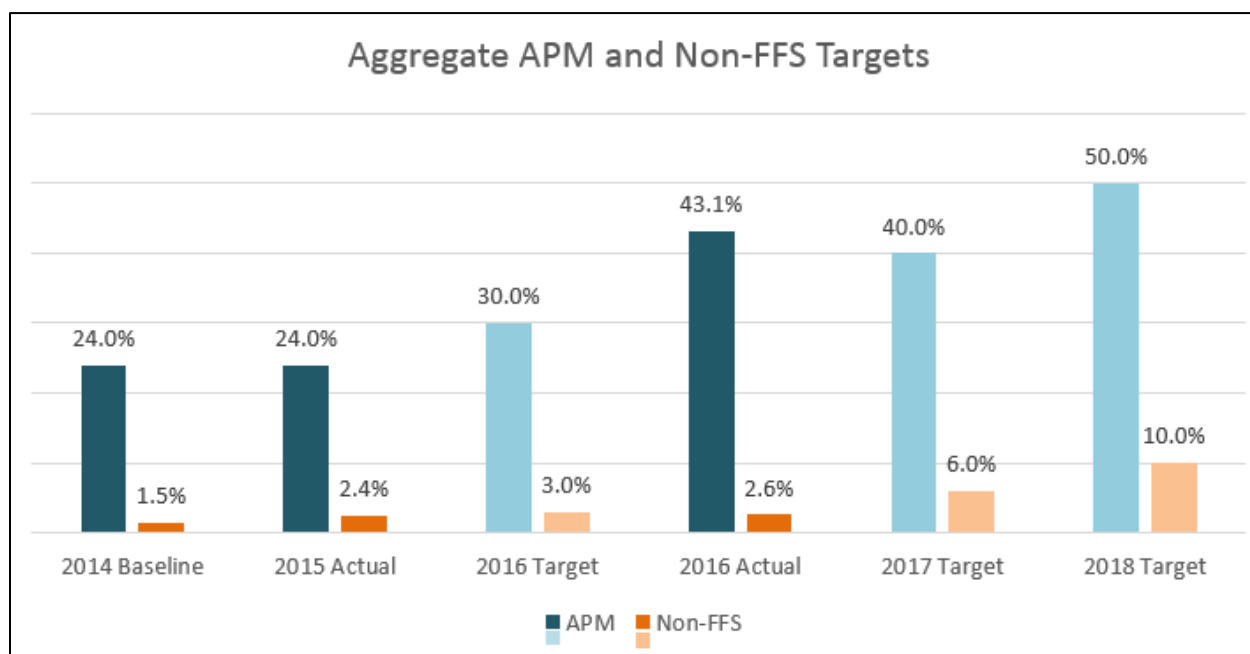
Rhode Island does not prioritize one APM over another. However, given the focus of using healthcare payment to improve overall efficiency, clinical quality, and support whole person care, and to meet an ultimate target of 50% of medical payments by 2018, total cost of care budget models will invariably play a crucial role.

Award Year 2

APM and Care Transformation Implementation

In January of 2017, OHIC reviewed insurer data submissions detailing the distribution of medical dollars under existing payment models relative to the total medical spend. Payment percentages made under APM and non-fee-for-service arrangements are aggregated across payers, as shown in Figure 11, to show 2016 performance relative to its target; payers exceeded the APM target by a collective 13.1%, while falling behind the non-fee-for-service target by 0.4%.

Figure 11: Rhode Island Commercial Payment Reform Performance and Targets, 2017



In the second quarter of 2016, OHIC implemented the provisions of the 2016-17 Care Transformation and Alternative Payment Methodology (APM) Plans. In the implementation work, OHIC reviewed insurer primary care network files to assess the penetration of PCMH and ACO delivery models, and operationalized OHIC's three-part definition of PCMH by rolling out self-attestation surveys for primary care practices to report to OHIC on implementation of cost management strategies and clinical quality performance data.

In October 2016, OHIC compiled numerators and denominators for these metrics from existing PCMHs to establish baseline performance data, with the intention to track the data annually and compare practices to their baselines. Performance on quality measures varied widely by the number of years the practice had participated in transformation. As more practices begin to transform, the coverage of these metrics will expand.

In the fall of 2016, OHIC convened the Care Transformation and APM Advisory Committees to develop 2017-18 Care Transformation and APM Plans, which contain key definitions and annual targets that set payers up for achieving the long term APM and PCMH targets set forth in the Affordability Standards. Both plans were approved by Health Insurance Commissioner Kathleen C Hittner on January 27th, 2017.

The 2017-18 Care Transformation Plan includes OHIC's 3-part definition of PCMH, which establishes cost management and performance improvement requirements in addition to NCQA recognition. The Plan also establishes three work groups that have been meeting since January of 2017. The Small Practice Engagement Work Group is tasked with creating an outreach strategy to engage small practices in transformation, and using collective knowledge and experiences to create a prioritized list of practices that are likely to participate in transformation. The High-Risk Patient Identification Work Group is researching best practices and evidence-based approaches to practice based assessment of risk, with attention on how to incorporate social determinants of health. Lastly, a Primary Care APM Work Group will be exploring clinical processes that are possible under a non-fee-for-service driven model. This work will begin once the group has finished designing a primary care APM.

The 2017-18 APM Plan introduces a downside risk requirement with unique targets for physician-based versus hospital-based ACOs, in addition to APM and non-fee-for-service targets. Additionally, the Plan establishes two work streams that will support the plans in attaining their targets. The APM Advisory Committee has been meeting since February of 2017 to explore various mechanisms for implementing bundled payments for commonly defined episodes within total cost of care contracts, particularly to facilitate achievement of the non-fee-for-service target. Once this policy conversation is finished, work groups will be established to define up to three episodes and parameters for bundled payments. The Primary Care APM Work Group has been convening since January of 2017 to design a primary care APM and parameters for adoption in that can be used in payer-provider contracts.

OHIC will continue to implement the 2017-18 Care Transformation and APM Plans, and will analyze financial data and primary care network files submitted by each commercial payer in July to assess achievement of the targets.

Links to APM Documents

The following are links to additional resources pertaining to APMs:

- [2016-2017 OHIC APM Plan](#);
- [Background of APM Planning](#), with additional information;
- [2016-2017 Care Transformation Plan](#) and;
- [Background of Care Transformation Planning](#), with additional information.

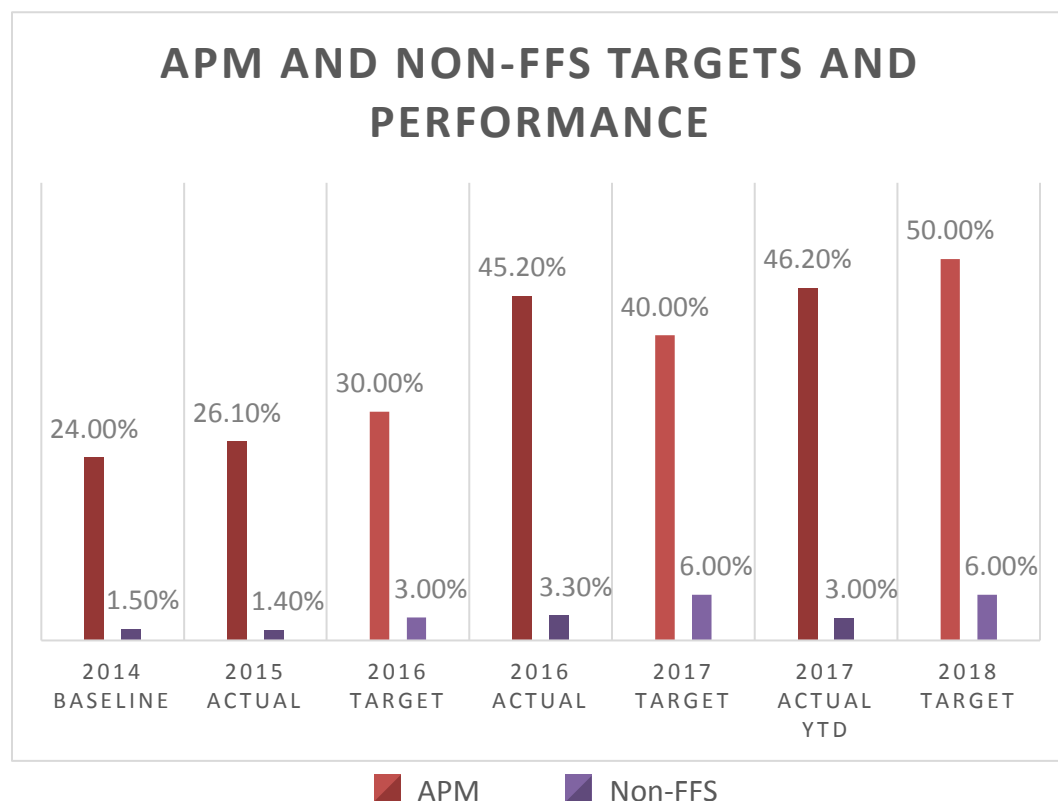
Award Years 3-4 (Implementation)

Year 3 Implementation: In the early months of 2018, OHIC evaluated commercial insurer performance relative to the 2017 APM and Care Transformation targets. When payments under APMs relative to total medical spend was aggregated across insurers, OHIC found that insurers surpassed the 2017 target, achieving 46.20% of payments in an APM, as shown in Figure 12 below. No insurer met the Non-Fee-For-Service target, however. OHIC has found that there is a lack of payment arrangements in the Rhode Island market that could be classified as stage 4 APMs according to the LAN Framework, such as capitation or bundled payments. To support insurers and providers in moving toward these types of arrangements, OHIC has taken a

number of actions, including the development of a primary care capitation model by a work group in 2017, the implementation of said capitation model in a small cohort of practices in a multi-payer fashion, and the analysis of commonly defined episodes of care that will inform the development of bundled payment arrangements that can be adopted in a multi-payer manner. These activities are further articulated in the [2018 APM Plan](#), which was signed into effect by Commissioner Marie Ganim on January 24th, 2018.

In addition to these activities, OHIC will also be leading a work group to explore pediatric APMs, to promote continued engagement of our pediatric provider community in healthcare reform and to ensure that pediatrics is not neglected as an unintended consequence of pursuing savings through common means such as chronic care management. OHIC will also be exploring regulatory authority and potential methodology for assessing provider financial capacity for risk bearing.

Figure 12: Rhode Island Commercial Payment Reform Performance and Targets, 2018



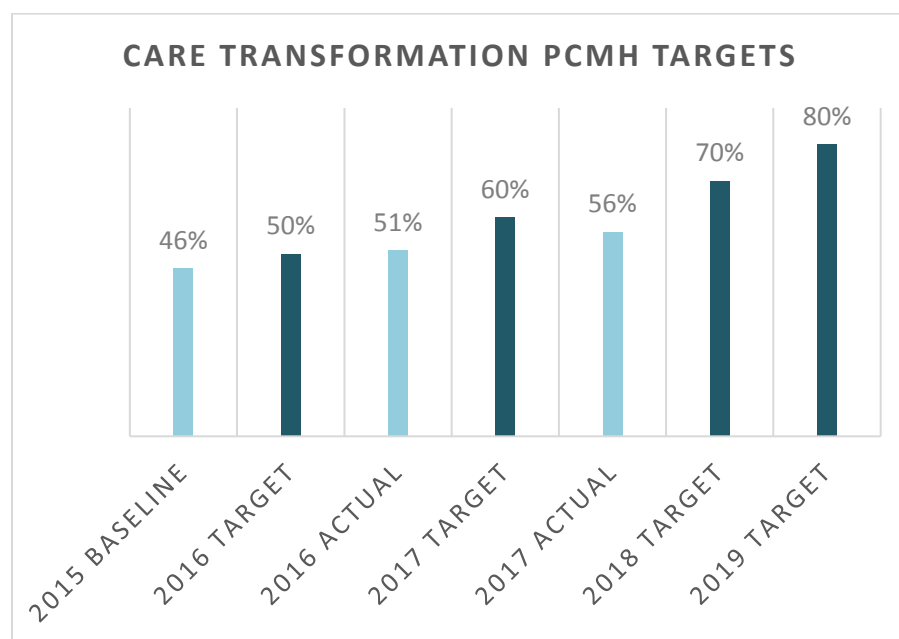
The state's 2017 care transformation target was to achieve 60% of primary care providers operating within a PCMH (insurers had unique targets based on baseline performance). While insurers missed this target by about 4%, as shown in Figure 139 below, upon review of practice performance relative to OHIC's three-part PCMH definition, 39 practices submitted data to OHIC and failed to achieve PCMH status. OHIC has noted that a significant number of clinicians are affiliated with a Federally Qualified Health Center that either failed to meet the Cost Management Strategies, or did not report to OHIC at all, despite participating in a

transformation initiative or achieving PCMH status last year. OHIC has been coordinating with the insurers and CTC-RI to encourage these practices through practice facilitation and contracting mechanisms to achieve all OHIC PCMH requirements in 2018.

Recognizing the growing presence of ACOs in Rhode Island's care delivery landscape, OHIC is directing insurers to focus on practices that have not yet achieved PCMH status, but are affiliated with an ACO or system of care. OHIC is also recognizing the ACO role in transformation, and has developed a set of criteria against which to evaluate the supports and programming offered by ACOs to gear their practices up to be operating as a PCMH (as defined by OHIC). This will enable an ACO's practices that are participating in their transformation program to be entitled to infrastructure payments from insurers.

As articulated in the [2018 Care Transformation Plan](#), signed into effect by Commissioner Marie Ganim on January 24th, 2018, OHIC will support continued transformation of primary care by revising the cost management requirements of OHIC's PCMH definition, investigating and addressing administrative challenges associated with behavioral health integration, and working with other state agencies to improve data sharing and communication between providers when patients cross organizational lines or clinical settings.

Figure 13: Rhode Island Commercial PCMH Performance and Targets, 2018



Year 4 Implementation: Moving forward, Rhode Island is poised to continue to significantly advance the use of multi-payer VBP and APMs through the implementation period of the SIM grant and beyond.

OHIC will track commercial insurer compliance with their annual APM targets on a semi-annual basis. In addition to semi-annual reporting of APM use, OHIC will require each insurer to develop plans for engagement of specialists in VBP arrangements, including the development of

APMs for high volume specialties and specialty care practices. These requirements build on extant rules that obligated insurers to have quality improvement programs with hospitals and tie hospital fee increases to quality performance.

In September of each year, OHIC will administer a survey to primary care practices to assess achievement of the PCMH cost containment strategies. OHIC will also collect data on clinical quality performance measures. These elements will be combined to produce a list of practices sites and associated clinician rosters who have met the OHIC definition of PCMH.

OHIC will assess compliance with commercial insurer payment reform targets, care transformation requirements, and hospital contracting requirements in the context of the annual rate review process in 2018 and 2019. The Commissioner may consider each insurer's efforts to meet the delivery system and payment reform targets as a factor in her decision to approve, modify, or reject any regulatory filing. OHIC will publish public reports on insurer compliance with the annual APM and PCMH targets.

Continued Engagement of Payers and Providers

Rhode Island is advancing the work of payment reform in a coordinated way. The goal of achieving critical mass for payment reform across Medicare, Medicaid, and commercial insurance is a necessary condition for transforming the healthcare system as a whole. As noted above, Rhode Island has adopted the goal of having 50% of commercial and Medicaid payments under an APM by 2018, and 80% of payments linked to value.

While we had planned to carry out a Learning Collaborative on VBP implementation, we determined that it would be duplicative of the significant stakeholder engagement that OHIC organizes throughout its workgroup processes. SIM is available to help OHIC with its stakeholder work, and OHIC reports that many SIM participants have begun to attend OHIC meetings, especially around the High-Risk planning.

Additionally, the Rhode Island State Employees Health Plan, which covers about 44,000 members, is an important lever toward our APM goals. The state health plan is currently administered by UnitedHealthcare and it participates in UnitedHealthcare's ACO shared savings program. To the extent a state employee is cared for by a practice in one of our three ACOs (Coastal Medicine, Lifespan, or the Rhode Island Primary Care Physicians Corporation), they are considered to be participating in the corresponding ACO program. As of March 31, 2016, 76% of State of Rhode Island members are attributed to an ACO or another population-based program (such as the PCMHs through CTC). As Rhode Island prepares to reprocure the State Employee Health Plan, OHIC has engaged with the Department of Administration to encourage the state to include requirements to align with SIM initiatives. Proposed contractual requirements included the adoption of the SIM Aligned Measures, the submission of claims data to the APCD, and the support of PCMH transformation. It is not yet clear whether the state will agree to include these requirements.

Exploring Alignment with Medicare's Quality Payment Program

On April 27, 2016 CMS released proposed rules implementing the Quality Payment Program (QPP). The QPP implements key provisions of the Medicare Access and CHIP Reauthorization Act (MACRA). To ensure that Rhode Island understands the implications of QPP and to explore the alignment of existing SIM initiatives with QPP, Rhode Island has also embedded these discussions in existing stakeholder processes like the Alternative Payment Methodology Advisory Committee, and ensured that our care transformation initiatives are preparing practices for meeting QPP delivery and reporting requirements. OHIC and other SIM activities

have helped prepare providers in Rhode Island for the QPP, such building the HCQMRFS in a way that supports reporting QPP measures to CMS in the correct format, or adopting appropriate QPP measures in the Aligned Measure Sets.

Exploring Alignment with Medicare in an All Payer Model

SIM staff recently met with Dr. Steven Cha and others at the February 2018 Washington gathering of the Office of the National Coordinator. There, they spoke about the ability of Rhode Island to collaborate with Medicare in an All Payer Model. Rhode Island and CMS will be carrying out that conversation during the Spring of 2018, and look forward to determining whether this is an appropriate path for the state to take toward sustaining our health system transformation post-SIM, and if so, what an All-Payer APM would look like in our unique health care landscape.

Tracking System Transformation

In order to track the progress of system transformation, Rhode Island has committed to tracking and publishing information on the use of APMs and VBPs across payers and provider participation in PCMHs and ACOs. The following table shows the key metrics for tracking the progress of system transformation.

Table 7: Key Metrics for Tracking Progress of System Transformation

Metric Title	Data Source	Reporting Frequency	Definition
Payments made under alternative payment models (Commercial Insurers) - APM Categories 3 + 4	OHIC	Annual	Percentage of fully insured commercial medical payments made under an alternative payment model (APM)
Members attributed to total cost of care alternative payment models (Commercial Insurers) - APM Categories 3 + 4	OHIC	Annual	Percent of plan members attributed to a population-based contract with total cost of care accountability.
Payments made under Value-based payment models (Commercial Insurers) - APM Categories 2 +3 + 4	OHIC	Annual	Percentage of fully insured medical payments tied to value
Payments made under alternative payment models (Medicaid MCOs) - APM Categories 3 + 4	EOHHS	Annual	Percentage of Medicaid MCO medical payments made under and APM
Members attributed to total cost of care alternative payment models (Medicaid MCOs) - APM Categories 3 + 4	EOHHS	Annual	Percent of plan members attributed to a population-based contract with total cost of care accountability.
Use of Value-based payment models (Medicaid MCOs) - APM Categories 2 +3 + 4	EOHHS	Annual	Percentage of Medicaid MCO medical payments tied to value
PCPs participating in ACOs	OHIC	Annual	Percentage of network PCPs participating in ACOs and who are attributed patients for whom they are assuming clinical and financial accountability

PCPs practicing in PCMHs	OHIC	Annual	Percentage of network PCPs practicing in PCMHs
Commercial members attributed to PCMHs	OHIC	Annual	Percentage of commercial insured members attributed to a PCMH
Medicaid members attributed to PCMHs	EOHHS	Annual	Percentage of Medicaid MCO members attributed to a PCMH

The following tables describe our additional activities to support practice transformation, including community health teams, integrating behavioral and physical health, care management dashboards, etc. These activities are part of our theory of change, which states that since Rhode Island was already moving from volume to value before SIM funding began, we would use the new resources to provide capacity building and support to the entities carrying out the system transformation. Supporting community health teams and helping create a consolidated operations model is an example of this type of infrastructure support for the transformation model.

Table 8: Practice Transformation Work Plan (Team-Based Care)

Primary Driver: Maximize & support team-based care					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor /Lead
Intervention: Create at least two new CHTs; Investigate the need for more formal CHT training and certification program. Provide training to providers (PCPs, CMHCs, and hospitals) to better incorporate CHTs into their practices.					
Implement the integrated CHT/SBIRT project.		Continue implementation and program monitoring.	Complete by 06/30/2019.	\$2,160,00	CTC-RI
Implement the SBIRT Training and Resource Center.		Continue implementation and program monitoring.	Complete by 06/30/2019.	\$480,000	RIC
Conduct sustainability planning for all aspects of the CHT/SBIRT project.		Begin/continue partnership development, project evaluation and sustainability planning.	Complete by 06/30/2019.	See SIM State-Based Evaluation workplan.	CTC-RI RIC URI
Intervention: Collaborate with higher education entities in Rhode Island to develop a preceptor program focused on training in home-based and community-based care					
Develop curriculum to train community-based preceptors from health and social service agencies in interprofessional education and community health		Research existing curriculum resources. Vet draft curriculum with colleagues Finalize curriculum and related logistics.	January – April, 2018		RI College, in partnership with URI, CCRI, and Brown Medical School

Primary Driver: Maximize & support team-based care					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor /Lead
Provide training and support to community-based agency staff from health and social service agencies to precept teams of interprofessional healthcare students		Determine eligibility requirements Develop outreach materials Provide online and in-person training for preceptors Provide continuing support and coaching for preceptors Begin sustainability planning	1 st cohort: April-Aug, 2018 2 nd cohort: Oct -Dec, 2018		RI College, in partnership with URI, CCRI, and Brown Medical School
Place interprofessional teams of healthcare students with community health agencies that participated in community preceptor training		Coordinate clinical placements of interprofessional students	1 st cohort: Fall semester, 2018 2 nd cohort: Spring semester		RI College, in partnership with URI, CCRI, and Brown Medical School

Table 9: Practice Transformation Work Plan (Behavioral Health Integration)

Primary Driver: Better integrate behavioral health into primary care investments in Rhode Island's healthcare workforce					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor
Intervention: Support PCMH expansion to 9 pediatrician sites					
Provide Project Management for the PCMH-Kids program	Staff salaries for project manager and project coordinator	Manage the PCMH-Kids Program Carry out sustainability planning	January 1, 2017 to April 30, 2019	\$249,180	CTC-RI
Practice Support Specialists assist PCMH-Kids practices with practice transformation	Staff salaries for practice support specialists	Provide practice support to PCMH-Kids practices	January 1, 2017 to April 30, 2019	\$163,626	CTC-RI
CAHPS pediatric PCMH survey conducted at each practice	CAHPS survey fees	Support CAHPS Administration at PCMH-Kids practices	January 1, 2017 to April 30, 2019	\$68,580	CTC-RI

Primary Driver: Better integrate behavioral health into primary care investments in Rhode Island's healthcare workforce					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor
Evaluate the PCMH-Kids program	Evaluation expenses	Conduct evaluation of PCMH-Kids program	January 1, 2017 to April 30, 2019	\$19,500	CTC-RI
Intervention: Provide child psychiatry consultation services to pediatrician practices. Train PCPs to expand their ability to treat some behavioral health needs in their practices.					
Increase the availability of mental health care for children and adolescents by introducing psychiatric consultation services into the scope of primary care practices	Recruitment of Bradley Staff positions	Recruited: 1.0 FTE Board Certified Child Psychiatrist .5 FTE LICSW/LMHC .5 FTE Care Coordinator	Dec. 1, 2016 to Jan. 15, 2017	\$650,000 over 3 years	Emma Pendleton Bradley Hospital
	Enrollment of Pediatric Primary Care Practitioners/Practices	Recruited: 310 Pediatric Primary Care Providers Recruit 47 Pediatric Primary Care Practices	Dec. 1, 2016 to May 1, 2017 Recruitment process is ongoing.		Emma Pendleton Bradley Hospital
Create a strong primary care/specialist mentoring relationship between pediatric primary care practitioners and child psychiatrists.	Training and Mentoring of Pediatric Primary Care Practitioners/Practices	Training Needs of Primary Care Providers identified. Mentoring plan created and implemented. Training opportunities presented.	Nov. 15, 2016 and ongoing Mar. 1, 2017 to Sept 1, 2017		Emma Pendleton Bradley Hospital
Collect data to track key indicators	Design and implement data reporting process	Process implemented	Mar. 1, 2017 to May 15, 2017		Emma Pendleton Bradley Hospital
Program administration	Address sustainability	Sustainability planning processes	Through June 30, 2019		Emma Pendleton Bradley Hospital and SIM
Intervention: Support integration of behavioral health into primary care by providing resources and training for SBIRT in PC practices and evaluation/data collection for 12 Integrated Behavioral Health Model practices.					
Pilot primary care practices received practice transformation facilitation to	Subject matter expert salaries to support practice transformation facilitation	Provide practice transformation facilitation support to practices to integrate behavioral health	January 1, 2017 to December 31, 2018	\$166,000	CTC

Primary Driver: Better integrate behavioral health into primary care investments in Rhode Island's healthcare workforce					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor
integrate behavioral health					
Data at pilot sites is collected.	Data collection activities	Collect data at pilot sites.	January 1, 2017 to December 31, 2018	\$60,000	CTC
Data analyzed for outcomes	Data analysis fees	Conduct analysis of data collected from pilot sites and use it to plan for sustainability	January 1, 2017 to December 31, 2018	\$144,000	CTC
Intervention: Support CMHCs with practice transformation and to receive data about their patients					
Because BHDDH cannot adequately use the Care Management Dashboard, we are determining how best to deploy the final dashboard.	Implement one final Care Management Dashboard	Execute maintenance contract, import test patient panel file, test patient panel file, provision users, train users, import production-ready panel file, go-live.	Completed by December 2018	\$15,000	RIQI
Intervention: Assist providers in aggregating data from their Electronic Health Records, to help make reporting and practice transformation easier; provide training to providers in how to interpret the data to make positive changes within their practices; Pursue making this quality data available to patients.					
Procure vendor for the Healthcare Quality Measurement Reporting and Feedback System	N/A	Contract signed with selected vendor.	Completed January 2018	\$0	SIM Staff
Implementation of HQMRFS	Initial license, setup, configuration, and launch with initial data senders	Execute license, onboard initial data source(s), configure measures and user interface.	Completed December 2018	\$880,500	IMAT Solutions, Inc.
Implementation of HQMRFS	Ongoing onboarding of additional data sources/users	Renew license, onboard additional data source(s), configure user interface	Completed June 30, 2019	\$868,850	IMAT Solutions, Inc.
Implementation of HQMRFS	Address sustainability	Sustainability planning processes	Through June 30, 2019		IMAT Solutions, Inc and SIM
Intervention: Integrated Behavioral Health Billing and Coding					

Primary Driver: Better integrate behavioral health into primary care investments in Rhode Island's healthcare workforce					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor
Clarify specific administrative barriers to integrated care delivery	Information Gathering	Schedule and conduct interviews and literature review	Completed by June 2018	\$35,000	Bailit Health
Work toward payer alignment and streamlining of processes to address barriers	Facilitate Dialogue between Payers and Providers	Convene and facilitate work group meetings	Completed by December 2018	\$15,000	Bailit Health

Table 10: Patient Engagement Work Plan

Primary Driver: Provide access to patient tools that increase their engagement in their own care. Assist with advanced illness care planning.					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
Intervention: Increase patient engagement in their own healthcare, specifically with respect to their end-of-life wishes, by training the providers who care for them on how to have effective goals of care conversations and establish advance care plans in alignment with patient/family wishes.					
Baseline Data Collection and Analysis	Staff salaries: project coordinator, project manager	Will assess base-line data and work on respective EHRs to capture information and evaluate program efficacy.	September 1, 2017 – December 31, 2017		HPCRI
Providers will have additional and more effective communication with their patients that are seriously ill, related to goals of care and advanced care planning	CORE Healthcare consultant	Identify five providers and registered nurses to be trained as facilitators in Complex Care Conversations	September 1, 2017 – September 30, 2017	\$6,000	HPCRI
	Staff salaries: providers, project coordinator, project manager Program supplies	Implement provider trainings	October 1, 2017 – June 30, 2019	\$227,439	HPCRI
Seriously ill patients will report greater satisfaction as it related to end of life planning	Staff salaries: project coordinator, project manager	Survey data collection	October 1, 2017 – June 30, 2019		HPCRI
Provider satisfaction will be improved using learned tools and strategies for	Staff salaries: project coordinator, project manager	Data collection from 3-month post training survey. (requirement for provider to receive CEUs, which is the	January 1, 2018 – June 30, 2019		HPCRI

Primary Driver: Provide access to patient tools that increase their engagement in their own care. Assist with advanced illness care planning.					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
having complex care conversations		sustainability plan for this project).			
Patients will be get the right care, at the right place at the right time and per their wishes	Staff salaries: project coordinator, project manager	Data collection on palliative referrals/ length of stay, hospice referrals/ length of stay, readmission rates and the completion of advanced care planning (ACP) documentation and use of ACP reimbursement coding.	September 1, 2018 – June 30, 2019		HPCRI
Evaluation	Subcontractor salary, evaluation activities	Internal evaluation and data collection	September 1, 2017 – June 30, 2019	\$18,000	HPCRI/ Brown University
Intervention: Implement a multifaceted project centered around Advance Care Planning (ACP) Training for Consumers and Providers focusing on: Consumer education and outreach, cross-cutting provider education and outreach, and implementation of an ACP group medical visit pilot project for Medicare beneficiaries within primary care practices.					
Project plan refinement	Staff salaries: program coordinator, program assistant, analytics manager, communications coordinator		September 1, 2017 – December 31, 2017	\$34,239	HCA
Project oversight and coordination	Staff salaries: program coordinator, program assistant, analytics manager, communications coordinator Program supplies	Data collection, project coordination, subcontractor management	October 1, 2017 – June 30, 2019	\$72,333	HCA
Curriculum development	Subcontractor salaries	Practice recruitment and education Curriculum development	October 1, 2017 – June 30, 2019	\$42,576	HCA/ RISNA/ MGG Law
Public Forums		Planning, marketing, execution	Ad Hoc	\$6,240	HCA/ Institute for Healthcare

Primary Driver: Provide access to patient tools that increase their engagement in their own care. Assist with advanced illness care planning.					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
Increased number of ACP billing codes utilized.		Group medical visit pilot project for Medicare beneficiaries within primary care practices in RI	April 1, 2018 – June 30, 2019	\$44,120	HCA/ Care New England
Increased number of advance care directives documented		Consumer education, outreach and engagement, targeted Latino population		\$56,160	HCA/ Progreso Latino / RI Council of Churches
Increased number of advance care directives.	Data collection and evaluation	Administer pre- and post-surveys to practitioner participants to measure baseline and follow-up knowledge/confidence related to ACP	March 1, 2018 – June 30, 2019	\$27,232	HCA
		Analyze baseline and post training billing and coding utilization	March 1, 2018 – June 30, 2019		
Development and implementation of Sustainability plan	Staff salaries	Stakeholder analysis and environmental scan		\$37,000	HCA with Subcontractors and SIM
Intervention: Develop a Patient Engagement Platform that allows patients more control of their health and healthcare decision-making, in addition to developing a centralized location for uploading advance directives					
Develop the Consumer Engagement Platform	Collect business requirements with stakeholders	Complete business requirements document	Completed March 2018	\$120,820	RIQI
Develop the Consumer Engagement Platform	Elaborate on project implementation	Complete Solution Architecture, Technical Design, and Project Schedule documents	Complete April 2018		RIQI
Develop the Consumer Engagement Platform	Construct Consumer Engagement Platform	Develop and test the system	Complete September 2018	\$152,547	RIQI
Implement the Consumer Engagement Platform	Go live in 6 test pilots	Go live and completion of warranty period; executive summary and lessons learned document	Complete December 2018	\$114,400	RIQI
Implement the Consumer Engagement Platform	Maintain the CEP through the end of SIM	Ongoing Maintenance and Operations	July 2018 through June 2019	\$252,510	RIQI

Primary Driver: Provide access to patient tools that increase their engagement in their own care. Assist with advanced illness care planning.					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
Implement the Consumer Engagement Platform	Address sustainability post-SIM	Sustainability planning	Through June 2019		RIQI and SIM
Intervention: The Autism Project (TAP) is carrying out a pilot project that addresses children's social and emotional needs through use of Conscious Discipline® (CD), an evidence-based, classroom program.					
Vendor selection through patient engagement procurement.	N/A	Contract signed with vendor	August 2017 Start Date; Project to be completed by June 30, 2019	\$344,146	The Autism Project
Start-up and management of Conscious Discipline (CD) pilot project in designated elementary school classrooms in Rhode Island.	Plan and start-up program; Manage ongoing project operations;	Hire and supervise CD training and consultation staff; Oversee all project operations including tracking of metrics.	August 2017 through June 30, 2019	\$130,452	The Autism Project
Delivery of key program components.	Train demonstration school teachers and other school personnel in CD interventions; Provide in-school consultation to classrooms.	Organize and schedule staff to deliver training and consultation services.	August 2017 through June 30, 2019	\$213,694	The Autism Project.
Program administration	Address sustainability post-SIM	Sustainability planning	Through June 2019		The Autism Project and SIM
Intervention: Support SIM and HEZ activity alignment to maximize relationships and coordination between existing population health efforts within communities; address patient 'disengagement' or patients' lack of participation in their own healthcare; and focus on populations with the highest-risk and greatest known disparities.					
Implement the SIM/HEZ alignment scope of work.		Continue implementation and program monitoring.	Complete by 06/30/2019.	\$250,000	RIDOH
Conduct sustainability planning for all aspects of the SIM/HEZ alignment project.		Begin/continue partnership development, project evaluation and sustainability planning.	Complete by 06/30/2019.	See SIM State-Based Evaluation workplan.	RIDOH URI

Table 11: Data Analytic Capacity and Expertise Work Plan

Primary Driver: Increase use of data to drive quality and policy					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
Intervention: Maximize the use of HealthFacts RI: Support and maintain the claims data collection process; support advanced reports and analytics; and support the coordination of data validation, release and analysis.					
Transition from SIM funding to approved IAPD funding	N/A	Transition from SIM funding to approved IAPD funding	Completed May 2017	No cost to SIM	EOHHS
Provision of Project Management for APCD Implementation	Staffing Support	Facilitate weekly ISW meetings; Act as liaison for data submitters and other state initiatives; strategic planning	Until September 2018	No cost to SIM	Freedman Healthcare
Effective management and support of the Data Release Review Board (DRRB)	Staffing support	Facilitate DRRB per Open Meetings Law; prepare materials and applications for review; train board members	Until September 2018	No cost to SIM	Freedman Healthcare
Data released to applicants	Staffing support	Support production, transmittal, and payment of data release files; Develop strategic marketing plan; tracking of data release requests	Until September 2018	No cost to SIM	Freedman Healthcare
Ability to use data for internal and external data reports	Staffing support	Development and refinement of reporting specifications and measures	Until September 2018	No cost to SIM	Freedman Healthcare
Lockbox including the opt-out portal are operational	Staffing support and service licensing and support	Operate Opt-out portal; Operate MPI process on quarterly data submissions	Ongoing	No cost to SIM	Onpoint Health Data
Data collection and aggregation are operational	Staffing support and service licensing and support	Operate data collection and aggregation process on quarterly data submissions	Ongoing	No cost to SIM	Onpoint Health Data
Value-added analytics components applied	Staffing support	Apply value-added analytics components to aggregated data	Ongoing	No cost to SIM	Onpoint Health Data
Annual Level 3 Data Sets available for release	Staffing support and service licensing and support	Creation of Level 3 Data Sets annuals	Ongoing	No cost to SIM	Onpoint Health Data
Incorporation of Statewide Common Provider Directory Files	Staffing support	Import Common Provider Directory Files	On hold	No cost to SIM	Onpoint Health Data

Primary Driver: Increase use of data to drive quality and policy					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
Analytic reports created	Staffing support and service licensing and support	Ad-hoc, planned data analyses completed	Ongoing	No cost to SIM	Onpoint Health Data
Visioning and Design of BI Tool completed	Staffing support and service licensing and support	Work with state staff to vision and design BI tool implementation	Completed	No cost to SIM	Onpoint Health Data
Data Model developed	Staffing support and service licensing and support	Work with state staff to develop a data model	Completed	No cost to SIM	Onpoint Health Data
BI Tool Mapped	Staffing support and service licensing and support	Work with state staff to map data to the BI tool	Completed	No cost to SIM	Onpoint Health Data
Quality assurance and maintenance completed	Staffing support and service licensing and support	Work with state to perform QA support and maintenance	Ongoing	No cost to SIM	Onpoint Health Data
Staff trained to use BI tool and provided support as needed	Staffing support and service licensing and support	Work with state staff to train state users and provide support as needed	Ongoing	No cost to SIM	Onpoint Health Data
Intervention: Complete the Common Provider Directory: Consolidate provider data from multiple sources into a single “source of truth” record; increase the understanding of provider-to-organization relationships; Provide a public portal to search for and locate providers; Provide mastered provider data extract to integrate into state systems. PLEASE NOTE: With notice to CMS, this project is on hold for a reassessment in Spring 2018.					
Ability to import and export files into and out of the provider directory	Import, test, transform and load provider information into a common provider directory	Import 14 data files into provider directory	Jan. 16, 2016 to July 31, 2017	\$720,000	RIQI
	Develop output files for state agency use	Export 8 data files from provider directory	June 30, 2016 to July 31, 2017		
Support, maintain, and operate provider directory infrastructure	Monthly maintenance cost	Contribute to fixed costs to support, maintain, and operate provider directory software, external database licensing, hardware and software maintenance and upgrades, website user provisioning and support	Jan. 16, 2016 to July 31, 2017	\$220,000	RIQI

Primary Driver: Increase use of data to drive quality and policy					
Milestone/ Measure of Success	Budget Activity	Action Step	Timeline	Cost	Vendor/ Lead
Maintain a project plan and establish collaborative state-wide provider directory data management policies	Documented Project Plan	Deliver Project Plan	Completed July 2016	\$15,000	RIQI
	Documented Data Dictionary	Deliver Data Dictionary	Completed July 2016		
	Documented Data Mastering and Survivorship Rules	Deliver Data Mastering and Survivorship Rules	Completed July 2017		
Develop public facing website with provider lookup functionality	Provider directory website specifications document	Deliver provider directory website specifications document	Completed March 2017	\$135,000	RIQI
	Provider directory website development project plan	Deliver provider directory website development project plan	Completed April 2017		
	Provider directory website prototype	Deliver provider directory website prototype	Completed December 2016		
	Live, secure, updated provider directory website	Go-Live on provider directory website	On Hold		
Master Provider Records	Master medical providers	Master 8500 medical providers (MD, DO, PA, NP)	Initial completed December 2016	\$409,250	RIQI
	Master behavioral health providers	Master 3600 behavioral health providers	Initial completed December 2016		
Continue Provider Directory Development beyond SIM funding	No longer SIM funded	Continue to collaborate with SIM on provider directory development	On hold	No SIM cost	RIQI
Intervention: Create an integrated data ecosystem for state-agency programmatic use that leverages analytic tools, benchmarks, and visualizations to improve agency operations (including policies) and create an interagency data sharing culture.					
Implement the EOHHS Data Ecosystem workstreams.		Continue implementation and program monitoring.	Complete by 06/30/2019.	\$1,600,000	EOHHS
Conduct sustainability planning for all aspects of the EOHHS Data Ecosystem project.		Begin/continue partnership development, project evaluation and sustainability planning.	Complete by 06/30/2019.	See SIM State-Based Evaluation workplan.	EOHHS URI
Intervention: Conduct SIM's State-Based Evaluation to study the effectiveness of the overall initiative, as well as a select set of interventions, and potential effects on sustainability by establishing a continuous process for identifying areas of improvement and making solution recommendations based on comprehensive program evaluation and facilitation.					

