



# Connecticut State Innovation Model Progress Report

April 2019

**Draft for Discussion**



## Table of Contents

<b>A. Introduction .....</b>	<b>3</b>
<b>B. Implementation.....</b>	<b>7</b>
<b>Care Delivery Reform .....</b>	<b>7</b>
Advanced Medical Home .....	8
Community & Clinical Integration Program .....	9
Community Health Worker Initiative.....	11
Prevention Service Initiative .....	13
<b>Value Based Payment Reform.....</b>	<b>14</b>
Person Centered Medical Home Plus (PCMH+).....	14
Quality Measure Alignment .....	17
Consumer Assessment of Healthcare Providers and Systems (CAHPS).....	19
<b>Consumer Engagement.....</b>	<b>20</b>
Value Based Insurance Design (VBID) .....	20
Public Scorecard .....	22
<b>C. Statewide Impact .....</b>	<b>24</b>
Patient Experience.....	25
Provider Experience.....	27
Health Outcomes.....	28
<b>D. Model Specific Impact.....</b>	<b>35</b>
<b>E. Planning for the Future .....</b>	<b>35</b>
Health Enhancement Communities.....	36
Primary Care Modernization .....	38
<b>F. Conclusion and Outlook.....</b>	<b>40</b>

# A. Introduction

The State Innovation Model (SIM) is a \$45 million award to the State of Connecticut from the Centers for Medicare and Medicaid Innovation (CMMI). Originally awarded as a 4-year test grant beginning in February 2015, a series of no-cost extensions have resulted in a final test grant period of 5 years, slated to end in January 2020. As the grant enters its final award year, we are sharing this interim report so that members of the SIM governing bodies, the program management team, recipients of SIM funding, and other stakeholders may consider the achievements, challenges, and efforts still needed to meet the goals and expectations of the award. The Connecticut Office of Health Strategy (OHS), within which SIM now operates, is committed to leveraging and building upon the time, funding and expertise that has been contributed to the SIM efforts in order to continue improving healthcare in Connecticut for the remainder of the test grant and beyond.

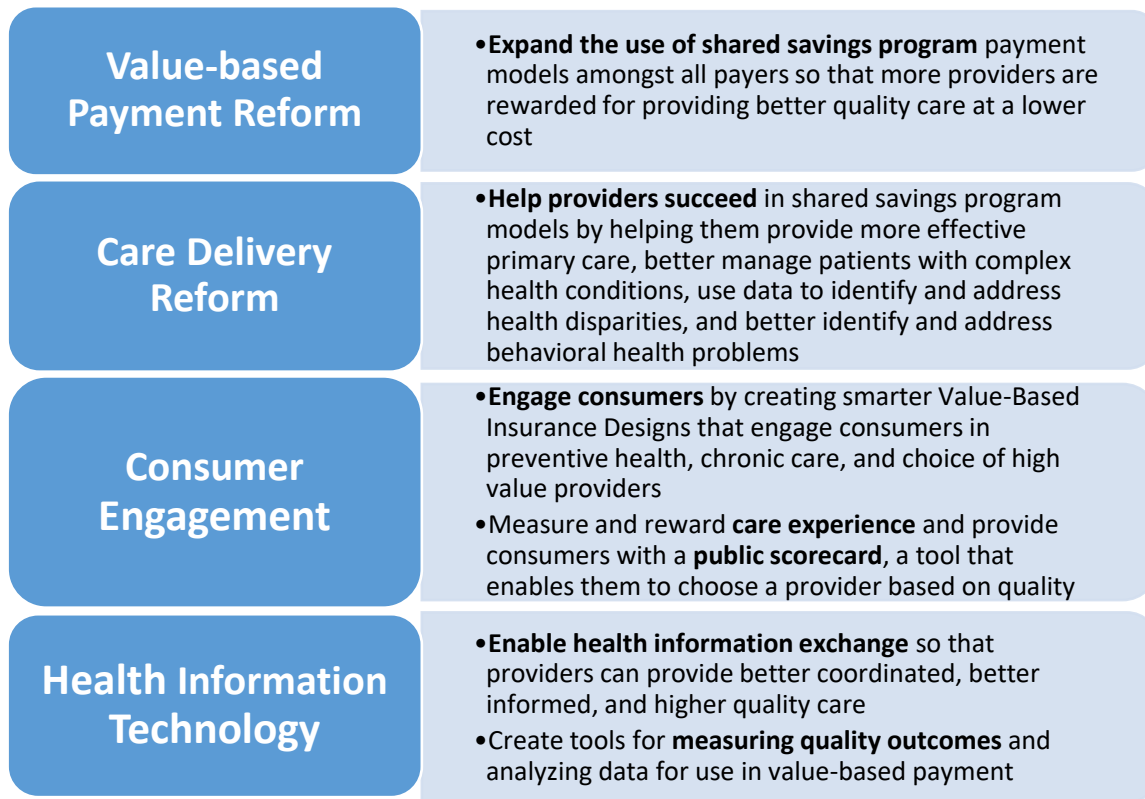
## Report Overview

This Progress Report summarizes the SIM achievements to date, challenges encountered during implementation, lessons learned, and recommendations to enable achievement of the SIM goals. The Report is broken down into three main sections:

- a. **Implementation:** The Implementation section describes the status of each SIM work stream, or initiative, including relevant accountability metrics. Accountability metrics are process measures that have been tracked by program staff since early in the test grant. These metrics are used to track progress toward achievement of the SIM goals, but do not reflect health or healthcare outcomes, which are described in the Statewide Impact section.
- b. **Statewide Impact:** The Statewide Impact section will describe progress on key measures of population health, healthcare quality, consumer experience and cost. These measures examine our performance with respect to all Connecticut residents with commercial, Medicare or Medicaid coverage. The statewide evaluation of performance is a fundamental component of the SIM initiative; measures have been tracked over time by the UConn Evaluation team. This report introduces our overall statewide impact monitoring strategy and presents selected findings.
- c. **Model Specific Impact:** The Model Specific Impact section will compare the performance of provider organizations that are participating in SIM payment and care delivery reforms with providers that are not participating, and with statewide performance in aggregate. The goal of this section is to determine the impact of SIM initiatives on overall statewide progress. This section will be completed at a later date, pending additional data collection and analysis.

## State Innovation Model: Multiple Aligned Initiatives

One of the challenges of SIM has been to align a set of initiatives to advance our overall goals of healthier people and communities, better healthcare outcomes, reduced health disparities, and a reduction in the trend of Connecticut's healthcare spending. The set of initiatives that we proposed in our test grant reforms focused on four streams of work summarized in **Figure 1: Value-Based Payment, Care Delivery, Consumer Engagement, and Health Information Technology**.

**Figure 1: State Innovation Model Work Streams**

The above work streams and the initiatives that comprise them are interdependent. Together they create an **environment that incentivizes** better care and smarter spending and **help providers succeed** in doing so. The providers that are the focus of the SIM initiatives include Advanced Networks and Federally Qualified Health Centers (FQHCs). Advanced Networks (ANs) are defined as networks of primary care providers that have organized to participate in shared savings arrangements. Each of the initiatives is reviewed below.

### Value Based Payment

- a. **PCMH+:** SIM funded the design and implementation of the PCMH+ shared savings program in Medicaid. This program adds Medicaid to the list of payers that offer shared savings arrangements to promote better care and smarter spending. PCMH+, like other shared savings programs, rewards providers for achieving better quality and care experience, and reducing avoidable use of hospital and ED services. PCMH+ complements SIM's broader all-payer strategy to promote the use of value-based payment. Providers that are in value-based contracts with multiple payers have a stronger incentive to systematically improve quality and outcomes.
- a. **Quality Measure Alignment:** Each payer that administers a shared savings program uses a quality scorecard to determine whether providers are improving quality. Providers struggle to track and monitor their performance on these measures because there is so much variability among payers as to which measures they include on their scorecards. SIM established a Quality

Council to propose and maintain a recommended Core Quality Measure Set for use in shared savings arrangements. OHS encourages payers to align with this measure set.

- b. **Consumer Assessment of Healthcare Providers and Systems (CAHPS):** Since 2017, we have conducted an annual measure of consumer experience using the Consumer Assessment of Healthcare Payers and Systems (CAHPS). The primary purpose of the CAHPS survey is to provide commercial payers and Medicaid with data that they can use in their shared savings arrangements to reward ANs and FQHCs that improve care experience. The annual survey will also provide data for use in the public scorecard.

### Care Delivery

- b. **Advanced Medical Home (AMH):** The Advanced Medical Home (AMH) program enables primary care practices to achieve Patient Centered Medical Home (PCMH) recognition, improving patient care, and enabling those practices to receive higher Medicaid reimbursement rates. *AMH directly supports eligibility for PCMH+.* AN practices and FQHCs that are PCMH recognized are eligible to participate in Person Centered Medical Home Plus (PCMH+).
- c. **Community and Clinical Integration Program (CCIP):** The Community and Clinical Integration Program builds on AMH by improving care delivery models across ANs participating in PCMH+. Specifically, CCIP focuses on improving complex care management, behavioral health integration, and healthy equity. The promotion of Community Health Workers (CHWs), another SIM initiative, complements AMH and is a critical component of both PCMH+ and CCIP. CHWs improve care by supporting patients with complex needs and addressing social determinant risks.
- d. **Prevention Service Initiative (PSI):** The Prevention Service Initiative (PSI) helps extend the primary care team outside the walls of the AN or FQHC. PSI establishes formal connections between ANs or FQHCs that are participating in PCMH+ and community-based organizations that provide CHW-led interventions to improve outcomes.

### Consumer Engagement

- e. **Value Based Insurance Design (VBID):** The above initiatives all aim to improve the way patient care is delivered, by providing payment incentives and direct support for advancing care. In contrast, the Value Based Insurance Design (VBID) initiative promotes the employer adoption of health insurance plans that incentivize consumers to get the right care, at the right time, from the right provider. Such plans adjust cost sharing to positively influence consumer behavior in order to drive better health outcomes and lower costs. VBID plans *align the interests* of consumers and the ANs and FQHCs that provide their primary care.
- f. **Public Scorecard:** To improve transparency, the SIM is preparing to launch **HealthQualityCT**, a Public Scorecard that was developed to allow consumers to view the quality of care provided by ANs and FQHCs. HealthQualityCT is among the first public reporting initiatives that makes use of Connecticut's **All Payer Claims Database**.

### Health Information Technology

- a. **Information Exchange Services:** To support all care delivery and payment reform efforts, the state's Health Information Exchange (HIE) has been under development, supported by

substantial SIM funding. The HIE will offer tools and services to increase secure and authorized information exchange between disparate healthcare systems. Exchange of data across systems continues to be a challenge for ANs and FQHCs who struggle to share updates on patients for whom they are accountable. Through data exchange, the HIE will improve patient-centered care and outcomes, and reduce costs.

- b. ***Using Data to Drive Improvement:*** In order to drive improvement in healthcare outcomes, the Central Data Analytic Solution (CDAS) will enable advanced analytics and quality and utilization measures production. The CDAS will increase the use of electronic Clinical Quality Measures (eCQMs) among ANs and FQHCs. The use of eCQMs improves the quality of the data, reduces the reporting burden, and ultimately improves healthcare outcomes and quality, while also demonstrating success for value-based payment arrangements. The CDAS was launched during Award Year 3, and will continue to increase its data capture and analytic capabilities over time.

Across all of the SIM initiatives, we have aimed to prioritize consumer experience, transparency, and engagement. Much of this work has been led by the Consumer Advisory Board (CAB). It has included activities such as listening sessions, community forums, a video project, and the inclusion of consumers on all of SIM's many advisory bodies, including the Healthcare Innovation Steering Committee (HISC).

### **Looking Ahead**

The initiatives that have been launched under SIM represent the building blocks of an improved healthcare delivery and payment system. In the course of the past two years, we have gained important insights about the power of our SIM reform initiatives to drive improvement. However, we have also come to appreciate the limitations of these initiatives and the need to formulate a new generation of reforms to build on the SIM foundation.