Implement the Overarching, Mixed-Methods Evaluation Plan, Intervention-Specific Evaluation Plans, and continued collaboration/sustainability facilitation.		Continue implementation, evaluation, and program monitoring.	Complete by 06/30/2019.	\$906,000	URI EOHHS
Intervention: Unified Social Services Directory					
Provide Project Management for the Unified Social Services Directory	Staffing and support for project manager	Manage the development of the Unified Social Services Directory	Hire staff by May 1, 2018	\$63,240	United Way of Rhode Island
Summarize technological requirements for the development of the Unified Social Services Directory and connection with existing HIT Platforms	Research activities	Collect information from stakeholders, staff, subcontractors, and other actors who have implemented similar projects	Completed by September 31, 2018	\$56,760 for research and implementation	United Way of Rhode Island
Begin implementation of the Unified Social Services Directory	Implementation	Select IT platform, establish protocols for data standardization and maintenance, develop a plan for building connections with existing HIT platforms	Completed by February 28, 2019		United Way of Rhode Island
Implementation of the Unified Social Service Directory	Address sustainability post-SIM	Sustainability planning	Through June 2019		United Way and SIM

Leveraging Regulatory Authority

Rhode Island remains committed to using multiple regulatory, legislative, and purchasing levers to advance the policies needed to fully implement health system transformation within the state. SIM leadership understands that some of the key tools available to implement the State's transformation agenda are the regulatory, legislative, and purchasing levers that each participating State agency holds. Many of the State agencies that comprise the SIM Interagency Team engage in this work within each individual Department. A summary of some of the State regulatory levers that have been, are being, could be, or plan to be used for this purpose is included below. As health system transformation within Rhode Island progresses, the SIM Interagency Team works with EOHHS policy staff and a set of policy teams to determine the appropriate usage of Departmental levers:

- The structure of the SIM Core Staff Team (i.e., staff embedded in each agency) allows for coordinated use of the State's levers to advance SIM goals.
- Additionally, all of Rhode Island's State agencies are completing the process of reviewing and updating current policies and regulations through the Office of Regulatory Reform (ORR) to simplify, standardize, and revitalize all regulations. ORR has participated in the SIM Interagency Team meetings and SIM engages State health-related agencies in conversations around regulations that impact health system transformation and population health when regulations are under review on an as needed basis.
- In addition, as mentioned above, the SIM Director meets weekly with EOHHS' joint policy/communications team and biweekly with another EOHHS policy gathering, discussing policy and regulatory changes being considered throughout the agencies and in the legislature. The Project Director tracks issues related to SIM's health system transformation and population health work in these discussions.

Executive Office of Health and Human Services

EOHHS is the lead fiscal agent for the Rhode Island SIM Test Grant. As a reminder, EOHHS is comprised of the State Medicaid program and several health-related State agencies (i.e., Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals; Department of Children, Youth and Families; Department of Health; and Department of Human Services).

State Medicaid Program

The State Medicaid program possesses regulatory and purchasing levers that are critical to the success of Rhode Island's health system transformation. Medicaid controls provider reimbursement rates for the Medicaid population and is in the process of designing incentive payment programs for both hospitals and nursing homes. The ability of Medicaid to contract directly with Managed Care Organizations (MCOs) to assume risk for the Medicaid population provides Medicaid with significant leverage to shape the healthcare delivery system. For example, Medicaid contracts with MCOs (i.e., health insurance plans) and pays a capitated rate for Medicaid enrollees across all programs and imposes conditions on the MCOs through such contracting. The contracting conditions structure how MCOs reimburse providers, measure quality, and support multi-payer programs, such as the State's multi-payer PCMH program.

Accountable Entities and the Health System Transformation Project

Medicaid has leveraged authority granted in partnership with CMS using a Designated State Health Program (DSHP) to embark upon the [Health System Transformation Project \(HSTP\)](#). Having successfully received a waiver from CMS, Medicaid currently has Federal authority to

claim Federal matching funds for a variety of services, including State university and college program expenditures that contribute to the training of the health workforce addressing the Medicaid population in Rhode Island. SIM Liaisons from HSTP are engaged as part of both the SIM Core Staff and SIM Interagency Teams.

Moving forward, Medicaid plans to use the MCO contracting mechanism to require MCOs to adopt specific annual targets for use of APMs and sub-contracting with certified Accountable Entities (AEs). [Medicaid's AE program](#) is in the process of leveraging authority to certify the AEs that will be eligible to enter into arrangements with MCOs to provide the framework for transforming the structure of RI Medicaid's delivery and payment system in accordance with the vision of the Reinventing Medicaid Workgroup convened by Governor Raimondo in 2015. Levers used to implement this program will assist with broader system alignment with SIM goals and achievement of the Triple Aim. Many SIM-engaged agencies have contributed to the AE development and procurement processes. A summary of Medicaid's alignment with OHIC can be found [here](#).

Rhode Island Department of Health

The overall breadth of levers used by RIDOH to adhere to the agency's responsibilities includes, but is not limited to those for: health planning, vital records, immunization, facilities regulation—including hospital conversions/mergers and community benefits, healthcare professional licensing, certificate of need, health information and reporting requirements, disease outbreak response, environmental health—including food and water safety, laboratory testing and medical examination, as well as other aspects of public health and medical care. Most notably, RIDOH maintains the decision-making authority, as well as the ability to include conditions of approval, for healthcare consolidations and mergers through the [Hospital Conversion Act](#) and [Certificate of Need](#) programs. This regulatory authority has been leveraged to assist SIM in pursuing health system transformation (see an example of related conditions of approval [here](#) and [Guiding Principles Letter](#) to inform the certificate of need process from RIDOH Director Nicole Alexander-Scott, MD. RIDOH regulates the Health Information Exchange and HealthFacts RI (a.k.a., All-Payer Claims Database) and is legislatively-mandated to maintain responsibility for the establishment of a Statewide Health Inventory and State Health Plan per [RIGL §23-93-5](#). RIDOH also works with the Federal government to designate shortage areas for primary care workforce development programs.

SIM continues to navigate partners to RIDOH's [Statewide Health Inventory](#) as projects to transform Rhode Island's health system are developed and implemented. SIM plans to continue to engage in the development of the State Health Improvement Plan as a part of RIDOH's State Health Plan mandate to ensure population health improvements are a cross-sector, interagency collaboration. SIM Liaisons have provided and will continue to provide feedback on questions and updates for future iterations of the State Health Inventory.

Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals

BHDDH is responsible for providing services to persons with mental illness and substance use, developmental disabilities, and chronic, long-term medical and psychiatric conditions. BHDDH holds oversight, quality assurance, and patient protection responsibilities for these service providers under state licensing regulations. BHDDH is promoting the use of value-based payment models for the SPMI/SMI population. In partnership with Medicaid, BHDDH has used levers to change both mental health and substance use service delivery in the state. BHDDH has established Health Homes to serve persons with opioid use disorders and individuals with either severe and persistent mental illness (SPMI) or severe mental illness (SMI). Using contractual levers, two MCOs now oversee payments to Community Mental Health Organizations (CMHOs)

who serve as Health Homes. Bundled Medicaid rates have been established for levels of care based on acuity with a focus on consumer outcomes. BHDDH also uses authorities to certify Centers of Excellence (COEs) for the treatment of opioid use disorders. COEs provide assessments and treatment for opioid dependence, offer expedited access to care, and serve as a resource for community-based providers. SIM continues to engage with BHDDH to develop clinical quality measures, system transformation infrastructure, and improvement plans related to behavioral health (including mental health and substance use).

Department of Business Regulation

Office of the Health Insurance Commissioner

OHIC is statutorily-mandated to direct health insurers toward policies and practices that improve the healthcare system per RIGL §42-14.5-2 (4)-(5) and is the nation's only specific health insurance commission office. For several years, OHIC has actively used levers to facilitate change in the health system towards value rather than volume. OHIC exercises prior authorization, form, and rate review authorities for the individual, small group, and large group markets in an effort to critically evaluate the factors underlying medical trend, insurer administrative costs, and insurer financial strength. To support more affordable health insurance, OHIC leverages Affordability Standards comprised of three major elements: standards to advance value-based purchasing; standards to promote practice transformation and increase financial resources to primary care for population health management; and standards to safeguard hospital contracting. Through the engagement of stakeholders (e.g., payers, providers, businesses, and consumers), OHIC develops [annual plans](#) that increase the adoption of value-based purchasing models and PCMHs. More details on these levers can be found within the Healthcare Delivery System Transformation Plan and SIM Alignment with Federal and State Initiatives sections of this SIM Operational Plan. SIM Liaisons from OHIC and Medicaid work together to ensure alignment of efforts, as previously described.

Department of Administration

HealthSource RI

HealthSource RI (HSRI) is Rhode Island's health insurance exchange, providing insurance to 35,000 Rhode Islanders. HSRI commands several regulatory levers to institute payment reform in the state. Qualified Health Plan certification for individual and small group products allows HSRI to actively solicit plans that advance payment reforms, including plan designs that promote the use of PCMHs or plan designs that advance value-based payment models through provider contracting. Consumer education efforts allow HSRI to empower consumers to make better healthcare choices, both in choosing plans and when using services. Lastly, HSRI continues to explore potential coordination of State employee health plans in an effort to achieve an alignment of benefits and incentives for system reform across this population within Rhode Island. The consumer education experience of HSRI remains a component of SIM's patient engagement activity to improve patients' overall experience of care. These levers are executed in coordination with SIM agencies such as OHIC and EOHHS, as well as insurers.

Moving Forward

As noted, Rhode Island is committed to using multiple types of levers to advance the policies needed for health system transformation. The SIM Interagency Team continues to engage in this work being coordinated by EOHHS and agency-specific Legislative/Regulatory Program Liaisons. Many of the administrative (e.g., purchasing, contracting), legislative, and regulatory levers

existed and were being implemented before SIM and will continue to exist—in some cases, in an enhanced way based on work with ORR—and will be implemented beyond SIM.

Quality Measure Alignment

Quality measurement and improvement are integral components of value-based contracting. As we pursue our target of having 80% of payment linked to value and value-based payment arrangements become more widely used in Rhode Island, it is important to ensure consistency and coherence in quality measures, to ease administrative burden on providers, and drive clinical focus to key population health priorities. In June 2015, SIM chartered a workgroup comprised of payers, providers, measurement experts, consumer advocates, and other community partners to develop an aligned measure set for use across all payers in the state.

Quality Measure Alignment Process

Because of former SIM Steering Committee Chairman Lou Giancola's support for this process, he worked with the Hospital Association of Rhode Island, Blue Cross Blue Shield of Rhode Island, UnitedHealthcare of New England, and Neighborhood Health Plan of Rhode Island to raise the funding to hire Michael Bailit and his team at Bailit Health Purchasing to consult on this process. The Bailit team provided technical and facilitative support to the workgroup.

Michael Bailit has supported multiple state efforts related to measure alignment in addition to his current work in Rhode Island with the SIM Measure Alignment Work Group. Past projects with multi-payer measure alignment include completed projects for the states of Maine, Oregon, Pennsylvania, Vermont, and Washington. Bailit has also assisted with measure set development for the states of California, Colorado, Massachusetts, and Missouri. For some of these projects, he has supported state work by using the Measure Selection Tool that it developed with Robert Wood Johnson Foundation funding for the Buying Value project.

Award Year 1 - Pre-Implementation

The Measure Alignment Workgroup held 12 meetings between July 2015 and March 2016. The goal that the workgroup set for itself was to develop a menu of measures from which payers could pick, and specific core sets of measures to be included in all contracts. At the outset, the workgroup adopted 11 criteria for measure selection:

1. Evidence-based and scientifically acceptable;
2. Has a relevant benchmark (use regional/community benchmark, as appropriate);
3. Not greatly influenced by patient case mix;
4. Consistent with the goals of the program;
5. Useable and relevant;
6. Feasible to collect;
7. Aligned with other measure sets;
8. Promotes increased value;
9. Presents an opportunity for quality improvement;
10. Transformative potential; and
11. Sufficient denominator size.

The workgroup used the measure selection criteria to assess the relative merits of including measures in the menu and core sets. Measure selection criteria were also used to score designated measures for a second round of review.

The workgroup reviewed existing measures used in value-based contracts between payers and providers in Rhode Island. These measures were cross-walked to the CMS Medicare Shared

Savings Program and 5-Star measure sets to assess alignment using the Buying Value Tool. The measures were also cross-walked to SIM population health priorities, including diabetes, obesity, tobacco use, and hypertension. Measures were grouped by domain, including preventive care, chronic illness care, institutional care, behavioral health, overuse, consumer experience, utilization, and care coordination. The measures represented a mix of claims-based measures, and measures based on clinical data, or a combination of claims and clinical data. Workgroup members were also asked to submit measures for consideration by the workgroup that were not currently used in contracting.

The final product was a menu totaling 59 measures. Included within the menu were core measure sets for ACOs (11 measures), primary care providers (7 measures), and hospitals (6 measures). Core measures are required to be in all performance-based contracts of the relevant type: primary care, hospital, ACO. Beyond the core measures, health plans and providers may select measures from the menu for inclusion in contracts. The Measure Alignment Workgroup was silent on whether measures shall be used for payment only, vs. payment and/or reporting. Specific targets and incentives associated with the measures will be left up to negotiation between the health plans and providers.

Award Year 2

The Measure Alignment Workgroup convened in November of 2016 to conduct its annual review of the three measure sets that were endorsed by the SIM Steering Committee in March 2016. Under the facilitation of Bailit Health Purchasing, the Workgroup reviewed measures with a change in NQF or NCQA status, new HEDIS measures, and measures recommended by the specialist workgroups. The work group decided to remove two measures from the SIM Aligned Measure Sets because NQF removed its endorsement of those measures, and recommended removing one additional measure pending Medicaid's input. The Workgroup also added ten measures to the SIM Aligned Measure Sets, which included new HEDIS measures and recommended measures from the specialist workgroups – described below.

All commercial insurers signed OHIC's 2017 Rate Approval Conditions, which included a requirement to adopt the SIM Aligned Measure Sets in any contract with a performance component as a condition for their 2017 rates to be approved. The updated SIM Aligned Measure Sets will be effective for insurer contracts with hospitals, ACOs, and primary care practices beginning on or after January 1, 2017. Additionally, in January 2017 OHIC amended State Regulation 2, which delineates the powers and duties of its office, to include implementation of the SIM Aligned Measure Sets in any contract with primary care providers, specialists, hospitals, and ACOs that incorporate quality measures into the payment terms. OHIC will also be issuing an interpretive guidance document to payers for using the measure sets in contractual payment arrangements.

In an effort to align processes between commercial and public payers and reduce administrative burden for providers, Medicaid has incorporated the SIM Aligned Measure Sets into the Medicaid Performance Goal Program (PGP). The Medicaid Performance Goal Program aligns with the SIM quality measure set as well as additional measures that assess health plan performance against EOHHS goals and/or align with the CMS child and adult core measures that EOHHS reports to CMS. The PGP is used to incent the health plans to improve across various domains, which in turn influences provider performance-based contracts. In addition, the Medicaid Accountable Entity program anticipates alignment of the SIM quality measures as part of the program's Alternative Payment Methodology (APM) or total cost of care guidance. The APM guidance is in the process of being developed.

In Award Year 2, SIM also convened two Specialist Measure Alignment Workgroups between July and October 2016 to develop recommendations for additional measure sets for specialty care, particularly for maternity care and behavioral health. Both workgroups were composed of payers, provider groups, professional associations, state agency/public payer representatives, and advocates, and adopted the same selection criteria used by the original SIM Measure Alignment Workgroup. The workgroups reviewed specialist measures that are already included in the three measure sets, measures currently in use in provider contracts in Rhode Island, and measures recommended by workgroup members. Each workgroup developed a measure set with a “core set” and “menu set”, consistent with the existing three measure sets. Additionally, the Behavioral Health Measure Set includes an additional set of “BHDDH Measures” that Medicaid Integrated Health Homes are required to submit to BHDDH.

Years 3-4 - Implementation

In 2017, Measure Alignment was successfully transitioned to OHIC after their regulations were updated to require commercial insurers to use the SIM Aligned Measure Sets in any contract with a financial incentive tied to quality⁸. The Measure Alignment regulation also states that OHIC will convene a Quality Measure Alignment Review Committee each year that will review all 5 measure sets and revise, remove, or add new measures as needed due to changes in clinical standards or statewide population health priorities. This Review Committee met and fulfilled its regulatory duties under the leadership of OHIC for the first time in the fall of 2017. This process will continue on, as a lasting legacy of the SIM project.

Once the Health Care Quality Measurement, Reporting and Feedback System is built, Rhode Island may scale the system to facilitate public reporting on the core measures. Please see Page 182 for a more detailed description of the Reporting and Feedback System, and how we envision it collecting data from a variety of sources, ideally leveraging existing infrastructure, collecting and mastering the data within a data intermediary, and analyzing and viewing those data through an analytics engine with external public and provider facing website.

Aligned Measure Sets

The full list of measures in the [SIM Aligned Measure Sets](#) (including ACO, Primary Care, Hospital, Behavioral Health, and Maternity), guidance documentation, and measure specifications are posted online.

⁸ See [OHIC Regulation 2, section 10\(d\)\(3\)](#)

SIM Alignment with State and Federal Initiatives

Below is an updated list of the key projects with which SIM expects to collaborate in AY4.

Current CMMI Projects and Awards

CPC+

Rhode Island is one of 14 regions across the country participating in CPC+, which is a partnership between payers from the Centers for Medicare & Medicaid Services (CMS), state Medicaid agencies, commercial health plans, and primary care providers. The CPC+ Initiative is an advanced primary care medical home model that offers an innovative payment structure to support delivery of comprehensive primary care.

The Rhode Island region has 31 primary care practices; 10 practices in Track 1 and 21 practices in Track 2. Starting in CPC+ Year 1, practices in both tracks are expected to make changes in the way they deliver care, focusing five Comprehensive Primary Care Functions:

1. Access and Continuity;
2. Care Management;
3. Comprehensiveness and Coordination;
4. Patient and Caregiver Engagement; and
5. Planned Care and Population Health.

CPC+ uses quality performance measures to assess improvements in the quality of care over time in CPC+ practices. Quality measures include the patient experience of care survey, claims-based utilization measures, and eQMs.

The initial steps for SIM and CPC+ collaboration have begun. Our close partner CTC is serving as a multi-payer convener for CPC+, as well as providing technical assistance to the Track 1 practices. Healthcentric Advisors is serving as the regional technical assistance representative for the Track 2 practices. There is recognition that some of the Health IT requirements under CPC+ align closely with SIM funded initiatives as well as those described in the State Medicaid Health IT Plan and in the most recent HITECH IAPD update, and SIM continues to seek alignment where appropriate and feasible. For example, some members of the Measure Alignment Review Committee that convenes annually to review and update the SIM Aligned Measure Sets represent practices participating in the CPC+ initiative, and offer suggestions to align when CPC+ measures meet our Measure Selection Criteria.

As CPC+ implementation began, we learned that Medicaid participation was not feasible because the number of Medicaid FFS beneficiaries within participating practices was too low. Because the state no longer has a formal stake in the initiative, we have found it difficult to engage on an ongoing basis. That being said, we maintain strong partnerships with both CTC and Healthcentric Advisors, and have demonstrated our willingness to work collaboratively when misalignment is identified.

Transforming Clinical Practice Initiative (TCPI)

The Transforming Clinical Practice Initiative is designed to help clinicians achieve large-scale practice transformation. The initiative is designed to support more than 140,000 clinician practices nationally over the next four years in sharing, adapting and further developing their comprehensive quality improvement strategies. The initiative is one part of a strategy advanced

by the Affordable Care Act to strengthen the quality of patient care and spend health care dollars more wisely. TCPI's goals are to:

- Promote broad payment and practice reform in primary care and specialty care;
- Promote care coordination between providers of services and suppliers;
- Establish community-based health teams to support chronic care management; and
- Promote improved quality and reduced cost by developing a collaborative of institutions that support practice transformation.

In Rhode Island, the TCPI project is being carried out by the Rhode Island Quality Institute (RIQI). As a Practice Transformation Network, RIQI's initial goals were to recruit 1,500 clinicians to expand their quality improvement capacity, learn from one another, and achieve common goals of improved care, better health, and reduced cost. The network has been providing practice transformation assistance, care coordination tools and services, performance measurement, and reporting and evaluation to help participating clinicians meet the initiative's phases of transformation and associated milestones, clinical and operational results.

In their TCPI planning, RIQI aligned their measures to match SIM's (with CMS' approval), and SIM and RIQI have been in contact with each other to for coordination purposes.

Now, RIQI is in the third year of its cooperative agreement with CMS. They have met their goals, with approximately 1,500 clinicians (80% specialists) enrolled in the initiative. The top five specialties are: Emergency Medicine, Radiology, Orthopedic, Psychiatry, and Gastroenterology. As of the end of 2017, the spread of the practices working through a five-phase transformation program were as follows: Phase 1 (21%), Phase 2 (42%), Phase 3 (36%), Phase 4 (1%), and Phase 5 (0%). RIQI projects that more than half of the practices will be in Phase 3 or above by September 2018. RIQI recently shared that practices have realized cost savings through use of hospital alerting to reduce hospital readmissions and emergency department (ED) return visits, avoidance of unnecessary testing, and clinical depression screening.

Program challenges include difficulty in obtaining information (particularly quality measures from electronic health records (EHRs) and claims data; slower than expected progress in improving health outcomes via quality measures with the exception of clinical depression screening; and the limited spread of hospital and ED alerting services due to lack of financial resources to implement. RIQI is mitigating these challenges by proposing spending of grant funding in the current grant year on data exports of claims data from the All Payer Claims Database (APCD), subsidizing the implementation of Care Management Alerts & Dashboards; continuing a communication awareness campaign; utilizing a consultant to work on quality reporting; and adding features to RIQI's Designee Alerts service and Care Management services to make them more attractive to patients and providers (especially specialists), respectively.

Additional areas of focus for the remainder of TCPI's grant year 3 include:

- a) A focus on diabetes and improving health outcomes measured by the A1C good control quality measure
- b) Identification of a methodology to measure reduction in unnecessary testing and procedures as well as strategies to move this measure
- c) Continued education in each of the three primary driver areas – patient and family engagement, using data to drive continuous improvement, and sustainable business operations

- d) An increase in communication and awareness around practice transformation techniques that are working including the value in using health information technology to gain efficiencies and improve health outcomes
- e) Maintaining enrollment levels
- f) Network-wide implementation and use of CurrentCare and Care Management Alerts (hospital readmission and ED return visit)
- g) Identification of further ways to measure cost savings
- h) Analysis of all payer claims database (APCD) data for cost savings opportunities
- i) Increased reporting to practices and training in how to use the reports to measure their own progress on phase progression, PAT completion, and quality measures

Federal Initiatives

Accountable Health Communities

Care New England and the Integra ACO was chosen to receive the five-year cooperative Accountable Health Communities (AHC) award through CMMI. The project focuses on three distinct geographic regions in Rhode Island which demonstrate continued unmet social needs which likely contribute to high medical costs. At some of Rhode Island's busiest healthcare sites, patients will be screened for health-related social needs. Those determined to be at risk will receive referral lists. Those at highest-risk will receive navigation assistance conducted by specially trained navigators (including Certified Community Health Workers (CCHWs)). With the goal of achieving a two percent decrease in the average total cost of care relative to the five-year trend at initiation of the project for patients, Medicaid, RIDOH, and SIM are excited to continue working with Integra on this opportunity, including through:

- Coordination with SIM/BHHDH's CHT/SBIRT project to align substance use screening.
- Development of potentially more intensive navigation in the community setting for those highest-risk who are already established in CHT care.
- Collaboration in establishing the Unified Social Service Database project to align towards a singular social services information platform for referrals statewide

Integrated Care Initiative

A recent focus of the State's Medicaid program has been on EOHHS' Integrated Care Initiative (ICI), which is designed to better align the care and financing of Medicare and Medicaid, promote home and community-based care, and provide cost-effective care for adults with disabilities and the elderly. During Phase I of the ICI, EOHHS established a capitated Medicaid managed care plan for adults with full Medicare (Parts A, B, and D) and full Medicaid coverage, as well as Medicaid-only adults who receive long-term services and supports (LTSS). There currently are about 16,500 people enrolled in the Medicaid managed care plan established during Phase I.

Under Phase II, Rhode Island established a fully integrated capitated Medicare-Medicaid plan for adults with full Medicare (Parts A, B, and D) and full Medicaid coverage. Federal authority for Phase II is through the Center for Medicare and Medicaid Services (CMS) Financial Alignment Demonstration (FAD) is a federal demonstration to better align the financing of Medicare and Medicaid and integrate primary, acute, behavioral health, and LTSS for Medicare-Medicaid enrollees. Approximately 13,000 people have enrolled in the Medicare-Medicaid plan since inception in July 2016.

Medicaid 1115 Waiver

Rhode Island submitted an extension request to its current 1115 Waiver in 2013. The 1115 Waiver was approved in January 2014. The original waiver allowed Rhode Island to operate the entire Medicaid program under a single 1115 demonstration. The Rhode Island 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 four guiding principles: (1) pay for value, not volume; (2) coordinate physical, behavioral, and long-term care; (3) rebalance the delivery system way from high cost settings; and (4) promote efficiency, transparency, and flexibility.

On February 26, 2015, Governor Gina Raimondo issued Executive Order 15-08, establishing the Working Group to Reinvent Medicaid. In July 2015, the Working Group delivered a multi-year plan for the transformation of the Rhode Island Medicaid program. EOHHS pursued Medicaid waiver financing through an innovative Health Workforce Partnership known as the Health System Transformation Program (HSTP) to support and sustain the envisioned transformation. In October 2016 CMS approved the waiver amendment to establish the Designated State Health Program (DSHP), and the Health System Transformation Program (HSTP). DSHP and HSTP are two new expenditure authorities that establish requirements for the claiming (source of funds) and use of funds dedicated to HSTP. HSTP funding consists of the following components:

- Expenditures “Attributable to the Establishment of Accountable Entities,” specifically:
 - Incentive-Based Infrastructure Funding provided to AEs via the State’s MCO contracts
 - Partnerships with Institutions of Higher Education for health workforce development and technical assistance to Accountable Entities
 - HSTP Project Management Support, including demonstration pilots and evaluation funding
 - Vital State Health Programs, specifically defined to include: Consumer Assistance, Wavemaker Fellowship, TB Clinic, RI Child Audiology Center, and Center for Acute Infectious Disease Epidemiology.
- One-time transitional funding to support hospitals and nursing facilities in the transition to new AE structures.

The amount of funding will be phased down over the period of the demonstration as the implementation costs associated with AEs diminish and savings resulting from their operations reduce funding needs.

Medicaid Accountable Entities

Through its contracted Medicaid Managed Care Organizations (MMCOs), EOHHS is supporting the implementation of an Accountable Entities (AE) program. A Medicaid AE pilot program began in 2016, and helped to advance program goals, build capacity among providers to move toward full AE certification, and provided important lessons for the success of the program.

Throughout 2016, EOHHS conducted a series of stakeholder meetings to gather input on the draft Accountable Entities Roadmap and associated guidance documents for the program. Sessions focused on attribution methodology, quality metrics, and total cost of care methodology, among other topics. In April of 2017, EOHHS submitted the Accountable Entity Roadmap to CMS for approval. The Roadmap was approved by CMS on November 17, 2017. Following the approval of the Roadmap, EOHHS finalized and posted the comprehensive Accountable Entities Certification Standards, Attribution Requirements, Total Cost of Care, and Incentive Program Funding requirements. These documents expand on the Roadmap and provide detailed program parameters for MCOs and AEs wishing to participate in the program.

The goals of Rhode Island Medicaid are consistent with initiatives taking hold across the country – a movement toward Accountable Care Organizations, including value-based payment, new forms of organization, and increased care integration. Specific goals of this initiative, developed in alignment with the State Innovation Model (SIM) and other ongoing initiatives in the Rhode Island environment include:

- Transition from fee for service to value-based purchasing
- Focus on Total Cost of Care (TCOC)
- Create population-based accountability for an attributed population
- Build interdisciplinary care capacity that extends beyond traditional health care providers
- Deploy new forms of organization to create shared incentives across a common enterprise
- Apply emerging data capabilities to refine and enhance care management, pathways, coordination, and timely responsiveness to emergent needs.

As stated above, EOHHS envisions that the primary vehicle for system transformation will be Accountable Entities. Accountable Entities represent interdisciplinary partnerships between providers with strong foundations in primary care, that will also work to address other services outside of the traditional medical model, including but not limited to, behavioral health and social support services. AEs will be accountable for the coordination of all services and benefits, and will increasingly move toward a Total Cost of Care (TCOC) arrangement with shared and full risk arrangements. The vehicle for implementing the AE initiative will be the contractual arrangements between the AEs and their managed care partners. Medicaid MCOs are contractually required to increasingly enter into EOHHS approved value-based Alternative Payment Model (APM) contracts. Certified AEs must enter into value-based APM contracts in compliance with EOHHS guidelines in order to participate in the AE program. This includes the AEs member attribution, shared savings arrangements, and incentive-based infrastructure payments through the HSTP program.

The AE program includes three core “pillars:”

1. EOHHS Certified Accountable Entities and Population Health – The foundation of the EOHHS program is the certification of AEs responsible for the health of a population of members.
2. Progressive Movement toward EOHHS approved Alternative Payment Methodologies – Fundamental to EOHHS’ initiative is a progressive movement from volume based to value- based payment arrangements, and a movement from shared savings to increased risk and responsibility. Once an AE is certified, the AE must pursue value-based APMs with their managed care partners in accordance with EOHHS’ requirements.
3. Infrastructure Incentive Payments for EOHHS Certified AEs – Incentive-based infrastructure funding will be available to state certified AEs who have entered into qualifying APM contractual agreements with Managed Care partners. As part of these

agreements, AEs may earn incentive-based infrastructure funding under state-specified incentive funding requirements.

Rhode Island Medicaid EHR Incentive Program

EOHHS administers the Medicaid EHR incentive program and, as part of that program, has successfully been receiving 90/10 funding since 2012 to help support the continued development and implementation of CurrentCare, Rhode Island's statewide Health Information Exchange (HIE). The Rhode Island Quality Institute (RIQI), which serves as the state's regional health information organization and was designated as the state's HIE, implemented a voluntary funding model in 2012 whereby all of the major commercial insurers, a number of self-funded employers including the state employee plan, and Medicaid started contributing \$1.00 per member per month based on the number of lives. This funding model has supported activities such as onboarding of providers, onboarding additional data submitting partners (including practices sending CCDs) enrollment of individuals into CurrentCare, and some of the very early provider directory design work.

The Rhode Island EHR Incentive program submitted both the IAPD-U and the updated SMHP in December 2016, and is anticipating that the next IAPD-U will be submitted in April 2018. The SMHP integrated the full HIT vision for Rhode Island and included the SIM-funded HIT components.

SMD 16-003 expanded the opportunities for 90/10 funding to encompass all Medicaid providers, in an effort to recognize the need for information sharing among all of a patient's treating providers. In response, Rhode Island's EHR Incentive Program sought approval on additional projects beyond the funding received previously through the per member per month model. The IAPD-U was approved by CMS, and Rhode Island is working on implementing the following projects for which state match has been identified:

- Connecting the EMS system at DOH to the HIE bi-directionally, and creating alerts to providers
- Implementing additional EHR integrations with the Prescription Drug Monitoring Program (PDMP) through the HIE
- ED Smart Notifications – This will put important, high value alerts in the ED workflow in their EHR (ED Track Board), including information about ED utilization, PDMP flags, etc.
- Expand Kidsnet to be an Adult Immunization Registry
- Creating an HIE Registry/Form Module – This will support the development of electronic SBIRT screening within the SIM Consumer Engagement Platforms.
- The state will request continued funding for these activities, as well as for several new activities under the IAPD-U to be submitted in the spring of 2018.