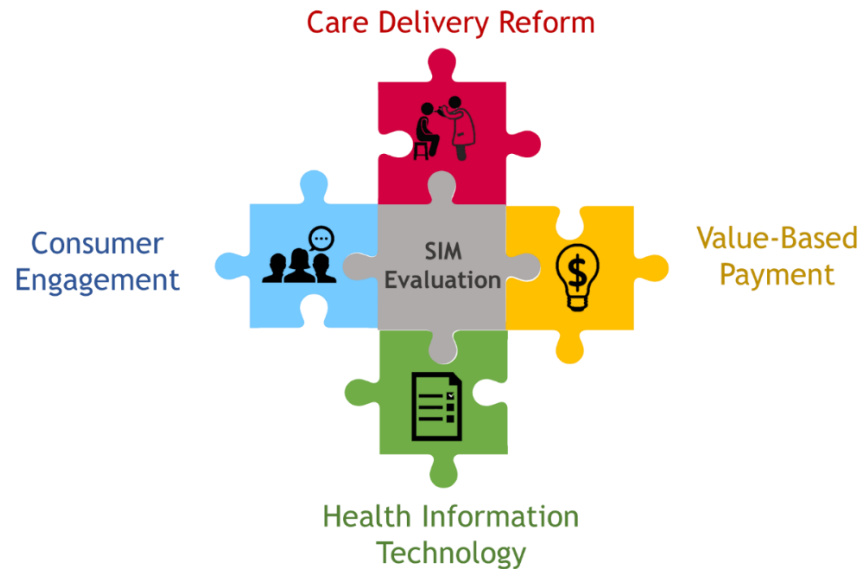
As part of that process, we have undertaken extensive design activities in support of two complementary reforms that focus on primary care and preventive health. Health Enhancement Communities (HECs) would establish sustainable, multi-sector collaboratives in every geographic area in Connecticut. HECs would implement community health, health equity, and prevention strategies in their communities and reduce costs and cost trends for critical health priorities. A companion initiative, Primary Care Modernization (PCM), would double the investment in primary care and increase the flexibility of funding through bundled payments. Together, these initiatives would build on the SIM initiatives by continuing to improve primary care delivery, advancing on the current value-based payment model landscape in Connecticut, and supporting true community-based prevention efforts by redistributing health-sector savings to effective community solutions. These initiatives are still under development while additional consumer engagement activities and other necessary work is completed.

The Report ends with high-level conclusions and recommended next steps to ensure the successful completion of the SIM initiatives, as well as the sustainability of some of the key initiatives following the test grant. It is the hope of the program management team that this Report will serve as a tool for the SIM governing bodies and key stakeholders to determine the needed strategy, resources, and direction to support healthcare innovation upon the conclusion of the SIM test grant.

## B. Implementation

In this report, our implementation evaluation examines progress on three of the SIM work streams, Care Delivery Reform, Value Based Payment Reform, and Consumer Engagement (see **Figure 2**). For information about the status of our work on Health Information Technology, please see the [2019 Annual Report: Health Information Exchange](#).

**Figure 2. SIM Work Streams**



### Care Delivery Reform

The goals of the SIM Care Delivery Reform initiatives are to:

- Collectively strengthen the capabilities of Advanced Networks and FQHCs to deliver higher quality, better coordinated, community integrated, and more efficient care while reducing health disparities;
- Promote policy, systems, & environmental changes, while addressing socioeconomic factors that impact health.

**Care Delivery Reform initiatives include:**



- Advanced Medical Home Program (AMH)
- Community & Clinical Integration Program (CCIP)
- Community Health Worker initiative (CHW)
- Prevention Service Initiative (PSI)

## Advanced Medical Home

**Goal:** Enable primary care practices to become Patient Centered Medical Homes (PCMH) and Advanced Medical Homes (AMH).

**How it works:** Guided technical assistance program including webinars and on-site support to achieve NCQA PCMH and AMH status. AMH recognition expands on traditional PCMH by requiring additional elements that focus on health equity improvement and behavioral health integration.

**How it helps:** PCMH recognition by the National Committee for Quality Assurance (NCQA) is a pre-requisite for participation in the Person Centered Medical Home Plus program (PCMH+) which offers shared savings incentives to Advanced Networks (ANs) and FQHCs that are able to demonstrate improved quality and reduced costs to Medicaid beneficiaries. Because designation as a PCMH or AMH practice requires an increased focus on health equity and behavioral health, AMH offers primary care practices additional tools to achieve success in PCMH+ and similar accountable payment arrangements. Recognition also enables success in Medicare and commercial shared savings arrangements.

### Metrics:

Accountability Metric	Total Target	AY3 Progress	Anticipated AY4
Number of new practices that enroll in the AMH program	300	151	151
Number of practices obtaining NCQA PCMH Recognition	300	125	151
Number of practices that complete AMH program	300	25	25

### Achievements:

1. **AMH/PCMH Recognition:** Through AY3, 151 practices have participated in the AMH program. Although 125 have successfully achieved NCQA PCMH recognition, only 38 practices met the AMH program requirements.
2. **PCMH+ Participation:** Participation in the AMH program enabled 123 practices (472 PCPs) to obtain PCMH recognition, thereby allowing four large advanced networks to participate in PCMH+ serving nearly 45,000 attributed lives.

### Challenges:

1. **Recruitment:** The initial interest in the AMH program was high. Enrollment diminished over time, despite extensive efforts to recruit additional practices including a large enrollment event in December 2017. Recruitment was discontinued in AY3.
2. **AMH components:** PCMH recognition was achieved by the majority of participating practices; however, completion of the AMH components was more challenging. Practices struggled the most with two components: standardized depression screening and performance stratified for vulnerable populations to identify disparities. Race and

### Lessons Learned

Connecticut physicians no longer view NCQA PCMH recognition as an essential means to achieving primary care transformation. Commercial payers seem to agree, as most have migrated away from paying incentives for the credential and instead rely on value-based payment incentives.



ethnic performance stratification would have required dedicated network resources and this was not viewed as a priority by practices. In addition, it was not possible to impose financial penalties for failing to meet the special AMH standards because participating practices did not receive SIM funding and AMH recognition was not a requirement for participation in PCMH+. We anticipate that the Primary Care Modernization initiative (see Section E) will include the same or similar requirements, which will be a condition for receiving supplemental payments.

**Lessons Learned ctd.**

Free TA was not enough of an incentive to drive achievement of the most challenging AMH capabilities. Practices might have been willing to overcome these challenges if we had provided more persuasive evidence for why these capabilities are essential. Financial incentives or penalties tied to achievement would also have likely improved our results.

**Outlook:** It is anticipated that by the conclusion of AY4, all 151 practices will achieve PCMH recognition, while a subset will achieve AMH recognition. OHS suspended additional enrollment in the AMH initiative in early 2018 and reallocated funding and staff resources to support other initiatives.

**Community & Clinical Integration Program**

**Goal:** Enable the achievement of best-practice standards in comprehensive care management, health equity, and behavioral health integration for Advanced Networks and FQHCs participating in PCMH+.

**How it works:** Technical assistance and transformation awards ranging from \$750,000-\$900,000 for Advanced Networks and FQHCs participating in PCMH+. Builds on the PCMH and AMH initiatives by supporting network-level improvements in primary care delivery.

**How it helps:** The AMH and PCMH initiatives help primary care practices develop core capabilities enabling the provision of high-quality, patient-centered care. CCIP builds on these capabilities by providing support to large networks of providers (i.e., Advanced Networks and FQHCs) to establish enterprise wide infrastructure necessary to be successful in shared savings arrangements. Achieving success in comprehensive care management, behavioral health integration, and health equity improvement allows networks to achieve success in Medicare, commercial and Medicaid shared savings arrangements.

**Metrics:**

Accountability Metric	Total Target	AY3 Measure	Anticipated AY4*
Number of Advanced Networks participating in CCIP	12	5	5
Number of FQHCs participating in CCIP	1	1	1 (8)
Number of participating providers in CCIP	1,364	818	818
Number of Transformation Awards awarded	13	6	6
Number of ANs/FQHCs that have met core standards	13	0	6 (8)

\*Parenthetical numbers include FQHCs that are participating in the CMMI funded Transforming Clinical Practices Initiative; they are only required to meet the CCIP Health Equity Improvement Standard

### Achievements:

1. **CHW Utilization:** Across all six CCIP participating entities, 19 CHWs have been hired utilizing SIM funding. Networks are utilizing CHWs in different capacities, but all have engaged CHWs as part of the care team to address social-determinant of health needs.
2. **Expanded Utilization of PatientPing:** Five CCIP networks are now utilizing PatientPing, a platform that notifies providers of individual patient hospital admissions, discharges and ED visits. PatientPing provides admission, discharge and transfer (ADT) alerts to the care team which enables them to reach out to patients who need additional support, preventing avoidable admissions and additional costs. This is especially critical for patients with complex health needs, the population for whom this technology has been the primary target.
3. **Expanded Behavioral Health Integration:** Four CCIP networks utilized SIM funding to hire behavioral health specialists that support the comprehensive care team. All participants have reported increased screening rates for depression and substance abuse.
4. **Granular Race and Ethnicity Data Collection:** In order to identify gaps in outcomes for subpopulations, CCIP requires the collection of granular race and ethnicity data. Three ANs/FQHCs have begun collecting this data and eleven ANs/FQHCs are actively preparing for collection through EHR adjustments, staff training, and piloting collection in a subset of practices. All of the ANs/FQHCs are implementing a consensus set of granular race/ethnic categories that were developed with the consultative support of Health Equity Solutions.
5. **Sexual Orientation and Gender Identity (SOGI) Data Collection:** All Participating Entities (PEs) have implemented infrastructure and workflows in order to collect SOGI. Four out of the 6PEs have begun to document SOGI in their EHRs.

### Challenges:

1. **Identifying Appropriate Technical Assistance:** In addition to funding, CCIP was designed to provide technical assistance and subject matter expertise to participating networks. Identifying appropriate expertise proved challenging. The participating organizations are already experienced in managing care delivery transformation and they are large organizations with distinct delivery models, systems and change processes. This made the relatively standardized state-funded TA less efficient and less useful. In addition, it was difficult to find providers of TA with a high level of expertise in social determinants assessment, CHW deployment, race/ethnic data collection and health equity analytics. OHS changed its strategy during the program, providing an increased level of funding to the CCIP networks to make investments that would better enable them to purchase needed TA support and undertake self-directed changes.
2. **Barriers to EHR configuration:** A wide variety of problems emerged with respect to capabilities that require changes to the EHR. Such barriers were often unique to each organization, varying based on the number and type of EHR(s) and associated software, and the nature and scale of the EHR deployment.
3. **CCIP Participation:** CCIP was limited to organizations participating in PCMH+. As a result CCIP participation was impacted by lower than projected participation in PCMH+ among ANs and the fact that several FQHCs failed to qualify. In addition, due to the CMMI-funded Transforming Clinical Practices (TCPI) initiative, the number of FQHCs eligible to participate in the full CCIP was lower than originally projected. This prevented eight additional entities from receiving SIM-funded TA awards.

#### 4. Long-term sustainability for CCIP investments:

Without advance funding from payers, most CCIP networks have identified their ongoing ability to sustain investments in new care team members as a significant challenge. Current shared savings arrangements require that providers achieve at least a 2:1 return on investment with respect to supporting the ongoing cost of any new capabilities.

**Outlook:** It is anticipated that by the conclusion of AY4, most of the CCIP networks will have achieved the three Core CCIP Standards, two networks will have achieved the elective eConsult standard, one network will have achieved the elective comprehensive medication management standard, and one network will have achieved the elective oral health integration standard. It is also anticipated that eight FQHCs will have achieved the CCIP Health Equity Improvement standard. In many cases, the achievement may not be network wide. Will the ANs/FQHCs maintain compliance with the standards when CCIP funding ends? That depends in part on whether ongoing compliance is a condition of participation in PCMH+ and whether adherence to a given standard produces value in excess of the resources required to maintain it.

#### Lessons Learned

Underlying payment structures continue to slow primary care innovation. **New payment models need to provide increased flexibility and more up-front funding** for primary care in order for networks to be successful in accountable payment arrangements.

**Information exchange and inter-operability barriers** reduce the ability of networks to track and close the loop on social service and out-of-network behavioral health referrals.

The **collection of granular race and ethnicity data** may enable the identification of gaps in care for subpopulations. However, this type of data collection may also lead to concerns from subpopulations about the intended data use, potentially discouraging access for already vulnerable populations. **Additional research needs to be done to assess the impact of this type of collection**, and whether disparities are better addressed by focusing on high-functioning CHW programs.

### Community Health Worker Initiative

**Goal:** Promote the use of CHWs through technical assistance, resource development, and policy recommendations.

**How it works:** CHW Advisory Committee establishes recommendations for policy solutions to promote CHWs; SIM CHW team develops resources to promote CHWs; CCIP, PCMH+, and PSI provide funding and technical assistance to utilize CHWs as part of the primary care team.

**How it helps:** Integrating CHWs directly into primary care teams or utilizing CHW programs as extensions of the care team enable improved patient outcomes by addressing social determinant of health needs, providing patient navigation to clinical and community resources, and providing chronic-illness self-management and education. Promoting this workforce further enables provider networks to succeed in accountable payment arrangements while providing better care that addresses health inequities.

**Metrics:**

<b>Accountability Metric</b>	<b>Total Target</b>	<b>AY3 Measure</b>	<b>Anticipated AY4</b>
Number of CHW website visits	300	796	1,000
Number of ANs and FQHCs that have CHWs integrated into care teams (CCIP/PCMH+ funded)	16	14	14
Number of CHWs hired through CCIP/PCMH+	-	34	34

**Achievements:**

1. **2017 Legislation & Resulting 2018 CHW Advisory Committee Recommendations:** State statutes were enacted in 2017 and 2018 (Public Act 17-74 and Public Act 18-91, Section 63) that established a definition of CHWs and required the SIM CHW Advisory Committee to develop recommendations for a CHW Certification Program in Connecticut. In 2018, the Committee released its Legislative Report including 18 recommendations for the establishment of CHW certification under the Department of Public Health. If established in the 2019 legislative session, certification will increase the likelihood of sustainable payment options for CHWs, standardize competency-based training, and support career opportunities and advancement for CHWs.
2. **CHW Website Established:** The Connecticut CHW website was established to support CHWs in identifying training and employment opportunities, to highlight CHW achievements, and to centralize CHW resources, including certification resources once established.
3. **Utilization of CHWs in primary care:** Through CCIP and PCMH+, 34 CHWs have been hired and integrated into primary care teams. This represents 14 Advanced Networks and FQHCs.

**Challenges:**

1. **Sustainable Funding for CHWs:** Despite the increased awareness and acknowledgement for the effectiveness of CHW initiatives, few options exist for sustainably funding this critical workforce. Time-limited grants like the CCIP transformation awards continue to dominate as the primary funding source.
2. **Measuring Return on Investment:** Though CHWs have been successfully integrated into primary care teams, measuring their impact on cost has been challenging due to competing primary care innovations, lack of accessible data, and a lack of financial models to measure this type of investment.

**Lessons Learned**

**Evidence-based models** for CHW programs that include onboarding, training, and strategies for identifying metrics to calculate ROI expedite CHW integration, help ensure program success, and support the financial analyses needed to sustain the programs.

Funding for CHWs ultimately needs to be **incorporated into the underlying payment model**.

A **strong CHW Association** has been the driving force in most states for establishing CHW certification, standardizing training, and driving CHW utilization.

**Outlook:** It is anticipated that certification will be established during the 2019 legislative session, leading to more opportunities to pursue sustainable funding options in the future. Although we anticipate that some ANs and FQHCs will retain a small number of CHWs after SIM funding ends, we believe that additional payment reforms, such as those envisioned in Primary Care Modernization, will be necessary to enable widespread adoption of CHWs as part of the primary care workforce.

### Prevention Service Initiative

**Goal:** Establish formal partnerships between ANs/FQHCs and community-based organizations (CBOs) for the provision of chronic-disease self-management services.

**How it works:** Technical assistance and funding is provided to ANs/FQHCs and CBOs to establish formal partnerships for diabetes self-management and asthma services, enabling the flow of funds from ANs/FQHCs to CBOs.

**How it helps:** Programs for chronic-disease self-management and education are already established and successful within many CBOs. As more ANs/FQHCs are being held accountable for patient outcomes, they have the opportunity to partner with CBOs that have existing programs and relationships with patients who may not be getting good outcomes. This relationship is mutually beneficial as it increases the likely success of ANs/FQHCs in improving quality and reducing cost and it provides a source of funding to CBOs to grow these services. PSI helps by educating both ANs/FQHCs and CBOs on the most effective strategies for establishing these relationships.

#### Metrics:

Accountability Metric	Total Target	AY3 Measure	Anticipated AY4
Number of CBOs receiving technical assistance	10	6	5
Number of Advanced Networks receiving technical assistance	10	6	5
Number of Formal Linkages established between CBOs and ANs	10	0	6*

\*One FQHC is entering into contracts with two CBOs.

#### Achievements:

**Launched PSI and established initial partnerships:** With the input from the Population Health Council, PSI was developed and launched in 2018 including seven ANs/FQHCs and seven CBOs. During the initial phase, technical assistance was provided to educate all participants on the goals and strategies, as well as to establish initial partnerships between ANs/FQHCs and CBOs. Five ANs/FQHCs and five CBOs elected to continue with the program, representing a total of six possible partnerships.

#### Challenges:

**Program Design:** The PSI initiative is a new program model with few precedents nationally. The program took substantially longer than anticipated. The initial design recommendation was ultimately rejected because it introduced excessive new, unfunded administrative costs. A streamlined model was subsequently developed and approved for implementation.

#### Lesson Learned

Although PSI has not been fully implemented, participating ANs/FQHCs are already highly focused on demonstrating a positive return-on-investment for establishing partnerships with CBOs. **Identifying strong models for ROI calculation** will continue to be a primary focus of the technical assistance for the program.

**Negotiating contracts between the state and participants:** Due to the unique and complex nature of the contracts, negotiation between the state and the HCOs and CBOs for the second phase of PSI was a slow process. This delayed the overall timeline of the initiative.

**Outlook:** It is anticipated that the PSI participants will successfully establish six formal partnerships for the provision of diabetes self-management and asthma services in AY4.

## Value Based Payment Reform

The goal of the SIM Value Based Payment Reform Initiatives is to promote payment models that reward improved quality and health outcomes, care experience, health equity and lower cost. As care delivery reforms are designed and implemented, payment models must be designed that support new or different infrastructure and costs.



### Value Based Payment Reform Initiatives include:

- Person Centered Medical Home Plus (PCMH+)
- Quality Measure Alignment
- All Payer Participation

### Person Centered Medical Home Plus (PCMH+)

**Goal:** Increase provider and beneficiary participation in shared savings arrangements that use financial incentives to reward improved quality of care and reduced total cost of care.

**How it works:** Advanced Networks and FQHCs that are PCMH recognized and have experience and trust basis with Medicaid members, are competitively selected to serve attributed members through enhanced care coordination activities focused on behavioral health integration, under an upside-only shared savings opportunity.

**How it helps:** PCMH+ adds Medicaid to the mix of payers that offer shared savings arrangements. These arrangements enable ANs/FQHCs to transform their practices for the benefit of all patients. ANs/FQHCs are able to share in cost savings generated by better quality care and health outcomes. These savings can then be invested in care delivery improvements like expanded access and additional care team members. Commercial payers and Medicare have already utilized shared savings models. PCMH+ increases the number of providers and beneficiaries that participate in and benefit from these arrangements.



**Metrics:****PCMH+ Overview:**

DSS, Connecticut's single state Medicaid agency, has used SIM funding and state resources to establish PCMH+. DSS' goal with PCMH+ is to build upon its existing, successful Person Centered Medical Home (PCMH) and Intensive Care Management (ICM) initiatives to further improve health and satisfaction outcomes for individuals currently being served by FQHCs and Advanced Networks (e.g. large practices with existing risk-based contracts), both of which have historically provided a significant amount of primary care to Medicaid members.

PCMH+ amplifies the important work of the Connecticut Medicaid PCMH initiative. PCMH practices have adopted practices and procedures designed to enable access to care; developed limited, embedded care coordination capacity; become attuned to use of data to inform responses to their panel members; and also have become attentive to working within a quality framework. Further, they have demonstrated year over year improvement on a range of quality measures and have received high scores on such elements as overall member satisfaction, access to care, and courtesy and respect. Notwithstanding, there remain a number of areas in the quality results that illustrate ongoing opportunities for improvement. These have informed both the care coordination approach and quality measure framework for PCMH+.

PCMH+ has enabled DSS to begin migration of its federated, Administrative Services Organization-based ICM interventions to more locally based care coordination. While the ASO ICM continues to wrap around PCMH+ efforts in support of individuals with highly specialized needs (e.g. transplant, transgender supports), PCMH+ underscores DSS' commitment to provide practice coaching and funding supports to local entities that have the experience and trust basis to effectively serve their communities.

PCMH+ has also been aligned with the SIM CCIP and the CMMI TCPI in which the Community Health Center Association of Connecticut is participating. This has represented an opportunity to informally braid resources toward a common result.

Finally, PCMH+ represents the first ever Connecticut Medicaid use of an upside-only shared savings approach. This has brought DSS along the curve of value-based payment approaches, which up until this year have focused exclusively on pay-for-performance.

DSS selected seven FQHCs and two Advanced Networks via a Request for Proposals as the inaugural cohort of PCMH+ Participating Entities for Wave I. The Wave I performance year launched January 1,

<b>Accountability Metric</b>	<b>Total Target</b>	<b>AY3 Measure</b>	<b>Anticipated AY4</b>
Percent of beneficiaries in PCMH+	63%	22%	22%
Number of Advanced Networks in PCMH+	12	4	4
Number of FQHCs in PCMH+	14	10	10
Number of PCPs in PCMH+	1,624	1,106	1,106
% Beneficiary of beneficiaries in any SSP	88%	34%	34%
Number of beneficiaries in a shared savings plan	3.17m	1.22m	1.22m
Number of PCP participation in any SSP	5,450	3100	3100

2017, focused upon support of 137,037 attributed Medicaid members. Only a small number of individuals (1%) opted out of participation in the time period between receipt of member notice and January 1, and ongoing, the opt-out rate averaged 0.01% for the entirety of Wave 1.

Over an 18-month period starting in 2016, DSS worked with CMS and CMMI to obtain approval of state plan amendment (SPA) authority for the PCMH+ program. Through use of a collaborative, advance advisory process, approval of the SPA was timely received. DSS also timely settled contracts with all nine PEs. All of these aspects directly mitigated risks (e.g. lack of uptake by providers in the procurement process, substantial opt-outs of members, lack of timely SPA approval, lack of timely contract settlement) that were identified in the early phases of model design.

In light of lengthy delays in enactment of Connecticut's biennial budget (July 1, 2017 – June 30, 2019), DSS extended the Wave 1 contracts by three months through March 31, 2018 to give assurances and continuity to the current participating ANs and FQHCs, which DSS refers to as Participating Entities (PEs). Once the budget was settled, DSS moved forward with procurement for a two-year Wave 2 for PCMH+. This resulted in rolling forward participation of all of the Wave 1 PEs (including seven FQHCs and two advanced networks), and selection of an additional two FQHCs and four advanced networks. Total member attribution for Wave 2 is 181,902 (132,155 individuals attributed to FQHCs and 49,747 individuals attributed to advanced networks).

The Department employs many means to evaluate PCMH+, including an array of reports and data points outlined below, as well as on-site compliance reviews with the PEs in conjunction with the Department's contractor, Mercer Consulting. Initial performance indicators for Wave 1 demonstrate that PCMH+ was implemented successfully, with many positive elements and also some challenges that are fairly typical of experiences in other new care coordination initiatives.

Key indicators include a **low member opt-out rate** (the overwhelming majority of which occurred concurrent with the release of the initial member letter), **low rate of member complaints**, and **successful PE implementation of care coordination activities and establishment of community partnerships**. Further, we are excited about PE's **use of the data** that is being provided to them via the CHN portal; **hiring of community health workers**; various, locally informed applications of **behavioral health integration**; **great collaboration among PEs** via the ongoing provider collaborative, related to clinical practice; and **members' positive reports of experience**. **Some quality measures improved, but others did not show substantial change**. This is consistent with experiences in other care coordination programs.

### Challenges:

Over the course of Waves 1 and 2 of PCMH+, both DSS and the PE's have gained learning and this has influenced both adaptations to the initial model design as well as opportunities to change practice. Challenges, and means of mitigating them, included:

- **Need for vigilance around protections for members:** The Department has since inception of PCMH+ been using a range of tools and strategies to monitor for any incidence of under-service, including, but not limited to, opt-out data and telephone interviews, review of detailed monthly programmatic reports from the PEs, grievance and appeal data, CAHPS data, and population studies.



- **Loss of attributed members due to eligibility churn:** An example of a model design feature that has required review and consideration by DSS is the initial rules and process around loss of Medicaid eligibility of attributed members. In light of substantial eligibility “churn”, DSS initially equipped the PEs with their attributed members’ eligibility redetermination dates, so that the PEs could help support timely responses. In anticipation of Wave 2, DSS reexamined its procedures, and amended both the SPA and the PE contracts to permit restoration of individuals who regain eligibility within 120 days to PCMH+ participation (and associated payments to the involved FQHC, as well as participation for purposes of shared savings).
- **Useability of data:** DSS also received inquiries from the PE that are ANs to release Medicaid claims data in raw form, to enable them to more easily import data into their own analytics platforms. The Department worked with its medical ASO, CHNCT, to enable this effective in April, 2019.
- **Provider operational capacity:** With respect to challenges faced by providers, while the PCMH+ PEs used best efforts around these areas, PEs found, among other observations, that 1) significant lead time was needed to engage and launch new staff and integration efforts within their work flows; and 2) careful attention was needed to help promote member participation in governance. As with other care delivery reform efforts, these aspects will require continuing attention and development.