Money Follows the Person

Rhode Island was awarded a Money Follows the Person (MFP) Demonstration Grant in April 2011. The goal of the demonstration is to assist the state in rebalancing the long-term services and supports system by increasing use of community-based care and decreasing use of institutional care. Through the program, participants transition from nursing facilities to the community with enhanced home and community-based services. MFP support strengthens the state's ability to provide home and community-based services and promotes choice of long-term care settings. MFP transitions will continue through December 2018, and the grant will end on September 30, 2020. Rhode Island has facilitated 331 transitions from program inception through February 28, 2018.

Adult Medicaid Quality Grant

CMS awarded EOHHS an Adult Medicaid Quality Grant (AMQ) in December 2012 to: 1) develop State capacity in the measurement, analysis, and reporting of health care quality; 2) establish a core set of regularly reported Adult Quality Measures across Medicaid populations and enhance the communication of these measures within and among state agencies and stakeholders; and 3) improve the quality of care delivered to Medicaid members. The grant came to a close December 20, 2016. Accomplishments include:

- Established the Analytic & Evaluation Unit to inform program evaluation efforts across EOHHS: increased the capacity to calculate AMQ measures across Medicaid, assessed current data infrastructure and capabilities; and currently working to standardize recipient categories and develop file structures that can link claims from all data sets into more manageable analytical files.
- Completion of a Transitions of Care Quality Improvement Program (QIP) that brought together hospitals and community providers to measure and improve information transfer upon patient discharge.
- Completion of an Antidepressant Medication Management QIP that analyzed strategies to improve the rate of adherence for newly prescribed antidepressant medication. EOHHS and the University of Rhode Island are continuing this partnership post grant period.
- Completion of an Electronic Health Record Project that analyzed the feasibility and validity of collecting diabetes screening measures directly from EHRs versus through claims data.

Rhode Island Department of Health

RIDOH continues to convene a monthly Internal RIDOH SIM Partner Meeting to share information, foster program alignment with SIM (and vice versa), solicit feedback from partners, and conduct pre-work for SIM-related tasks. This relationship building and opportunity for convening remains critical to align programs that are complementary and supportive to each other, particularly when addressing the socioeconomic and environmental determinants of health within the clinical setting. Some of the programs represented at this internal SIM collaboration, as well as examples of collaboration fostered through this partnership, include:

Center for Health Data and Analysis

The [Center for Health Data and Analysis](#) (CHDA) maintains numerous surveillance systems, databases, and measurement sources that serve as primary information sources and collection methods for population health and health disparity outcomes. Examples of collaboration resulting from SIM engagement include:

- Provision of major data submissions for the SIM Health Assessment report, including from the [Behavioral Risk Factor Surveillance System \(BRFSS\)](#), Youth Risk Behaviors Survey (YRBS), and Pregnancy Risk Assessment Monitoring System.
- Development and piloting of patient engagement and health literacy questions, as well as inclusion of SBIRT-specific questions within the Rhode Island BRFSS survey.
- Representation of SIM on the BRFSS and YRBS Advisory Boards.

Center for Public Health Communications

The Center for Public Health Communications assists RIDOH and RIDOH-associated programs turn data into compelling information that helps Rhode Islanders to make educated health decisions. SIM partnership has included:

- Inclusion of SIM-related announcements and programmatic updates within *Health Connections*, a monthly e-newsletter disseminated to all Rhode Island providers.
- Review of SIM's *Health Assessment Report* to ensure adherence to linguistic and data-related communication standards.
- Utilization of the RIDOH Print Shop to reproduce the *Healthcare Workforce Transformation Report* for wide dissemination to a variety of audiences.
- Development of the RIDOH webpage for the State Innovation Model Program and assistance with the creation of SIM-related slides for presentations at RIDOH All-Employees Meetings and other high-level venues.

Certified Community Health Workers

CCHWs remains a continued priority for RIDOH with the Rhode Island Certification Board's [certification process](#) having been established, CCHW grand-fathering complete, and the development of the CHW Association in partnership with RIC and RealJobs RI. SIM collaboration has resulted in the following:

- Hiring of CCHWs within SIM's CHTs and inclusion of SBIRT modules with RIC's CHW training curriculum and program.
- Publishing of a CHT article in the [Rhode Island Medical Society](#) e-journal and ensuring inclusion of CHWs within the EOHHS Healthcare Workforce Transformation Report.
- Including SIM in the development of a CHW landscape report and payment options matrix as conversations with Medicaid and carriers around credentialing and reimbursement options for CHWs continue.

Community Health Network

The Community Health Network (CHN) consists of a coordinated system to provide evidence-based and best practice education to activate patients and improve patient skills necessary to self-manage their chronic condition(s). The CHN is a partnership between multiple evidence-based programs based at RIDOH and within community organizations that work on chronic disease management. SIM-related collaborations have included:

- Inclusion of CHN representatives within the Core Unified Social Services Directory Team as that project continues to be developed.
- Continuation of partnership commitment through various Letters of Support.

Comprehensive Cancer Control Program

The [Comprehensive Cancer Prevention and Control Program](#) offers an opportunity to work together by increasing our efforts to prevent and control cancer as well as to improve the quality of life for cancer survivors. It serves as a blueprint for statewide coordination of ongoing and necessary public and private cancer control efforts. SIM partnerships include:

- Participation of SIM Liaisons in the development of eMOLST forms to increase the ease of creating and the ability to utilize advanced care directives.
- Alignment, as applicable, with the Partnership to Reduce Cancer on palliative care and end-of-life care initiatives (including those funded by SIM).

Health Equity Zones

As described in more detail within the Narrative Description of SIM Components, [HEZs](#) are contiguous geographic areas that have measurable and documented health disparities, poor health outcomes, and identifiable socioeconomic and environmental conditions to be improved. In addition to the formal partnership with SIM, the following collaborations have also resulted:

- Initiation of initial HEZ collaborative engagement with initiatives such as the CMMI AHC Test Grant, SIM's PediPRN program, and CHT/SBIRT partners.
- Appointment of SIM to the HEZ Leadership and Policy Team, engagement within the HEZ Learning Community, and inclusion in pilots with the Social Enterprise Greenhouse.
- Provision of lessons learned and resources to inform SIM's approach to braided-funding mechanisms for CHT/SBIRT.
- Engagement of SIM in high-level visits on promising place-based programs from the Association for State and Territorial Health Officials (ASTHO) and Kellogg Foundation.

Health Systems Integration Program

RIDOH maintains a Health Systems Integration (HSI) program that invests in quality improvement measures for secondary prevention of chronic disease (i.e., prediabetes screening and referral, self-measurement of blood pressure, self-management goals, smoking cessation, obesity screening) and tertiary (i.e., diabetes and hypertension control). The RIDOH partnership with SIM on this program included:

- Alignment of the HSI program measure with CTC-RI and OHIC using the Aligned Measure Set as a guide.
- Permission for Care, Community, and Equity sites to report upon the aligned measures if sites are currently enrolled in CTC-RI or have recently graduated.
- Provision of enhanced quality improvement and technical assistance provided to Care, Community, and Equity sites by joining efforts with CTC-RI for practice facilitation.
- Establishment of a partnership for initial investment in the Unified Social Services Directory to assist in helping Care, Community, and Equity sites improve on the HSI measures.
- Collaboration on future data analytics using the EOHHS Data Ecosystem and HealthFacts RI to review SIM's health focus area of chronic conditions (and associated health focus area co-morbidities) from a cost and potentially population health perspective.

Health Systems Policy and Regulation

The Center for Health Systems Policy and Regulation works to prevent unnecessary duplication of medical services, facilities, and equipment. The Center also promotes access, safe and adequate treatment, and quality improvement in healthcare facilities. As such, collaborations with SIM have included:

- Issuance of at least two sets of hospital conditions that request participation in Rhode Island SIM meetings, initiatives, and/or endeavors.
- Assistance with ensuring changes to regulations associated with HealthFacts RI (a.k.a., All-Payer Claims Database) includes revisions to allow for submission of dental claims in addition to traditional medical claims and behavioral health claims

- Inclusion in the State's delegation to the inter-state forum on Regional Opportunities for State Government in Health Care Oversight and Regulation, hosted by the New England States Consortium Systems Organization.

HIV/AIDS Program—90 | 90 | 90 Initiative

RIDOH has announced its commitment to reaching the 90 | 90 | 90 targets set by UNAIDS to end the AIDS epidemic through ambitious testing and treatment activities. RIDOH has created a 90 | 90 | 90 Steering that meets regularly to review progress towards the [90 | 90 | 90 Program](#) and targets. SIM collaborations have included:

- Participation in the development, review, and dissemination of Adolescent Sexual Health Profile for Rhode Island.
- Representation on the Adolescent Sexual Health Workgroup, particularly by the SIM SBIRT Liaison given a continued focus on substance use within populations at risk.
- Involvement in initial discussion on ways to address social determinants of health related to housing for people living with HIV.

Maternal and Child Health (Title V) Program

The Maternal and Child Health (Title V) Program is based upon a four-pillar approach to public health that has guided the development of [Rhode Island's Title V Program](#) and includes the social and environmental determinants of health, life course approach, and integration of programs. SIM engagement has led to the following:

- Participation on a joint endeavor with RIC to pilot adolescent SBIRT screenings in PCMH-Kids practices.
- Inclusion of SIM and health system transformation strategies as part of the program's strategic planning sessions and resulting plan.
- Inclusion within planning for the Unified Social Services Directory.
- Initial convening of the Family/Home Visiting programs with the SIM vendors to develop a collaboration to provide SBIRT training to program staff and increase the reach of the CHT/SBIRT project's screenings.

Mobile Integrated Health and Community Paramedicine Program

The Rhode Island Mobile Integrated Health and Community Paramedicine Program allocates and provides the resources for planning and implementing this effort to use the skills and resources of Emergency Medical Services practitioners (i.e., Emergency Medical Technicians and Paramedics) to serve in an expanded healthcare role within the community.

- Moving forward, this is a potential partnership for SIM as it relates to future workforce transformation and clinical quality measure development.

Office of Primary Care and Rural Health

The [Office of Primary Care and Rural Health](#) addresses health disparities created by lack of access to high-quality health care due to financial, cultural, and geographic barriers. The office recruits a diverse primary care workforce of medical, dental, and mental healthcare providers through operation of the Health Professionals Loan Repayment Program, the Physician Waiver Program for J-1 Visa Holders, and coordination of National Health Service Corps programs. SIM collaborations have included:

- Advertising SIM and Rhode Island's desire to transform the health system on the platform used by the Health Resources and Services Administration (HRSA) called 3RNET, which is used to recruit and track the name (and specialties) of doctors who want to obtain future employment in Rhode Island.
- Ensuring inclusion of dental providers in future iterations of the Statewide Health Inventory as a function of primary care and fostering collaboration with the Oral Health Program's separate reporting requirements.
- Obtaining information on Rhode Island's workforce capacity to meet health needs of Rhode Islanders in relation to Health Professional Shortage Area (HPSA) designations.
- Engaging in conversations with the Primary Care Physician Advisory Committee and Health Insurance Plan Medical Director's meetings, as applicable.

Oral Health Program

The [Oral Health Program](#) works to achieve optimal oral health for all by eliminating oral health disparities in Rhode Island while integrating oral health with primary care. With a focus on prevention of oral disease through assurance of state-level oral health and public health leadership, SIM collaborations have included the following:

- Presenting to and attending the Rhode Island Oral Health Commission to build and sustain community capacity for high-quality, culturally-sensitive oral health services.
- Building a relationship with the SBIRT Training and Resource Center to provide SBIRT training to oral health professionals (targeting dentists) at the Annual Oral Health Summit.
- Partnering on the advertising of an inaugural Dining with the Dentists event aimed at connecting primary care providers with dentists to foster relationship building and networking to assist in moving towards accountable care.
- Writing grants focused on medical-dental integration and working with the Medicaid, Medicare, and CHIP Services Dental Association.

Prescription Drug Overdose Prevention Program

RIDOH maintains the [Prescription Drug Overdose Prevention Program](#) to decrease nonfatal and fatal drug overdoses and to educate prescribers about responsible prescribing practices. SIM-related partnerships in relation to this program and the Opioid Overdose Prevention and Intervention Task Force include:

- Promulgation of SBIRT Training and Resource Center opportunities for hospital and other healthcare partners in an effort to fulfill levels of care standards and continuing medical education requirements.
- Participation in the Opioid Overdose Data Council, co-lead by SIM and EOHHS to enhance the ways in which data can be improved over time to measure all components of the opioid overdose pathway.

RIDOH 6 | 18 Initiative

Rhode Island is partnering with [CDC's 6|18 Initiative](#), alongside health system partners, to improve health and control healthcare costs. This initiative provides these partners with rigorous evidence about high-burden health conditions and associated interventions to inform decisions that have the greatest health and cost impact. SIM has partnered with this initiative through:

- Through our Integration and Alignment project, highlighting tobacco cessation interventions that prevent chronic through the development of all-payer benefit matrices

(for provider education) to increase coverage, access, utilization and quality of cessation services offered to patients.

- Provision of HealthFacts RI claims data for tobacco cessation services and tobacco-related prescription utilization for program planning, intervention design, and evaluation.

RIDOH Academic Center

RIDOH's Academic Center aims to achieve excellence in public health policy and practice through academic collaborations and a multidisciplinary approach to public health in Rhode Island. The [RIDOH Academic Center](#) focuses on building a competent public health workforce and researching/designing innovative solutions to health problems with academia. SIM has partnership has included:

- Participation in the development of the Healthcare Workforce Transformation Report and on projects such as the Community Preceptors Program to further improve the State's workforce capacity.
- Integration of scholarly activities within SIM through the provision of two public health scholars focused on system transformation projects—oral health system transformation opportunities and models for healthcare conversion impacts on the marketplace.

Rhode Island Chronic Care Collaborative

The [Rhode Island Chronic Care Collaborative](#) has continued to use the Learning Model from the Institute for Healthcare Improvement to train participating teams in the implementation of the Chronic Care and Improvement Models. SIM partnership has included:

- Collaboration and alignment of SIM's practice transformation efforts conducted by CTC-RI with RIDOH's Care, Community, and Equity sites focused on additional health systems integration activities.
- Participation in the review of the Diabetes Prevention in Rhode Island Action Plan to Scale and Sustain the National Diabetes Prevention Program.
- Participation in the Pharmacy Transformation Workgroup convened by RIDOH that focuses on increasing the role of pharmacists in improving medication adherence using medication therapy management.
- Development of a panel presentation for the SIM Steering Committee focused on pharmacy transformation and opportunities to further progress towards the Triple Aim.

Wisewoman Program

The [Wisewoman Program](#) assists low-income women (age 30 to 64), who have Medicaid or limited or no health insurance, with improving heart health to live a longer and more fulfilled life. This program ensures services for women who participate in the Rhode Island Women's Cancer Screening Program and provides free screening for heart disease, lab work, and test results for various indicators. The program also offers free health coaching in nutrition, physical activity, and smoking cessation, as well as free fitness and weight loss programs. SIM partnership has included:

- Alignment with SIM's chronic disease health focus area, specifically around establishment of clinical quality measures that meet the aligned measure sets.
- Planning for the alignment of screening for integrated behavioral health, SBIRT, and CHT-related social determinant indicators with Wisewoman Program measures.
- Establishment of a planning team to develop potential approaches to expanding the Wisewoman program to additional sites, with the inclusion of behavioral health and substance use referral services.

Youth Suicide Prevention Program

The Youth Suicide Prevention Program has implemented the Rhode Island Suicide Prevention Initiative (SPI). SPI is an innovative and coordinated youth suicide prevention referral system that links public elementary, middle and high schools with mental health services. The program diverts at-risk students who express suicidal ideation and/or non-suicidal self-harm from unnecessary Emergency Department (ED) visits by connecting the student to local mental health services with follow-up support. Rhode Island's Suicide Prevention Initiative (SPI) is a response to the challenges that exist in connecting children and adolescents who have behavioral and mental health problems to mental health services beyond those available in the school.

- Annual call volume to Bradley Hospital's Kids' Link RI™ program increased from 307 calls in 2015 (prior to the implementation of SPI) to 3282 calls in 2017. This remarkable 950% increase in calls is attributed to several factors, including the adoption of SPI by nine Rhode Island school districts.
- Inclusion of SIM funded PediPRN as a component of new trainings in Washington County through HEZ collaborative outreach.
- Access to new Mental Health First Aid training opportunities through SIM alignment opportunities.

Department of Behavioral Healthcare, Developmental Disabilities, and Hospitals

BHDDH has a history of Federal grants that align with SIM, most notably the five-year SBIRT grant that was braided with the SIM CHT intervention.

Mental Health and Substance Use Block Grants

Mental Health and Substance Use Block Grants available for all 50 states are non-competitive grants awarded annually to states that provide funding for mental health and substance abuse services. Priorities for BHDDH's Block Grant funds in FY2016-2017 include: 1) adults with serious mental illness, with a focus on reducing unnecessary Emergency Department use, hospital admissions, readmissions and inappropriate lengths of stay; 2) older adults with serious emotional disturbance with a focus on developing a needs assessment and joint action plan with partnership agencies in Rhode Island, including the Division of Elderly Affairs (DEA), Executive Office of Health and Human Services (EOHHS), Community Mental Health Organizations, and the Rhode Island Elder Mental Health Advisory Council; 3) persons with serious mental illness who are homeless and need affordable housing with supportive services that focus on housing retention. Additional focus is directed to helping these individuals gain access to resources to which they are entitled, including Supplemental Security Income/Social Security Disability Insurance (SSI/SSDI), Temporary Assistance for Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP). Social Security; 4) persons who have or are at risk of having Substance Use Disorders and/or Serious Mental Illness/Serious Emotional Disturbance; 5) persons who are at risk for tuberculosis; 6) pregnant and parenting women with substance use disorders and their children; and 7) transition age youth/young adults with severe mental illness and co-occurring disorders.

Collaborative Agreement to Benefit Homeless Individuals

Rhode Island Collaborative Agreement to Benefit Homeless Individuals (CABHI) is a three-year grant serving 300 persons. The grant supports veterans and individuals experiencing chronic homelessness who have substance use disorders, serious mental illness, or co-occurring mental health and substance use disorders by enhancing the state's infrastructure through ensuring these high-risk individuals have access to treatment, permanent supportive housing, peer and recovery supports, and mainstream services. Through this grant, BHDDH and its partners in the community are: 1) improving statewide strategies to address planning, coordination, and integration of behavioral health and primary care services, and permanent housing to reduce homelessness; 2) increasing the number of individuals, residing in permanent housing, who receive behavioral health treatment and recovery support services; and 3) increasing the number of individuals placed in permanent housing and enrolled in Medicaid and other mainstream benefits (e.g., SSI/SSDI, TANF, and SNAP).

Project for Assistance in Transition from Homelessness Program

Project for Assistance in Transition from Homelessness Program (PATH) assists homeless men and women with mental illnesses and co-occurring substance abuse disorders in getting treatment and transition to permanent housing. The program provides community-based outreach, mental health, and substance abuse treatment and other support services throughout the state.

Healthy Transitions

Healthy Transitions is five-year grant, serving 2500 youth and young adults ages 16-25. It focuses on helping persons who are at risk for developing, or who have already developed a serious mental health condition. The implementation communities for this grant are Warwick and Woonsocket. Serving the communities at large in these locales, the grant activities will focus on public awareness of the early warning signs of mental illness in young people and how to take action; active outreach, engagement and referral; access to effective clinical and supportive interventions; and sustainable infrastructure changes to improve cross system coordination, training, service capacity and expertise. The grant is supported by a Project Director at BHDDH and Youth Coordinator at Department of Children, Youth and Families. This initiative is helping to forward the work of Rhode Island's Children's Cabinet.

Strategic Prevention Framework Partnerships for Success

The Rhode Island Strategic Prevention Framework Partnerships for Success (SPF-PFS) project enhances efforts to stop underage drinking with youth ages 12-17. Additional priorities are reducing marijuana use among youth 12-17 and assessing prescription drug use and misuse among youth and young adults ages 12-25 and the resultant burden of this drug use. There is emphasis on funding sub-recipients in twelve Rhode Island communities of high need, who comprise a sizable percentage of the state's population.

SBIRT

Funded by SAMHSA, SBIRT is a five-year opportunity intended to serve of the entire population of Rhode Island. Through the SBIRT grant, substance use screenings will be carried out over the next five years, covering tobacco, alcohol, marijuana, other substances, and anxiety/depression. The SBIRT initiative supports the Governor's Overdose Prevention and Intervention Task Force. Screenings will be delivered to individuals with primary care and health centers, CHTs, hospital emergency departments, and the Department of Corrections upon release. SIM collaboration was fostered because:

- SBIRT and CHTs were both intended to engage with primary care practices to implement new protocols for screening and referral.
- SBIRT and CHTs both provide a resource (screeners or CHT team members) in addition to processes for enhanced service delivery.
- SBIRT and CHTs both extend into the community and provide resource coordination with social services and/or treatment agencies.
- SBIRT and CHTs both address high-needs, high-cost patients in geographic areas overlapping with HEZs and AHC partners.

To avoid unnecessary overlap and/or duplication of effort, SIM and BHDDH worked closely with each other to braid the funding and tie the programs together.

Opioid Initiatives

The [Opiate Overdose Prevention and Intervention Task Force](#) was convened by Governor Raimondo in 2015 in response to an epidemic of deaths in the state from opioid overdoses in the previous 18 months. Co-chaired by the Director of BHDDH and RIDOH, additional partners in the Governor's initiative include the Brown University School of Public Health, legislators, physician and nursing organizations, institutes of higher education, insurers and business leaders. In May 2016, the Task Force issued a Strategic Action Plan outlining multiple steps to be taken throughout the state to reduce the opioid overdose death rate. Efforts are underway in the areas of: 1) prevention to help doctors protect their patients through safe prescribing practices; 2) rescue to increase access to naloxone; 3) treatment to expand availability of Medication Assisted Treatment (MAT), like methadone and buprenorphine and 4) recovery through an increase in peer recovery services and treatment.

Through grant funding from the Federal Substance Abuse and Mental Health Services Administration (SAMHSA) and the Centers for Disease Control and Prevention (CDC), BHDDH is expanding MAT Prescription Drug and Opioid Addiction services in response to the overdose crisis in the state. Services to 2,300 persons will be provided by six Centers of Excellence (COE) over a 3-year period. Currently a COE has been established at Eleanor Slater Hospital. A Request for Proposals (RFP) has been issued to create another hospital-based COE in the Greater Providence Area. Four additional COEs will be developed in subsequent years. Related to this effort, BHDDH has completed certification standards for COEs.

OHIC

Rhode Island's Office of the Health Insurance Commissioner (OHIC) has led a variety of initiatives to reform the health care delivery and payment system as part of its mission to improve the affordability of health insurance for consumers and employers. OHIC first implemented its Affordability Standards in 2010, focusing on increasing primary care spend, accelerating patient-centered medical home efforts, and reducing the rate of hospital cost increases. In February 2015, after an intensive stakeholder process to solicit recommendations and comments, OHIC updated its Affordability Standards to recognize current developments in the health care sector. The revised Affordability Standards focus on practice transformation (including Patient-Centered Medical Home adoption) and driving health care payment practices toward value-based models. OHIC continues to work with its stakeholders and other health care reform efforts in the state. Through these collaborations, which include the SIM project and Reinventing Medicaid, OHIC aims to drive the system toward value, composed of efficiency and quality, inclusive of clinical-best practices, safety, and patient satisfaction.

To assist in this work, OHIC has convened two committees: Care Transformation Advisory Committee and the Alternative Payment Methodology Advisory Committee, described more fully on Page 94 of this plan.

As noted above, the 2017-18 Care Transformation Plan establishes three work groups that have been meeting since January of 2017. The Small Practice Engagement Work Group is tasked with creating an outreach strategy to engage small practices in transformation, and using collective knowledge and experiences to create a prioritized list of practices that are likely to participate in transformation. The High-Risk Patient Identification Work Group is researching best practices and evidence-based approaches to practice-based assessment of risk, with particular attention on how to incorporate social determinants of health. Lastly, a Primary Care APM Work Group will be exploring clinical processes that are possible under a non-fee-for-service driven model. This work will begin once the group has finished designing a primary care APM.

All of these OHIC Committees significantly contribute to the stakeholder engagement that supports the SIM project. OHIC will continue to work with other state agencies as part of the SIM effort to align delivery and payment system reform efforts.

Governor's Office Initiatives

The Governor's Office has remained focused on several overarching health and health-related strategies to improve population health in which SIM continues to participate.

Opioid Overdose Prevention and Intervention Task Force

The [Opiate Overdose Prevention and Intervention Task Force](#) was convened by Governor Raimondo in 2015 in response to an epidemic of deaths in the state from opioid overdoses in the previous 18 months. Co-chaired by the Director of BHDDH and RIDOH, additional partners in the Governor's initiative include the Brown University School of Public Health, legislators, physician and nursing organizations, institutes of higher education, insurers and business leaders. In May 2016, the Task Force issues "[Rhode Island's Strategic Plan for Addiction and Overdose.](#)" which established the long-term goal of reducing overdose related deaths by one-third within the next three years. Efforts are underway in the areas of: 1) prevention to help doctors protect their patients through safe prescribing practices; 2) rescue to increase access to naloxone; 3) treatment to expand availability of Medication Assisted Treatment (MAT), like methadone and buprenorphine and 4) recovery through an increase in peer recovery services and treatment. Through grant funding from SAMHSA and CDC, Rhode Island is expanding MAT Prescription Drug and Opioid Addiction services in response to the overdose crisis in the state through the development of six Centers of Excellence (COE) over a 3-year period.

Children's Cabinet

SIM continues to work with other state partnerships to maximize alignment and counter fragmentation. For example, SIM has served as an ongoing resource and partner to the Rhode Island Children's Cabinet, re-convened by Governor Raimondo in 2015 to strengthen the collective impact of state agencies serving children, youth and families. In 2016, the Cabinet launched a cross agency work group to map children's behavioral health services, funding streams and regulatory/governance structures. Starting in 2017, the Children's Cabinet has also committed to working on the Governor's Third Grade Reading Action Plan to double the number of third graders reading at grade level by 2025. The Action Plan recognizes the array of supports required to reach this ambitious goal and includes health indicators that impact school readiness, safety net services and community engagement along with education-related goals and metrics. More information on the Cabinet and The Third-Grade Reading Action Plan are available on the [Children's Cabinet webpage](#).

SIM's investments in integrated data to improve practice are directly supporting the Cabinet's work. As the Children's Cabinet develops and implements a prevention-focused approach to children's health and wellbeing, the ability to utilize integrated data sets via the EOHHS Ecosystem is vital. For example, the Ecosystem's first project will identify when youth in the child protective services system interacted with other government agencies before an instance of maltreatment occurred. With such information, the many departments on the Children's Cabinet may find opportunities to better support families and to intervene earlier and prevent maltreatment from occurring in the first place.

The Children's Cabinet new Policy Director attends the SIM Interagency Team so that we can maximize the opportunities to bring the two initiatives closer together. SIM's Maternal and Child Health and Children with Social Emotional Disturbance health focus areas will continue to be natural nodes for partnership and collaboration with the Children's Cabinet going forward.

Food Strategy

SIM's work with Rhode Island's new Director for Food Strategy is an excellent example of how SIM seeks to align with initiatives across diverse sectors that have an impact on population health outcomes. By working together, SIM has been able to provide coordinated, system-level input to the Food Strategy Director during the state's Food Strategy planning process. At the same time, by seeking out and supporting this partnership, SIM has had the opportunity to include its "health in all policies" perspective in the planning process including: direct input on the impact of lack of food access on a range of health outcomes. To assist with coordination, the SIM Director sits on the newly convened Hunger Task Force. Additional plans for SIM and the Food Strategy office include adding health data to a newly released GIS-mapping tool and partnering to jointly engage state transportation agencies to improve access to food and health services. More information is available on the [Rhode Island Food Strategy webpage](#).

Other State Departments for SIM Alignment

Rhode Island Department of Corrections

The Department of Corrections (DOC) is a part of our SBIRT/Community Health Team project. We were required to choose a special population for the SAMHSA SBIRT grant, and we chose people connected to the corrections department. DOC staff have attended our interagency team at times, and our vendors are preparing to work more closely with them.

Rhode Island Department of Education (RIDE)

SIM sees an opportunity to develop and leverage mutually beneficial partnerships between schools, state agencies, and healthcare providers to maximize access to behavioral health services in the school setting. SIM has also connected with RIDE around our SBIRT project and they have expressed interest in helping to explore how we can bring services to schools. In addition, RIDE is partnering with other state agencies on addressing social and environmental determinants of health, and we are looking to work together on our Unified Social Service Database project.

Rhode Island Department of Children, Youth, and Families (DCYF)

In the Rhode Island Title IV-B Child and Family Service Plan, DCYF identifies the priority to reduce reliance on congregate care and increase community-based service supports for children and families through investments in effective wraparound care coordination. This priority aligns with SIM's emphasis on care integration, and offers a dynamic opportunity for partnership between DCYF, healthcare providers, and social service providers to implement a "no wrong

door” approach and ensure coordinated access to medical, behavioral health, and social services, particularly among some of our most vulnerable residents. DCYF’s Director, Trista Piccola, has attended the SIM Steering Committee, and expressed interest in working more closely together. Also, the first large project of our EOHHS State Data Ecosystem addresses children at risk of abuse, in partnership with DCYF.

Office of Regulatory Reform

Regulatory review in Rhode Island has presented SIM with an opportunity to support regulatory alignment in service of SIM aims across the broader state system of executive departments, boards and commissions. As noted elsewhere in this document, Governor Raimondo signed an Executive Order in 2015 mandating that all rules and regulations be reviewed and where needed, clarified and brought up-to-date; or if obsolete, be removed. In addition, these newly-reviewed regulations also are being brought into a single statewide regulatory code repository to ensure access and to facilitate public participation in the regulation development and review process. This has provided SIM-aligned agencies with the opportunity to identify and track these rules, regardless of which state agency promulgates them.

Healthcare Workforce Transformation

In the summer of 2016, SIM and EOHHS jointly initiated a Healthcare Workforce Transformation planning process to assess healthcare workforce development needs and capacity and recommend priorities and strategies to prepare the current and future healthcare workforce with the knowledge and skills needed to help Rhode Island achieve its system transformation and population health goals. This planning process, which was conducted with support from Jobs for the Future (JFF), culminated with the issuance of a [Healthcare Workforce Transformation Report](#). The Executive Summary and Strategy Grid below summarizes the process, findings, and recommendations.

Healthcare Workforce Transformation Report

Rhode Island is changing the way it delivers and pays for healthcare—care that doesn’t stop at the doctor’s office or the hospital bed. It extends to where people live, work, play, and learn. It rewards quality outcomes rather than quantity of patient visits. It is a “team sport,” rather than a solo endeavor, bridging physical and behavioral health, and clinical and non-clinical providers, such as social workers and community health workers. This approach to care is data-driven and evidence-based—tracking patient populations to identify risks and measure results. Its point of departure is not limited to the episode of care for an individual; rather, it manages care for populations and seeks out “upstream” causes of health problems, such as housing, income, access to healthy food, and transportation.

Rhode Island’s overarching goals for transforming the health system mirror the “triple aim” of the Affordable Care Act: better care, smarter spending, and healthier people. “Better care” is patient-centered, accessible, culturally competent care, delivered by practitioners working at the top of their license or job description, and focused on keeping people well. “Smarter spending” is more efficient use of health resources to lower the per capita cost of care—through paying for value rather than volume of services; encouraging prevention; and rebalancing care from costly hospital or nursing home stays to home and community-based care. “Healthier people” means enhancing the overall health of the population—including physical, oral, and behavioral health, while coordinating the care for specific populations, with chronic disease or multiple conditions, and addressing social determinants of health. To achieve the triple aim goals, Rhode Island has mounted a number of initiatives to change healthcare payment policies and service delivery—working through both the state Medicaid program and commercial insurers.

None of these changes in healthcare are possible without a transformed workforce—with the right workers, with the right skills and tools, in the right place at the right time. To determine what this workforce looks like and how to prepare for it, the Rhode Island Executive Office of Health and Human Services (EOHHS), in partnership with the State Innovation Model Test Grant (SIM), convened a cross-section of stakeholders from the state’s healthcare providers, education and training organizations, and policymakers in health and workforce. This group, the RI Healthcare Workforce Transformation Committee, gathered to establish workforce priorities and weigh potential strategies, assembling as a full group in October 2016, and then breaking into eight topical subcommittees for more intensive discussion in November. Topics analyzed included primary care, behavioral health practice and integration, social determinants of health, health information technology, oral health, chronic disease, and home and community-based care. In December 2016, the full group reconvened to consider cross-cutting strategies and their feasibility, and in February 2017, the group discussed the prioritization of these strategies.

This report, prepared by Jobs for the Future (JFF), provides background research to support Rhode Island's development of a healthcare workforce transformation strategy. It analyzes workforce and educational needs required to achieve the triple aim of better care, smarter spending, and healthier people. To determine workforce needs in a changing healthcare environment, this study asks not just how many new workers are needed in particular occupations, but how to renew the skills of the existing workforce to assume new and evolving healthcare roles in new settings.

To define these needs and how to address them, JFF interviewed a cross-section of the state's healthcare employers, educators, and policymakers about changes in health care payment and delivery and their impact on the workforce; the adoption of new roles and occupations critical to delivering better care; changes in skill and performance requirements; and the capacity of the state's education and training entities to meet new health workforce needs. Data from Healthcare Workforce Transformation Committee meetings, interviews, and literature on health workforce transformation helped build a portrait of Rhode Island's current health workforce situation and potential strategies for the state to consider in achieving transformation goals.

This analysis was complemented by analysis of labor market information on present and projected employment trends in key healthcare professional and support occupations, as well as vacancies and skills sought by employers. The analysis focuses in depth on occupations considered strategic to transforming Rhode Island's health system, such as nurses, community health workers, and behavioral health professionals. The report also provides data on the number of graduates from the state's higher education health professional programs, and the employment of these graduates in the state and in the health care industry.

Based on our analysis and on the discussions of the Healthcare Workforce Transformation Committee, we have identified three key priorities and accompanying strategies, and then a more complete chart of our potential tactics.

Healthcare Career Pathways: Skills That Matter for Jobs That Pay

Prepare Rhode Islanders from culturally and linguistically diverse backgrounds for existing and emerging good jobs and careers in healthcare through expanded career awareness, job training and education, and advancement opportunities.

Strategies

- Support the Entry-Level Workforce: Improve recruitment, retention, and career advancement
- Increase Diversity and Cultural Competence: Increase the cultural, ethnic, and linguistic diversity of licensed health professionals
- Develop Youth Initiatives to Expand the Talent Pipeline: Increase healthcare career awareness, experiential learning opportunities, and readiness for health professional education
- Address Provider Shortages: Remediate shortages among certain health professions

Home and Community-Based Care

Increase the capacity of community-based providers to offer culturally-competent care and services in the home and community and reduce unnecessary utilization of high-cost institutional or specialty care.

Strategies

- Expand Community-based Health Professional Education: Educate and train health professional students to work in home and community-based settings
- Prepare Healthcare Support Occupations for New and Emerging Roles: Prepare healthcare support occupations to work in home and community-based settings

Core Concepts of Health System and Practice Transformation

Increase the capacity of the current and future workforce to understand and apply core concepts of health system and practice transformation.