**Outlook:** Funding to support a Wave 3 of PMCH+ has been included in the Governor’s proposed budget for the upcoming biennium. If this is ultimately appropriated by the General Assembly, DSS anticipates issuing a procurement in early summer, 2019, for that new performance period.

## Quality Measure Alignment

**Goal:** Recommend a statewide multi-payer core quality measure set for use in value-based payment models to promote quality measure alignment.

**How it works:** The SIM Quality Council established an initial recommended Core Quality Measure Set and annually reviews the measures. Healthcare payers have been encouraged to adopt the measure set, which includes a consumer satisfaction measure.

**How it helps:** As SIM promotes the expansion of value-based payment to support improved care delivery, providers and provider networks can rely on a common set of measures of quality care and meet the standards required by the payment models. Without a common set of measures, providers struggle to track and monitor performance due to the variety of measures included in value-based contracts. The high number and variability of measures takes attention away from patient care and makes it difficult to compare outcomes across patient panels. The recommended Core Quality Measure Set provides a common reference that payers can use in their value-based contracts so that providers can focus on providing the best care to all patients.

**Metrics:**

Accountability Metric	Total Target	AY3 Measure	Anticipated AY4
% alignment across health plans on core quality measure set (commercial/Medicaid)	75%	70%	75%
% alignment across health plans on core quality measure set (commercial)	75%	76%	Target Reached

Note: Above statistics are for claims-based measures only. Only Medicaid and Medicare have implemented CAHPS for shared savings payment purposes.

**Achievements:**

- 1. Development of the Core Measure set:** The Quality Council developed a core measure set, as well as Reporting and Development sets that can be used for reporting purposes only or reassessed at a later date.
- 2. Progress toward Alignment:** Healthcare payers have made significant progress toward alignment. In Award Year 3, alignment among commercial and Medicaid reached 70% from a previous rate of 55%. Among commercial payers, alignment reached 76%, exceeding the overall SIM target of 75%.

**Challenges:**

- 1. Alignment:** Although the State has made good progress on alignment, commercial payers with a national footprint tend to avoid state-level customization because of the associated costs and inefficiencies.
- 2. e-CQM measure production:** The delays in SIM funded health information technology to enable the production of trusted e-CQM measures has delayed adoption of the recommended core quality measures that require EHR data.

**Outlook:** It is anticipated that alignment across both commercial payers and Medicaid will reach 75% by the completion of Award Year 4.

**Lessons Learned**

Alignment may be more successful if the state can establish trusted measures on behalf of providers, thus defraying a portion of the expense of alignment.

Some differences among payers, especially Medicaid, may be appropriate for scorecard measures to ensure that such measures reflect the health challenges of the covered beneficiaries.

## Consumer Assessment of Healthcare Providers and Systems (CAHPS)

**Goal:** Increase the utilization of CAHPS to measure and reward improvements in patient experience in shared savings arrangements.

**How it works:** SIM funds support an annual CAHPS survey for Medicaid beneficiaries and the commercially insured population. CAHPS is being provided to participating payers with a recommendation to include this data in their shared savings arrangements.

**How it helps:** CAHPS measures patient experience and satisfaction with primary care. Survey results can be used by provider networks to make improvements across their networks or within particular practices. Additionally, CAHPS data can be used by payers in their shared savings arrangements so that providers are rewarded for improving consumer experience in primary care. CAHPS is being used as a scorecard measure to evaluate and reward consumer experience performance in PCMH+.

### Metrics:

Accountability Metric	Total Target	AY3 Measure	Anticipated AY4
% health plans that use Consumer Assessment of Healthcare Providers and Systems (CAHPS) in their scorecards tied to payment (commercial/Medicaid)	50%	17%	17%

### Achievements:

- Completion of commercial CAHPS surveys:** Working with two commercial health plans, the SIM team completed 3,000 CAHPS surveys representing 19 Advanced Networks. The second iteration of the survey will allow for the comparison of patient experience across the same advanced networks over time, as well as between advanced networks.
- Completion of Medicaid CAHPS surveys:** The number of Medicaid CAHPS surveys conducted was expanded using SIM funding, for a total of 5,883 surveys completed in 2018. Like the commercial data, the collected data will allow for the comparison of patient experience across networks over time. The CAHPS data is especially relevant to assess how PCMH+ has impacted Medicaid patient experience.
- Use of Medicaid CAHPS surveys in PCMH+:** Medicaid is utilizing CAHPS data to measure and reward AN/FQHC care experience performance.

### Challenges:

- Response rate:** While the number of completed surveys represents one of the largest repositories of CAHPS data across the country, the response rate was still lower than anticipated.

- 2. CAHPS Adoption:** The adoption of the consumer experience measure for the purpose of value-based payment has been slower than overall alignment on other measures. Health plans continue to avoid introducing state-only scorecard measures and express concern about who will bear the cost of CAHPS data collection.

**Outlook:** An additional iteration of commercial and Medicaid CAHPS data collection will take place in AY4. Analyses on this data will be conducted to assess how patient experience has changed within and between advanced networks. Although, we do not anticipate that commercial payers will adopt CAHPS as a scorecard measure prior to the conclusion of the test grant, we will present the results to commercial payers and solicit interest in continuing CAHPS data collection for value-based payment purpose post-SIM.

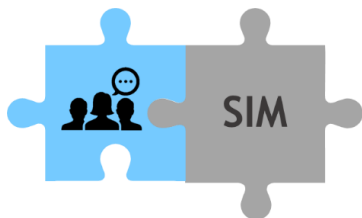
**Lessons Learned**

**CAHPS can be used as a measure to assess the impact of care delivery and payment reform initiatives.** To enable these comparisons, the SIM team ensured CAHPS surveys were conducted across both networks participating in SIM initiatives and those that are not.

To increase the response rate on patient experience, **future data collection should consider innovative data collection methods** that utilize shorter surveys and more cost efficient collection modalities.

## Consumer Engagement

The goal of the SIM Consumer Engagement initiatives is to engage consumers in healthy lifestyles, preventive care, chronic illness self- management, and healthcare decisions.



**Consumer Engagement Initiatives include:**

- Value-Based Insurance Design (VBID)
- Consumer Engagement Surveys (CAHPS)
- Public Scorecard

### Value Based Insurance Design (VBID)

**Goal:** Promote the use of Value-Based Insurance Designs (VBID) that incentivize consumer engagement and appropriate health care choices.

**How it works:** The VBID Consortium designed insurance benefit templates that are open for adoption by employers. Targeted technical assistance is offered to employers interested in adopting VBID plans.

**How it helps:** VBID insurance plans encourage patients to access the right care, at the right time, from the right provider. Consumers with VBID plans have lower cost sharing for preventive services, chronic illness self-management services and prescriptions, and visits to high value providers. VBID plans are tailored to the enrolled population and have been shown to improve patient outcomes and reduce costs for consumers, employers, and health care payers.

**Metrics:**

<b>Accountability Metric</b>	<b>Total Target</b>	<b>AY3 Measure</b>	<b>AY4 Anticipated</b>
Number of Employers participating in VBID Technical Assistance opportunity	10	11	25
Number of Employers participating in VBID TA that adopt VBID plans	8	5	12
% of Commercially Insured Population in a VBID plan that aligns with CT SIM's VBID threshold	84%	TBD	84%

**Achievements:**

1. **VBID Insurance Templates:** The multi-stakeholder VBID Consortium advised on the development of VBID templates that can be used and adjusted by employers to meet the needs of their employees. The templates draw from the best available evidence on VBID plans, utilizing the Connecticut State Health Enhancement Program, the University of Michigan VBID Center, and employers like Pitney Bowes as examples. The Consortium has also completed two annual updated versions of the templates, as well as implementation guidance.
2. **Targeted Technical Assistance:** Through the SIM VBID consultant, Freedman Healthcare, 11 employers have participated in a targeted technical assistance program to encourage VBID adoption. The program consisted of a review of all available employer data, the development of a VBID plan including a communications and evaluation strategy, and peer-learning opportunities between employers. To date, five employers have committed to implementing VBID plans.

**Challenges:**

1. **Promoting Adoption:** Learning collaboratives do not provide an efficient or sufficiently tailored vehicle for helping employers adopt VBID. Employers need individual technical assistance that uses their own employee healthcare data to design a VBID strategy that will enable them to achieve their unique healthcare improvement objectives.
2. **High Deductible Health Plans with Health Savings Accounts:** As health care costs have continued to rise over the past decade, High Deductible Health Plans (HDHPs) have become increasingly more popular among employer-sponsored health plans. HDHPs, which are often linked to a Health Savings Account (HSA), help save the employer money in the short term, but are beginning to demonstrate increased costs over time as employees put off necessary preventive and maintenance care. While not the ideal model, HDHPs with HSAs can be

**Lessons Learned**

**Targeted technical assistance** for employers who are serious about making changes to their insurance plans is a more effective strategy than learning collaboratives or promoting VBID at employer events.

**Fully-insured employers are limited by the availability of commercially available VBID plans.** Targeting health care payers to develop and offer VBID plans is the best strategy to increase uptake in this market.

**Measuring VBID uptake will require creative strategies** to assess what employers are offering both within and outside their plans.

adapted to incentivize high-value care. However, there are currently federal limitations on health care costs that can be waived from the deductible, which reduces options for highly effective HDHPs with VBID components. There is currently federal bipartisan support for legislation that would substantially address these limitations.

- 3. Measuring VBID uptake:** The goal of the VBID initiative is to increase the percentage of commercially enrolled individuals in a VBID plan to 84%. Among the foremost challenges for the VBID initiative has been measuring VBID uptake. The challenge is largely due to the self-insured market, where most VBID plans currently reside. The SIM team has provided guidance to payers to report on fully-insured plans that contain VBID elements, but health plans do not have a standard mechanism to identify whether self-insured employers include VBID components within their plans. Additionally, employers often offer incentives outside of the plan itself, making it even more difficult to track the array of incentives that might be in use.

**Outlook:** It is anticipated that an additional 14 employers will participate in the VBID targeted technical assistance program and an additional 12 will commit to adopting a VBID plan. Alternative strategies to measure VBID plan uptake are being developed by the UConn Evaluation team.

## Public Scorecard

**Goal:** Provide transparency on cost and quality by creating a Public Scorecard to report provider quality and care experience performance.

**How it works:** The Quality Council provided guidance to the UConn Evaluation team in the selection of metrics, risk adjustment, capabilities, and visual components of the Public Scorecard. The HealthQualityCT scorecard will be launched on the OHS consumer site in May 2018.

**How it helps:** Health care payers track performance measures to determine whether providers meet quality goals for the purpose of value-based payment arrangements, including PCMH+. The public scorecard will share provider network scores on certain measures, including care experience. This will allow consumers to compare provider quality and make informed healthcare decisions.

### Metrics:

Accountability Metric	Total Target	AY3 Measure	AY4 Anticipated
Number of valid measures recommended for public reporting	45	25	25
Number of measures publicly reported	40	0	25
Number of views to public scorecard	3,000	0	3,000
Number of organizations/entities that have self-attested to using data from scorecard	60	0	60

### Achievements:

1. **Measure Selection:** Based on the Quality Council's Core Measure set, and the current availability of only claims based data, a set of 25 measures were selected for inclusion on the public scorecard.
2. **Public Scorecard Design:** The public scorecard has been designed with input from the Quality Council's scorecard design group. The design process included input on functionality, attribution, risk adjustment, and visual appearance.

### Challenges:

**Data Acquisition:** Acquiring needed data to publish the initial scorecard had been the biggest challenge. The data is intended to be released from the All Payer Claims Database (APCD) which has experienced numerous delays. To address this, the UConn Evaluation team utilized the available 2016 data on measure analysis and validation, which will minimize the time from receipt of final 2017 data to scorecard publication.

**Outlook:** It is anticipated that the public scorecard will be published in the early portion of AY4. Tracking of key metrics will begin once published, with an expected 25 measures reported by the conclusion of AY4.

## C. Statewide Impact

### Assessing Patient and Provider Experience, Health Outcomes, and Affordability

The SIM Evaluation Team is led by Drs. Robert Aseltine of UConn Health (UCH) and Paul Cleary of Yale University. The Evaluation Team has worked with OHS and DPH to collect or compile data that illustrates statewide performance with respect to patient experience, provider experience, health outcomes, and cost.

Whenever possible, we report on statewide performance that is based on the entire CT population. However, depending on the data sources (e.g., APCD), we are at times limited to data that only includes individuals who have commercial, Medicare, or Medicaid coverage. When data permits, we present measures that allow us to compare performance across these payer categories and across race/ethnic groups.

The Evaluation Team is in the process of access Medicare CAHPS data for inclusion in future reports. They are also analyzing statewide performance on a variety of claims based measures using data from the APCD. In addition, the Evaluation Team has recently accessed ChimeData, which will enable us to include Emergency Department visits in an updated version of this report.

This report presents the following:

SIM Statewide Evaluation Data Included In This Report			
What are we measuring?	How are the data collected?	Source	Population/Payer
Patient Experience	Consumer Assessment of Health Plans Survey (CAHPS)	Survey	Commercial, Medicaid
Provider Experience	CT Statewide Physician Survey	Survey	Primary care physicians
	Cardiovascular Deaths	DPH Mortality Statistics	All
Health Outcomes and Healthcare Utilization	Readmissions	CT Hospital Inpatient Discharge Database	All
	Preventable Admissions for Chronic Conditions		
	HBA1C testing	CT All Payer Claims Database	Commercial

The reader should exercise caution in the interpretation of the statewide findings. While they do reflect the state's absolute performance, they do not tell us whether the SIM reforms are working. We will examine that question in Section D when we analyze the performance of providers that are participating in SIM reforms relative to these statewide averages.



## Patient Experience

The SIM evaluation is conducting ongoing surveys of probability samples of commercially insured and Medicaid patients in Connecticut to assess their care experiences. We are using a modified version of the Clinician and Group Consumer Assessment of Healthcare Providers and Systems (CG-CAHPS) survey. At the recommendation of the Quality Council, the CG-CAHPS 3.0 instrument was modified to include several questions that the Evaluation Team developed to assess access to behavioral health services.

CG-CAHPS is a standardized, validated instrument widely used throughout the country. It is being administered by experienced CAHPS vendors who have more than 20 years of experience conducting patient experience surveys. A baseline and second wave of CG-CAHPS surveys has been completed for 2017 and 2018 for both Medicaid recipients and commercially insured individuals. A third survey will be administered in 2019.

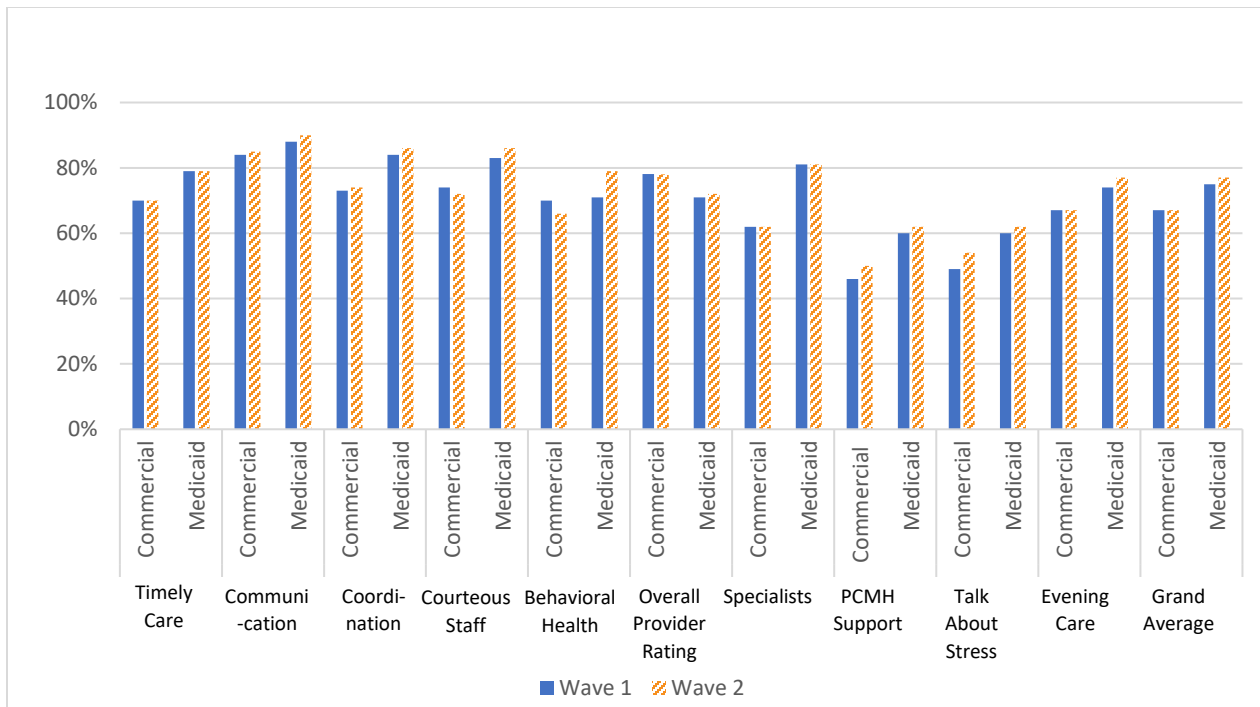
To develop the sample of individuals to be surveyed, the evaluation team first identified all the Advanced Networks and FQHCs in CT that are participating in shared savings programs and providing care to Medicaid recipients or to individuals insured by the participating commercial health plans. Two of the major commercial insurers in CT participated in 2018 and three in 2019. Medicaid participated in both waves.

Medicaid and the participating insurance plans provided a list to the survey vendor of all adult (18 or older) patients in CT who had made a visit to a primary care provider in the six months prior to when the data were accessed. The survey vendors then selected a random sample of patients who had used each Advanced Network or FQHC in the state. To provide a comparison, the evaluation also selected a sample of patients who did not receive care in one of the identified advanced networks. We refer to those patients as “unaffiliated” patients. Medicaid also included a comparison group of PCMH program participants that are not in the Medicaid shared savings program (PCMH+).

The data are being used to evaluate the impact of care delivery and payment reforms (e.g. whether an advanced network is participating in a shared savings program) on patient experience. We also are examining patient experiences across racial/ethnic groups, comparing changes across time periods (e.g., from 2017 to 2018 to 2019), and comparing patient experience based on type of health coverage (commercial or Medicaid).

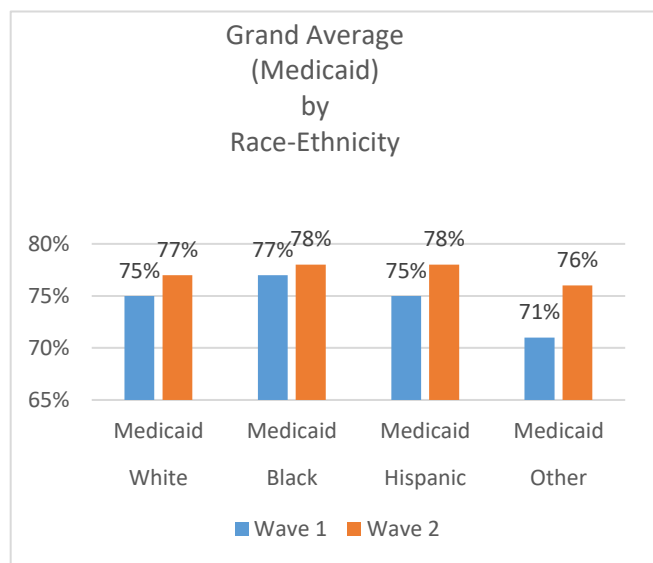
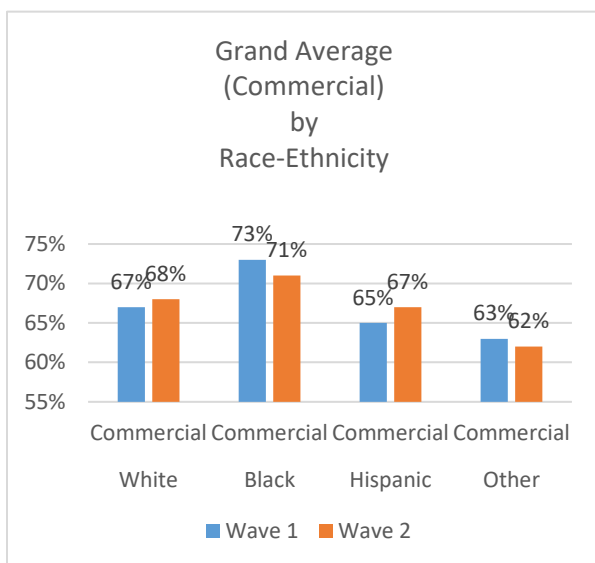
One notable finding is that Medicaid recipients tended to report better care experiences than did commercially insured patients (**Figure 3**). However, in both 2018 and 2019, 78% of commercially insured individuals rated their provider a “9” or “10” on a 0 to 10. Among Medicaid recipients, 71% gave a rating of 9 or 10 in the first wave and 72% gave such a rating in the second wave. Ongoing analyses will assess the extent to which differences in patient characteristics account for differences in CAHPS scores by source of coverage and year.

**Figure 3. Care experiences among CT commercially insured and Medicaid patients**



To assess differences by race and ethnicity, we compared the CAHPS Grand Average of self-identified white respondents to the responses of non-Hispanic Blacks, Hispanics, and those classified in other categories for Medicaid and commercially insured respondents in the two survey years (**Figures 4a and 4b**). The differences were small and inconsistent. Of the 12 statistical comparisons (e.g., Black vs. White, 2017 Medicaid...), only 2 were significant. Respondents classified as “Other” in the 2017 Medicaid survey had lower scores than Whites and non-Hispanic Black respondents had better scores than Whites in the 2017 Commercial survey.

**Figures 4a and 4b. Race/ethnic differences in care experiences among CT commercially insured and Medicaid patients**



Data from CMS that are not publicly available (personal communication; Paul Cleary) indicate that when ambulatory, hospital, and home health care CAHPS scores from 2014 were considered, Connecticut was 42nd among states and the District of Columbia. In 2017, the only other year analyzed, Connecticut had dropped slightly to 43rd.

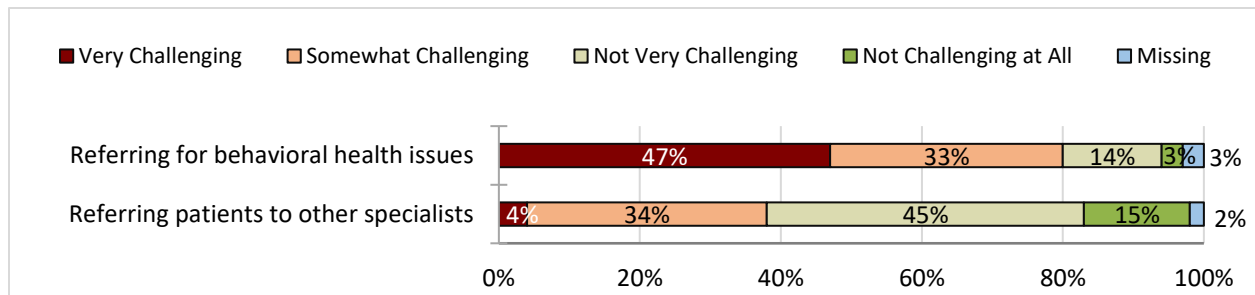
### Provider Experience

In fall 2014-winter 2015 UConn Health and Yale conducted a statewide survey of primary care physicians and physicians in selected specialties to assess baseline readiness and attitudes towards changes in the healthcare delivery system planned under SIM. Surveys were completed by 1081 physicians in qualifying specialties (family medicine, internal medicine, general pediatrics, cardiology, obstetrics/gynecology, endocrinology, gastroenterology, and pulmonology). Survey topics included:

- Amount of primary care currently provided and any anticipated changes in the relative amount of primary care provided;
- Access to, and use of, different aspects of health information technology, such as an Electronic Health Record and patient/disease registries;
- Physicians' or their practices' ability to provide comprehensive medical care for a population of patients;
- Availability and/or use of a formal care coordinator and/or ability to coordinate care, and to attract staff to help address complex care needs;
- Ownership and organization of practices and affiliations with larger care systems/organizations such as networks, Independent Practice Associations (IPAs), or Accountable Care Organizations (ACOs), as well as anticipated new affiliations or arrangements;
- Physicians' attitude and concerns regarding care coordination and medical home or advanced primary care principles;
- Physicians' attitudes and concerns regarding larger coordinating entities such as clinically integrated health systems or ACOs;
- The types of support and resources that physicians would be interested in to help them change the way they provide primary care services to complex patients.