Strategies

- Prepare current and Future Health Professionals to Practice Integrated, Team-Based Care: Increase the capacity of health professionals to integrate physical, behavioral, oral health, and long-term care
- Teach Health System Transformation Core Concepts: Educate the healthcare workforce about the significance of value-based payments, care management, social determinants of health, health equity, population health, and data analytics.

Finally, in November, Governor Raimondo announced that Rhode Island has partnered with the federal Centers for Medicare and Medicaid Services (CMS) to leverage nearly \$130 million in federal funds over the next five years to further transform our healthcare system to support better care and healthier Rhode Islanders. The Designated State Health Program (DSHP) funds will be used to support Alternative Entities. Medicaid will also be able to help strengthen the state's healthcare workforce pipeline through investments in our state institutions of higher education.

EOHHS/SIM Healthcare Workforce Transformation Priorities and Strategies to Support Health System Transformation Goals

Figure 14: EOHHS/SIM Healthcare Workforce Transformation Priorities and Strategies to Support Health System Transformation Goals

PRIORITY: Build Healthcare Career Pathways to Develop Skills that Matter for Jobs that Pay
Prepare Rhode Islanders from culturally and linguistically diverse backgrounds for good jobs and careers in healthcare through expanded career awareness, job training and education, and advancement opportunities
SUPPORTING THE ENTRY-LEVEL WORKFORCE: Improve recruitment, retention, and career advancement of entry-level workers
Address issues of compensation, work load, and/or job satisfaction to improve recruitment and retention of entry-level workers
Establish core competencies for all unlicensed, entry-level occupations
Develop advanced certifications in specialties such as behavioral health, gerontology, and chronic diseases to increase the knowledge, skills, compensation, and career advancement opportunities of entry-level occupations
Reduce financial and logistical barriers associated with pre-employment requirements, e.g., criminal background checks, physical exams, and vaccinations
Revise Certified Nursing Assistant regulations to update scope of practice, training, and testing requirements to reflect varied and emerging roles
Consider licensure or certification for unlicensed occupations such as Community Health Workers, Medical Assistants, Case Managers, Peer Recovery Specialists, and Dental Assistants
Align publicly-funded job training programs with health system transformation priorities
DIVERSITY AND CULTURAL COMPETENCE: Increase the cultural, ethnic, and linguistic diversity of licensed health professionals
Create more diverse talent pipelines by providing healthcare career awareness, academic advising, mentoring, financial assistance, and supportive services for youth and adults in targeted populations
Build career ladders for individuals now working in entry-level health support occupations, such as nursing assistants or medical assistants
Develop pre-apprenticeships to address gaps in foundational and employability skills to diversify the ranks of apprentices, increasing access for racial, ethnic, and linguistic minorities
Offer training and testing for CNAs and other entry-level occupations in languages other than English
Utilize the RI Department of Health licensure process to analyze the ethnic and linguistic diversity of health professionals
YOUTH INITIATIVES: Increase healthcare career awareness, experiential learning opportunities, and readiness for health professional education
Build broader, more diverse talent pipelines by developing healthcare career awareness programs and training in middle- and high-schools
Identify resources and healthcare employer partners to increase paid internships and work experiences for youth

Develop Career & Technical Education programs that prepare students for emerging, in-demand healthcare jobs and careers
PROVIDER SHORTAGES: Remediate shortages among certain health professions
Determine the nature of shortages (e.g., statewide, regional, by payer) and causes of shortages (e.g., compensation, workload, job satisfaction)
Enhance loan forgiveness, tax credits, and/or other financial incentives to improve recruitment and retention of providers
Maximize federal assistance for federally-designated provider shortage and/or underserved areas
Expand appropriate use of telemedicine (e.g., monitoring, diagnosis, treatment, consults, and referrals)
Cross-train clinical psychologists as psychiatric advanced practice RNs to increase patient access to prescribers
Consider establishing a licensure category, educational program, and payment structure for Advanced Dental Hygienist Practitioners to augment the dentist workforce and expand access to underserved Rhode Islanders
Utilize the licensure process to collect the Nursing Workforce Minimum Data Set needed to more accurately assess the supply of RNs
PRIORITY: Expand Home and Community-based Care
Increase the capacity of community-based providers to offer culturally-competent care and services in the home and community and reduce unnecessary utilization of high-cost institutional or specialty care
HEALTH PROFESSIONAL EDUCATION: Educate and train health professional students to work in home and community-based settings
Expand partnerships between health professional education programs and community-based healthcare and service providers, such as primary care providers, behavioral health providers, community health teams, and Health Equity Zones, to increase clinical placement opportunities for students
Expand inter-professional classroom instruction to increase student understandings of home and community-based approaches to improve population health
Expand home and community-based residency programs to enable newly-licensed graduates to obtain specialized training
EMERGING ROLES AND OCCUPATIONS: Prepare healthcare support occupations to work in home and community-based settings
Strengthen the ability of home health aides and personal care assistants to work in home settings by providing training keyed to special needs of the home environment and preparation to respond to behavioral health needs
Retrain or upskill current occupations such as medical assistants, patient access representatives, home-based workers, and mental health caseworkers in core CHW skills: patient engagement and navigation of community supports
Research the potential business case for financing and sustaining CHWs through evaluation of patient impacts and development of an evidence base.
Explore emerging home and community-based workforce options (e.g., EMTs, LPNs, Peer Recovery Specialists, Medication Aides, Navigators, telemedicine)
Support the emerging role of public health dental hygienists by finalizing licensure regulations, developing training capacity, and determining deployment and funding plans

PRIORITY: Teach Core Concepts of Health System & Practice Transformation
Increase the capacity of the current and future healthcare workforce to understand and apply core concepts of health system and practice transformation
INTEGRATED TEAM-BASED CARE: Increase the capacity of current and future health professionals to integrate physical, behavioral, oral health, and long-term care through interdisciplinary, team-based practice.
Incorporate understandings of integrated physical, behavioral, and oral health into all health professional education programs
Expand inter-professional health education activities among higher education programs (e.g., nursing, social work, pharmacy, medicine, etc.)
Expand continuing education, supervisor training, and leadership development to support integrated, team-based care
Provide continuing education to behavioral health professionals on assessment, diagnosis, treatment, and/or referral of physical and oral healthcare issues
Provide continuing education to primary care providers on assessment, diagnosis, treatment, and/or referral of behavioral and oral health issues
HEALTH SYSTEM TRANSFORMATION CONCEPTS: Educate the current and future health care workforce about the importance of value-based payment, care management, social determinants of health, health equity, population health, and data analytics.
Engage and support higher education partners and others to develop a “clearinghouse” of content-specific training modules (for-credit, not-for-credit, or continuing education) that can be delivered in the classroom, workplace, and/or on-line.

Emerging Healthcare Workforce Transformation activities

Community Preceptor Training Institute

The EOHHS Healthcare Workforce Transformation Initiative is leading the development and implementation of a RI Interprofessional Community Preceptor Institute (ICPI). ICPI is a unique collaboration of the University of RI, RI College, Community College of RI, Warren Alpert Medical School, RI Executive Office of Health & Human Services, RI Medicaid, RI Department of Health, and RI State Innovation Model Test Grant.

ICPI will provide SIM-funded training and support for community-based healthcare and social service providers to expand expertise in the provision of interprofessional preceptorships for health professional students at both the undergraduate and graduate levels.

Preceptor trainees will enhance their knowledge in the following areas:

- Concepts and skills associated with interprofessional education (IPE) and practice (IPP), and core principles of community health practice
- Advanced skills for facilitating interprofessional student experiences, including reflection, individual, and interprofessional debriefings
- Strategies for designing and advocating for enhanced interprofessional curricula, experiential learning, faculty professional development, and services in their agency

ICPI activities will include approximately 24 hours of instruction for a cohort of 16-20 participants from 8-10 agencies between the months of April - August, 2018, followed by precepting interprofessional student experiences in the fall semester. A second cohort of preceptors will be trained between September – December, 2018, and will precept students in the spring semester of 2019.

ICPI will include in-person meetings and workshops, online modules and webinars, self-guided learning assignments, agency-specific projects, and on-going support and mentoring. ICPI participants will acquire the following understandings:

1. Core knowledge and skills in Interprofessional Education and Practice
2. Basic principles of community health practice
3. Skills for facilitating interprofessional student experiences and debriefings
4. Strategies for designing and continuing interprofessional programs and services

Medicaid-Higher Education Partnership

The RI Medicaid Health System Transformation Project (HSTP) has established formal partnerships with RI's three public institutions of higher education (IHE). Each IHE is encouraged, guided, and funded by Medicaid to develop healthcare workforce education and training projects that are aligned with the state's Healthcare Workforce Transformation (HWT) priorities and strategies, and consistent with the objectives of SIM and HSTP.

As of March 31, 2018, HSTP has funded thirteen HWT projects at two IHEs. Several other projects are actively being designed and are likely to be funded in the next couple of months. The thirteen projects are as follows:

URI Healthcare Workforce Transformation projects

URI Academic Collaborations Officer Embedded at Department of Health College of Pharmacy

Description: Public health projects for pharmacy students in collaboration with RIDOH; policy and analysis re: emergency preparedness, CPR, naloxone, opioid prescribing, SBIRT, referrals, PMP optimization, infectious disease outbreak education, immunization education and administration, Lyme disease. Will also connect other URI health faculty and students to RIDOH, with emphasis on interprofessional teams working on public health projects.

Addendum: 10-15 students from all healthcare disciplines at URI. Dr. Bratberg will be imbedded at RIDOH to organize and supervise public health scholar opportunities. Will prioritize projects that have a Medicaid connection, including population health objectives and strategies and rebalancing.

Interprofessional Team Education and Evaluation Health Sciences

Description: Interprofessional education: students, community preceptors, faculty; incorporate teamwork in coursework; community-based placements, IPE workshops for community preceptors and faculty, course modules on teamwork for online and hybrid learning; evaluation component

Enhancement of a Home-Based Primary Care Program College of Nursing

Increase the number and enhance the preparation of Nurse Practitioner students through in-class, home-based primary care simulations (including standardized patients) and direct patient care experiences to deliver cost-effective, comprehensive primary health care services in client homes. Focus on social determinants, rebalancing, and integration of behavioral health.

Teach Healthcare Management Core Concepts of Health System and Practice Transformation

Accounting/College of Business Administration

Modify four graduate courses (supply chain, health systems, leadership/administration, accounting/finance) and create three new graduate courses (marketing, healthcare information technology for systems management, and data use for healthcare decisions) that would eventually lead to certificate(s) and degree in health care management. Will involve faculty from business, pharmacy, and nursing.

Addendum: This Project is responsive to industry feedback (including from current and future AEs who are exploring alternative payment models) about the need for clinical staff and leadership to develop knowledge and skills to analyze data, employ strategic planning, create and manage projects for rapid cycle improvements, identify key performance indicators to evaluate systems, and manage individuals, financing, revenue cycles, and budgets.

A Center of Excellence for Interprofessional Continuing Education College of Pharmacy/Continuing Professional Development

Establish a Center of Excellence for Interprofessional Continuing Education; Initial focus on social determinants of health (live and online workshops); Expand capacity to offer CE credits (i.e., beyond Pharmacy to include Nursing); develop certificates; do outreach and marketing;

Addendum: Staff on this Project will assist with development, hosting, evaluation, assessment, reporting, and marketing of modules in Rambur project.

The RIGHT Project

Nutrition & Food Sciences

Fellowship for 15-20 culturally-diverse students with a focus on Medicaid populations. Fellowship will include a new 3-credit, interdisciplinary, problem-based course. Intent is to train future health professionals with practical skills and critical thinking, preparing them to address vital health challenges, with particular focus on Medicaid populations. Focus will be on cultural diversity, interdisciplinary approaches, and career pathways. Special projects, independent study, or field work; cross-disciplinary problem-based course. Collaboration with Talent Development, and URI Multicultural Center.

Addendum: The Fellowship will be developed and finalized following a needs assessment to be funded by the proposal. Participation will be limited to 15-20 students due to focus on recruitment and retention of students from diverse racial, ethnic, cultural, linguistic, and socioeconomic backgrounds.

Developing and Training Health Professionals in Rhode Island Communities College of Health Sciences

1) Fund a Coordinator of Strategic Partnerships for Experiential Collaboration, eventually to be housed/funded by URI Center for Career and Experiential Education); develop interprofessional, community-based placement opportunities for health professional students; assist faculty in developing creating high quality learning opportunities in collaboration with community sites; and 2) Develop partnerships with schools to increase health profession awareness and preparation among high school and middle school students; hold an open house at URI w didactic and simulated experiences for students and parents to learn about various health professions.

Addendum: This Project will be synergistic with Clark proposal and SIM-funded community preceptor training. Focus will be on programs with College of Health Sciences. Focus will also be on increasing and sustaining clinical site development.

Career awareness activities will focus on diverse, under-represented schools. Focus on middle schools is novel and important. Will coordinate with RIC and/or CCRI.

Health System Transformation Concepts: A self-paced virtual learning tool for RI's health workforce College of Nursing

Series of eleven online webinars to educate the current health workforce about the significance of value-based payments, care management, social determinants of health, health equity, population health, data analytics, and related topics. The expected audience is working health professionals and paraprofessionals who may also be juggling family and other obligations. The teaching/learning interface will therefore be exclusively online, with synchronous, free-of-charge sessions recorded and archived for asynchronous learning as an ongoing resource to the R.I workforce. Potential to lead to certificate and/or credits in Core Concepts of Health Systems Science.

Addendum: Webinars will be housed by the URI Academic Health Collaborative. Will also be made available for Continuing Education credits in partnership with Kanaczet proposal, which will certify the continuing education components and assist with marketing. Willing to serve as a "clearinghouse" of other relevant, non-URI, online trainings.

5-Year Master's Degree in Mental and Behavioral Health Counseling

Psychology

Support for Psychology Dept to do the research and development necessary to obtain internal and external approval of a 5-year Masters in Mental and Behavioral Health Counseling in order to meet the workforce needs of RI employers and the mental and behavioral health needs of Rhode Islanders.

Interprofessional Workforce Development

Psychology

Collaborative effort between BHDDH, EOHHS, URI faculty and students to conduct Integrated, team-based, data-driven research to assess system effectiveness and efficiency. Particular focus on resource planning needs for Medicaid population(s) in RI; statewide needs assessment; drivers of Medicaid health outcomes; data analysis. Priority will be given to minority applicants and applicants who expect to work in this field in RI for at least three years after graduation.

Addendum: Focus of work will serve HSTP/HWT objectives, including understanding BH needs, drivers, and associated costs and resources for Medicaid population. Will also provide unique education and training opportunity which will support transformation of policy and practice.

Nurses for Obesity Prevention: A need for education

Nutrition and Food Science

Educate senior nursing students on critical topics related to prevention of childhood obesity. Develop curriculum to include interactive modules on about social determinants of health, health disparities, modifiable risk factors, best practices for childhood obesity prevention. Will also include hands-on lab component; motivational interviewing techniques, community/pediatric clinical experience; and evaluation.

CCRI Healthcare Workforce Transformation projects

Career Pathways Initiative

Department of Health and Rehabilitative Sciences

Description: Planning process led by experienced consultant will engage all healthcare departments at CCRI, as well as the CCRI Center for Workforce and Community Education, to identify existing healthcare career pathways and create new pathways for high school students, CCRI healthcare students, and the current healthcare workforce.

CCRI will collaborate with high schools, job training programs, and healthcare employers to increase healthcare career awareness. CCRI will develop materials and outreach to conduct a healthcare career fair in partnership with RI College and URI. CCRI will identify and develop new pathways in specialty areas (e.g., dementia care) that will increase career opportunities for entry-level workers and address population health needs. CCRI will collaborate with RIC and URI to improve pathways to four-year and graduate degree programs.

This initiative will prioritize outreach and recruitment of diverse, under-represented populations and will emphasize roles, skills, and knowledge that support healthcare system transformation from institutional to community-based settings. This initiative will also assess employer demand and the current talent pipeline with the goal of addressing potential workforce shortages.

Interprofessional Education Initiative

Department of Health and Rehabilitative Sciences

Description: This is the first year of a 3-year initiative. CCRI will hire a consultant and part-time staff to 1) develop an academic infrastructure for interprofessional education (IPE) within all CCRI health science programs; 2) design, plan, and implement a professional development and training program for faculty on IPE module-based curriculum; 3) design, plan, and implement teamwork/interprofessional education for all healthcare students at CCRI; and 4) explore collaboration with other RI institutions of higher education to develop joint IPE opportunities, including community-based activities.

This initiative will introduce integrated team-based care to future health professionals across disciplines as they apply the concepts of IPE that they learn from this initiative to real world applications. This initiative will also include module-based curricula that addresses care management, social determinants of health, health equity, population health, and data analytics in a team-based approach.

Healthcare Workforce Transformation and Accountable Entities

The RI Medicaid Health System Transformation Project is centered around Accountable Entities (AE) as the primary vehicle for system transformation. The Healthcare Workforce Transformation initiative and higher education partnership is, in turn, centered around re-tooling healthcare education and training to support the goals, objectives, and workforce development needs of AEs. In order to support the development of strong partnerships between AEs and IHEs, the Healthcare Workforce Transformation initiative has engaged AE leadership in identifying healthcare workforce needs through one-on-one interviews as well as through the AE certification application process. The following summary of AE workforce challenges and opportunities was shared with the Medicaid-IHE Partnership representatives to inform their efforts.

- Awareness of social determinants of health
- Capacity to integrate medical and social interventions
- Capacity to meet BH/SA needs of AE population (in primary care and BH settings)
- Care coordination knowledge and skills
- Care transitions
- Nurse Care Manager training
- Community Health Workers
- Peer Recovery Coaches
- Diverse bi-lingual / bi-cultural workforce (ideally from the community)
- Understanding of / commitment to population health
- Understanding and capacity for IT and data analytics
- Coders, Medical Assistants, LPNs
- Career ladders
- Medication adherence (Pharmacists and Pharm Techs)
- Member education / health literacy
- Continuing education for current staff in core concepts of system and practice transformation
- Student internships and clinical placements

- Post-graduate residencies for clinicians
- Research and evaluation; best practices

AE leaders will be invited to present and discuss their specific workforce needs at future Medicaid-IHE Partnership Committee meetings.

Reinventing Long-Term Services and Supports (LTSS)

The Healthcare Workforce Transformation Report identified the need to support the direct care workforce and expand home and community-based care and services as key health system and workforce transformation priorities. More recently, the Governor's office has undertaken an initiative to engage stakeholders in developing specific strategies to "Reinvent LTSS" and rebalance the delivery system by shifting Medicaid expenditures from high-cost institutional settings to community-based settings.

The state recognizes that in order to achieve this objective, it is essential to have a sufficient supply of well-trained, caring, adequately compensated, culturally diverse LTSS workers. To support the Governor's LTSS initiative, EOHHS will endeavor to address key LTSS workforce policy questions, including the following:

1. What workforce models and occupations do we need to enable individuals to receive care and services in their homes and communities and avoid or delay institutional care?
2. How can the state help develop a reliable pipeline of LTSS workers to expand access to services?
3. What economic factors would improve recruitment of the LTSS direct care workforce?
4. What non-economic factors would improve workforce retention of the LTSS direct care workforce?
5. How can the state use its regulatory levers to increase the ability and stability of the LTSS workforce?
6. How can the state use its financial (i.e., budgetary and payer) levers to increase the ability and stability of the LTSS workforce?

Health Information Technology Plan

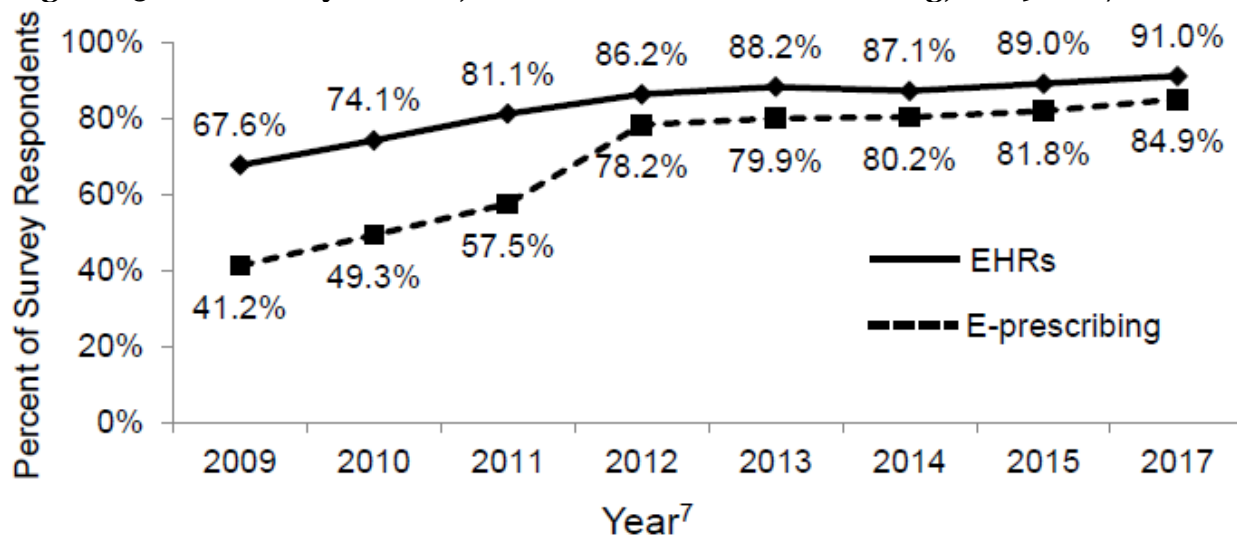
Health Information Technology (HIT) projects are foundational elements in our plan for Rhode Island's health system transformation. Rhode Island continues to be a leader in statewide HIT investments. Starting in 1997, the Rhode Island Department of Health (RIDOH) implemented KIDSNET, an integrated child health information system, which has served as a pediatric health information exchange for public health programs and pediatric providers. In 2004 Rhode Island initiated efforts to build a statewide health information exchange (HIE). In 2009, the state began to monitor Electronic Health Records (EHRs) and e-prescribing adoption rates, and in 2011 efforts to design and build an all payer claims database (APCD) were underway. Rhode Island has also been developing a single platform (the Unified Health Infrastructure Project, or UHIP) which integrates and tracks eligibility determination for HealthSource RI, Medicaid, and other human services programs. As evidenced by the above, Rhode Island considers HIT a cornerstone of our strategy to increase Rhode Island's healthcare quality – and to implement our strategic Integration & Alignment Project. We can build on the strong relationships that exist between programs and use technology to make these links actionable.

HIT Adoption and Use

Over the past few years, Rhode Island healthcare providers have made great strides in HIT adoption and use. RIDOH had been conducting an annual HIT Survey since 2009, and switched to a biannual HIT survey in 2015. RIDOH also completed its first statewide healthcare inventory in 2015. The HIT survey measures adoption by physicians, while the inventory measures adoption by facility and location. The 2017 HIT survey was administered in Spring 2017.

The 2015 HIT Survey had a 66% response rate and the 2017 HIT Survey had a 42.7% response rate. The 2017 survey found that of responding physicians, 91.0% had an EHR and 84.9% were e-prescribing, an increase from the 2015 survey. Figure 15 shows the EHR and e-prescribing rates as reported in the HIT Survey for Rhode Island physicians from 2009-2017.

Figure 15: HIT Survey Results, Use of EHRs and E-Prescribing, 2009-2017



In addition to the physician HIT survey, and as a roadmap for how Rhode Island can improve HIT adoption rates, it is also useful to look at EHR adoption rates by practice type or location. Rhode Island gets this data through our Statewide Healthcare Inventory, which was last completed in 2015. (The next iteration of the Inventory will be published in 2018.)

Rhode Island's EHR adoption across hospitals is 92.3%, across outpatient specialty locations is 72.7%, and across primary care locations is 82.6%. It is clear that while Rhode Island's average EHR adoption rate across all locations is 77.2%, which is close to the national average of 78%, efforts to increase EHR adoption need to be focused on specialists and behavioral health facilities or providers. Table 12 shows EHR adoption rates by location type, illustrating the gaps in EHR adoption rates.

Table 12: EHR Adoption Rates, Statewide Healthcare Inventory, 2015

Survey	Total Locations	Response Rate	EHR Adoption Rate
Hospital	13	100%	92.3%
Nursing Facility	89	100%	80.9%
Outpatient Specialty	418	60%	72.7%
Primary Care	311	94.5%	82.6%
Behavioral Health	48	79.2%	39.6%
Psychologists	108	88.9%	33.3%
Psychiatrists	49	100%	24.5%
<i>Notes: Not all respondents answered the EHR adoption questions; there is possible overlap between the outpatient specialty and psychologists survey results; and some outpatient specialty practices are co-located with hospitals.</i>			

Rhode Island community organizations have leveraged numerous federal funding opportunities to help increase HIT adoption. In 2010, the Rhode Island Quality Institute (RIQI) received Office of the National Coordinator for Health Information Technology (ONC) funding to serve as a regional extension center, was designated by the state to serve as the state's designated HIE entity to continue to build out CurrentCare (the state's HIE), and was awarded a Beacon grant to focus on how HIT adoption could drive improvements in health care. While all of these grants have ended, RIQI continues to build out and operate CurrentCare and has also recently received additional ONC HIE grants focusing on long term care and behavioral health connectivity to CurrentCare. Additionally, RIQI received a Transforming Clinical Practice Initiative grant (TCPI) to assist providers (primarily specialists) with practice transformation (including EHR and HIE adoption) in preparation for value-based purchasing models. SIM works closely with RIQI in all aspects of HIT, and is coordinating work with their TCPI project.

EOHHS administers the Medicaid EHR Incentive program. As part of this program, EOHHS funded RIQI to provide additional technical assistance to Medicaid providers who are struggling to meet Meaningful Use. This contract ended May 31, 2017, and was considered a great success.

Lastly, Healthcentric Advisors, a Rhode Island-based nonprofit serves as the as the regional Quality Improvement Organization (QIO), supporting practice transformation and HIT adoption. They also contract with RIDOH to conduct the annual HIT Physician Survey as part of a larger health care public reporting program primarily focused on Long-Term and Post-Acute Care facilities (LTPAC) and hospitals.

State HIT Governance

Rhode Island has a history of HIT governance that relies on working collaboratively across both state agencies and external partners. Given the success of this approach and the fact that many of the HIT initiatives provide the tools and infrastructure upon which various departments rely, no single state agency has the responsibility for overseeing all of the HIT initiatives within state government. Rather the state has adopted an interagency team approach to managing a number of specific HIT initiatives such as the APCD or RI Bridges (Rhode Island's integrated Health and Human Services eligibility and insurance exchange platform, formerly called UHIP).

In-State HIT Oversight – Interagency Teams and Staff Positions The EOHHS and affiliated state agency principals (Cabinet Directors) work together along with staff from the Governor's office to provide strategic direction on HIT initiatives. Principals meetings are held periodically – and their staff members who populate the various interagency teams keep the principals well informed on the current status, discuss any existing barriers and challenges, problem-solve as needed, and continue to strategically align across HIT initiatives as appropriate.

Rhode Island is currently coordinating governance for HIT development statewide through collaboration of State Agency Principals at RIDOH, EOHHS, and OHIC. One new interagency team that SIM has helped develop is the Governing Board of the EOHHS State Data Ecosystem. As described more fully on Page XX, at the end of 2017, the Ecosystem established its Governing Board, chaired by the Secretary of EOHHS with board representation from all EOHHS agency Directors or their designees and the SIM Project Director. At the start of 2018, all agencies signed a single data use agreement to support data sharing and collaboration.

While much of the work is accomplished in interagency teams, there are also designated agency staff responsible for managing the various HIT initiatives. The EOHHS Director of Analytics provides critical leadership and support to a number of HIT initiatives internal to EOHHS and its agencies such as the RI Bridges, Medicaid Management Information Systems (MMIS), and the current EOHHS data warehouse. The Director of Analytics also serves on the APCD interagency team and importantly, is overseeing the EOHSS State Data Ecosystem effort.

The State HIT Coordinator is also located within EOHHS and is responsible for managing the state's oversight of Rhode Island's state designated entity for HIE, assuring that our statewide HIE meets the state's needs, serving as a liaison and helping to align statewide HIT efforts across and within Rhode Island, and overseeing the state's Medicaid EHR Incentive Program and its program manager. She also oversees the state's SIM HIT work plan, and serves on additional community-facing HIT projects, such as the APCD interagency team and the provider directory oversight group.

Additionally, the SIM staff person at EOHHS is an HIT Specialist who reports to the State HIT Coordinator to specifically drive the development and implementation of the SIM HIT plan.

Finally, there is a Health Informatics Coordinator position located at RIDOH. This staff person is responsible for coordinating the work among the public health HIT systems (such as the PDMP, KIDSNET, syndromic surveillance, medical licensure and the statewide HIE), serving as the public health meaningful use coordinator, and serving on the APCD and provider directory interagency teams.

It is also important to note that the state has a centralized Department of IT (DOIT) located within the Department of Administration which handles all technical facilitation centrally for the state. Any IT staff located within an agency are typically part of this centralized IT department but physically located at the agency for which they perform their duties. The State CIO/Chief Digital Excellence Officer and his staff work closely with each agency within state government as well as with the state interagency teams on HIT projects that are housed within state government. They also consult on all HIT related procurements to assure that the projects adhere to all state IT standards.

Public-Private Governance SIM places great value and emphasis on engaging the community and working collaboratively with external partners in developing overall HIT strategy for the state. The state incorporates the community in the governance for the statewide HIT effort through both the SIM Steering Committee and RIQI Board meetings. Both entities include healthcare leaders and state principals.

This partnership and the requisite community input is provided through different mechanisms. Governance of the statewide HIE is primarily through the state designated entity: the Rhode Island Quality Institute's (RIQI) Board of Directors as well as their community-based committees. The state is well-aligned with RIQI, as the Health Insurance Commissioner and Secretary of EOHHS serve as ex-officio, non-voting members on the RIQI board and the State HIT Coordinator serves on all of RIQI's community-based committees. These committees provide valuable input to RIQI as we move together to develop activities that support both service delivery reform (technology to assist care coordination, transitions of care, and care management) and value-based payment reform (technology to assist with over-utilization, such as alerts and Care Management Dashboards).

There is also a statutory HIE Advisory Commission that is responsible for advising the Director of Health on the uses of HIE data as well as a statutory APCD Data Release Review Board that provides similar advice to the Director of Health for the APCD. While the HIE Advisory Commission's primary role is in advising regarding privacy and security of the information within the HIE, often the Director asks them for advice around new concepts RIQI may be developing. The APCD Data Release Review Board's primary objective is to review data requests applications, however they have also been helpful in gauging community reaction to the types of data products that will be offered and identifying some gaps in data products that would leave some potential customers wanting. In addition, through RIQI, the Provider Directory Advisory Committee, which was originally convened only with representatives of state agencies and RIQI, has now expanded to include providers, payers, and consumers to help ensure that the development of the provider directory aligns with reform efforts in the states, and that RIQI does not work in an information silo. Lastly, the Healthcare Quality Measurement Reporting and Feedback System being developed through SIM is governed by a workgroup of the SIM Steering Committee. This committee was essential to SIM for our understanding of the community needs around quality measurement and in our development of the RFP for the system to meet those needs, and moving forward into implementation will provide guidance on requirements for the system and governance of the data.

The biggest risk around these multi-stakeholder structures that help support the state's reform efforts is that the stakeholder groups may recommend or request features that are currently not allowed by state law, may require additional stakeholders to accomplish, could take a longer time to complete than possible, or may be too technologically difficult to accomplish without additional funds. For example:

- Including all payers' provider network data in the Provider Directory – This is a common request at every meeting, but requires that the payers be willing to provide this data. They have some reasonable concerns about doing so, and thus negotiating data sharing agreements has been very difficult or in some cases, not possible.
- Combining claims and clinical data – Right now HealthFacts RI is a mandate, but by law must be de-identified. A combination of claims and clinical data can only be accomplished if the payers volunteer to include claims data.

It can sometimes be difficult to find stakeholders who have the interest, time, and commitment to serve on our stakeholder groups, so there is always a risk that inability or slowness to act on recommendations may disenfranchise stakeholders over time. The state makes an effort to be open about potential barriers and the slowness of some processes such as legislative or regulatory change to support any changes to alleviate some of this risk.

There is also occasionally some risk posed by multi-stakeholder governance groups being overly cautious with privacy and security concerns even beyond the requirements of state and federal law and regulations, and thus inadvertently making recommendations that are overly protective and contrary to standard practice.

While there is no central single state agency responsible for all components of the state's HIT efforts, there is unprecedented collaboration occurring across state government and with the community to strategically align, leverage, and coordinate HIT activities across the state in support of our Triple Aim goals in Rhode Island.

HIT Policy Levers

Rhode Island has put into place a variety of HIT policy levers to support SIM, the transition to value-based payment, quality improvement and interoperability. Table 13 describes those policy levers related to SIM and the HIE.

Table 13: Health IT Policy Levers That Support SIM

Policy Lever	Topic Focus	Mechanism	Target	Status
Accountable Care Arrangements	Payments	Payer Contracts: HIT requirements are being incorporated into Accountable Entity (AE) Certification requirements: <ul style="list-style-type: none"> • Use of CEHRT • Bi-directional integration with HIE • Enroll patients in CurrentCare • Use of Patient Portals • Use of Care Management Dashboards and/or Care Management Alerts • Contribute provider files to Statewide Common Provider Directory 	MCOs/ Providers	Effective May 31, 2017.

Policy Lever	Topic Focus	Mechanism	Target	Status
Advanced Primary Care Arrangements	Payments	Statutory/Regulatory Authority: OHIC allows practices to apply for OHIC-PCMH status, which can be met in a couple of different ways including by proving NCQA Recognition. Commercial health plans are obligated to pay OHIC-PCMH practice Support Payments if they are included in the plan's OHIC PCMH target count.	Commercial Health Plans/ Providers	Effective July 11, 2016.
APCD Policies	Governance	Statutory/Regulatory Authority: RIDOH requires payers with greater than 3,000 members to submit claims data to the APCD.	Payers	Effective July 2013
Certificate of Need (CON) Regulations	Governance	Statutory/Regulatory Authority: For each new Certificate of Need (CON) request, RIDOH incorporates conditions into the approval. These conditions include: <ul style="list-style-type: none"> • Incorporating SIM recommendations into the implementation plan • Participation in CurrentCare, including enrollment of patients and bi-directional exchange 	Facilities	Rolling decision dates
E-Prescribing Mandate or Encouragement	Governance	Other: RIDOH has authorized the prescribing of controlled substances electronically, and strongly encourages e-prescribing as a safe opioid prescribing practice. Additionally, a bill was passed in the 2017 legislative session to mandate e-prescribing of controlled substances, with participation required no sooner than January 1, 2020.	Providers	Effective 2014 Effective 2017
HIE Advisory Commission	Governance	Statutory Authority: RIDOH operates an HIE Advisory Commission comprised of members of the community which serves an advisory role to the Director of Health regarding the privacy and security of protected health information in the state designated HIE.	HIE	Effective 2013
Prescription Drug Monitoring Programs (PDMP)	Governance	Statutory/Regulatory Authority: The RIDOH requires that pharmacies report dispensing data within 24 hours, and that prescribers check the PDMP before prescribing an opioid for the first time or every 6 months.	Pharmacies/ Prescribers	Reporting Effective 1997; Prescriber requirements effective 2016.