Results indicated that 22% of respondents were in a practice designated as a PCMH, with those in smaller or solo practices less likely to be in the process of obtaining PCMH designation than were those in larger practices. Physicians generally had favorable opinions regarding the quality of care and patient experiences in PCMHs, but few physicians thought that providing care in a PCMH resulted in care that was of higher quality, easier or better financially. 50% of physicians reported that obtaining PCMH designation would be very or somewhat challenging for them.

While physicians reported that referring patients to specialists was not very challenging, 80% of physicians reported that finding appropriate treatment for behavioral health problems in their patients was “somewhat” or “very challenging” (**Figure 5**). This finding prompted the Quality Council to recommend the inclusion of several questions on access to and outcomes of behavioral healthcare in the SIM CAHPS surveys.

**Figure 5. How challenging did you find referring patients to specialists?**

Physicians' state of readiness for changes under SIM was mixed. While (80%) of respondents had an electronic health record (EHR), less than half received information about gaps in care, used an open access system, or offered group visits, and about half received feedback on quality of care and/or patient experiences. Many areas of the survey revealed the sentiment that it was difficult for physicians to provide care. There was widespread feeling that EHRs had a negative impact on the efficiency of providing care. The vast majority of physicians reported that the lack of uniformity and variations in policies across insurance plans were challenging, and 80% of physicians reported feeling "burned out" sometime in the last 12 months.

A follow up survey of Connecticut physicians to examine the physicians' perspectives on changes in healthcare delivery, cost, and outcomes during the SIM test grant is scheduled for spring 2019.

## Health Outcomes

### Population Health

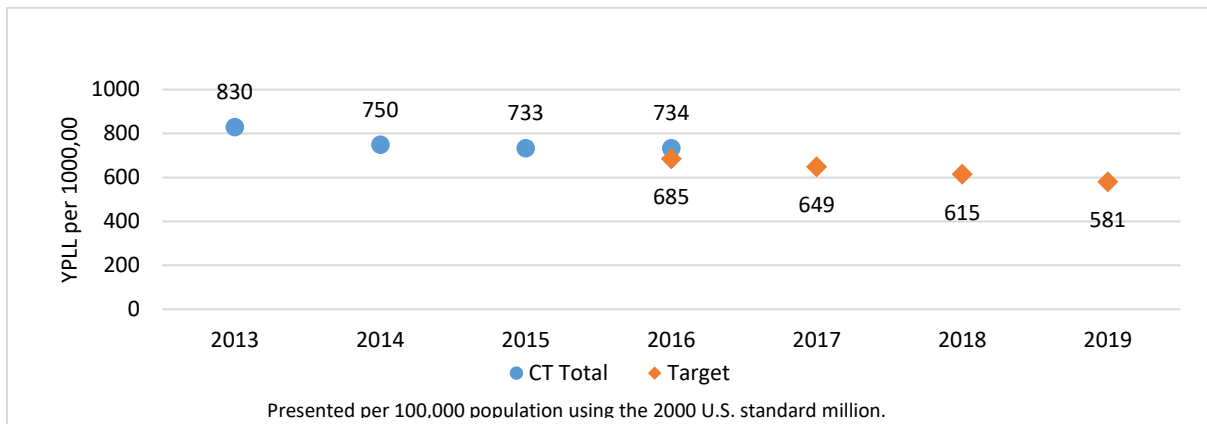
The SIM evaluation is tracking six measures of population health: adult diabetes, adult obesity, child obesity, adult smoking, youth cigarette smoking, and premature death due to cardiovascular disease. Premature death due to cardiovascular disease, derived from mortality statistics maintained by the Connecticut Department of Public Health, provides an illustration of a population health measure that might be favorably impacted as a result of value-based payment, particularly the incentives in the Medicare Shared Savings Program for improving hypertension control. Cardiovascular disease is defined as any health problem that includes the heart or blood vessels. It is the leading cause of death in the US. This measure estimates the number of years of potential life lost (YPLL) for persons dying before age 75 due to cardiovascular disease (ICD-10 codes 100 to 178). Values were age adjusted to allow for comparisons over time.

#### SIM Targets

Most SIM measures have target values that quantify the improvements expected during the SIM award period. For most measures a 5% improvement over the duration of the SIM was expected. These targets were calculated after taking into account prior historical trends for a particular measure. For example, deaths due to cardiovascular disease have been falling, while rates of adult and childhood obesity have been rising. The targets established for the SIM take these historical trends into account.

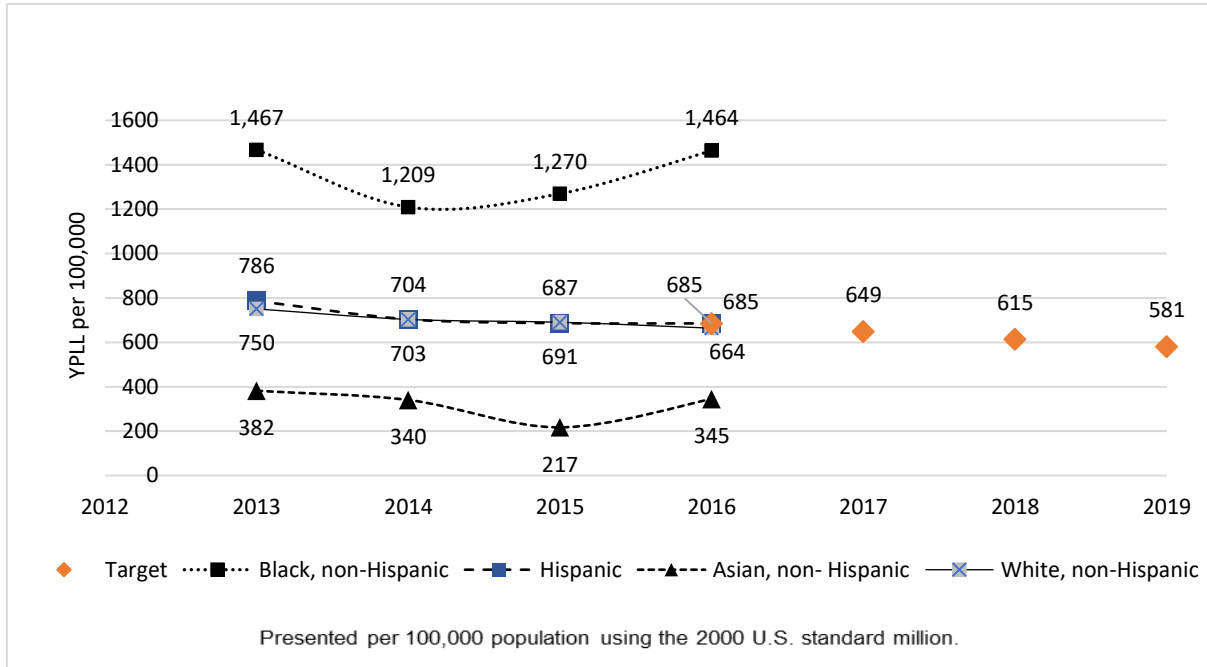
**Figure 6** presents population level results from years 2013 through 2016 relative to targets. In 2013-2015, the CT rate of YPLL per 100,000 was on a downward trend resulting in target values that decline by approximately 2% per year through 2020. In 2016, the first year of SIM implementation, the observed rate of 733.9 YPLL was comparable to 2015 rate but considerably higher than the target of 684.6. The targets continue to decrease to 581 YPLL by the end of the CT SIM award period in 2019. Because of the lag time in obtaining mortality data we will likely only be able to report 2017 and 2018 rates prior to the end of SIM.

**Figure 6. Premature Death from Cardiovascular Disease in Connecticut**



**Figure 7** presents trends in CVD mortality by race and ethnicity. Race and ethnic disparities in CVD mortality were pronounced: YPLL rates due to CVD were roughly twice as high among Blacks compared to Whites and Hispanics, and Asians had approximately half the YPLL rate of Whites. Year to year fluctuations in rates among Blacks and Asians were observed, although it will take additional years of data to determine whether these fluctuations constitute a trend indicating increased rates of CVD mortality in these groups. Although reduced CVD mortality associated with improved management of cardiovascular disease may take 5-10 years to observe, this measure will be important to monitor in future years to gauge the impact of SIM initiatives in improving health equity.

**Figure 7. Premature Death from Cardiovascular Disease by Race and Ethnicity**

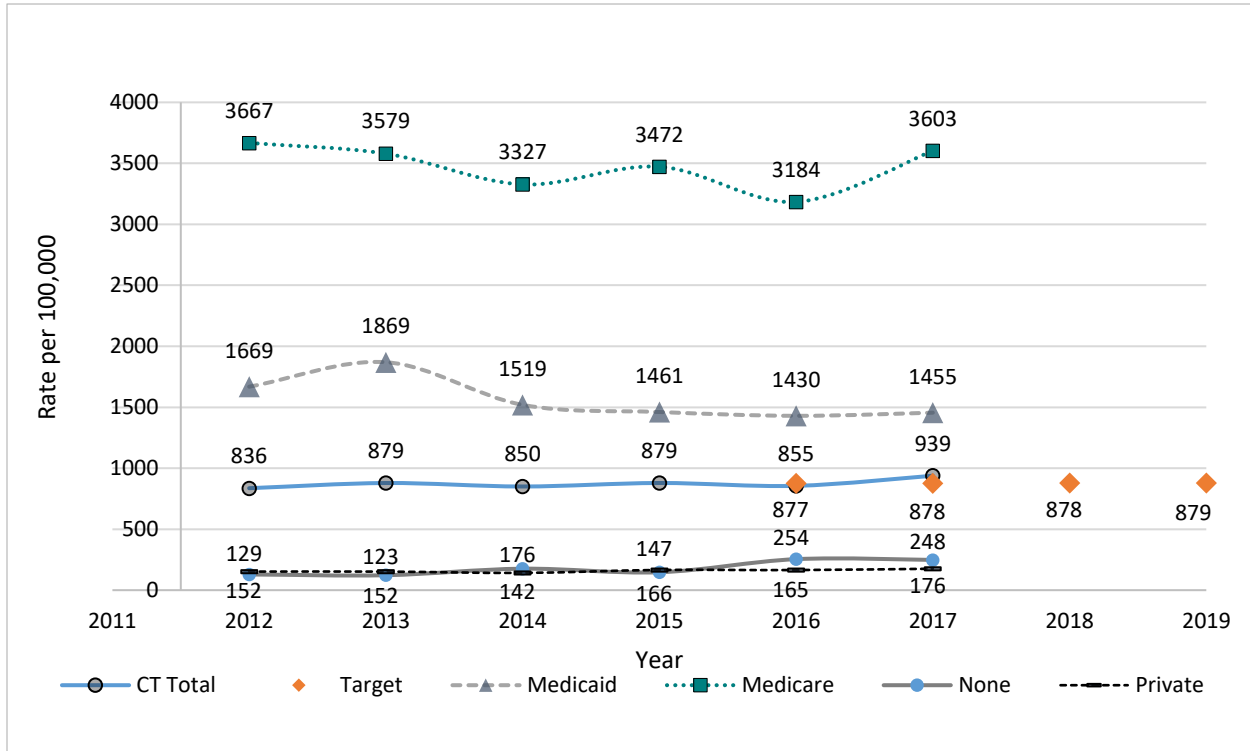


**Health Outcomes: Preventable admissions and readmissions, optimal diabetes care**

The SIM evaluation is tracking a diverse set of health outcomes, ranging from screening measures (e.g., mammograms for women 50-74 years of age), measures of chronic disease management (e.g., antidepressant medication management), and healthcare utilization (e.g., well child visits for at-risk populations) (see Appendix for full list of measures). Three measures that illustrate the potential impact of SIM on health outcomes among CT residents are preventable hospital admissions for chronic conditions, 30-day readmissions following a preventable admission, and optimal diabetes care. Preventable hospital admissions were measured using the Agency for Healthcare Research’s (AHRQ’s) Prevention Quality Indicator 92, a composite measure that combines the rate of hospital admissions across 10 separate chronic disease conditions (e.g., admission for heart failure). 30-day readmissions consisted of re-hospitalizations for all causes among those whose index admission was included in PQI 92. Data to calculate these measures were derived from the CT Hospital Inpatient Discharge Database, maintained by the CT Department of Public Health. Optimal diabetes care, defined as annual hemoglobin A1C testing among diabetics, is a measure endorsed by the National Quality Forum. Data to calculate this measure were derived from the CT All Payer Claims Database (APCD) maintained by the Office of Health Strategy.