Policy Lever	Topic Focus	Mechanism	Target	Status
State Appropriated Funds	Funding	Other: The state appropriates Medicaid's 10% share of the per member per month allocation that all major payers pay to support the operations of the HIE.	HIE	Effective 2012
State Purchasing/ Contracting of Health Care Services	Governance	Payer Contracts: Medicaid incorporated clauses in the MCO contracts to encourage participation in SIM activities, including the provider directory.	MCOs	Effective 2017
State-level Legal Protections	Governance	Statutory/Regulatory Authority: The HIE statute and regulations provide immunity for providers from criminal or civil liability arising from any good faith reliance on information provided through the HIE.	Providers	Effective 2008
Telemedicine	Governance	Statutory/Regulatory Authority: Rhode Island law (§27-81-4) requires that insurers provide coverage for the use of telemedicine services.	Payers	Effective January 1, 2018

Privacy Protection Policies

A variety of state policies limit Rhode Island's ability to leverage our HIT infrastructure as some other states are able to do. Notably, we cannot combine the claims data in HealthFacts RI with the clinical data in our HIE.

Rhode Island has distinct laws and statutory requirements governing the development, use and release of data from HealthFacts RI and the statewide HIE. However, Rhode Island laws make linking the two databases challenging and require each system to have its own community-based commission. Both commissions are required to advise the Director of Health, which does allow the Director to create a coordinated strategy out of what would otherwise appear to be separate silos. While the specific focus and tasks for each committee differ, Rhode Island's strategy and criteria for data use (as permitted by law) are similar. The State's aligned data strategies help coordinate the HIT governance across these and other efforts. Moreover, the same state staff are responsible for both HealthFacts RI and the HIE, giving staff a broader understanding of the current HIT effort, and leveraging the synergistic potential of the two programs.

The State recognizes the benefits of directly linking HealthFacts RI data with the HIE data. Currently, HealthFacts RI has only de-identified data, which can only be released as such. The HIE data is identifiable but only includes a portion of Rhode Islanders and can only be shared to support treatment and coordination of care or for public health purposes. These constraints inhibit SIM's ability to link these two specific databases.

Despite the challenges, state and RIQI staff have begun to identify potential ways to address this need. Rhode Island continues to explore implementing options such as:

1. Adding an extract of CurrentCare data to HealthFacts RI by sending it through the lockbox vendor, de-identifying it, and adding it to HealthFacts RI's analytics tool

- and extracts.
- 2. Amending state laws to reflect the needs and requests of providers throughout the state to deliver thoughtful value-based care in APMs.
- 3. With the agreement of the payers and providers, building a separate system that shares data between payers and providers under HIPAA compliant business associate agreements.

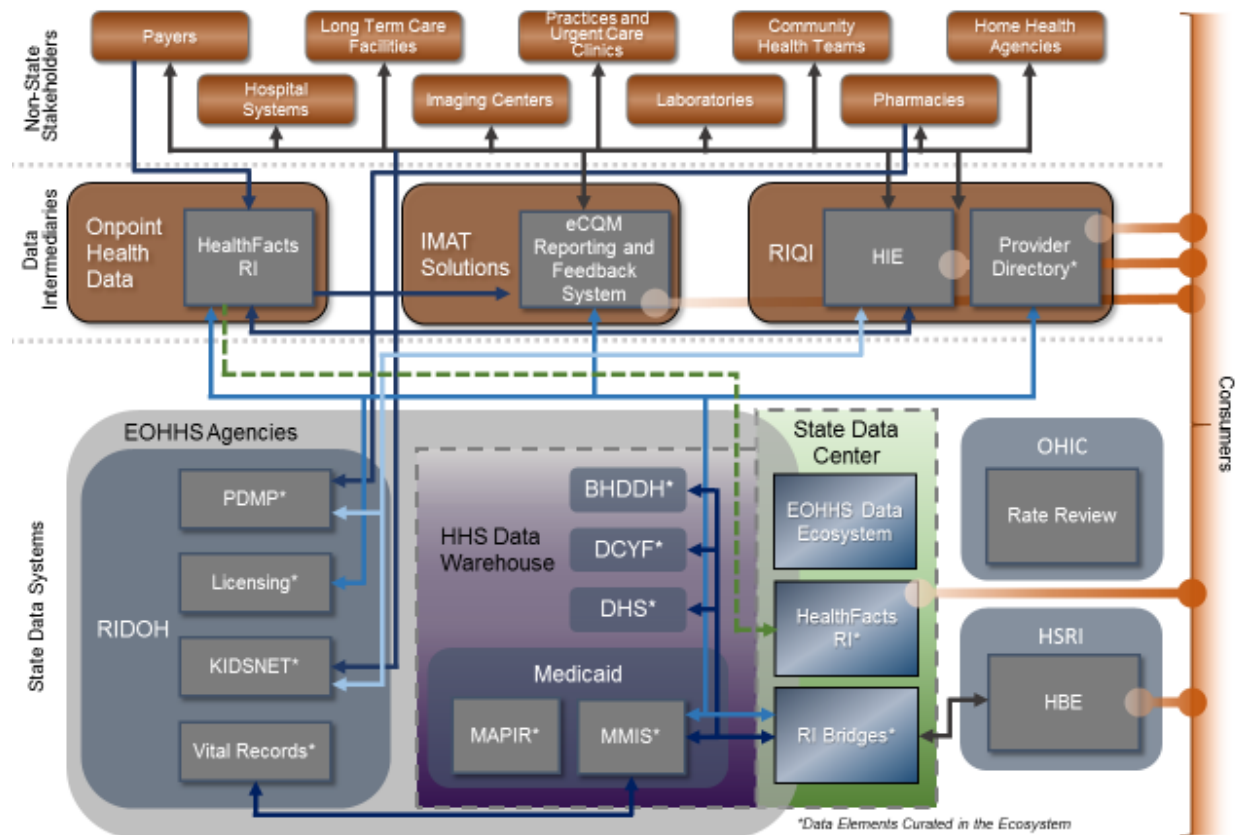
Over the past year several meetings have been held with state leadership and legal counsel to discuss the intricacies of the policy around these two data sets. To move ahead and make these critical decisions, we will depend on our stakeholders for input and advice. The most effective way to seek this advice will be for us to hold two or more educational forums to which we can invite members of the CurrentCare and HealthFacts RI oversight boards, and SIM's Technology workgroup. While we thought these meetings might occur in 2017, the state instead focused on regulatory changes unrelated to these issues for both the HIE and the APCD. We do anticipate a readiness to have these conversations over the next year. We will use these forums to have the experts in attendance review the options and make recommendations to the appropriate bodies – the HIE and HealthFacts RI Advisory Commissions, the SIM Steering Committee, or state leaders.

Rhode Island is committed to improving the value of our statewide HIT infrastructure while serving the privacy of our residents.

Existing State HIT Systems

Rhode Island's investments in HIT include a diverse group of systems that help reduce administrative waste, increase EHR adoption, support interoperability, and improve care coordination. This updated Data Architecture Diagram describes the relationships between these systems and they are described in further detail below.

Figure 16: Rhode Island Health Data Architecture Diagram



RI Bridges

The RI Bridges system (formerly known as the Unified Health Infrastructure Project or UHIP) is designed to be a single technical platform that supports Medicaid and other state human service eligibility, collecting consumer information in a centralized resource. UHIP is an interagency initiative between HealthSource RI, the Executive Office of Health and Human Services (EOHHS), and the Office of the Health Insurance Commissioner (OHIC). While UHIP experienced serious challenges in its roll-out, the administration instituted a turn-around process in 2017 and has had successes in fixing the problems. The state remains fully committed to ensuring that all Rhode Islanders can efficiently get the benefits to which they are entitled.

KIDSNET

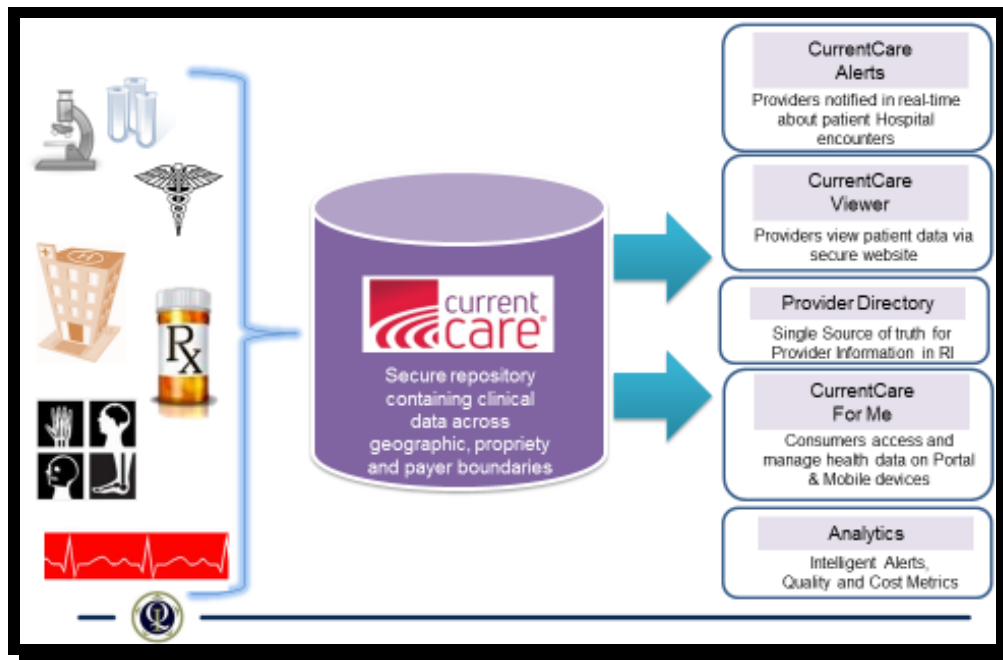
KIDSNET, administered by RIDOH, is the state's confidential, computerized child health information system serving families, pediatric providers, and public health programs. It helps ensure that all children in Rhode Island are as healthy as possible by tracking health screenings and connecting children to important early intervention 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 provider or receive services from a program participating in KIDSNET.

CurrentCare

CurrentCare is the statewide Health Information Exchange (HIE), operated by RIQI, the state's designated regional health information exchange organization (RHIO) entity. Rhode Island's HIE is a secure electronic system that allows doctors and other caregivers immediate access to

an enrolled patient's up-to-date health information to provide the best possible and most comprehensive care. CurrentCare went live in 2010 and is governed by the HIE Act of 2008, which requires individuals to voluntarily participate in the program. Participants agree to have their data be stored and shared through CurrentCare with provider users they authorize. CurrentCare also provides Hospital Alerts to subscribed providers to inform them of emergency department (ED) or hospital admission, discharge, or transfer of their patients. A CurrentCare Patient Portal was launched in 2016 and as of December 2017 had 4,963 enrolled individuals. As of December 2017, there are 497,075 actively enrolled participants, which represents about 47% of Rhode Island's population. This represents an increase of 14% since March 2016.

Figure 17: CurrentCare Data Exchange Diagram



Prescription Drug Monitoring Program

The RIDOH maintains a Prescription Drug Monitoring Program (PDMP) which collects dispensing data for Schedule II, III, and IV prescriptions from all pharmacies in the state. Prescribers and pharmacists can log in to the PDMP portal to look up dispensing information on patients they are serving, improving the ability of providers to make informed prescribing decisions. In November 2017, the RI PDMP was successfully integrated with the hospital system Lifespan's EHR using RIQI's HIE as a data intermediary.

HealthFacts RI

HealthFacts RI is Rhode Island's all-payer claims database (APCD). It consolidates an individual's de-identified claims from all payers longitudinally in a central database, preparing the data to be used for analysis to ensure transparency about health care costs, utilization, and quality in the state. The Rhode Island General Court enacted [Chapter 23-17.17-9, Health Care Quality and Value Database](#) in 2008, which directed RIDOH to establish and maintain the Rhode Island All-Payer Claims Database and gave the state the authority to require insurance companies to provide de-identified healthcare claims data for services paid on behalf of enrollees. Planning for the development of HealthFacts RI began in 2012 when funding became

available, and RIDOH promulgated [regulations](#) in 2013. While other funds were used to build the initial HealthFacts RI database with historical data, funding for the ongoing ability to fully implement, maintain, and analyze the data is part of our SIM HIT plan and will be discussed in more detail below.

SIM Test Grant HIT Components

While HIT adoption is continuing to become more prevalent among the larger practices in Rhode Island, many providers, practices, healthcare organizations, and the state itself are struggling to find the resources and means to fully and effectively use EHRs and claims data to drive improvements in health care quality and reduce the cost of care. Given that data continues to aggregate in individual EHRs, in ACOs and health plans, and within projects such as CurrentCare, HealthFacts RI, and RI Bridges, Rhode Island needs an effective, thoughtful, and integrated analytic strategy to support the state's SIM goals and drive health care transformation efforts.

Rhode Island's SIM Health Information Technology Plan has two major strategies:

1. Improve our collective analytic capacity for the data we already have; and
2. Implement technology and tools that support our transformation activities.

There are six major projects in Rhode Island's Health Information Technology Plan:

- HealthFacts RI;
- Statewide Common Provider Directory;
- EOHHS State Data Ecosystem;
- Healthcare Quality Measurement, Reporting, and Feedback System;
- CMHC Care Management Dashboards; and
- Consumer Engagement Platform.

Rhode Island has developed these projects so that they are all both interconnected and interdependent. To sufficiently and adequately understand and increase the value of the healthcare being provided in Rhode Island, we are pursuing a value-added central collection of provider data, claims data, and clinical data that goes beyond the siloed data housed at each individual healthcare organization and state agency. The proposed implementation timeline for these activities is incorporated in the Master Timeline, and we have included detailed work plans in the SIM components section. The contributing entities include payers, providers, and state agencies. When the projects are fully implemented, each system will feed off the knowledge and value-added features located in the others.

HealthFacts RI

SIM Test Grant funds are supporting the implementation and maintenance HealthFacts RI. Its purpose is to ensure transparency of information about the quality, cost, efficiency, and access of Rhode Island's healthcare delivery system. It can also provide state agencies and policy makers with the information they need to improve the value of healthcare for our residents. It has begun to illuminate how Rhode Islanders use the healthcare system, the effectiveness of policy interventions, and the health of our communities. HealthFacts RI began collecting data in 2015 and includes historical data from 2011-2014.

Use of HealthFacts RI

With the passage of the Affordable Care Act, 95% of Rhode Islanders are now covered by insurance.⁹ Most of their encounters with the healthcare delivery system will result in the payment of a claim processed by one of the insurers in the state, including Medicaid. A claim contains a wealth of health and cost information such as the diagnosis, basic demographic information, provider information, cost information (including total cost and out-of-pocket cost), and type of treatment provided.

Rhode Island has taken extensive precautions to protect patient privacy in the database, while ensuring that the data is still longitudinal and useful to agencies, legislators, and researchers. HealthFacts RI does not collect any direct patient identifiers. A unique member ID allows for longitudinal analysis across payers and time. The APCD legislation also allows individuals to opt-out of having their data collected.

HealthFacts RI collects, organizes, and analyzes health care data from nearly all major insurers. This information allows users to benchmark and track Rhode Island's health care system in ways that were previously not possible. We can now consider questions such as:

1. How do patients of commercial insurers fare on preventable hospital readmissions compared to those in Medicare or Medicaid?
2. How much are we spending on healthcare in Rhode Island and what drives that spending?
3. What do we know about the types of patients who miss critical preventive or disease management services?

As the data collected by HealthFacts RI grows, we will better understand the healthcare delivery system by identifying areas for improvement, growth, or contraction; we will be able to better quantify overall health system use and performance; we can more effectively evaluate the effectiveness of policy interventions, and assess the population's health.

One of the great benefits of creating a database like this is that individuals can be tracked over time, even if they change insurers. With HealthFacts RI, analysis of the lifespan will be possible to help understand, for example, the scope of an entire health episode (i.e. an entire knee replacement and recovery, severity of illness, or potentially preventable events).

Table 14 describes potential state agency uses of HealthFacts RI, and Table 15 describes potential non-state user uses of HealthFacts RI. These analyses will support a host of new activities under value-based payment. Policy makers and researchers will use this knowledge to inform the way care is delivered and paid for, in order to move the system toward a higher-quality, greater-value paradigm.

⁹ <http://healthsourceri.com/press-releases/healthsource-ri-reports-uninsured-rate-drops-to-5/>

Table 14: Potential Use of HealthFacts RI by State Agencies

Audience	Potential HealthFacts RI Uses
Medicaid	<ul style="list-style-type: none"> • Conduct analyses to meet federal reporting requirements for Medicaid, such as the Access Monitoring Review Plan requirement. • Evaluation of the Long-Term Care Rebalancing and Accountable Entities programs. • Monitor, both all-cause and preventable hospital readmissions by provider, demographic, year, geography, admitting diagnosis, or post-discharge services. Compare to other payer types. • Analyze the use of appropriate care settings: trends in ED, clinics, or office visits • Understand the effect on patient health care of interventions, such as long-term care rebalancing and the transition to Accountable Entities • Monitor the types of outpatient services used after a hospital discharge for those who are and who are not readmitted
Department of Children, Youth, and Families	<ul style="list-style-type: none"> • Spot trends in groups of children with lead poisoning and help identify safer environments for children to live and play • Identify patterns of access to care for children with behavioral health conditions or diagnoses • Explore patterns of children who visit the ER frequently for non-emergent conditions
Department of Health	<ul style="list-style-type: none"> • Monitor trends in disease prevalence, co-morbidities, and emerging infectious diseases • Design and evaluate interventions to address trends in opioid and prescription drug abuse • Monitor prescription refill patterns as a proxy for medication adherence monitoring • Understand patterns in care migration and service use outside of Rhode Island to support the Certificate of Need process • Monitor and use data to promote screening and prevention services
Department. of Human Services	<ul style="list-style-type: none"> • Better understand the medical experience of demographic groups that receive DHS benefits, such as WIC and SNAP • To better tailor benefit and service experiences, monitor trends in patient health, spending, and use by zip code to find similar demographic groups
Division of Elderly Affairs	<ul style="list-style-type: none"> • Test, evaluate and monitor the effect of different long-term care arrangements on patient health and spending • Compare duration, intensity, and types of service use for elders who continue to live in the community versus those who enter nursing home care • Create profiles to help predict elders at risk of missing needed care
Healthsource RI	<ul style="list-style-type: none"> • Develop portraits of those enrolled in plans sold through HealthSource RI compared to rest of state • Understand how people use health care when they have diverse types of insurance coverage • Better understand patterns of coverage churn • Monitor patient out-of-pocket comparisons by plan type/metal value
Office of the Health Insurance Commissioner	<ul style="list-style-type: none"> • Provide information about costs of services to consumers • Review cost trend drivers to support rate review • Compare increases in actual medical spending versus premium payments

Audience	Potential HealthFacts RI Uses
	<ul style="list-style-type: none"> • Monitor out-of-pocket spending and total cost of care • Project effects of hospital system consolidation on price
State Innovation Model (SIM)	<ul style="list-style-type: none"> • Support modeling and evaluation of new payment designs • Establish baseline and quantify total spending for patient cohorts attributed to particular practices

Table 15: Potential Use of HealthFacts RI by Non-State Users

Audience	Potential HealthFacts RI Uses
Consumers	<ul style="list-style-type: none"> • Quality and cost information for different products, carriers, and provider groups or health systems
Payers	<ul style="list-style-type: none"> • Risk-adjusted payment comparisons • Program evaluation • Health reform initiatives • Provider-specific measures (utilization and quality) • Methodologies for attribution, risk-adjustment, and predictive modeling • Information on behavioral health • Market analysis
Providers	<ul style="list-style-type: none"> • Risk-adjusted peer comparisons for practice improvement and transformation • Referral costs • Patterns of care (flow of patients to other specialists, etc.) • Episode groupers • Market analysis
Researchers	<ul style="list-style-type: none"> • Wide range of research projects to be approved by Data Release Board, such as: <ul style="list-style-type: none"> ◦ Epidemiology ◦ Evaluation of program effectiveness ◦ Comparative effectiveness
Other Commercial Users	<ul style="list-style-type: none"> • Pharmaceutical, medical device trials and research to be approved by Data Release Board • Market analysis

Additionally, HealthFacts RI data are available by request to any number of stakeholders, including nonprofits, other state governments, and researchers. While some aggregated data sets are posted on the RIDOH website, detailed line level data sets can be released after review of an application. These line level data sets do not contain any identifying information; however, there are scenarios where there may be enough information that when combined with another dataset an individual could be identified. To help reduce the chance of privacy violations, the RIDOH Director convenes the All Payer Claims Database Data Release Review Board, an eleven-member advisory board, to review applications for data. The purpose of the board is to ensure that data requestors will maintain patient privacy. Any data release which has a potential to identify any individual will only be released with an appropriate Data Use Agreement (DUA) between RIDOH and the recipient. Additionally, the Data Release Review Board takes into consideration the recipient's ability to secure and protect the data when making a recommendation about data release.

Value-based healthcare requires transparency.¹⁰ Meaningful cost and quality information is key to building a healthcare system that pays for quality and outcomes instead of more services that may or may not improve patient health. However, despite years of measurement efforts, patients, employers, public purchasers, health plans, and even providers, have almost no reliable information about the relative cost and quality of healthcare services. Payment reform and delivery system redesign are front and center as national priorities – and to make them work, we need transparent performance information to know that we are paying for the right care at the right cost.

Status of HealthFacts RI

HealthFacts RI includes claims data for any commercial, self-insured, Medicare, and Medicaid entities which covers over 3,000 lives. The database includes membership, paid medical claims, paid pharmacy claims, and provider data from 2011 to present. Data collection began in 2014, and currently comes from seven commercial and two public payers. In 2016, we completed the on-boarding of CVS and began the on-boarding of Blue Cross Blue Shield of Massachusetts.

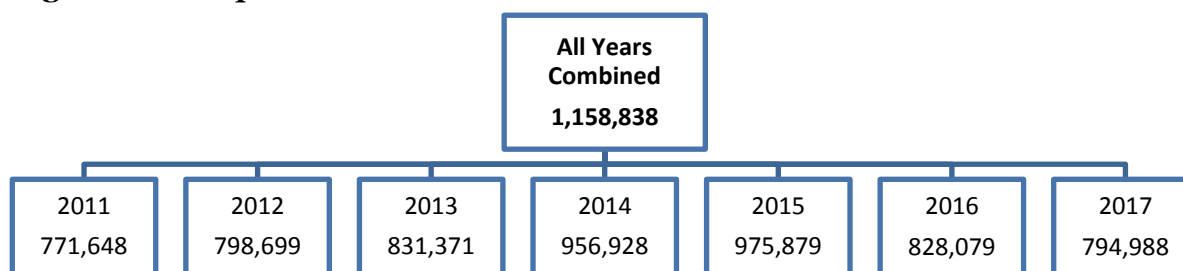
The contract for our previous APCD data aggregator had ended in 2016, necessitating re-procurement and we released the RFP for a Data Vendor in October of 2016. The APCD team restructured the vendor model based upon the experiences over the last few years and consolidated the aggregation and analytic functions under a single vendor, increasing efficiency and accountability. The state selected Onpoint Health Data as the vendor as of March 2017.

Table 16: Payers submitting data to HealthFacts RI

Commercial Payers	Public Payers
Blue Cross & Blue Shield of Rhode Island	Medicaid
United Healthcare	Medicare (Parts A, B, D)
Neighborhood Health Plan of Rhode Island	
Tufts Health Plan	
Harvard Pilgrim	
Aetna	
Cigna	
CVS Health	
Blue Cross Blue Shield of Massachusetts	

¹⁰ <http://www.nrhi.org/work/multi-region-innovation-pilots/center-healthcare-transparency/>

Figure 18: Unique Covered Lives in HealthFacts RI Database



*2017 numbers through 9/30

Governance of HealthFacts RI

HealthFacts RI is managed by an Interagency Staff Workgroup (ISW) made up of representatives from four state agencies: EOHHS, HealthSource RI, RIDOH, and OHIC. This workgroup meets weekly to monitor the progress of the vendors' work and to plan next steps. The agency principals are kept up to date on the status and asked to weigh in on major decisions through regular meetings. (Please note: as described above, because of state privacy laws, there cannot be coordination between CurrentCare and the APCD governance.)

As mentioned above and as required by statute, there is an APCD Data Release Review Board whose purpose is to ensure that data requestors such as researchers, program evaluators, payers etc., will maintain patient privacy. HealthFacts RI started releasing data files to requestors in 2017. In response to the recent U.S. Supreme Court ruling in *Gobeille v. Liberty Mutual*, Rhode Island issued a memo to data submitters informing them that the decision does not apply to HealthFacts RI because the statute enacting the APCD is very different from the Vermont statute reviewed by the Supreme Court. Rhode Island imposes reporting requirements on insurers – not ERISA governed self-insureds. Even with this different interpretation, many insurers have ceased submitting data for the self-insureds. There are no direct personal identifiers in the database, and individuals are given the opportunity to opt out of the database.

Staffing HealthFacts RI

The HealthFacts RI SIM project has been supported by the work of several contracted vendors for project management, data aggregation, and analytics.

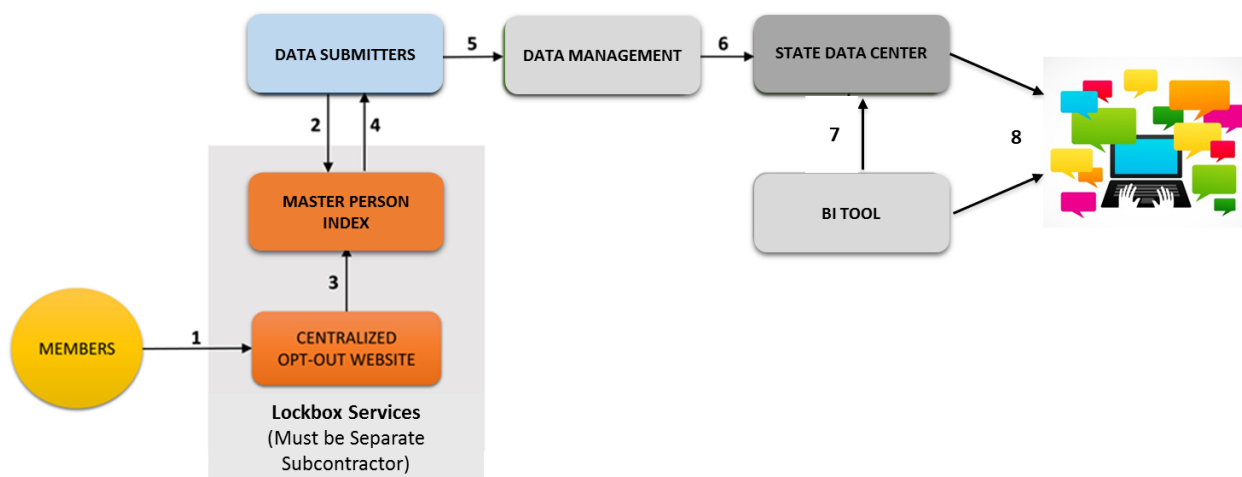
Freedman Healthcare provides project management and subject matter expertise for HealthFacts RI. The project management team organizes meetings, manages communications, coordinates with the vendors, and manages the data release process.

Our data aggregation vendor, Onpoint, subcontracts with Arcadia Healthcare to facilitate the data de-identification process, which allows for people to be matched longitudinally across payers while keeping individual identities masked. Payers submit their member eligibility files on a quarterly basis and receive a Unique Member ID (UMID) back to incorporate into their systems. Arcadia also maintains an [opt-out website](#) and the Rhode Island Health Insurance Consumer Support Line supports individuals who wish to opt-out over the phone.

Next, the payers submit fully de-identified member eligibility, provider, medical claims, and pharmacy claims files to the data aggregator (Onpoint) including the UMID assigned by Arcadia in place of names and other sensitive identifiers. The data aggregator applies data processing rules to combine files together to construct the database.

The data is then sent to our state HealthFacts RI team and loaded into the State Data Center, where state agency users can access it through Power BI or through direct server access. This model will more closely integrate HealthFacts RI into the Medicaid/EOHHS Data Ecosystem as described below.

Figure 19: HealthFacts RI Infrastructure Diagram



Statewide Common Provider Directory

There are three important reasons that SIM prioritized funding the creation of a Statewide Common Provider Directory:

1. Payers, providers, and consumers alike need access to accurate provider information, including current provider name, address, and contact information, and practice affiliations, specific health plan network information, and direct e-mail addresses. In order to maintain accurate provider directories for facilitating payment, care coordination, or data analysis (such as with HealthFacts RI), each type of organization expends considerable resources attempting to maintain their directories. One statewide directory provides economies of scale for both dollars and time.
2. Per legislation, CurrentCare offers three consent options for providers to view data: in emergencies only, to only specific providers, or to all providers. Facilitating the option that only specific providers can view a participant's HIE data requires an accurate provider directory.
3. Finally, there is currently no central location from which to identify the total number of providers (including primary care providers) practicing within Rhode Island or to identify how providers are affiliated. It is difficult to determine, for example, who belongs to what "practice," with which hospital a provider is affiliated, or how many physician practices exist in the state, etc. In 2015, RIDOH conducted a Statewide Healthcare Inventory of all services and providers in the state. A team of eight interns worked through the physician licensing database and determined whether each physician was actively practicing, practicing primary care, and the location of their practice(s). The Common Provider Directory will cut down on this type of duplicative activity going forward.

Using SIM funds, Rhode Island contracted with RIQI to build our Statewide Common Provider Directory, which includes detailed provider demographics and detailed organizational hierarchies. This organizational hierarchy capability is unique and essential to being able to maintain provider demographic and contact information, with a special focus on provider relationships to practices, hospitals, ACOs, and health plans. The Directory means that the mastering and maintenance of provider information and organizational relationships needs to take place only once, in a central location.

The provider directory is a database with a web-based tool that allows a team of RIQI staff to maintain the file consumption and data survivorship rules, error check flagged inconsistencies or mapping questions, manually update provider data, and/or enter new providers. The process of taking in data from external sources and reviewing inconsistencies is termed “mastering.” RIQI initially mastered 10,000 MD, DO, PA, and NPRN records as well as 3,500 behavioral health provider records in 2016. With the appropriate data mastering and maintenance system in place, RIQI successfully launched the ability to have a useful data export via a flat file ready with a go-live in August 2016. These data exports were intended to allow hospitals, payers, and state agencies to incorporate the centrally mastered provider data within their own databases.

SIM funding supported a variety of activities, including the intake and aggregation of 14+ data sources, the mastering over 10,000 providers (mostly MD, DO, NP, PA) and 3,500 behavioral health providers, the initial development of a website for access by consumers and providers, and the export of some data files for use by state agencies.

The software now works, but data needs to be cleaned and verified on an ongoing basis. The sustainability model for the project calls on customers to pay for the provider directory service, which would support the ongoing mastering. At this time, customers are not ready to accept this data and pay for it.

Therefore, in December, RIQI requested and after consultation with CMS, the state agreed that it would be appropriate to pause the project and undertake a reassessment, with a focus on the business case and how best to work with potential customers to get to our end goal of a successful Provider Directory. CMS also made available technical assistance from ONC. With ONC’s guidance, RIQI is currently meeting with providers and carriers in the community to reconfirm the sustainable business case and market interest. The state is also carryout out interviews with state agency colleagues who would potentially use the Directory.

All of these potential customers will help RIQI determine if there are any additional components of the PD to make it attractive for the expected fee-based service and whether they would anticipate being ready to engage with RIQI within the next year. We anticipate the results of this reassessment to be ready in May 2018, and will be used to determine the next steps.

A Provider Directory advisory committee consisting of community partners, SIM staff and state agencies has been actively guiding the work of this project, and the SIM Steering Committee has been fully briefed on its progress.

This reassessment components include:

- RI Market Scan to determine use cases and readiness of the community and state agencies for provider directory data
- National Market Scan to determine successes, challenges, and implementation methods used nationally

- Product and/or vendor scan to understand what alternative software products may be out there or what vendors may exist that could reduce operational costs, including to support alternative use cases that were not targeted yet in RI's implementation
- Business case analysis to understand the host of business cases for provider data, and which business cases might be most successful in RI

Once this reassessment data is collected, we will be better positioned to move forward more strategically with a provider directory implementation.

Project Management

RIQI manages this project in partnership with a Provider Directory Advisory Committee (PDAC). The PDAC consists of RIQI leadership and provider directory staff, representatives from the major stakeholder state agencies (RIDOH, EOHHS, HealthSource RI and OHIC), the HealthFacts RI project management vendor, and most recently payers, providers, and consumers. The group has been bi-monthly as long as there is content to discuss, with additional meetings as needed. The PDAC has overseen the creation of data stewardship and survivorship rules, and acts as an advisory body over the design and implementation of the provider directory. RIQI has recently decided to formalize the committee even more and is planning to add other community members in order to obtain broader input and advice regarding rules and assumptions about provider data. For example, when the PDAC began designing a sample extract, it invited providers into the discussion to inform RIQI about which extract elements are important to share publicly and which data elements are considered too sensitive to share, such as birth date and/or DEA number for writing prescriptions.

Directory Data Sources

The Statewide Common Provider Directory is being developed by RIQI with their HIE vendor, Intersystems. It was decided early on that the Healthcare Provider Directory (HPD) standard would not meet the business case needs, and so an independent data model has been constructed with a goal to make it extensible and flexible to fit future unforeseen needs.

The Provider Directory can receive multiple data feeds and matches those feeds based upon NPI (national provider identifier), provider name, etc. The initial data sources include the NPPES national database of providers, a purchased dataset from HealthMarket Science, RIQI's internal database maintained from its role as the state's Regional Extension Center, and a file from one of the major hospital systems in the state. Future data sources include the payers, the Department of Health's licensing database, Medicaid provider database, APCD provider files, and data from additional providers or provider networks. Not all prospective organizations perceived as data sources have agreed to supply their own provider files, especially due to concerns about sharing of private or proprietary information. In order to reduce this risk, Data Use Agreements can incorporate special sharing rules, and the submitting organizations are encouraged to participate in the PDAC which will also make data sharing governance rules. The PDAC is also working on an effort to reduce the burden on payers to submit provider files to both the Provider Directory and HealthFacts RI.

Looking Forward

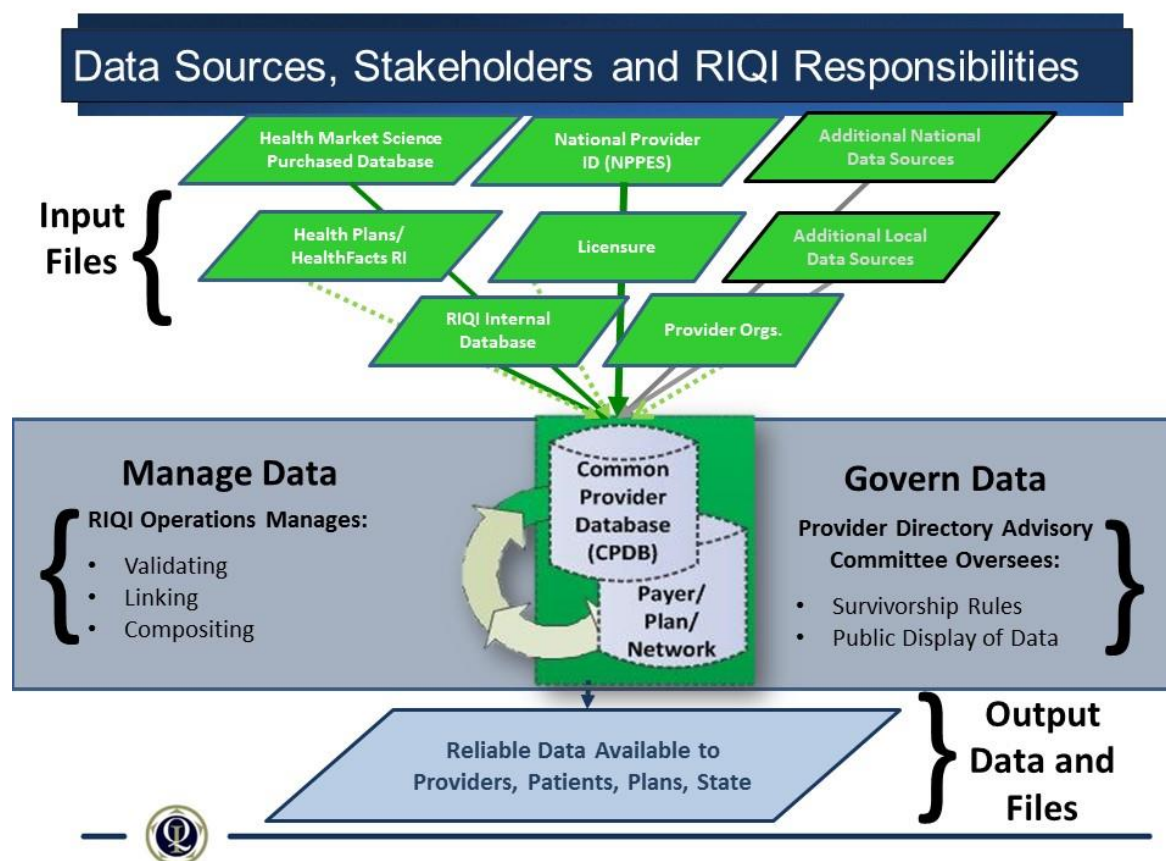
There are numerous ways that the Provider Directory can be used to support a variety of stakeholders. We foresee the directory as being of great value to the community, and RIQI originally planned to provide directory extracts at a subscription style fee in order to help sustain the directory and the necessary staff in the future. Table 17 describes the various interested stakeholders and potential uses of a Provider Directory as we understood it before the

reassessment. We will continue to update CMS on the outcomes of the reassessment conversations and research.

Table 17: Potential Use of Provider Directory

Audience	Potential Provider Directory Uses
State Agencies	<ul style="list-style-type: none"> • Reduce resource needs to maintain internal provider directories • Support analytic needs, such as with HealthFacts RI analyses
Consumers	<ul style="list-style-type: none"> • Find a provider that fits the consumer's preferences
Payers	<ul style="list-style-type: none"> • Support Qualified Health Plans and Medicare Advantage Plans in meeting regulatory requirements from CMS • Understand the scope and location of providers for network design • Support a more accurate internal provider directory
Providers	<ul style="list-style-type: none"> • Find providers for referrals • Support a more accurate internal provider directory • Communicate to consumers more details about offered services
Researchers	<ul style="list-style-type: none"> • Comprehensive understanding of the RI Healthcare system • Evaluation of intervention impacts on access to healthcare services
Other Commercial Users	<ul style="list-style-type: none"> • Support a more accurate internal provider directory • Contact information for a variety of commercial purposes

Figure 20: Provider Directory Conceptual Diagram



EOHHS Data Ecosystem

SIM is helping transition the state's health care system to one dominated by value-based care, to lower costs and improve population health. The EOHHS state data ecosystem, a project-based network of linked person-level data and the technological systems that support its use, undergirds these goals by supporting data-driven approaches to improving and monitoring population wellbeing and holistic evaluations of our transition to Value Based Care.

Value based care and population wellbeing rely on understanding the whole person and the complete characteristics of a target population in order to tailor interventions to their needs – to meet people where they are. We also know that social determinants of health – measures that go beyond what can be captured on a claim, or even in a medical record – are stronger levers on healthcare spending and population health than purely medical factors.

The Rhode Island Executive Office of Health and Human Services holds rich sets of data for each of the programs and agencies it administers, many of which reflect social determinants of health, income supports and medical interventions. Our agencies often provide services to the same people. However, they are unlinked, supporting only the program or agency from which they originate. Tying this information together with analyses at the person level will allow not just state government, but the state generally, to run smarter, more complete value-based care arrangements that target specific populations and their unique needs. Data can then be used at both the individual level to provide better services and reduce gaps in care and services, and in the aggregate to drive overall policy decisions. The ability to share health and human services

data across the EOHHS agencies is clearly permissible by state statute and will allow for a more complete evaluation of both the overall trajectory of care transformation and the relative success of different kinds of, and providers of, value-based care. Additionally, we will identify what policies, procedures, authorizations, and data use agreements will be needed prior to engaging in data sharing initiatives with non EOHHS state agencies.

For instance, by linking KIDSNET data – vital information on children in Rhode Island hosted by RIDOH – with Medicaid and eventually commercial enrollment data, child welfare information, and income support services for the child’s family, we can begin to answer question such as:

- Which high utilizers or particularly high-risk families and individuals are not enrolled in an Accountable Entity or Accountable Care Organization? Which have not seen a primary care clinician for either well or sick visits and are showing signs of social and income deterioration that may not have yet impacted claims costs? Can we get in front of a potential medical catastrophe by proactively linking these patients to focused care management and wrap around services?
- How do we best alert ACOs that some of their attributed children have had a positive screen for Early Intervention services, for lead levels, or for nurse home visiting and support them in providing need enhanced social worker, nurse care manager, or other medical and social support?
- What services, education, or other resources (based on known medical conditions from Medicaid and BHDDH claims) can the ACO bundle into a state-provided nurse home visit to maximize family engagement with preventive and behavioral health care?
- For families of children who screen positive for birth defects, high lead levels, or other points of stress in critical developmental years, what can an ACO do to ensure families remain enrolled in income supports and the other critical social services that they are receiving?
- Which Medicaid high utilizers, when combined with social support, economic, demographic, and other social determinants of health information, are most likely to benefit from case management interventions? Who are most likely to be homeless and benefit from home stabilization services, thus lowering costs?
- If one person in a family is a high utilizer, how can an ACO help the whole family maintain stability and thus lower medical costs and avoid high acuity settings?
- If the family received WIC, SNAP, or TANF, could an ACO build into the family’s care plan reminders for renewals and support for interacting with DHS if benefits are interrupted? Can care plans emphasize self-care for known chronic diseases that will flare without attention (theoretically exacerbated by stress, focusing on the care of others). Can care managers inform families of low-acuity alternatives for emergency rooms, ambulance transport and urgent care centers? For high-risk cases, can care managers train families on how to manage, identify signs of true emergency at home?

Through the data ecosystem, we will aim to:

- Help Rhode Islanders fulfill their potential;
- Dignify individual circumstances; and
- Responsibly steward state resources.

EOHHS needs to be able to understand the people we serve as whole human beings, rather than recipients of individual programs. This means we need data that connects each person. We

need this data quickly in a user-friendly environment for it to be useful. To respond nimbly to the changing policy and operational needs while controlling total costs, the state needs to own, operate, and optimize this data ecosystem. The Data Ecosystem will help all EOHHS agencies meet our missions, support state health reform such as SIM and HSTOP, and meet Medicaid's federal standards under MITA.

Therefore, with funding from SIM, EOHHS is developing the Rhode Island Executive Office of Health and Human Service Ecosystem, to develop an integrated data system for EOHHS to improve agency performance and operational analytics, quality improvement, and data-informed decision making among EOHHS and partner Rhode Island agencies. Rhode Island is part of a learning collaborative with Actionable Intelligence for Social Policy (AISP), which affords us technical assistance from around the country.

Ecosystem Structure and Partners

We are building the ecosystem through an agile development framework supported by a team of vendors.

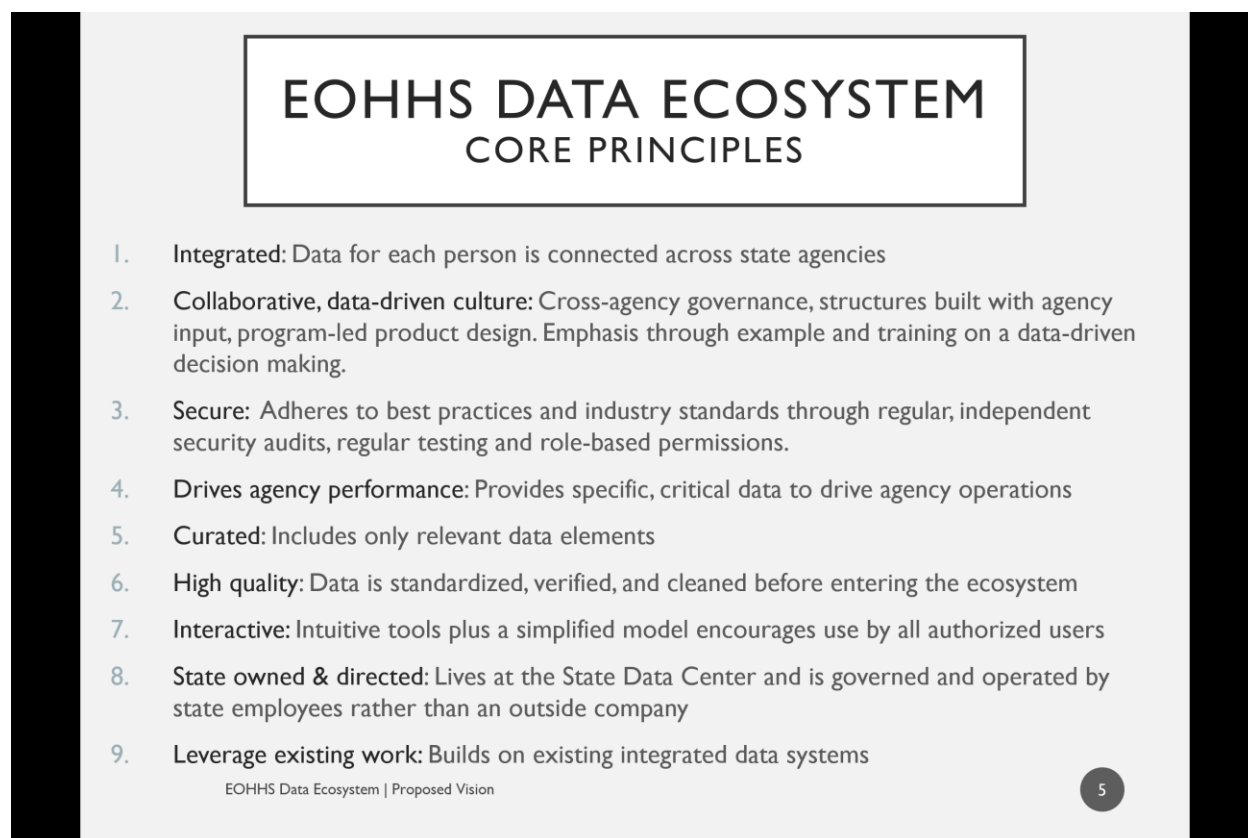
The Ecosystem is supported by two key state partners: Data Integration is provided by the Rhode Island Innovative Policy Lab (RIIPL) at Brown University and analytic support is provided by DataSpark at the University of Rhode Island. The ecosystem has also brought on Abilis as an external vendor to support data modeling and optimization. State staff at EOHHS also provide select integration, analytic and database administration services.

In addition, EOHHS has developed an internal EOHHS Project Team of approximately eight personnel at varying levels of commitment responsible for the leadership, management, and technical and operational oversight of the project. The Project team includes the SIM Director, as well as two SIM staff.

At the end of 2017, the Ecosystem established its Governing Board, chaired by the Secretary of EOHHS with board representation from all EOHHS agency Directors or their designees and the SIM Project Director. At the start of 2018, all agencies signed a single data use agreement to support data sharing and collaboration.

The Ecosystem's Governing Board is committed to nine core principles, which were developed using the results of the assessment, our past experiences with data projects, and the vision for what the EOHHS Data Ecosystem will be. They are:

Figure 21: EOHHS Data Ecosystem Core Principles



This scalable and sustainable model will be developed in a manner that complies with all state and federal privacy statutes and will enhance our ability to measure holistic outcomes of our residents as we transition to value-based care.

Though the initial emphasis, as envisioned and funded by SIM, will be on those who interact with EOHHS programs, we will be able to learn things about a significant number of Rhode Islanders, including those served by Medicaid, DHS, DCYF, and BHDDH. The benefit to this design is that we will know more about our most vulnerable population group, those who most benefit from holistic interventions in social determinants of health.

Ecosystem Initial Projects

Within the agile development framework, the Data Ecosystem is operating on short work cycles that produce a working, and increasingly functional, product at the end. Each of these cycles will support a specific program objective (Figure 22). Through the results-oriented activity, each cycle will add more features, data fields, and functions to the previous version (Figure 23).

During the February board meeting, ecosystem staff submitted approximately thirty potential project ideas or “use cases” to the Governing Board and the board approved three of them for the ecosystem’s initial work.

DEA Alzheimer's Disease and Related Dementias (ADRD) Analysis: The ecosystem team has provided the Department of Elderly Affairs with counts of ADRD by diagnosis, residence type (e.g. in a SNF or not), age cohort, county, and city.

Veterans Affairs RI Serves Data: The ecosystem team is working to provide Veterans Affairs with descriptive statistics on the number of veterans using Medicaid, SNAP, and CCAP, as the source data allow. The ecosystem team met with VETS to confirm available data sources for veterans with service gaps and the team will be working with RIDOH to determine any additional data that might be relevant for this project.

DCYF Prevention Project: The ecosystem team is carrying out this larger project, to explore children under 6 at the time of investigation or who experience severe physical abuse to understand the pattern of state interaction before case opening. The goal is to uncover if there are similar patterns and characteristics of the families and design cross-agency interventions.

Figure 22: EOHHS Future Data Ecosystem Structure

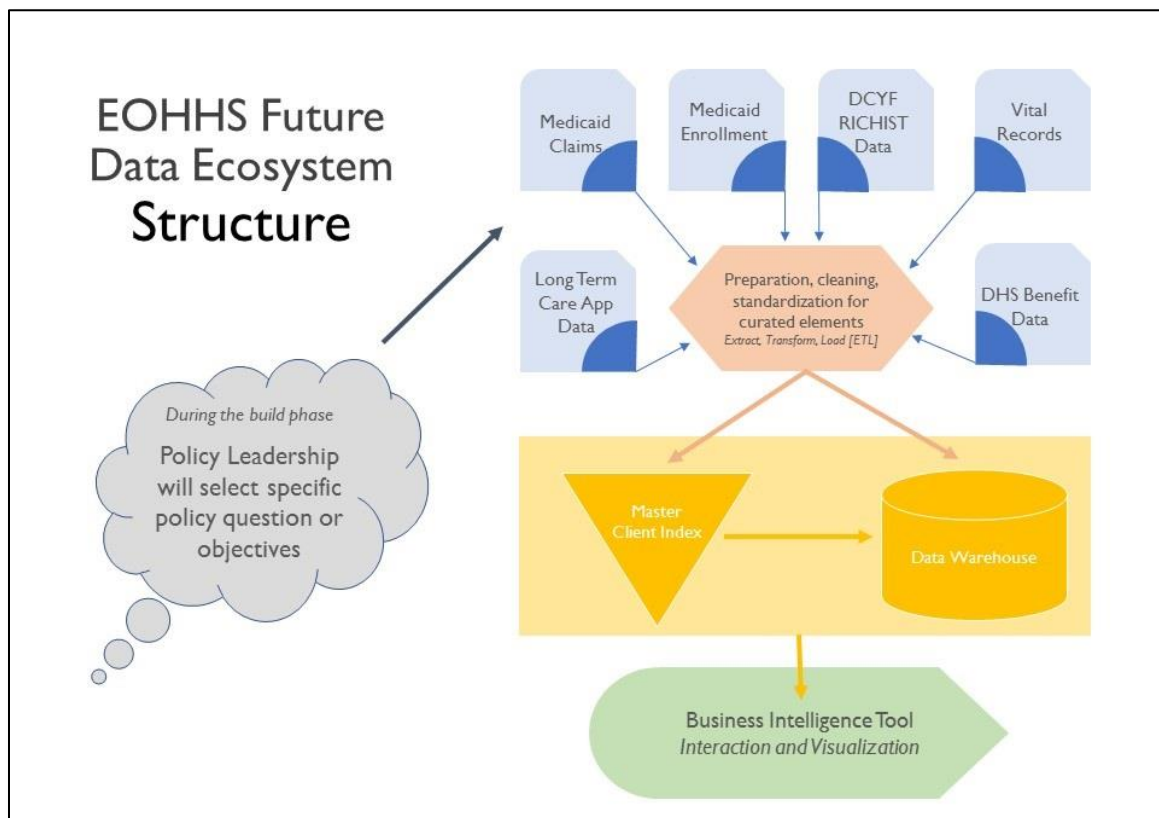
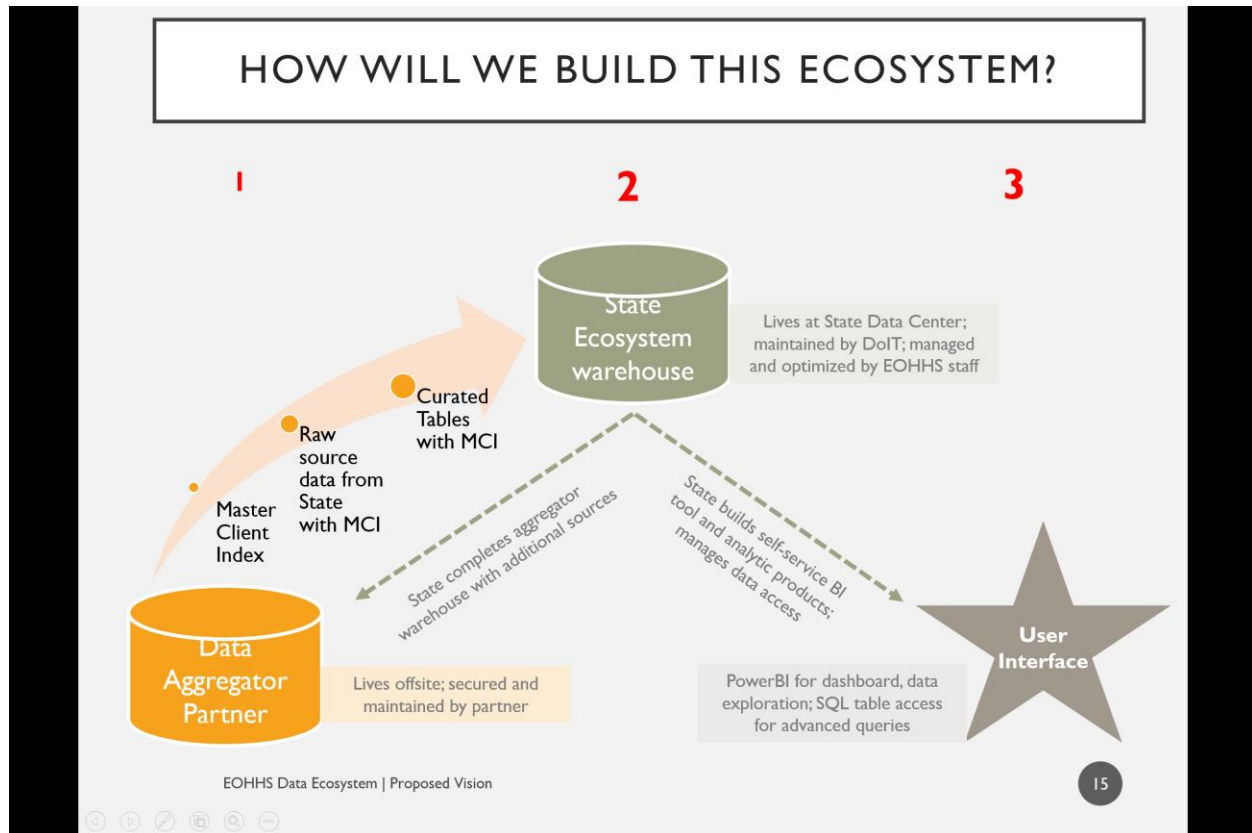


Figure 23: EOHHS Data Ecosystem Agile Construction



Phases and Milestones

Initial Phase: July 2016 through July 2018:

- **Award Year 2:** July 1, 2016 -June 30, 2017
 - Completed the data warehouse and analytic environment assessment (funded through other sources)
 - Began to use the findings of the assessment to determine how we will prioritize 1-3 research questions that rely on linked data, execute data linking pilots and test existing capacity. What skills, tools, and knowledge does the state have already and what does it lack? Which are most critical to supplement? What is the best way to supplement – through training, through software-as-a-service, through licensing and hosting services, through hands-on teaching and training of ETL (Extract, Transform, and Load) and data modeling, through contractual arrangements with staffing vendors?
 - Based on results of assessment and pilot, began to develop the RFP for project-based ecosystem launch services. Began to assess state and federal statutes for sharing data with non-EOHHS state and other agencies and gain an understanding of what is needed to enable data sharing Staff are using SIM

Technical Assistance resources to help discover information about the work other states have done in this area.

- **Award Year 3:** July 1, 2017 – June 30, 2018
 - Completed the procurement for the Ecosystem vendors by April 2018. Within the agile data warehouse design framework, RI IPL integrates EOHHS data sets on a project specific basis. RI IPL transfers the integrated data to state servers.
 - Integrator vendor builds a master client index generator for extensive future use
 - Data modeling vendor builds ETL scripts and data models with the expectation of handoff to state; extensive state partnership and documentation are required
 - Data modeling vendor builds a user interface on top of data model to facilitate widespread use of the integrated database among agencies
 - A key component of the training is how to strategically integrate a new dataset at the person level, which the state staff will be expected to do with non-EOHHS datasets

Phase II:

- **Award Year 4:** July 1, 2018-June 30, 2019
 - Over the course of the year, Ecosystem grows to include non EOHHS data.
 - Permanent staff gain experience in model maintenance, trouble shooting, and enhancements to the architecture, interface and value-added components based on customer need
 - Integration with the All Payer Claims Database (APCD).
 - Write IAPD application to CMS for funding to support continued development and design.
- **Beyond:** July 1, 2019-June 30, 2020 – Non-SIM Funded
 - Transition to state staff for permanent state functions complete
 - Critical datasets, both within and outside of EOHHS, are incorporated into ecosystem
 - Implement policies, procedures, authorizations, and data use agreements to enable data sharing outside of EOHHS.

Healthcare Quality Measurement Reporting and Feedback System

During AY1, stakeholders helped SIM study community needs, and determined that to help meet our goal of moving our healthcare system from volume to value, SIM should prioritize funding for a Healthcare Quality, Measurement, Reporting, and Feedback System (HQMRFS).

Having reliable and consistent clinical quality data is an absolute requirement for measuring quality within a value-based payment system. While some clinical quality measures can be calculated from claims data only, there are many that must be calculated from clinical data recorded in patient medical records at the points of care.

There are several initiatives within Rhode Island that require providers to submit clinical quality measure data. These include:

- The Care Transformation Collaborative's multi-payer primary care and patient centered medical home transformation initiative (CTC);

- Payers' contractual requirements, including the Medicaid Accountable Entities program;
- The RIDOH Chronic Care Collaborative (RICCC); and
- A myriad of national level quality initiatives such as the EHR Incentive Program, the Quality Payment Program, ACO program, Physician Quality Reporting System (PQRS), and National Committee for Quality Assurance (NCQA) certification programs.

The CTC and RICCC processes to collect quality measures involve manual report calculation at many of the participating practices using National Quality Forum (NQF)-based home-grown measures, and there is no guaranteed consistency in the measure calculation across all participants.

Emerging standards and the 2014 and 2015 Certified EHR Technology (CEHRT) standards support more consistent quality measure reporting across different EHR vendors as compared to a manual reporting pull. Furthermore, there is a considerable burden upon payers to have quality reporting systems in place to receive their certification through NCQA. The data received by payers in claims alone is not sufficient nor accurate enough to forgo the manual audit of patient records at the point of care or the acceptance of a certain level of unreliability in the quality metric.

Three 2015 studies shed light on Rhode Island's data needs. The studies indicate that there is a lower-than-desired capacity to perform data analytics in the state, but that providers and others do have the intention to spend great sums of money to support analytic needs. RIQI conducted an analytics inventory at the request of their Board of Directors. This inventory was conducted through a survey of state agencies, and a range of provider organizations (large, small, independent, hospital affiliated, federally qualified health centers, community mental health centers, etc.), as well as payers, educational institutions, and community partners in the state. The study found that respondents had a need to calculate numerous high priority measures (including ambulatory quality measures, identification and management of high-risk patients, and analysis of utilization/cost of care indicators). However, these entities did not all have the systems in place to measure the information they needed. Only 76% of providers could collect ambulatory quality measures. Only 68% of providers could identify and manage high-risk patients, and 56% could measure utilization/cost of care indicators. Furthermore, the level of satisfaction with those analytic systems was extremely low. Half of respondents planned new systems for identification and management of high-risk patients, and around 20% planned new systems for ambulatory quality measures and utilization/cost of care analysis.¹¹

We also find important data about EHR adoption rates in RIDOH's Statewide Healthcare Inventory, conducted in 2015. The survey found that there was wide disparity in practices' ability to analyze data. While 85% of hospitals had reporting software to help analyze data only 52% of nursing facilities, 26% of primary care practices, 23% of behavioral health clinics, and 17% of outpatient specialty practices had this software, as shown in Table 18.

¹¹ Rhode Island Quality Institute Analytics Inventory, 2015.

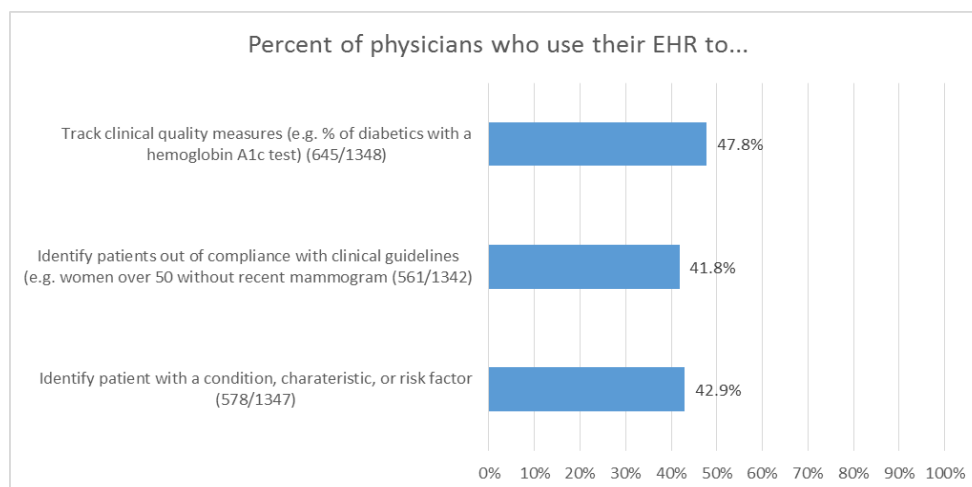
Table 18: EHR Adoption Rates Compared to Availability of Reporting Software, by Location Type, RIDOH Statewide Healthcare Inventory, 2015

Survey	EHR Adoption Rate	Reporting Software
Primary Care	82.6%	26%
Outpatient Specialty	72.7%	17%
Behavioral Health Clinics	39.6%	23%
Nursing Facilities	80.9%	52%
Hospitals	92.3%	85%

Providers were also surveyed about their use of EHR Technology from a population health perspective. Out of the 1,350 respondents, only 34.2% reported that they are using their EHR for population health management, 31.1% were not, and 24.7% did not know. However, compared to 2014, the number of respondents using their EHR for population management increased 7.8% and those who did not know decreased by 7.1%. This indicates that there is a shift to population health and to reducing the cost of healthcare with EHR technology.

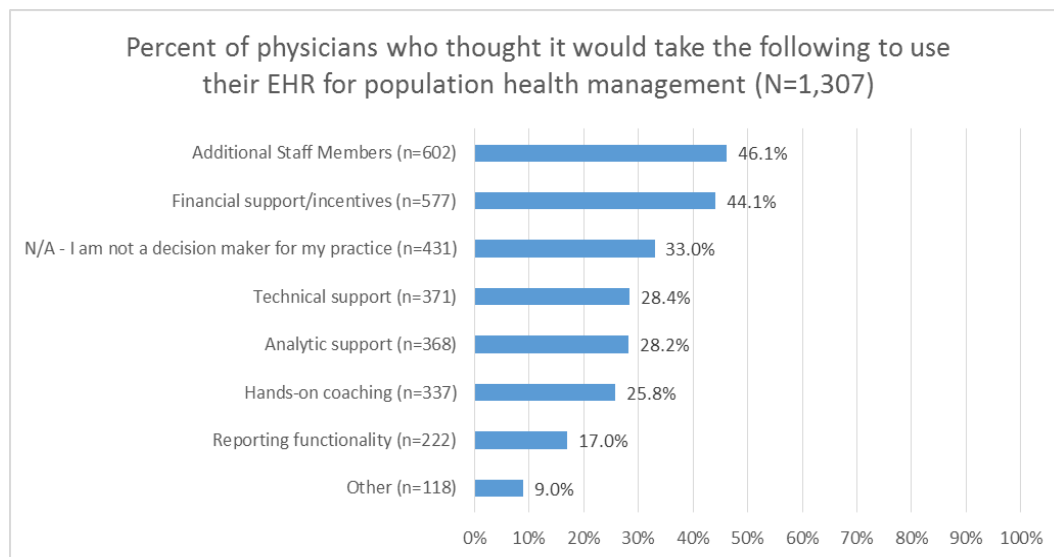
One of the goals of the physician survey was to identify the provider's use of their EHR to track quality measures and population health. Almost 50% of our providers are using their EHR for clinical quality measure monitoring and for patient reminder messaging.

Figure 24: HIT Survey, Physician Use of EHR, 2015



The HIT survey also measured the barriers preventing providers from using their EHR for population health. As noted in the Figure 24, the primary reason that providers did not use the EHR for population health was the lack of adequate staff or financial support.

Figure 25: 2015 HIT Survey, EHR Use for Population Health Management, 2015



These data indicate that providers in the state are not prepared to measure and understand their own quality of care, much less proactively address gaps in care that lead to low quality measure performance.

HQMRFS Award Year 1 (Planning)

A number of stakeholders considering these challenges have been participating in the SIM Technology Reporting Workgroup at the behest of the Steering Committee. The workgroup is led by the State HIT Coordinator and the SIM HIT staff person at EOHHS. It began meeting in January 2016, and consists of representatives from state agencies, payers, provider organizations, and quality improvement organizations. The workgroup also conducted a survey of healthcare providers in the state to receive additional input on the concepts we were considering for the HQMRFS. The Workgroup and the Steering Committee endorsed the development of a central quality measurement, reporting and feedback system to address this lack of readiness. However, we learned through stakeholder feedback that to pay for quality, there must be:

- Confidence that each participant is being measured consistently. This cannot be dependent upon the EHR vendor used at the participant's service location;
- Cost alignment – i.e. the cost of measuring the practice should not exceed the benefits of high value cost arrangements;
- Confidence in the accuracy of the measurement;
- Arrangements that risk adjust, even if the data itself cannot be risk adjusted – i.e. leniency for specific practices that are known to have more complex populations; and
- Confidence in the attribution of a patient population to a specific practice.

The benefits of calculating measures centrally include:

- Consistent attribution methodology;

- Consistent measure methodology;
- Potential for lower costs to practice for measurement; potential for lower costs to payers for measurement; and
- Potential for risk adjustment that could be consistent.

The Workgroup proposed a set of goals and features for this system and the SIM Steering Committee approved the following proposal at the February 11, 2016, Steering Committee Meeting:

Figure 26: Technology Reporting Workgroup Recommendation to SIM Steering Committee

Providers, ACOs and facilities in Rhode Island have a variety of reporting requirements which will only increase under a value-based payment system. Numerous sources support the assumption that analytic resources and capabilities are insufficient in the state to empower providers and organizations to most effectively use their ever-growing and extremely valuable data. Furthermore, numerous organizations in the state are working toward creating their own quality measurement systems that will meet their needs, including payers, practices, and practice transformation organizations. With this understanding of our current environment, the Technology Reporting Workgroup recommends funding the development of a statewide quality reporting system with the goals of:

- Improving the quality of care for patients and driving improvement in provider practices by giving feedback to providers, provider organizations and hospitals about their performance based on quality measures
- Producing more valuable and accurate quality measurements based on complete data from the entire care continuum
- Leveraging centralized analytic expertise to provide valuable and actionable reports for providers and to drive improvements in population health
- Reducing the duplicate reporting burden upon providers and provider organizations by having a common platform for reporting
- Publicly reporting quality measurements in order to provide transparency and support patient engagement in making informed healthcare decisions
- Using existing databases, resources and/or systems that meet our needs, rather than building from scratch

The Workgroup has determined that to achieve these goals, the system would need serve as a common platform for quality measurement, quality improvement, and reporting. It would need to be able to accomplish the following, at a minimum:

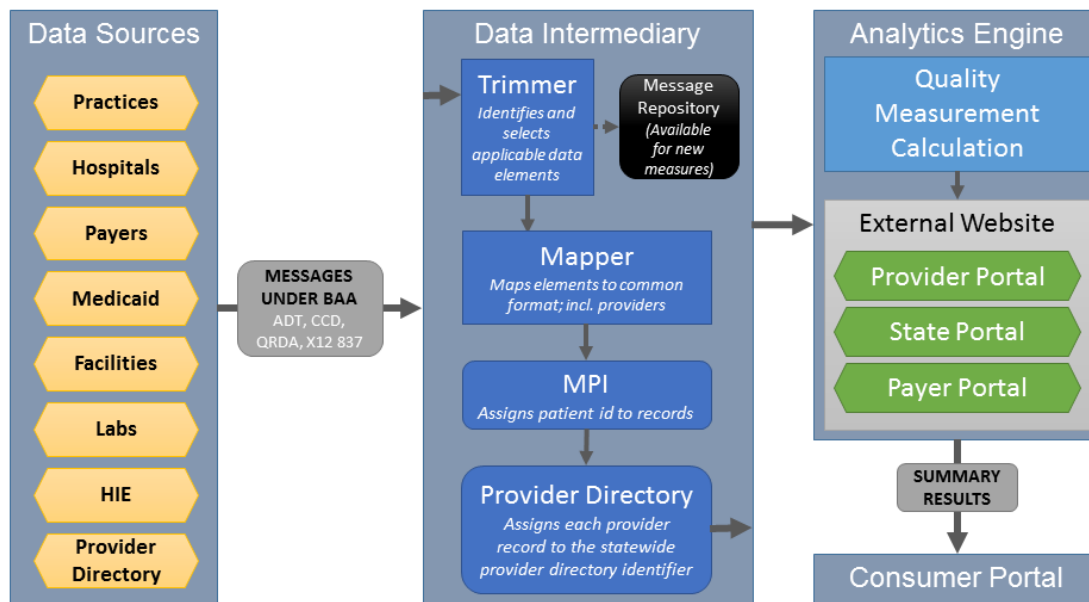
- Easily capture data in a standard and consistent manner (no extra work for providers)
- Calculate measures from our SIM harmonized measure set and relevant national measure sets
- Become a Qualified Clinical Data Registry (QCDR) to allow the reporting of results directly to CMS, NCQA, and the payers, and fulfill additional reporting obligations on behalf of providers
- Benchmark providers at the provider level and the provider organization level
- Consist of detailed, individual level data from multiple sources matched to a single person, and make that data available to providers to improve individualized care while appropriately protecting confidentiality
- Share analyses and results back to providers, provider organizations, payers, state government, and, eventually, the public

This project should begin with a focus on collecting data from practices with Electronic Health Records (EHRs). In addition, the state must set up a governance structure with adequate community and provider engagement to determine what data is shared to whom and how it is shared.

There are multiple levels of governance necessary for the statewide HQMRFS. We used the output of the Technology Reporting Workgroup as we wrote and issued a request for proposals. The state procurement team has considered the Workgroup’s feedback throughout the procurement process.

In Award Year 2, we designed the infrastructure of this system and the competitive bidding process to procure a vendor began in January 2017. We can envision this system collecting data from a variety of sources, ideally leveraging existing infrastructure; collecting and mastering the data within a data intermediary, and analyzing and viewing those data through an analytics engine with external public and provider facing website. See Figure 27 below.