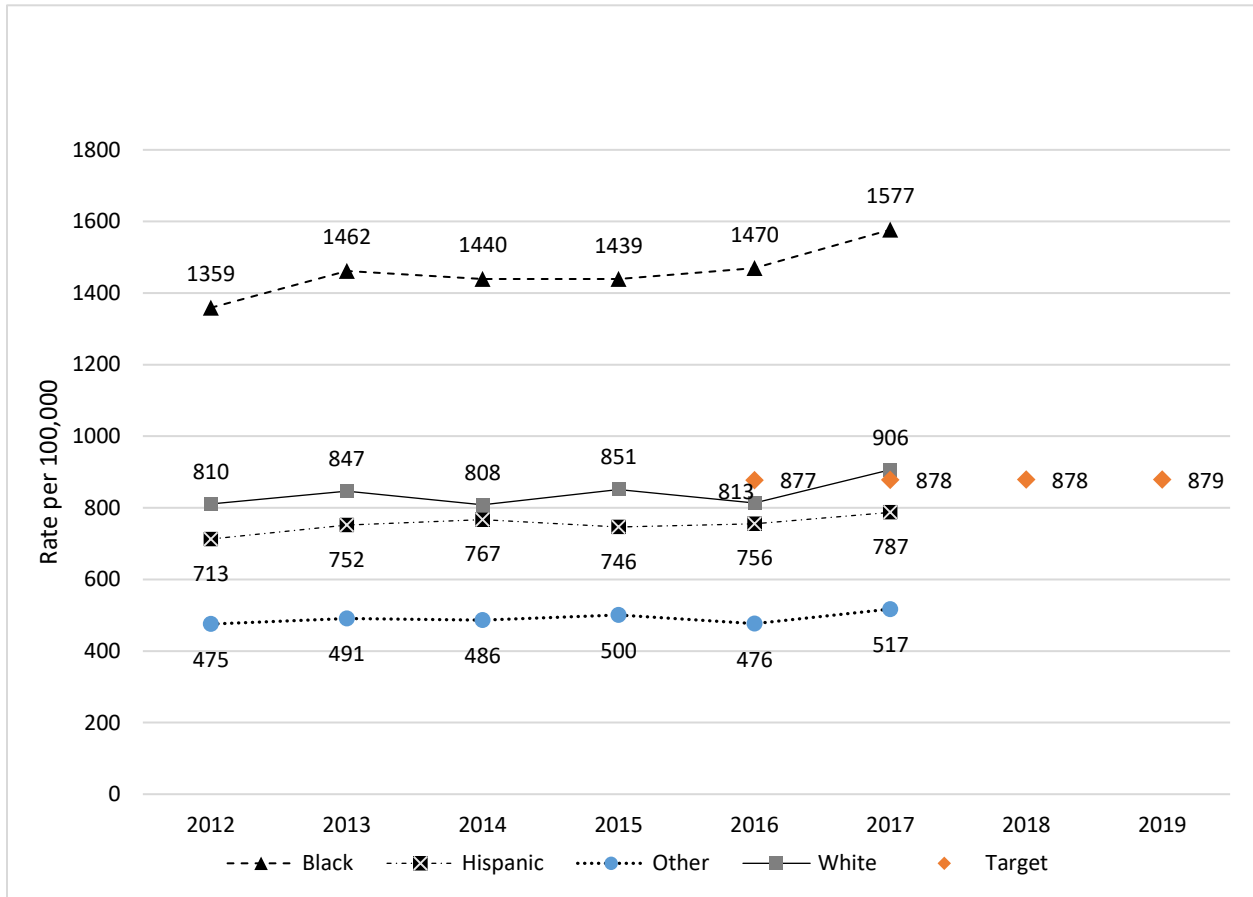
**Figure 8** presents rates of preventable admissions for chronic health conditions per 100,000 population from 2012 through 2017 relative to targets, overall and by insurance type. Total population rates fluctuated within a narrow range but increased slightly from 2012-2017. Medicare beneficiaries had the highest rates of preventable admissions. Medicaid beneficiaries, while declining from the 2012-2013 period, remained approximately 8 times more likely to have a preventable hospital admission as the privately insured. Those without insurance were comparable to patients with private insurance through 2015, but increased sharply in 2016-2017.

**Figure 8. Hospital Admissions for Chronic Ambulatory Care Sensitive Conditions by Insurance Type**



**Figure 9** presents trends in rates of preventable hospital admissions for chronic conditions by race and ethnicity. Race and ethnic disparities were pronounced, with Black rates almost twice as high as Whites and Hispanics and remaining consistent from 2012-2017. The slight increases in preventable admissions over time were observed across race and ethnic groups.

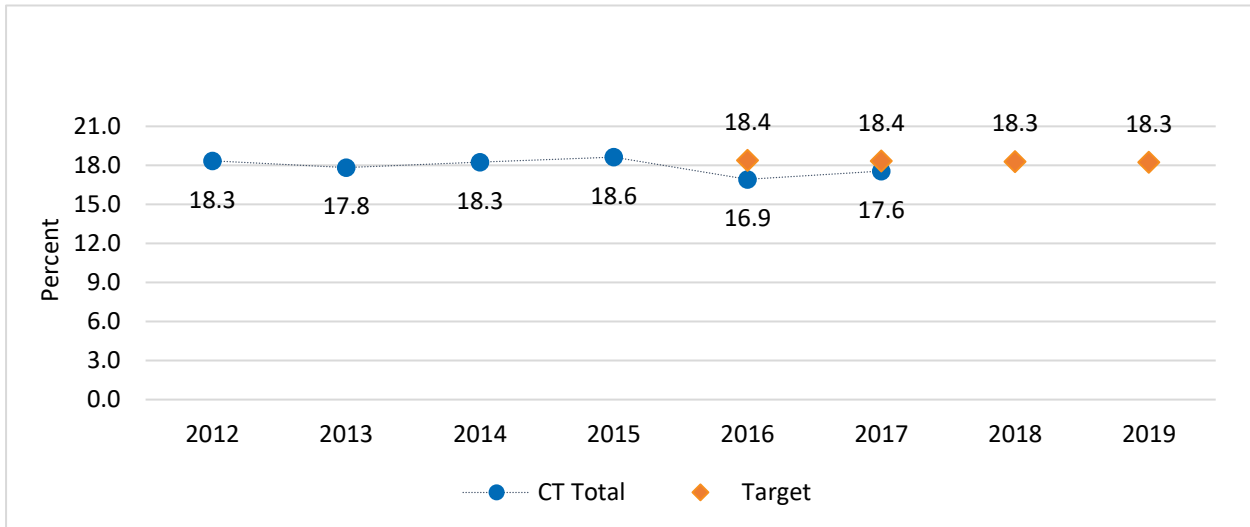
**Figure 8. Hospital Admissions for Chronic Ambulatory Care Sensitive Conditions by Race/Ethnicity**



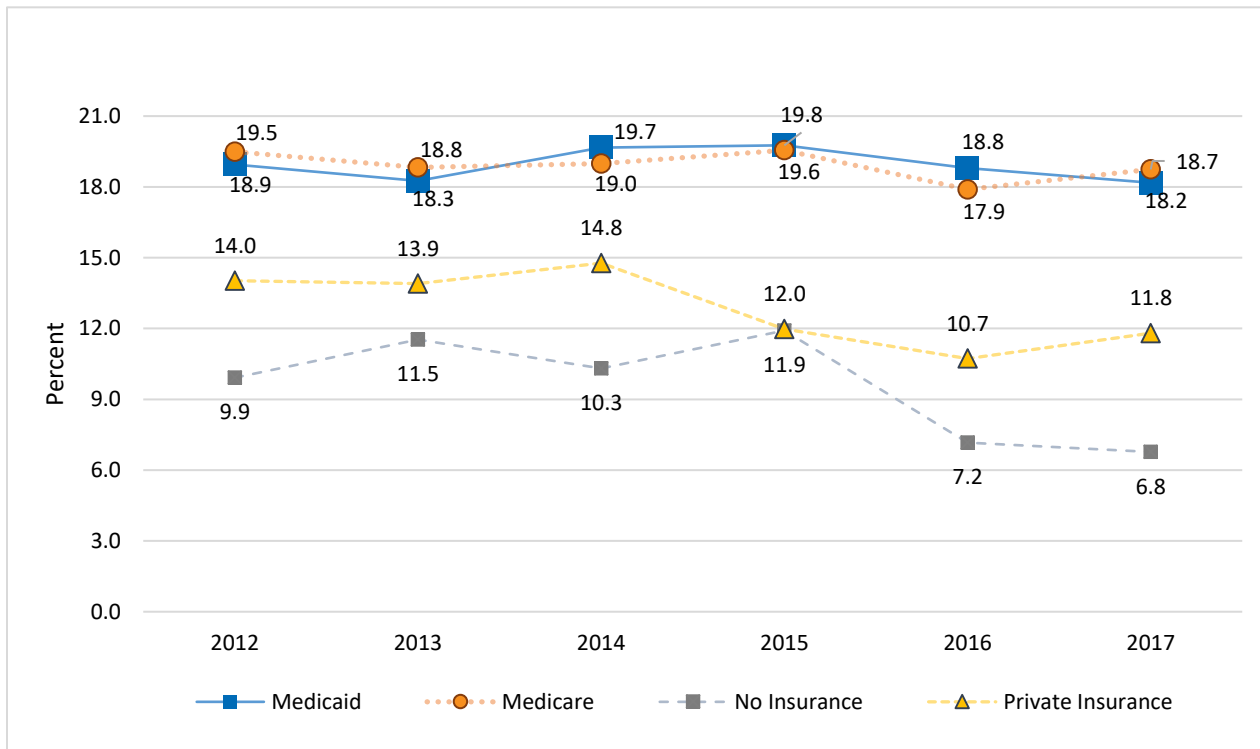
**Figure 9** presents the percent of patients rehospitalized within 30 days after discharge for chronic ambulatory care sensitive conditions (PQI 92). Rehospitalization rates have fluctuated within a narrow range between 17-18.5% since 2012 and are currently under the SIM targets established using 2012 to 2015 data. **Figure 10** presents rehospitalization rates by insurance type. Similar to the data presented above on preventable hospitalizations, rates were highest among Medicare and Medicaid beneficiaries from 2012-2017. Additional years of data are needed to determine whether the declining rates observed among both the privately insured and uninsured in the past 2-3 years constitute a significant trend.



**Figure 9. 30-Day Readmission after Discharge for Chronic Ambulatory Care Sensitive Conditions (PQI 92)**



**Figure 10. 30-Day Readmissions after Discharge for Chronic Ambulatory Care Sensitive Conditions (PQI 92) by Insurance Type**



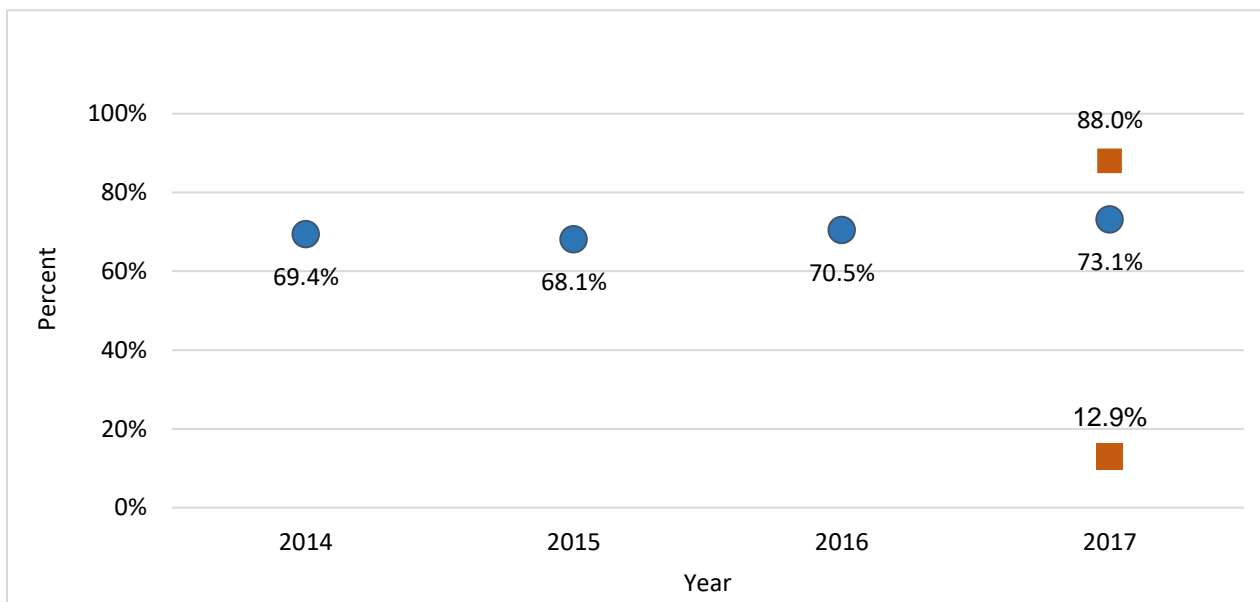
Optimal diabetes care, defined as the percent of diabetic patients receiving annual HbA1c tests, was calculated using data from the CT APCD. **Figure 11** presents results among privately insured patients

from 2014–2017 (blue dots). Approximately 70% of diabetic patients annually receive HbA1c tests, with the number improving by roughly 4 percentage points in 2017 relative to 2014. However, patients who had a qualifying outpatient visit with a primary care provider in 2017 had a much higher rate of annual HbA1c testing (88%) than did patients who did not see a primary care provider (12.9%). These results highlight the importance of a connection to primary care among privately insured patients for optimal diabetes care. Rates for Medicare and Medicaid patients will be presented in a subsequent report.