Figure 27: Conceptual Diagram, Clinical Quality Measurement, Reporting, and Feedback System



Several SIM staff participated in the SIM electronic CQM technical assistance meeting convened in Washington, DC in early September 2016, and requested several subject matter expert reviews on the final draft of the HQMRFSRFP. The feedback was extraordinarily helpful, and we refined the RFP language based on it.

The RFP was posted in January 2017, and proposals were submitted on March 29.

Award Year 3- Implementation

The final contract with the selected vendor, IMAT Solutions, Inc., was finalized in January 2018. The selected solution will involve the collection of data directly from EHRs and other data sources (such as HealthFacts RI), and the implementation of a web-based portal to access measure results. The web-based portal is capable for live manipulations of data using pre-set parameters, or the creation of measures for those with additional coding expertise.

IMAT Solutions, Inc. has begun working with the SIM team to begin the requirements gathering for the two major implementation work streams: data collection and measure creation. The data collection work stream will involve working with Rhode Island Quality Institute to acquire data through the existing data intake infrastructure, as well as with practices and/or facilities that have not yet connected to send data to CurrentCare.

The measure creation work stream involves the community to help determine how to use the data collected to support the development of measures in the system, how those measures should be displayed in the system, what pre-set parameters will be available by default, user access rights, etc.

These two implementation work streams will culminate in the completion of Phase I of implementation: initial pilot and go-live. Using a data source with enough data to test most of the measures, IMAT will go live with one or two organizations before the end of 2018. After this go-live, the system will be ready for continual onboarding of additional data feeds and users. These will continue through the end of the SIM grant.

Phase I: July 2017 through June 2018

- **Year 3:** July 1, 2017 – June 30, 2018
 - Initial setup and deployment of technology
 - Link with existing data sources, such as the HIE, and HealthFacts RI (as allowed by applicable laws)
 - Technology Reporting Workgroup meets to establish governance rules
 - Qualified Clinical Data Registry (QCDR) certification

Award Year 4 - Implementation

Based upon the currently implementation timeline, the launch of the HQMRFS will occur in AY4 after data is successfully onboarded. The launch will occur in late 2018, and will involve selected pilot practices/facilities. Once this launch is successful, IMAT Solutions will begin ongoing onboarding of additional data submitters and users.

Phase II: Operationalization

- **Year 4:** July 1, 2018-June 30, 2019
 - Provider Portal Launch
 - Pilot group onboarding, training, and testing with initial measure set
 - Payer Portal Launch; State Portal Launch
 - Data quality improvement with EHR vendors
 - Update to reflect any changes in the Aligned Measure Set
 - Technology Reporting Workgroup meets to maintain governance rules
 - Continuing onboarding of providers
 - Additional measures added

This system will require fully engaging a variety of providers and their staff. We will provide training on the provider website itself and practice coaching for how to utilize the provider portal within the clinical and care management workflows. We will ensure that our practice transformation partners, including CTC, Healthcentric Advisors and the TCPI project at RIQI all have enough training to assist the providers with whom they work.

Looking Forward: Policy Levers

There are numerous policy and regulatory levers that various state agencies could use to promote the use of this system. For example, OHIC could include its use as part of the SIM aligned measurement initiative. Levers would only be applicable once the system were fully implemented, tested, and operating smoothly.

Care Management Dashboards

SIM supported the implementation cost of Care Management Dashboards for Community Mental Health Centers, the Medicaid community health team (Carelink), and for one state agency dashboard. These dashboards display real-time and historical information on hospital and ED utilization by their entire patient populations. Powered by the HIE infrastructure, these dashboards can show the exact location and status of patients being seen in all acute care hospitals in the state, as well as trending information about the subscriber's patient panel. This enables immediate intervention by the patients' care team. Additionally, the Dashboards retain information on patients for six months to provide additional trending information to users. All of the dashboards are now live in the CMHCs. We also deployed a Dashboard with our Medicaid fee-for-service Community Health Team, which was called CareLink. The Medicaid CHT dashboard was shut down when the Medicaid CHT was closed in November 2017.

While CurrentCare only includes data on patients that have enrolled, the contract for Care Management Dashboards gives Community Mental Health Centers (CMHCs) and others the ability to include data on all patients. RIQI has negotiated with all acute care hospitals to have a real-time view of their patients' hospital and Emergency Department utilization, allowing an earlier start for care coordination. RIQI has served as a data intermediary in a HIPAA compliant fashion and has already established Business Associate Agreements and maintenance contracts with each recipient. In these agreements, the hospital allows for broad sharing of the clinical data shared through ADT and other feeds. For the time being, RIQI is only using these agreements with the data in ADT feeds.

To ensure compliance with HIPAA, the client organization that enters into a service agreement with RIQI (for example, a CMHC) must provide a list of patients in their patient panel with whom the client has a treating relationship. These panels are updated in the RIQI system monthly. To facilitate this data sharing, RIQI must take the following major steps for each implementation:

1. Execute a HIPAA compliant Care Management Services Contract with the client;
2. Receive and import a test panel file into the RIQI secure FTP and create; maintenance contracts with each recipient dashboard system;
3. Test the patient panel file;
4. User training; and
5. Import of a production ready file and go-live.

Consumer Engagement Platform

As part of the Patient Engagement and End-of-Life/Advanced Illness Planning RFP, SIM awarded RIQI a \$650,000 contract to develop the Consumer Engagement Platform (CEP). SIM will be funding the implementation of consumer/provider engagement technology that will help provide an electronic method of conducting social determinant of health screenings and sharing advance directive documents. This software will have a consumer-facing view and a provider-facing view, both available through a web-based portal.

This implementation will involve engaging six pilot practices and/or community health teams through a collaboration with the CTC. The system will be configured and launched for use by these pilot practices in 2018. Additionally, the same platform is going to be leveraged using HITECH IAPD and Rhode Island Foundation funding to support SBIRT screenings for use as part of the CHT/SBIRT project.

Collecting SDOH data in the CEP will begin a more formalized collection of social determinant indicators, and provide more insight into the major problems Rhode Islanders are facing. The long-range vision is that the data can be used to support policy or funding prioritization to address social and environmental determinants of health in the future.

Additionally, the ability for individuals to upload advance directives is a pilot project to support construction of an advance directive registry in the future. In the spirit of integration and alignment, the requirements gathering for this component including our other end-of-life vendors (Hope Hospice and Palliative Care and Healthcentric Advisors) and the roll-out of this tool will be promoted among these two vendors as well.

Technical Assistance

Technical Assistance for Providers

Making sure that the technology tools we are developed are adopted and used regularly is a critical part of achieving our overall SIM goals. While the SIM HIT plan focuses on the adoption of the tools such as the APCD, Common Provider Directory and the HQMRFS, the SIM team recognizes the need to provide technical assistance (TA) to providers and other users of the system in advance of their deployment so that providers can take full advantage of the new capacity.

Given the numerous practice transformation activities that are under way in Rhode Island, we plan to leverage the Practice Transformation workgroup to ensure that the TA we provide is effective and not duplicative. We will work with the vendors of the HIT systems to develop tools around the identified needs such as standardizing data collection in the EHR, use cases to demonstrate how data can best be analyzed, and training module for the systems. By working with the Practice Transformation Workgroup, we will be collaborating with CTC, Healthcentric Advisors, and TCPI to align training – and to determine if those entities can carry out the training alongside the work they are doing with practices. The HIT infrastructure development we are investing in will assist in the missions of the organizations that participate in the Practice Transformation Workgroup, and we envision synergies in working together to incorporate use of SIM invested infrastructure to meet others' programmatic goals beyond SIM. In this way, providers will be able to see how SIM's HIT Tools can address their data and care management needs in support of delivering high quality care under VBP systems. Finally, SIM will work with all of the state's HIT governance entities including the Reporting and Quality Measurement Feedback Workgroup, the Provider Directory Advisory Committee, the APCD Data Review Board, the HIT Advisory Commission, and the SIM Steering Committee to help identify TA needs and whether they are being met through existing programs.

Technical Assistance through ONC

We have leveraged the opportunity to seek technical assistance through SIM from subject matter experts at ONC. In 2016-2017, these activities included:

- Participating in state listening sessions at HIMSS 2016 HIMSS 2017, and HIMSS 2018;

- Participating in an electronic clinical quality measurement in-person TA Convening in September 2016;
- Participating in the *Executing on Multi-Payer Health IT Alignment* in-person TA convening in Portland, OR in May 2017;
- Participating in the *Executing on Health IT – Supporting Care Delivery and Social Services* in-person TA convening in Boston, MA in October 2017;
- Participating in the *Future Directions in Health IT and Value-Based Payment* in-person TA convening in Washington, DC in February 2018; and
- Numerous TA requests with specific questions about activities in other states to assist with the research for planning, design, and development of our HIT RFPs.

SIM HIT Modular Functions

We have described in detail the specifics around the operations of each of our SIM components independently throughout this Operational Plan. The following section provides further detail about our Health IT planning and framework in each Health IT Modular Function; however, in the interest of brevity and lack of repetition, the information is summary in nature across multiple SIM components.

Foundational Components for Governing Health IT

Accountable Oversight and Rules of Engagement

As described earlier, Rhode Island has taken a serious, multi-stakeholder approach to the accountable oversight and rules of engagement of all SIM Health IT components. This includes community-based advisory committees/boards for HealthFacts RI, Provider Directory, the HQMRFS, as well as the HIE and Interagency workgroups, and the SIM Steering committee to encourage statewide collaboration and support for all components.

Many of these stakeholder groups are required through legislative and regulatory authority, which helps ensure the oversight will continue over time. These groups are essential to the creation of data use rules, and the projects' continued adaptability over time as needs and culture change.

Policy/Legal

Founding legislation enables the collection of sensitive data in the HIE and HealthFacts RI, with a clear goal to protect individual privacy and ensure appropriate data stewardship. While at times this can create barriers in Rhode Island that are not seen in other states, the overall motivation is prudent. We carefully consider the concerns of residents and stakeholders to work toward meaningful data that can be leveraged for current and future needs without posing excessive risk to anyone. Given changes in how health care is delivered and paid for, the state, our community partners and stakeholders will continue to reevaluate if statutory or regulatory changes are needed to support health care transformation efforts. For example, the HIE Act of 2008 was amended in 2016 to allow payers to access their insured populations' clinical data for care coordination and quality assurance purposes. Additionally, the state is beginning to engage in stakeholder dialogue related to the current consent model and whether changes are needed to support changing health care delivery and payment models.

Additional regulatory levers are used to encourage the participation in the HIE and SIM initiatives, including CON conditions, MCO contract provisions, and Accountable Entities requirements.

Rhode Island encourages voluntary participation in HIT initiatives, such as the HIE. However, there are circumstances where the need is so great it warrants mandating participation, for example with data submission to HealthFacts RI (a partial data set is not valuable), and with the Prescription Drug Monitoring Program (pharmacies must report and providers must use it). Rhode Island continues to review over time whether the evidence-base or demand leans toward a recommendation to further mandate additional participation.

Financing

Rhode Island has been successful in funding large portions of the HIT infrastructure costs through various financing models, grants, and cooperative agreements, such as the SIM Test Grant. The table below shows funding mechanisms used to support each of the SIM-related HIT components.

Table 19: Financing by SIM-Related HIT Component

System	Historical Funding Mechanisms	Current Funding Mechanisms	Other Future Funding Ideas
HealthFacts RI	<ul style="list-style-type: none"> • HSRI grants • OHIC Rate Review Grants • SIM • Ryan White HIV/AIDS Program Rebate funds 	<ul style="list-style-type: none"> • Medicaid MMIS IAPD • Data release revenues (Cost allocation) • Ryan White HIV/AIDS Program Rebate funds 	
HIE	<ul style="list-style-type: none"> • Various HIE/RHIO grants • Voluntary PMPM by payers • Medicaid 90/10 IAPD 	<ul style="list-style-type: none"> • Voluntary PMPM by payers • HITECH-IAPD • Client fees for some services • Foundation grants for special projects 	<ul style="list-style-type: none"> • In the future, we can seek grants or other donations of funding in support of the HIE.
Provider Directory	<ul style="list-style-type: none"> • SIM 	<ul style="list-style-type: none"> • HITECH-IAPD • SIM 	<ul style="list-style-type: none"> • Data Extract Fees
HQMRFS	N/A	<ul style="list-style-type: none"> • SIM • HITECH-IAPD 	<ul style="list-style-type: none"> • Client Fees
EOHHS Data Ecosystem	N/A	<ul style="list-style-type: none"> • SIM 	<ul style="list-style-type: none"> • Medicaid MMIS IAPD
Care Management Dashboards	N/A	<ul style="list-style-type: none"> • Implementation: SIM • Ongoing maintenance PMPM fee from practices/ACOs/payers, etc. 	<ul style="list-style-type: none"> • HITECH-IAPD

Rhode Island often depends upon grant and Medicaid IAPD funding to support its key HIT infrastructure. Rhode Island has a unique advantage, because since 1993 MCO contracts have included a mainstreaming policy, which required that providers participating in any of the MCO's commercial plans must also accept that payer's Medicaid plan. This has resulted in virtually 100% of RI providers qualifying as Medicaid providers. This has made it so that little or no cost allocation is required to support HIE infrastructure in the state.

Business Operations

Operations of statewide HIT infrastructure depend upon statutory and regulatory authority, privacy protection needs, etc. Table 20 describes the business operations model for each system.

Much of Rhode Island's HIT infrastructure is operated by public-private partnerships with our vendors and stakeholders in the community to help guide the policy and procedures of each component. This helps engender trust about the use of sensitive data throughout the community.

Table 20: Business Operations by SIM-Related HIT Component

System	Responsible Organization			Contracts/ Agreements
	Data Steward	Operations	Data Management Practices & Procedures	
HealthFacts RI	EOHHS/ RIDOH	ISW	<ul style="list-style-type: none"> • ISW • Data Release Review Board (advisory to Director of Health) 	<ul style="list-style-type: none"> • Vendor contracts to facilitate work • Data use agreements with data users
HIE	RIQI	RIQI	<ul style="list-style-type: none"> • RIQI • HIE Advisory Commission (advisory to Director of Health) 	<ul style="list-style-type: none"> • Contract with EOHHS to serve as State Designated Entity • Contract with EOHHS for special projects • BAA's with data submitters • Data use agreement with users
Provider Directory	RIQI	RIQI	<ul style="list-style-type: none"> • RIQI • Provider Directory Advisory Committee 	<ul style="list-style-type: none"> • Contract with EOHHS for development and implementation and data extracts for state agency use • Data use agreements with data submitters • Data use agreements with data users
HQMRFS	IMAT Solutions, Inc.	IMAT Solutions, Inc. with SIM Project Manager	<ul style="list-style-type: none"> • IMAT Solutions, Inc. • SIM Technology Reporting Workgroup 	<ul style="list-style-type: none"> • Contract with EOHHS for development and implementation • BAAs with data submitters • Data use agreements with users
EOHHS Data Ecosystem	EOHHS	EOHHS	EOHHS	Agreements with data stewards for data included from non-EOHHS agencies
Care Management Dashboards	RIQI	RIQI	RIQI	Contract with EOHHS only for implementation of 10 dashboards

Core Infrastructure

Security Mechanisms

All systems and vendors are required to operate in ways that secure protected health information in compliance with HIPAA and state privacy laws. Stringent extra privacy protections are included for the HIE and for HealthFacts RI in both statute and regulations.

This means data is encrypted in motion and at rest, appropriate business associate agreements and data use agreements are in place with all applicable parties, and privacy and security policies and practices are employed by all organizations that have access to protected health information. We speak regularly with state legal counsel to confirm that appropriate policies and protections are in place.

Community advisory committees such as the HIE Advisory Commission and the APCD Data Release Review Board provide additional external oversight by reviewing applications for data use and the policies and practices we have in place, as well as any proposed changes. They make recommendations to the Director of Health.

We also work closely with our state Division of IT when developing new systems especially if the systems are managed in house (such as the EOHHS data ecosystem). When we procure outside services through an RFP process, we often seek to have an DOIT staff person as part of the review committee.

Consent Management

The method of managing consent can vary by SIM-related HIT component, based upon regulatory requirements and restrictions or potential data uses. Table 21 describes the consent management methods for each component and how we carefully oversee each one to ensure that appropriate consent and privacy protections are in place. The state has invested considerable funds in developing specialized systems to manage consent.

Table 21: Consent Management by SIM-Related HIT Component

System	Consent Policies and Procedures
HealthFacts RI	While all APCD data is de-identified, individuals are still allowed to opt-out of the APCD. In order to ensure that data from multiple payers can be linked together at the person level but remain de-identified, the data aggregation vendor subcontracts with a lockbox vendor to serve as the master patient index and the opt-out portal. Individuals who wish to opt-out can do so through the web portal or by phone. Individuals who opt-out never have sensitive claims data sent to the aggregation vendor, as payers are responsible for leaving their data out of the data submissions.
HIE	Individuals must opt-in to having their data be sent to the HIE and they can decide who can access their data within the HIE. Individuals may opt-in via a physical paper form at medical offices which confirms the participants' identity, or via an enrollment website which uses identity confirmation software similar to that used in the financial industry. A secondary consent is required on an annual basis at each facility covered under 42 CFR Part 2 to allow for data from that facility to be shared via the HIE.
Provider Directory	The Provider Directory Advisory Committee serves to recommend which data elements may be shared with the public versus other types of data users, to ensure that sensitive numbers or contact methods can only be shared with those who are authorized to see them.
HQMRFS	Providers will have to prove that they have a treating relationship with patients in order to see detailed patient information in the system without requiring additional patient consent. Additionally, role-based permissions will ensure that each user may only see the granularity of data they are entitled to see. The Technology Reporting Workgroup will assist in creating rules for access.
EOHHS Data Ecosystem	While the data sets which will make up the Ecosystem may have sensitive data in them, the Ecosystem will only include data elements for which there are data use agreements in place and a specific reason to use that data element. Data will only be accessible to authorized state users.
Care Management Dashboards	Data is shared according to HIPAA covered entities, which must send monthly patient panel reports to RIQI thereby attesting to having a treating relationship with that patient. No additional patient consent is required, and only patients on these lists are included in the practice's dashboard view.

Identity Management

For Systems users: Each system includes a set of policies and procedures around confirming the identity of any users with access to protected health information. Users are provisioned in a hands-on method where the lists of users are provided to the data steward to set up accounts, rather than having self-registration. The HIE relies on organizations which manage their own users to keep up to date lists of staff and the level of access allowed.

For patients: Given the various HIT systems that are in place, and based on their statutory and regulatory requirements and when and how they were developed, there are several different MPIs being used to manage patient identities. The HIE's MPI employs the Quadramed MPI tool and an operations team to work through ambiguous matches. HealthFacts RI utilized a lockbox vendor to match individuals separate from the claims data to allow for matching while still ensuring the database is truly de-identified.

The MPIs for the EOHHS Data Ecosystem and the HQMRFS are still being determined, although we are hoping to leverage an existing MPI at either HealthFacts RI, the HIE, or others that may exist with the state system. An MPI that is unique to the EOHHS Data Ecosystem will

be developed to facilitate identifier linkage across data sets, but at this time the matching is done on an ad hoc basis.

Provider Directories

Prior to the creation of the Statewide Common Provider Directory, each data set and data system had to maintain its own provider directory. Each one would have data elements for which they were the most accurate and data elements that were likely to be incorrect or outdated. With the Statewide Common Provider Directory, we are working to replace the provider directories in our existing systems such as the HIE and HealthFacts RI with the mastered provider directory, and we are looking to ensure that the Statewide Common Provider Directory is leveraged as the provider directory for any new systems such as the HQMRFS.

Extract Transform Load (ETL) Functions

Data Quality & Provenance

The major components where Data Quality and Provenance are key are HealthFacts RI, the HIE, and the HQMRFS. Contracts with our vendors and state designated entity require careful data quality processes to ensure that the data sent in was created at the source, was unaltered during the ETL process, and any mappings are traceable. The vendors work with the data submitters to ensure data submitted meets the minimum requirements. EOHHS Data Ecosystem data quality will be managed by employing scenario-based quality assurance to identify and remedy data quality issues within an agile framework. This process will include dashboards that are used to verify quality assurance metrics after data updates and when new metrics are created, validating those against other available sources.

Data Extraction

Our vendors are asked to use national standards for data exchange and extraction wherever it is possible. This helps to reduce the development work necessary for data exchange and ensure the security of the data in transit.

Data Transformation

Our vendors perform data transformation activities upon data whenever data from multiple sources is aggregated. Often the codes or descriptions of items from the host data system (such as an EHR) are localized, and mapping may be required to compare apples to apples in the aggregated data set. Documentation of any data transformation ensures that any changes can be traced back to the original value and corrected should errors be discovered or policies change.

Data Aggregation

In Rhode Island data aggregation occurs primarily in two locations: the HIE for clinical data and HealthFacts RI for claims data. These two systems are kept separated for now due to differences in privacy laws, however SIM is developing strategies to include de-identified clinical data elements in HealthFacts RI.

The model of the EOHHS Data Ecosystem will rely on master person indexing across different data sets to link data rather than aggregation. This model will consist of a centralized table that maps a single person ID to the person IDs in each individual dataset and the inclusion of the Ecosystem person ID in each individual data set.

Health IT Technical Functions

Reporting Services

The translation of raw data to meaningful reports is in its infancy in our SIM model. The major plans for reporting services are:

- Care Management Dashboards to report out ADT data collected in the HIE through a web portal.
- HealthFacts RI public reports to highlight high importance data as reviewed by state analyst posted on the RIDOH website.
- The HQMRFS, which will empower providers, payers, and policy makers with more accurate quality measurement reports available through a web portal to lead to improved outcomes.

Analytics Services

Table 22 describes analytics services performed within each data system. There is a general trend to begin to focus more on analytics and parsing large sets of aggregated data for important data points.

Table 22: Analytics Services by SIM-Related HIT Component

System	Consent Policies and Procedures
HealthFacts RI	Analytics services can be performed on HealthFacts RI data through three primary mechanisms: <ol style="list-style-type: none">1. Ad-hoc analysis performed by the aggregation vendor2. Analysis performed by state staff through the state data center tools, such as SQL and the BI tool3. Analysis by external stakeholders who have applied for and received data from HealthFacts RI.
HIE	RIQI has a growing analytics team to help develop new ways to understand the data in the clinical data repository at the HIE. This staff is working on reports to demonstrate ROI and new mechanisms to provide data back to providers to improve patient outcomes, such as the Care Management Dashboards.
HQMRFS	IMAT Solutions, Inc. will be required to analyze the clinical data in the HQMRFS for results on the SIM Aligned Measure Set and other clinical quality measures. These results can be reported back to providers and to reporting entities such as payers.
EOHHS Data Ecosystem	State staff will be provided training and access to the data sets incorporated in the Ecosystem to allow state agencies to answer specific question to drive policy.

Notification Services

The HIE provides notification for ADTs in two major ways:

- CurrentCare Alerts – These alerts send a direct secure message to providers associated with a CurrentCare-enrolled patient when they are admitted, discharged, or transferred from any of the state’s acute care hospitals. This can also include notifications sent to patient-designated proxies.
- Care Management Alerts – These alerts send a direct secure message to providers associated with a patient through a provider-submitted panel which demonstrates a treating relationship with the patient when the patient is admitted, discharged, or transferred from any of the state’s acute care hospitals.

Some new notification services are under development including the overdose alerts to be sent through both CurrentCare Alerts and Care Management Alerts if a patient experiences an overdose of any kind. We acknowledge that there is a delicate balance between providing important notifications to providers and sending too many messages that can cause notification fatigue and remove the benefits of the alert. Because of this concern, we are rolling out additional notification services with caution and only on high-importance issues.

Exchange Services

The primary method of exchange services in Rhode Island is through the HIE. The HIE typically collects data in the repository that has been “pushed” from the source EHR. There are some exceptions to this that require a “pull” query based on the agreement with the data source.

The HQMRFS will depend heavily on exchange services as well, but the model is yet to be determined as we proceed into implementation of this system.

Consumer Tools

The statewide HIE now has a consumer portal called CurrentCare For Me which is available to anyone so that they may log in and view their own personal health record. There is also an added feature that enables patients to set up proxies with access to the records and alerts for ADTs.

SIM is also funding the implementation of a Consumer Engagement Platform for Rhode Island, which will allow consumers to take screenings on social determinants of health and upload advance directives.

Through SIM we will launch consumer-focused tools that focus on transparency, such as public-facing reports from HealthFacts RI with a focus on price transparency with a specific focus on Medicaid, and a public Provider Directory portal.

Provider Tools

With additional new technology builds, we are adding additional provider tools to the mix. Providers have had access to the HIE’s provider portal, CurrentCare Viewer, for many years, but through SIM we are adding a provider portal for the Statewide Common Provider Directory which will allow them to see sensitive contact information unavailable to the public. We are also adding a quality measurement portal as a component of the HQMRFS. RIQI’s SIM-funded patient engagement tool (Consumer Engagement Platform) will include a provider-facing portal. Lastly, the Care Management Dashboards (which were developed before SIM, but for which implementation costs are being supported) also provide a separate provider dashboard.

With these additional provider portals, we are pursuing options to allow for single sign on solutions. The first integrations will be a solution that connects the Provider Directory portal, the Care Management Dashboards, and the CurrentCare Viewer to ensure that providers only need log in to one of those systems in order to use both interchangeably. As additional infrastructure is deployed, we will continue to be mindful of provider portal fatigue and strategize ways to leverage existing provider portals to share the data providers need.

Patient Attribution

There are two main purposes of patient attribution methodologies in Rhode Island: data sharing standards and quality measurement.

RIQI uses a patient attribution methodology to allow for data sharing on patients within a provider's specific panel in the Care Management Dashboards/Alerts products. To facilitate this patient attribution, the provider self-attests to a set of patients through a patient panel file. This file is loaded into the RIQI system.

Other patient attribution for quality measurement is not done in any standard way for the state systems under SIM. Each payer has its own patient attribution methodology, including Medicaid and the MCOs. The goal is to choose a specific patient attribution methodology to use between HealthFacts RI and the HQMRFS in the last two years of SIM. We will seek stakeholder consensus to help make this decision. However, because it is possible that we will not find a singular patient attribution methodology that will meet all needs, we will remain open to many potential applications.

D. Program Evaluation, Monitoring, and Reporting

Program evaluation is fundamental to assessing whether or not designed activities achieve the desired results once implementation begins. For the SIM Test Grant program, we are guided in our evaluation and monitoring by the *Centers for Disease Control and Prevention (CDC) Framework for Program Evaluation in Public Health*. The Rhode Island SIM Core Staff Team acknowledges the ability to conduct this type of program evaluation will be based partly on the ability to obtain vendor-driven data and access to individuals engaged in the SIM program(s). Because of this, extra emphasis has been placed on the engagement of stakeholders throughout SIM's performance monitoring and program evaluation processes.

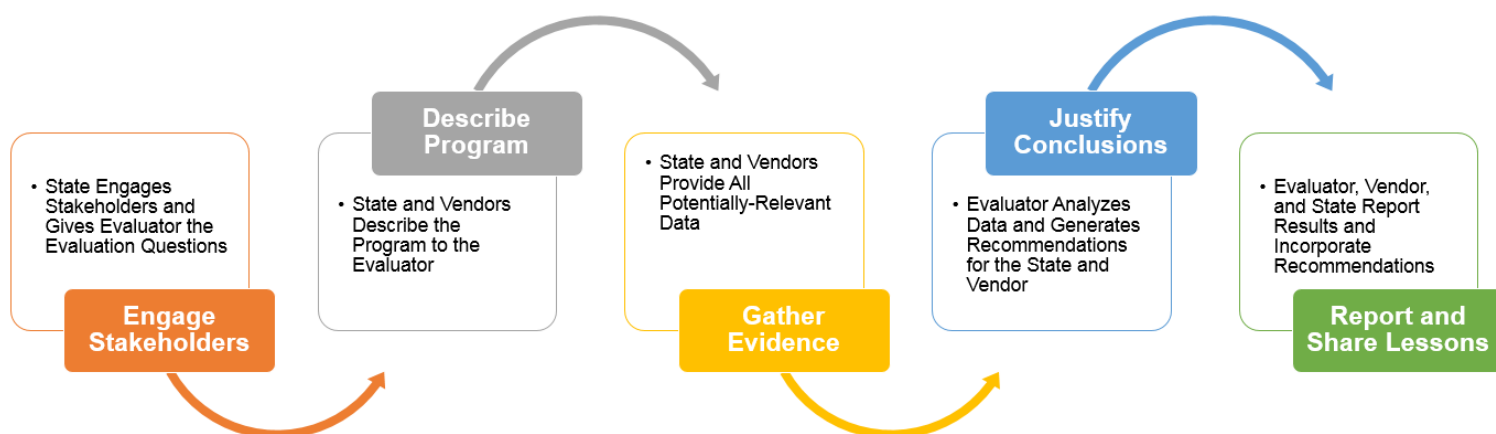
State-Based Evaluation Overview

As mentioned in the narrative summary of the SIM State-Based Evaluation component (see Page 48), evaluation activities are intended to assess planning efforts and collaboration, identify root causes of success and challenges, detail efficiencies created, document the importance of infrastructure, and examine data to inform SIM's current implementation, future sustainability, and translation to other projects within Rhode Island.

Evaluation Process

Six steps, embedded in a continuous process of improvement through program evaluation, are the fundamental elements of the State-Based SIM Evaluation project. For more detail on each of these steps with respect to the SIM State-Based Evaluation, please see the [Overarching Mixed-Methods SIM Evaluation Plan](#). The figure below summarizes the steps used within the evaluation approach:

Figure 28: SIM State-Based Evaluation Process



1. Engage stakeholders.

Engaging stakeholders through various SIM Workgroups and participating in the SIM Steering, Interagency, other Workgroup, and Core Staff meetings (as deemed appropriate). This includes participation in debrief conversation to evaluate how the meeting went and what follow-up is needed.

2. Describe the program.

Describing the program as depicted by the Rhode Island SIM Operational Plan and additional procurement documents with SIM vendors.

3. Focus the evaluation design to set goals for what we are studying.

Focusing the evaluation design to align with available SIM-outlined goals (including data and metrics), Steering Committee areas of interest, and return on investment (ROI) study needs—including looking at where value is added even if true ROI cannot be calculated.

4. Gather credible evidence.

Gathering credible evidence using existing a mixed-method approach, defined measures, available or improved data collection, and methods to address identified gaps or needs.

5. Justify conclusions.

Justifying conclusions on an annual basis using findings from mixed-methods evaluation, qualitative and quantitative analysis, anecdotal evidence, and stakeholder feedback.

6. Ensure use and sharing lessons learned.

Ensuring usefulness of findings and sharing lessons learned with internal and external partners, as well as incorporate recommendations for moving forward.

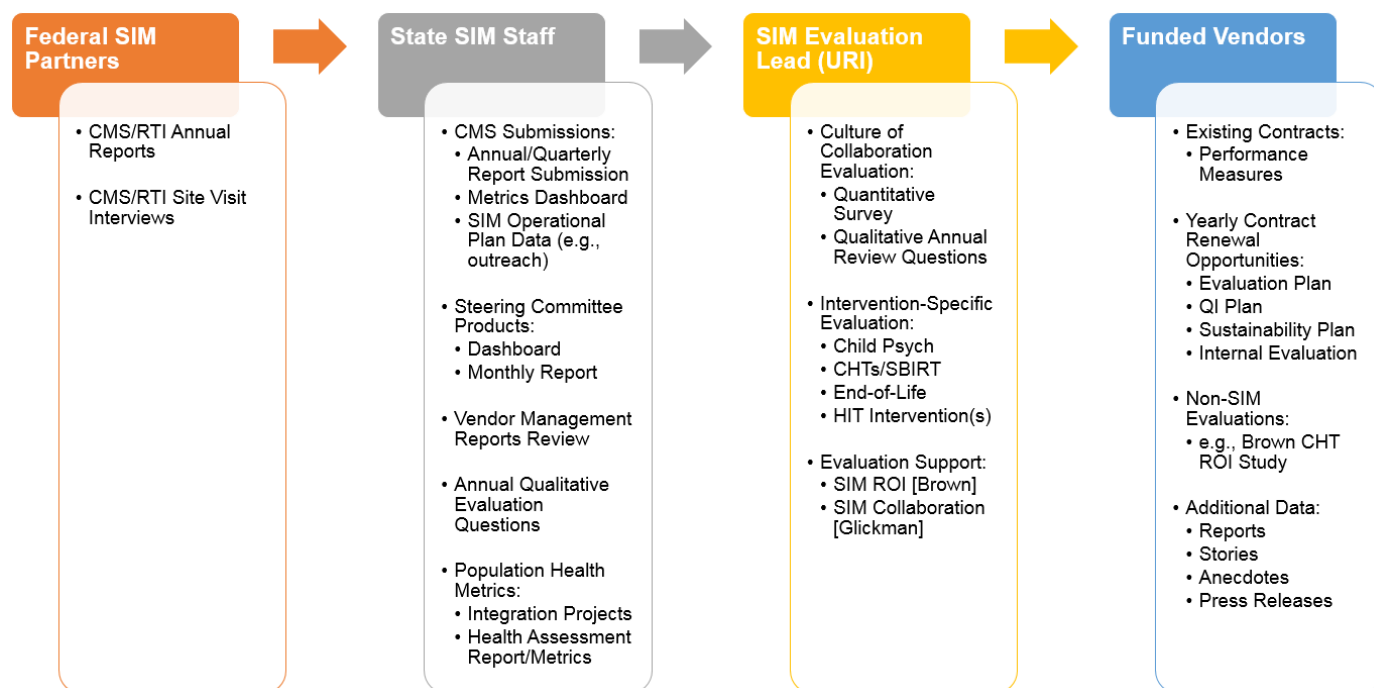
Current Evaluation Efforts Summary

Through a Memorandum of Understanding with URI's Institute for Integrated Health and Innovation, the SIM State-Based Evaluation has been formalized since 2016. During AY2, SIM staff held an initial planning meeting with the evaluation team to outline broad parameters and discuss the development of the overarching evaluation plan for SIM. Key evaluators (and sub-vendors) were onboarded to the SIM project, attended SIM Steering Committee meetings, participated in national evaluation calls, and met with key SIM vendors/partners. As noted previously, the Overarching Mixed-Method SIM Evaluation Plan was drafted and finalized based on SIM leadership and SIM stakeholder feedback.

In accordance to the Overarching Mixed-Method SIM Evaluation Plan, the SIM State-Based Evaluation is informed by work being carried out by four distinct stakeholder groups: Federal SIM evaluators, Rhode Island SIM staff, Rhode Island's SIM State-Based Evaluation Lead (URI), and SIM's funded vendors. Each of these stakeholders have access to or provide specific information that can be leveraged to inform SIM's State-Based Evaluation. In addition, the evaluation team is coordinating with other SIM-related evaluations led by other vendors, Federal partners, or handled within the SIM Core Staff Team via contract management and metrics review.

The figure below depicts the four stakeholder groups and summarizes inputs available for evaluation:

Figure 29: Evaluation Roles and Available Inputs



Federal SIM Partners and Coordination of Efforts

The SIM Core Staff Team, in partnership with the SIM State-Based Evaluation Team continues to ensure that State-led evaluation efforts are complementary to the Federally-led evaluation by RTI, but not duplicative in nature. SIM Core Staff Team members continue to participate in Federal evaluation team calls, supporting RTI evaluators with additional information, as needed. During evaluation calls with RTI this year, SIM Core Staff Team members addressed behavioral health integration plans, patient engagement, population health, and OHIC's Affordability Standards. Additionally, SIM clarified questions regarding the Operational and Integrated Population Health Plans, updated evaluators on the HealthFacts RI governance council, discussed the integration and alignment of SIM with the CPC+ initiative, and updated the Federal team on the procurement status of the services for the SIM State-Based Evaluation.

RTI continues to conduct interviews either via in-person site visits and/or phone calls with many different stakeholders associated with the SIM interventions, including Steering Committee members and State staff. Interviews have thus far included project directors, participating providers, and other staff/consumers who could offer a good perspective on SIM's work to date. SIM Core Staff Team members helped to facilitate RTI phone calls with State leaders as part of this effort. Lastly, SIM Core Staff Team members continue to assist RTI in reviewing the yearly Federal evaluation documents assembled as part of CMMI's evaluation of SIM. The SIM State-Based Evaluation plans to utilize these annual Federal reports, as a source of data for Rhode Island's evaluation of SIM.

State SIM Staff and Overall Project Reporting

State SIM staff (most oftentimes the SIM Core Staff Team) continue to maintain primary responsibility for overall project reporting to a variety of audiences. Internally, state SIM staff conduct in-house reviews, when necessary, as a part of the evaluation strategy. SIM Core Staff Team members (including the Culture of Collaboration Consultant) assist SIM with gathering routine information and metrics that are reported to CMS on a quarterly and annual basis and to the SIM Steering Committee and Interested Parties monthly. The metrics associated with the Driver Diagram and Quarterly Metrics submission will be used in all evaluation activities. When necessary, monthly reports for SIM Steering Committee are provided in addition to the Monthly Metrics Dashboard provided at each meeting. Information compiled for CMS and/or SIM Steering Committee Reporting are generated from the regular review of vendor management reports, workgroup meeting summaries, and other source documents for information. SIM staff carry out process evaluation and hold strategic planning retreats, to enable identification of promising practices and lessons learned.

As part of SIM Staff engagement within Rhode Island's evaluation, SIM Core Staff Team members have worked in partnership with URI to design and disseminate a series of five qualitative questions that were tailored for the following audiences: Internal Agency Partners (e.g., collaborating RIDOH programs); SIM Interagency Team Partners (e.g., agencies such as EOHHS, OHIC); and SIM Vendors (e.g., Bradley Hospital). SIM staff provided the answers to these questions URI for analysis. These questions, or variations of them, will be repeated at least two more times during the SIM project timeframe. While the specific questions tailored for each audience vary slightly, a variety of the following questions were used:

- How has engagement in SIM positively influenced your program, your partnerships, and a general culture of collaboration?
- What resources, if any, has your program obtained and/or leveraged since engaging with the SIM Test Grant?
- How has your engagement with SIM and SIM-funded project allowed your organization to advance health system policy and align with other efforts in Rhode Island?
- What major barriers arose and/or still exist that inhibit integration of SIM with your program?
- What programmatic evidence exists to demonstrate that SIM has influenced the provision of better quality care, improved population health, and/or smarter health system spending?
- Lastly, summarize the impact of time on your program in one to three sentences. Please also include one example of something that was happening before SIM has changed for the better after SIM engagement.

SIM Evaluation Lead (URI) and Intervention-Specific Evaluations

By having funded the SIM State-Based Evaluation (led by URI) as part of the SIM Health System Transformation Wheel, the State has the bandwidth to take a deeper dive into specific aspects of or interventions essential to the SIM health system transformation process. More specifically, URI is engaging in those topics where the State SIM Staff do not have the expertise or tools to carry out an in-house, independent evaluation. It is important to note that to avoid duplication, the state-based evaluation does not include evaluation of interventions for which RTI is evaluating via consumer interviews (e.g., PCMH-related work). The State-Based Evaluation is also not focused on evaluation for those SIM-funded projects for which there is already an independent evaluation being performed as part of the project's scope of work (e.g., integrated behavioral

health pilot). To this end, there are five intervention-specific evaluation efforts related to SIM for which an evaluation plan has been established (or is in the process of being established), data collection has/will occur, and recommendations will be issued as SIM ends:

1. Child Psychiatry Access Program (PediPRN)

Evaluation for this project will focus on: showcasing how the model being used works; determining what related activities most support success; investigating any potential ROI within the behavioral health and primary care system; and quantifying overall performance, including system, process, and population health outcome changes. To do this, the evaluators have finalized the following evaluation questions:

- To what extent, if at all, has PediPRN increased availability of mental healthcare for children and adolescents by introducing psychiatric consultation services into the scope of primary care practices?
- To what extent, if at all, has PediPRN created a strong primary care/specialist mentoring relationship between primary care practitioners and child psychiatrists?
- To what extent, if at all, has PediPRN promoted the rational use of scarce specialty resources for the most complex and high-risk children and adolescents?
- To what extent, if at all, has PediPRN aligned and integrated with the goals, mission, and principles of the Rhode Island SIM Operational Plan and State Health Improvement Plan?
- A full list of sub-questions being used can be found in the [Child Psychiatry Access Project Intervention-Specific Evaluation Plan](#).

2. Community Health Teams (Including SBIRT Braiding)

Evaluation of this project will focus on: investigating the influence of CHTs on practice transformation, integrated population health, and cost of care; examining potential collective impact with SBIRT and other facilitators braided into the project; and reviewing the potential for ROI and/or value-add (including for the Consolidated Operations model). To do this, the evaluators have drafted the following evaluation questions:

- To what extent, if at all, has the CHT/SBIRT project strengthened population health?
 - Has a focus on a place-based approach to improving health disparities been adhered to during implementation? Has there been an emphasis on behavioral, physical, and oral health co-occurrences? Has both addressing medical needs as well as resolving socioeconomic/environmental needs remained a focus?
- To what extent, if at all, has the CHT/SBIRT project transformed the healthcare delivery system?
 - Has the unification of CHT and SBIRT activities promoted more sustainable integrated care? Has this varied across different types of settings, e.g., primary care versus hospital? Has the substance use screening, identification, and treatment promotion increased incorporation into ongoing care delivery, particularly in primary care?
- To what extent, if at all, has the CHT/SBIRT project decreased per capita healthcare spending?
 - Have high-risk, high-cost patient panels been targeted effectively? Has care coordination and de-duplication of effort created efficiencies? Has an increase in patient engagement and/or retention in primary care resulted?
- To what extent, if at all, has the CHT/SBIRT project reduced provider burnout?
 - Has provider understanding of health system reform and practice transformation changed? Has stigma and/or stress associated with asking questions about social

needs? Has stigma and/or stress associated with asking questions about substance use decreased?

- To what extent, if at all, has the CHT/SBIRT project fostered collaboration?
 - Have there been alignment efforts across sectors and between partners? Has there been an increased ability to support data-driven decision-making? Has data sharing increased and/or become more standardized/interoperable?
- To what extent, if at all, has the CHT/SBIRT project developed a culture of collaboration with respect to SIM's organizing principles (e.g., with Health Equity Zones, Accountable Health Communities, etc.)?
 - Has shared learning resulted? Has cross-sector collaboration increased? Has patient experience and/or satisfaction changed?
- To what extent, if at all, has the CHT/SBIRT project model resulted in one or more promising practices and/or lessons learned in the following areas?:
 - CHT Implementation (both areas of standardization and individualization among partners): Any promising alternative payment methods to further explore?
 - SBIRT Implementation (both areas of standardization and individualization among partners): Any lessons from different uses of SBIRT workers? Any promising practices from the SWAT-approach?
 - SBIRT Embedded in CHT Implementation: Any barriers from workforce availability and limitations (e.g., CHWs)?
 - Consolidated Operations Management (staffing efficiencies, data efficiencies, etc.): Any lessons from braided funding mechanisms? Any promising practices or lessons learned on roles of consolidated operations staff?
 - Supplemental Infrastructure (SBIRT Training and Resource Center; SBIRT HIT; State, Evaluation): Any lessons learned with regard to state operations, procurement, partner engagement, and sustainability?

3. Culture of Collaboration

Evaluation of this project will focus on measuring both collaboration and potential implications for sustainability (as applicable). Main constructs of the evaluation include: governance, operations, autonomy, mutuality, system transformation, expectations, perceived impact, and efficacy of current practices. A Culture of Collaboration Survey was issued in 2018 to Steering Committee and Interested Parties to obtain baseline data. The full development of this evaluation will address the following questions:

- What, if any, current aspects of the SIM project best support Rhode Island's quest for the Triple Aim of enhanced population health, better quality care, and smarter spending?
- What, if any, thing SIM can do to further support Rhode Island's quest for the Triple Aim of enhanced population health, better quality care, and smarter spending?
- What, if any, way could SIM best support sustainability health system transformation activities?
- To what extent, if at all, is the perceived level of integration and alignment among SIM Core Staff Team members and external stakeholders?
- To what extent, if at all, are the barriers and benefits to the SIM Core Staff Team staffing model with respect to integration, duplication, approval processes, business functions and best practices?
- To what extent, if at all, are the impacts upon stakeholder engagement, retention, and collaborative efforts?
- To what extent, if at all, does the staffing and governance model have a positive effect on satisfaction and sustainability?

- To what extent, if at all, has the model created synergy through influence on policy, leverage of grant funding, and strategic outreach efforts?

4. End of Life Advanced Directive Projects

Evaluation of this project will focus on: assessing the effectiveness of varying methods to discussing end-of-life (EOL) planning with patients; measuring the reduction in unwanted medical care and family distress; examining discussion and trainings techniques that appear to support providers in carrying out patient engagement activities associated with advanced illness diagnoses; and understanding foundational elements for effective collaboration in making healthcare decisions, improvements in health literacy, and completion of advanced directives. To do this, the following evaluation questions have been drafted:

- To what extent, if at all, have EOL interventions contributed to transformation of Rhode Island's healthcare delivery system?
 - Has coordination with home care increased? Has patient engagement and/or patient-centric decision-making increased? Have provider communication skills and/or level of empathy changed? Has learning and knowledge been facilitated among providers surrounding EOL? Has the cultural competence of providers changed?
- To what extent, if at all, have EOL interventions contributed to improvements in population health?
 - Has health-related quality of life and/or life satisfaction increased? Have lengths of stay with palliative care changed? Have appropriate pain management treatment plans been adhered to? Has patient confidence and/or health literacy increased? Has a decrease in common barriers to health been observed (e.g., language, cultural, religious factors affecting EOL decisions)?
- To what extent, if at all, have EOL interventions contributed to efforts to decrease per capita healthcare spending?
 - Have plans for life-saving measures at EOL changed? Has billing and coding for EOL services increased? Have unnecessary prescriptions, diagnosis tests, or procedures decreased? Have treatment services been reduced?
- To what extent, if at all, have EOL interventions reduced provider burnout or burden?
 - Has provider satisfaction and/or comfort changed? Has provider anxiety/stress decreased? Have providers been provided with additional supports and/or discussion tools? Have electronic document upload capabilities been implemented?
- To what extent, if at all, have EOL interventions project fostered collaboration?
 - Has engagement with EOL increased with respect to ACOs/AEs? Has caregiver engagement changed? Have cross-sector relationships been built (e.g., religious organizations)?

5. Health Information Technology

Evaluation of this project will focus on: assessing the level of integration of HIT throughout projects addressing health system transformation; specific evaluation of at least one specific HIT intervention; quantification of value related to HIT (and the specific HIT intervention) as derived from users and non-users of the system; and determination of potential improvements. To do this, the evaluation team has drafted the following evaluation questions for review and editing:

- To what extent, if at all, has the HIT intervention contributed to transformation of Rhode Island's healthcare delivery system?

- Have the data been used to promote changes in practices or workflows? Have the data been used available in the system allowed integrated care? Has this varied across different types of settings, e.g., primary care versus hospital?
- To what extent, if at all, has the HIT intervention project contributed to improvements in population health?
 - Have the data been used to track population health components? Are the institutions using the data working to improve population health? Are the data used for performance management of workflows associated with good health outcomes?
- To what extent, if at all, has the HIT intervention contributed to efforts to decrease per capita healthcare spending?
 - Have the data helped identify high-risk, high-cost patient patients? Have the data contributed to care coordination and de-duplication of effort created efficiencies? Have the data allowed for an increase in patient engagement by practices?
- To what extent, if at all, has the HIT intervention reduced provider burnout or burden?
 - Have the data contributed to provider understanding of health system reform and practice transformation? Have the data/system reduced administrative burden?
- To what extent, if at all, has the HIT intervention project fostered collaboration?
 - Have the data available helped align efforts across sectors and between partners? Have the data or the process led to an increased ability to support data-driven decision-making? Has data sharing increased interoperability between provider types?

Given the lag in procurement and changes in URI evaluation staff, not all intervention-specific evaluation plans have been finalized. Implementation of this SIM State-Based Evaluation will enable the assessment of designed activities' ability to meet the desired results as implementation continues, ultimately helping to inform sustainability efforts. Moving forward, URI and SIM Core Staff Team have prioritized the following evaluation and evaluation support activities: provision of access to source data repositories; finalization of remaining intervention-specific evaluation plans; deployment of continued yearly evaluation questions in addition to the culture of collaboration survey; further exploration of potential value-add and/or ROI analytics available to SIM; and continuation of engagement in monthly meetings, reporting, and check-ins.

Funded Vendors and Performance Management

SIM's project management vendor transitioned all performance management tasks over to SIM Core Staff Team in June 2017 as a result of continuous quality improvement directed from Rhode Island's leadership. Performance management tasks included vendor orientation and training; tracking and managing the project plans; meeting scheduling and process management; note-taking and reports preparation. The SIM Core Staff Team members have been established as Project Officers (a.k.a., contract/vendor managers) to continue orient, train, and monitor vendors as associated project implementation occurs. SIM Project Officers remain in regular communication with vendor leads for the projects now under way, oftentimes on a bi-weekly basis. Project Officers use vendor management calls to review monthly vendor progress reports and data to continually expedite implementation and assure vendor accountability. Performance measures, which are embedded in each contract, are reviewed with Project Officers and provided to evaluators (along with the monthly reports). Facilitation of relationships between the funded vendors and State-Based evaluators also occurs (in some cases, one of the phone calls each month includes evaluators as part of the discussion). Contract negotiations on an annual basis are used to request evaluation data, quality improvement projects, and sustainability plans. Yearly vendor management templates are used in some cases to capture additional activities, such as

communications status, data collection challenges, and success stories. As new projects for SIM continue to be procured (i.e., new projects approved by the SIM Steering Committee), designated SIM Project Officers continue to engage stakeholders to specify model performance metrics, which seek to measure the outcome of these SIM project across domains of cost, quality, utilization, provider burden, and population health.

SIM continues to orchestrate Quarterly SIM Vendor/Partner Meetings with all onboarded vendors to encourage cross-intervention collaboration and coordination. Part of this coordination is intended to ensure strong collaborations between SIM-related evaluation and other associated evaluations happening on the vendor and/or project-level but not funded by SIM. One example of this is the intra-URI collaboration between the CHT evaluators and SBIRT evaluators.

Moving Forward

Evaluation and project review remain critical components of SIM's efforts—both with the Core Staff Team members and SIM State-Based Evaluation lead. To incorporate evaluation across SIM investments and activities, State SIM Staff (in partnership with vendors/partners) will maximize the provision of additional data upon which conclusions can be drawn. SIM leadership is committed to using the evaluation information described throughout this document to measure the SIM Test Grant's successes, identify, and address discovered challenges, and chart continued paths for changing Rhode Island's health system beyond SIM. The public nature of SIM ensures that SIM staff will be sharing this information with agency partners, Steering Committee members, and Interested Parties, including the general public.

Data Collection and Sharing

Rhode Island will require regular data about cost, quality, utilization, and, as available, population health to fully understand the impact of the SIM Test Grant initiatives. Some existing data sources for this information are available. Since Rhode Island's SIM Test Grant is a statewide initiative, SIM will measure outcomes across the state as a whole, comparing the majority of outcomes against those of other (non-SIM) states when applicable. There are several major datasets that are worth highlighting, as these key data sets are or will be where data are collected for evaluation efforts pertaining to Rhode Island SIM:

- HealthFacts RI, Medicaid Data, and EOHHS Data Ecosystem.
- RIDOH Center for Health Data and Analysis Data Sources.
- Electronic Clinical Quality Measurement, Reporting, and Feedback System.

In addition to these specific data sets, SIM Core Staff Team members have already created or have access to vendor-specific sources of data aside from those mentioned above. As previously noted in the State-Based Evaluation, SIM (via OHIC) is already capturing CMS-required quarterly metrics as part of the SIM Operational Plan and State SIM Staff have written metrics into every contract as part of the procurement process. SIM Core Staff Team members have also created source data repositories on the SIM Shared Drive for the following information: staff calendar tracking for important events and updates; outreach and engagement, as well as attendance, tracking; data use agreements and MOUs; vendor monthly reports and CMS reporting documents; core SIM documentation; and standardized contract language, working with the URI evaluators as advisors to this process.

HealthFacts RI, Medicaid Data, and EOHHS Data Ecosystem

EOHHS is one unified legal entity, meaning that no data sharing agreements are required between different Departments within the EOHHS umbrella (including BHDDH, DCYF, DHS, Medicaid, and RIDOH). Data use involving protected health information is limited to appropriate uses under HIPAA and state privacy laws. For data sharing with agencies outside of EOHHS, agency staff work with specific entities to implement the necessary data sharing agreements (e.g., MOUs, Data Sharing Agreements, Business Associate Agreements) when needed to support EOHHS (including SIM). Throughout the development of the SIM projects within the Data Capacity and Expertise Expansion portfolio of the SIM Transformation Wheel, staff have continued to assess which external data sources will be needed for which projects (including State-Based Evaluation). Facilitating access to needed data remains a priority moving forward.

HealthFacts RI

Claims data from payers with at least 3,000 enrolled members is submitted quarterly to HealthFacts RI, the all-payer claims database (partially funded by the SIM Test Grant). This includes CMS-provided Medicare Part A, B, and D claims data, private insurance (including Medicare Advantage plans), and Medicaid data. We will use claims data to understand the cost of care provided in value-based payment arrangements, as well as some key indicators of utilization and quality (and over time, population health) based on availability.

In an effort to safeguard patient data, maintaining privacy protections and procedures remains a critical focus of data use in Rhode Island. Although de-identified, because there is always a concern that HealthFacts RI could potentially identify a participant, HealthFacts RI data releases are governed by the Data Release Review Board (DRRB). The DRRB is an 11-member advisory

board that reports to RIDOH's Director of Health. Some data can be released in aggregate form without review by the DRRB, but any release in which claim-line level data or files that do not conform to pre-approved release standards may require a data release application. The HealthFacts RI analytics vendor is responsible for providing data extracts for partners, including file specifications. Rhode Island staff continues to assist CMS (and Federal evaluators) and SIM project vendors in navigating this State-legislated data release process and waive any standard fees for data if related to specific SIM evaluation needs.

Medicaid Data

Rhode Island Medicaid supplies detailed Medicaid member information by request to CMS (and Federal evaluators) as needed for surveys, focus groups, and/or key informant interviews. Medicaid is dedicated to measuring and understanding the impact of the State's initiatives to improve care. To this end, Medicaid continues to work with SIM to facilitate all appropriate data sharing in accordance with State and Federal laws. SIM continues to share the data required by Federal evaluators (i.e., RTI) for SIM site visits to Rhode Island. Data has included Medicaid members and behavioral health providers. A process has been established to continue to share data with RTI as necessary, including access to the appropriate, secure data-sharing technology.

EOHHS Data Ecosystem

As noted in the Narrative of SIM Components section, the EOHHS Data Ecosystem (also partially SIM-funded) is helping transition the State's health system to one dominated by value-based care, with an emphasis on the socioeconomic determinants of health, to lower health system costs and improve population health (including a focus on health disparities). The EOHHS Data Ecosystem is being built and tested to link person-level data for program improvements on the policy and operational levels. The technological systems that support doing this provide data-driven and surgical approaches to improving and monitoring population health. This information may also be helpful in conducting holistic evaluations of Rhode Island health system transformation to value-based care. Both value-based care and population health rely on understanding the whole person and the complete characteristics of target populations to best tailor interventions to more fully meet client needs. Rhode Island also firmly believes that the socioeconomic and environmental determinants of health—measures that go beyond what can be captured on a claim or even in a medical record—are oftentimes stronger levers to address and indicators to measure healthcare spending and population health than purely clinical ones. Recently, URI acquired DataSpark (a datahub containing various linked Rhode Island data sets) and will, as needed, leverage this acquisition for the benefit of EOHHS and SIM data collection for evaluation purposes. As such, discussions between URI, SIM and EOHHS continue to ensure this analytical tool is available for evaluation. Similar discussions with EOHHS on the utilization of HealthFacts RI continue.

Center for Health Data and Analysis Data Sources

As mentioned in the SIM Alignment with State/Federal Initiatives section, RIDOH's Center for Health Data and Analysis (CHDA) maintains several data sets and surveillance systems that can and have been used to monitor population health (as demonstrated in SIM's Health Assessment Report), as well as healthcare transformation activities. Shared data abides by the Department's policy for dissemination of data. Typical modes of distribution include infographics and posters, stakeholder meetings and conferences, publications, on websites, and in the form of data briefs/books. File sharing can be requested between agencies and typically requires a Memorandum of Agreement. The following data sources remain available for use by SIM:

Behavioral Risk Factor Surveillance System (BRFSS)

(BRFSS) is a state-based computer-assisted telephone interview survey using uniform guidelines and a standard questionnaire from the Centers for Disease Control and Prevention. The survey is administered as a random-digit dial telephone survey of non-institutionalized people age 18 or older. Information on health status, health risk behaviors, preventive practices, healthcare access, and prevalence of chronic conditions is collected and analyzed.

Emergency Department Data

When a patient is discharged from an Emergency Department visit at a Rhode Island hospital, the hospital is mandated to report the patient's information to RIDOH and CHDA. Patients whose visit resulted in an admission are not included in this data set but are included in the Hospital Discharge data set.

Hospital Discharge Data (HDD)

When a patient is discharged from an inpatient stay in a Rhode Island hospital, the hospital is mandated to report the patient's information to RIDOH and CHDA.

KIDSNET and Maternal and Child Health Data

KIDSNET is a population based integrated child health information system that facilitates the collection and appropriate sharing of preventive health services data for the provision of timely and appropriate follow-up. Maternal and Child Health data are collected as a separate data system to determine maternal and child health needs of Rhode Islanders and assess health status and well-being of children and families.

Pregnancy Risk Assessment Monitoring System (PRAMS)

PRAMS is an ongoing, population-based surveillance system designed to identify and monitor selected maternal experiences and behaviors that occur before and during pregnancy and during the child's early infancy among a stratified sample of women delivering a live birth.

Violent Death Reporting System

Violent death surveillance, using data collected from multiple sources, includes data from medical examiner files, law enforcement reports, vital records, and others on deaths due to homicide, suicide, deaths of undetermined manner, and unintentional firearms deaths.

Vital Records

State law requires registration of all birth records, from which data are derived and covers all child born in Rhode Island or a child born out-of-state to a Rhode Island resident. State law also requires registration of spontaneous fetal death records and reports of induced fetal deaths which occur in Rhode Island.

Youth Risk Behavior Survey (YRBS)

YRBS is a high- and middle-school survey administered to a sample of students in partnership with CDC to assess health-risk behaviors in public school students grades 6-12 that contribute to the major causes of death, disease, injury, and social problems.

Community Health Assessment Group

RIDOH has also been and continues to convene the Community Health Assessment Group (CHAG). The CHAG is working to development local health equity indicators for Rhode Island that support the three leading priorities outlined within the State Health Improvement Plan. One domain particularly of relevance to SIM is the Quality Healthcare Domain. In addition to this work conducted by the CHAG, a team of RIDOH evaluation experts are working to

determine a common evaluation and health equity indicators specifically for HEZs. SIM has been an active participant in these activities and will continue to work to ensure that relevant measures, as developed, are made available to SIM projects and evaluation efforts.

Electronic Clinical Quality Measurement, Reporting, and Feedback System

The electronic clinical measurement, reporting, and feedback system will begin to collect, analyze, and report more detailed clinical data across a broad population of consumers and patient panels in Rhode Island as its development continues throughout the duration of SIM (and beyond). While it remains unlikely that this system will be adequate to measure all outcomes across the state by the end of project period (as well as confidently provide a historical understanding of clinical quality), it is possible that some test cases yield information that can be used to inform SIM Federal and State evaluation efforts. SIM recognizes that clinical quality data on patient population is relatively sparse and inconsistent and will be strengthened for future evaluation activities with this new data system. Additionally, OHIC will continue to leverage regulations in place that allow it to request data from payers, specifically to support the SIM Test Grant, and to assist in utilization of this measurement system. OHIC works to ensure the data used in the evaluation efforts are comprehensive and will accurately describe the impact of our activities in Rhode Island.

Fraud and Abuse Prevention, Detection, and Correction

The State Office of Program Integrity (OPI) ensures compliance, efficiency, and accountability within the health and human services programs administered EOHHS through the detection and prevention of fraud, waste, and program abuse. This work ensures that State and Federal dollars are spent appropriately, responsibly, and in accordance with applicable laws. OPI has developed protocols and procedures to do this work and focuses on all publicly funded health and human services programs, not just the Supplemental Nutrition Assistance Program (SNAP) and Medicaid programs, using sophisticated data mining and modeling techniques to identify unusual patterns of purchasing and billing by third parties. More specifically, OPI utilizes advanced analytics software that assigns scores to claims for potential healthcare fraud. This scoring looks for duplicate claims, individuals with multiple member identifications, suspicious provider network activity, peer comparison for both providers and members, and predictive analytics that identify scenarios where activities should have happened that did not. The resulting scoring is displayed in an advanced visual interface to allow investigators to review and assess the results of the analysis. OPI actively pursues any leads indicating fraudulent practices and uses them as a source to begin investigations.

To increase effectiveness, the OPI is partnering with Medicare and Medicaid insurance companies to share information about fraudulent activity and to conduct joint investigations. OPI also receives complaints from patients, their families, other providers, former employees of a provider, and through Federal and State referrals. OPI staff triage and investigate every valid complaint and decisions rendered by the review process can result in refunds to the program for inappropriate payments, training on how to correct or improve billing practices, referral to licensing boards, and/or referral to the Rhode Island Office of the Attorney General (OAG) for suspected fraudulent practices. The OAG's Medicaid Fraud and Patient Abuse Unit enforces the laws pertaining to fraud in the Rhode Island Medicaid program and prosecutes cases of abuse, neglect, or mistreatment of patients in all Rhode Island healthcare facilities. The Unit prosecutes criminal activity, pursues civil remedies where appropriate, and participates with Federal and State authorities in a variety of interagency investigations and administrative proceedings. Unit prosecutors, auditors, investigators, and healthcare professionals employ a multi-disciplinary approach to combat health care fraud and patient abuse.

Conclusion

As a Test Grant, Rhode Island's SIM project is committed to evaluation – always asking what are we doing that is effective? How could we be more effective? How can we work together more closely with state agencies in government and our partners in the community?

From the start, this Operational Plan has given us a tremendous opportunity to sit back, ask these questions, and use the answers to better focus our work.

We are pleased to share this fourth iteration of the Plan with you and look forward to your comments and questions.

Acronym and Abbreviation List

The following is a list of acronyms and abbreviations used in the Project Summary for the Operational Plan.

Acronym	Meaning
ACA	Affordable Care Act
ACC	Accountable Care Community
ACO	Accountable Care Organization
ACS-CDC	American College of Surgeons – Centers for Disease Control and Prevention
ADHD	Attention Deficit Hyperactivity Disorder
AE	Accountable Entities
AHC	Accountable Healthcare Communities
AMQ	Adult Medicaid Quality Grant
APCD	All Payer Claims Database (HealthFacts RI)
APM	Alternative Payment Model
BCBSRI	Blue Cross & Blue Shield of Rhode Island
BH	Behavioral health
BHDDH	Department of Behavioral Health, Developmental Disabilities, and Hospitals
BMI	Body Mass Index
BRFSS	Behavioral Risk Factor Surveillance System
CABHI	Collaborative Agreement to Benefit Homeless Individuals
CAHPS	Consumer Assessment of Hospital and Provider Services
CAPTA	Child Abuse and Prevention Treatment Act
CAUTI	Catheter Associated Urinary Tract Infection
CCBHC	Certified Community Behavioral Health Clinic
CCD	Continuity of Care Documents
CDC	Centers for Disease Control and Prevention
CDOE	Certified Diabetes Outpatient Educators
CEDARR	Comprehensive Evaluation, Diagnosis, Assessment, Referral, and Reevaluation
CEHRT	Certified Electronic Health Record Technology
CEU	Continuing Education Unit
CHAG	Community Health Assessment Group
CHH	CEDARR Health Home
CHIP	Children’s Health Insurance Program
CHDA	Center for Health Data and Analysis
CHN	Community Health Network
CHNA	Community Health Needs Assessment
CHT	Community Health Team
CHW	Community Health Worker
CLABSI	Central Line Associated Blood Stream Infection
CMHC	Community Mental Health Center

Acronym	Meaning
CMHO	Community Mental Health Organization
CMMI	Centers for Medicare and Medicaid Innovation
CMS	Centers for Medicare and Medicaid Services
COD	Co-Occurring Disorder
COE	Centers of Excellence
CON	Certificate of Need
COPD	Chronic Obstructive Pulmonary Disease
CPC+	Comprehensive Primary Care Plus
CS4RI	Computer Science for Rhode Island
CSC	Coordinated Special Care
CTC	Care Transformation Collaborative
CTTS	Certified Tobacco Treatment Specialist
CVDOE	Cardiovascular Disease Outpatient Educator
DCYF	Department of Children, Youth, and Families
DEA	Division of Elderly Affairs
DEA Number	Drug Enforcement Administration Number
DEI	Disability Employment Initiative
DHS	Department of Human Services
DLT	Department of Labor and Training
DOA	Department of Administration
DOC	Department of Corrections
DOE	Department of Education
DRRB	Data Release Review Board
DSHP	Designated State Health Program
DUA	Data Use Agreement
EBP	Evidence Based Practice
eCQM	Electronic Clinical Quality Measures
ED	Emergency Department
EHR	Electronic Health Record
EOHHS	Executive Office of Health and Human Services
EPSTD	Early and Periodic Screening, Diagnosis, and Treatment
ERISA	Employee Retirement Income Security Act
ETL	Extract, Transform, Load
FAD	Financial Alignment Demonstration
FFS	Fee for Service
FTE	Full Time Equivalency
FQHC	Federally Qualified Health Center
GDP	Gross Domestic Product
GPRA	Government Performance and Results Act
HARI	Hospital Association of Rhode Island
HARP	Home Asthma Response Program
HbA1c	Hemoglobin A1c

Acronym	Meaning
HCPAAC	Health Care Planning and Accountability Advisory Council
HEDIS	Healthcare Effectiveness Data and Information Set
HEZ	Health Equity Zone
HH	Health Home
HIE	Health Information Exchange
HIT	Health Information Technology
HOPWA	Housing Opportunities for Persons with AIDS Program
HPD	Healthcare Provider Directory
HPSA	Health Professional Shortage Area
HPV	Human Papillomavirus
HRiA	Health Resources in Action
HSRI	HealthSource RI
HSTP	Health System Transformation Program
HUD	U.S. Department of Housing and Urban Development
HWT	Healthcare Workforce Transformation
IAPD	Implementation Advanced Planning Document
IBH	Integrated Behavioral Health
ICI	Integrated Care Initiative
IDD	Intellectual and Developmental Disabilities
IHD	Ischemic Heart Disease
IHH	Integrated Health Home
IP	Inpatient
IPHP	Integrated Population Health Plan
IPS	Individual Placement and Support
ISW	Interagency Staff Workgroup
JFF	Jobs for the Future
LAN	Learning and Action Network
LE	Life Expectancy
LMI	Labor Market Information
LTPAC	Long-Term and Post-Acute Care
LTSS	Long-Term Services and Supports
MACRA	Medicare Access and CHIP Reauthorization Act
MAPCP	Multi-Payer Advanced Primary Care Practice
MAT	Medication Assisted Treatment
MITA	Medical Information Technology Architecture
MCO	Managed Care Organizations
MFP	Money Follows the Person
MHPSA	Mental Health Professional Shortage Area
MMCO	Medicaid Managed Care Organization
MOLST	Medical Orders for Life Sustaining Treatment
MOU	Memorandum of Understanding
MMIS	Medicaid Management Information Systems

Acronym	Meaning
MRSA	Methicillin-Resistant Staphylococcus Aureus
NCQA	National Committee for Quality Assurance
NEAIC	New England Asthma Innovation Collaborative
NHPRI	Neighborhood Health Plan Rhode Island
NHSC	National Health Service Corp
NICU	Neonatal Intensive Care Unit
NPI	National Provider Identifier
NPPEs	National Plan and Provider Enumeration System
NQF	National Quality Forum
OHIC	Office of the Health Insurance Commissioner
ONC	Office of the National Coordinator
OPI	Office of Program Integrity
ORR	Office of Regulatory Reform
PATH	Project Assistance in Transition from Homelessness
PCMH	Patient Centered Medical Home
PCP	Primary Care Provider
PDAC	Provider Directory Advisory Committee
PDMP	Prescription Drug Monitoring Program
PDSA	Plan Do Study Act
PMPM	Per Member Per Month
PQRS	Physician Quality Reporting System
ProvPlan	Providence Plan
PSH	Permanent Supportive Housing
PY	Program Year
QHP	Qualified Health Plan
QIO	Quality Improvement Organization
QIP	Quality Improvement Program
QPP	Quality Payment Program
RFP	Request for Proposal
RHIO	Regional Health Information Exchange Organization
RIC	Rhode Island College
RICCC	Rhode Island Chronic Care Collaborative
RIDE	Rhode Island Department of Education
RIDOH	Rhode Island Department of Health
RIHTP	Rhode Island Health Transformation Program
RIMS	Rhode Island Medical Society
RIPCPC	Rhode Island Primary Care Physicians Corporation
RIQI	Rhode Island Quality Institute
ROI	Return on Investment
RTI	Response to Intervention
SAMHSA	Substance Abuse and Mental Health Services Administration
SBIRT	Screening, Brief Intervention, and Referral to Treatment

Acronym	Meaning
SDOH	Social Determinants of Health
SE	Supported Employment
SED	Serious Emotional Disturbance
SHIP	State Health Innovation Plan
SIM	State Innovation Model Test Grant
SMHP	State Medicaid Health IT Plan
SMI	Severely Mentally Ill
SNAP	Supplemental Nutrition Assistance Program
SNF	Skilled Nursing Facility
SNFRM	Skilled Nursing Facility Readmission
SPA	State Plan Amendment
SPF-PFS	Strategic Prevention Framework – Partnership for Success
SPMI	Severely and Persistently Mentally Ill or Serious and Persistent Mental Illness
SSI	Surgical Site Infection or Supplemental Security Income
SSI/SDI	Supplemental Security Income/ Supplemental Disability Income
SUD	Substance Use Disorder
TA	Technical Assistance
TAC	Technical Assistance Collaborative
TANF	Temporary Assistance for Needy Families
TCPI	Transforming Clinical Practice Initiative
UHIP	Unified Health Infrastructure Project
UMASS	University of Massachusetts Medical School
UMID	Unified Multi-Purpose ID
UNAIDS	United Nations Program on HIV/AIDS
URI	University of Rhode Island
VBP	Value-Based Payment or Value-Based Purchasing
WIA	Workforce Investment Act
WIC	Women Infants Children
YRBSS	Youth Risk Behavior Surveillance System

For additional information, please contact:

Marti Rosenberg, Project Director
Rhode Island State Innovation Model (SIM) Test Grant
c/o Office of the Health Insurance Commissioner
1150 Pontiac Avenue, Building 69-1
Cranston, RI 02920
marti.rosenberg@ohic.ri.gov | (401) 462-9659