**Attributing Patients to Primary Care Providers**

Patients were attributed to the primary care provider from whom they have received the most primary care services within the past year. **Primary care providers** were defined as physicians, advanced practice registered nurses and physician assistants who specialize in Family Medicine, Internal Medicine, Pediatrics, General Practice, or, in some cases, Obstetrics-Gynecology. **Primary care services** included claims coded with the Current Procedural Terminology (CPT) codes for office or other outpatient visits, preventive medicine services, and consultation services.

**Figure 11. Percent of Patients with Diabetes Receiving Annual HbA1c Testing**



**Affordability: Total Cost of Care**

The evaluation team is using CT APCD claims to calculate per member per month cost information in the following five categories:

- Inpatient healthcare costs
- Outpatient healthcare costs
- Primary care costs (as a subset of outpatient costs)
- Pharmacy costs

- Total medical costs

Cost information will include amounts allowed by insurers and any member deductibles and copayments, in total and separately by insurance type. Results will be presented in a future report.

## D. Model Specific Impact

Major features of Connecticut's SIM award include engaging physicians, hospitals, other healthcare organizations, and health insurers in innovations related to how healthcare is delivered and paid for. SIM initiatives encourage alternative payment models, where physicians and hospitals have the opportunity to share in savings if they provide care that is both high quality and cost effective. SIM has also launched the Person-Centered Medical Home Plus (PCMH+) program, which works to improve HUSKY member's overall health and assists with access to services like access to healthy food, transportation to appointments and assistance in finding community agencies that support housing or employment. Changes in the way healthcare is delivered and paid for are related not only to measures of patient's access to, outcomes of, and costs associated with healthcare, but also to physicians' experiences and career satisfaction. The evaluation team is collecting data annually from Connecticut's commercial insurers, the state's Medicaid authority, and the All Payer Claims Database to track changes in the way healthcare is delivered and paid for and to assess and compare the performance of Connecticut's ANs and FQHCs, focusing in particular on how the degree of exposure to value-based payments influences network or health center performance.

Results from these analyses will be presented in an update to this report.

## E. Planning for the Future

The shared savings program model has shown promise in focusing provider's attention on the management of patients with complex health needs and the individuals with per chronic illness outcomes. We believe that our efforts to promote the collection of granular race/ethnic data, our partnership with Yale CORE and the Connecticut Health Foundation to develop methods to introduce race/ethnic stratified quality measures will increasingly focus performance on health disparities as a means to achieve better overall healthcare performance.

However, we have also become keenly aware of the limitations of the shared savings program as the sole means of driving improvement in health and healthcare. With respect to the latter, most shared savings arrangements are based on a 50/50 split of savings between the payer and provider. The current arrangements require that providers come up with most (if not all) of the upfront capital to invest in improvement. They take a considerable risk in doing so because the return on that investment may take 18 months to materialize and may not materialize at all. More importantly, because of the 50/50 savings deal, a provider has to generate at least a 2 to 1 return on every dollar invested in order to break even. This means that a \$300,000 dollar in CHWs that returns \$450,000 in savings will result in a net loss to the provider of \$75,000. Very few investments in primary care delivery yield a 2 to 1 return, and so we

can expect that very few investments will be made in primary care in the coming years without a new solution. Primary Care Modernization is intended to be that solution.

In addition, prevention is merely a footnote in nearly all shared savings arrangements today. Although providers are rewarded for some preventive care processes, such as colonoscopy screening, they do not receive a return on investment for most prevention investments. This is because the cost benchmarks that are the basis for calculating shared savings are adjusted regularly to reflect the health risk of their populations. Thus, a quality initiative that reduces the likelihood that pre-diabetes patients will eventually have diabetes, results in know shared savings at all.

In addition, much of the work of prevention requires cross-sector solutions, where healthcare providers are a key partner, but only one of many partners whose efforts are needed to address root cause community level contributors to poor health. There is a need for investments in community solutions that far exceed the budgets of any health system and a need for coordinated action among a diverse array of community partners. The Health Enhancement Community Initiative is intended to address both of these issues.

Our achievements in designing these initiatives are summarized below.

### Health Enhancement Communities

**Goal:** To establish sustainable, multi-sector collaboratives in every geographic area in Connecticut that implement community health, health equity, and prevention strategies in their communities and reduce costs and cost trends for critical health priorities.

**How it would work:** The framework that will be used for HEC implementation has been developed. Implementation of the HEC strategy was not intended to occur during the SIM test period, as this initiative represents a next phase of primary care improvement.

**How it helps:** This initiative proposes to support primary prevention activities that address the social determinants of health and that are not supported through the current healthcare delivery or financing models. Although other SIM care delivery initiatives have increased the use of CHWs, promoted partnerships with community based organizations, and focused on the identification of social determinants of health, the majority of that work has been focused on individuals who have already been diagnosed with a chronic condition or who have been identified as high risk. HECs will enable the cross-sector collaborations necessary to prevent disease and improve community health, moving from accountable care to accountable communities.

### Achievements:

1. **Recruiting four reference communities:** To inform the development of the HEC Framework, the SIM team recruited and worked closely with four reference communities. These communities represented areas of the state that had already established collaboratives and were able to provide invaluable feedback throughout the planning phase.
2. **Identifying health priorities:** Initiatives like HECs can suffer from a lack of focus or attempts to solve too many problems at once. An intensive process of engagement with stakeholders led to a defined scope for HEC activities which includes a focus on two health priorities: improving

healthy pregnancies and child well-being for Connecticut children from birth to 8 years old, and improving healthy weight and physical fitness for all Connecticut residents.

3. **Completing the HEC Framework and Technical Report:** The HEC Framework and the accompanying Technical Report were completed under the guidance of the SIM Population Health Council. The Framework succinctly describes the recommended goals, key elements, health priorities, and financing strategies representing not only the input of the Population Health Council, but numerous other stakeholder groups. The Technical Report is a detailed expansion of the Framework that can serve as a blueprint for implementation. Both reports were approved by the Population Health Council in April 2019 and are pending approval by the Healthcare Innovation Steering Committee.

### Challenges:

**Financing Strategies:** The HEC Framework identifies several options for financing, including outcomes-based financing models, pooling or reorienting existing funds through blended or braided models\*, tax incentives, and public health insurance programs. The success of HECs depends on the shifting of funds from the healthcare sector to the community and most likely, to social services within the community. The challenge in implementing HECs will be identifying a combination of financing strategies that sustainably make this shift.

**Outlook:** Successful implementation of HECs will depend on the ability of the State and HECs to foster up-front private sector investments or braided funding solutions to test out the HEC framework, and the ability of the State and partners to establish a long-term financing strategy with Medicare and Medicaid that monetizes prevention outcomes and thus enables a shift in funding from the healthcare sector to the community.

\*Braided funding refers to the utilization of multiple funding sources to achieve a shared goal. For example, NYC braided funding from child care, Head Start, and state universal Pre-K to improve access and continuity of child care for low-income children and their families. In braided funding arrangements, funding streams are still accounted for separately, while in blended models, the funding streams are not necessarily accounted for separately.

### Lesson Learned

Communities that are accountable for the health outcomes of their residents rely on a strong accountable healthcare system that can invest in the community.

Current shared savings models will not generate the revenue needed to support these investments. HECs, as proposed, would be sustainable and successful with a combination of financing strategies that includes a **more advanced shared savings model** that captures the economic value of prevention.

## Primary Care Modernization

**Goal:** Transform primary care delivery in Connecticut to improve access, quality, and patient experience while reducing total cost of care and revitalizing primary care.

**How it would work:** The current model, in development with stakeholders, anticipates increased, more flexible primary care investment that supports traditional primary care providers and new, diverse care team members in connecting and engaging with patients in the office, home, community and virtually. A robust accountability framework ensures new dollars are spent on primary care and in ways that reduce total cost of care over time.

**How it helps:** Primary Care Modernization (PCM) proposes to support primary care practices in achieving their full potential to identify and address medical, behavioral and social contributors to population health, serve as an important connection in community-based prevention efforts, and undergird accountable care organizations seeking to improve health outcomes and lower total cost of care over time. Other SIM initiatives and conversations with stakeholders have identified several barriers to these goals, all of which PCM addresses. These barriers include 1) an evidence-based framework to implement new capabilities, 2) funding to hire diverse care team members, improve health information technology infrastructure, engage patients and address patient-specific social determinant of health barriers, and 3) Focused technical assistance and peer support through a learning collaborative.

### Achievements:

**Primary Care Modernization Framework Co-Developed with Stakeholders:** To inform the development of the PCM Framework, the SIM team collaborated with more than 600 stakeholders including primary care physicians, other care team members, clinical and administrative leaders from ANs and FQHCs, hospital leaders, employers, payers, and medical schools and residency programs. With this engagement to inform their work, multi-stakeholder design groups focused on developing a cohesive set of evidence-based capabilities through review of national and Connecticut program experience and related academic research. Recommendations were presented to the Practice Transformation Task Force (PTTF), a multi-stakeholder committee overseeing PCM design, for review, refinement and approval.

Required capabilities recommended by the PTTF as of March 2019 included:

- **Diverse Care Teams** which bring together professionals with different skills and expertise to provide patients with needed support throughout their care experience.
- **Behavioral Health Integration** adds a behavioral health clinician to the primary care team for assessment and screening, brief interventions and connections to and coordination with community-based providers and resources.
- **Phone, Text, Email and Video Visits** offers patients more convenient ways to connect and engage.
- **e-Consults and Co-management** allow primary care providers to electronically consult with a specialist for a non-urgent condition before or instead of referring a patient to a specialist for a face-to-face visit. Co-management offers patients the opportunity to receive more coordinated, collaborative ongoing management by the PCP, specialist and patient.
- **Remote Patient Monitoring** uses connected digital services and technology to move patient health information from one location, such as at a person's home, to a healthcare provider in another location for assessment and recommendations.

- Specialized practices to offer specific expertise to **Older Adults with Complex Needs**, patients in need of **Pain Management and Medication-Assisted Treatment** and **Individuals with Disabilities**.

On a parallel track, OHS convened a multi-stakeholder Payment Reform Council a focused on developing payment model options to support the capabilities. They developed strawman payment model options, which are being refined based on input from dozens of one-on-one stakeholder meetings.

**Challenges: Aligning with Other Models:** Providers and payers are balancing many opportunities to improve healthcare value. PCM offers a pathway to improve the primary care foundation necessary to achieve success across many of these programs. Stakeholders have shared a strong understanding of how PCM could serve as an important component of their overall healthcare value strategy. However, they also recognize it would involve a significant shift in how care is delivered and compensated. Preparing for this shift in the midst of other change can be challenging.

**Outlook:** Successful implementation of PCM will depend on the ability of the State to generate sufficient support among its stakeholder partners, Medicare and Medicaid to implement an aligned, multi-payer program to support primary care practices in achieving the capabilities.

#### Lessons Learned

- **Flexible, advance payments are needed** to sustain sufficient investments in care transformation.
- A **strong accountability framework is necessary** to ensure more flexible investments are dedicated to primary care and achieve desired improvements while reducing total cost of care.
- **Patients and employers value services that improve convenience and coordination** and prefer these are conducted by the patient's primary care team.

## F. Conclusion and Outlook

The SIM Test Grant aims to improve patients' access to care, improve patient and provider experience, encourage the use of appropriate and high value care, foster better health outcomes while eliminating health disparities, and improve population health.

As of this report, SIM has enabled significant steps toward a better healthcare system in Connecticut. SIM efforts have led to short-term achievements including a significant increase in the number of Connecticut residents in value-based payment arrangements, more primary care practices utilizing a patient-centered approach to care, more widespread integration of behavioral health and Community Health Workers into primary care, an increase in the number of employers adopting Value-Based Insurance Design plans, and an increasing commitment by ANs and FQHCs to foster community relationships for the provision of care and connection to social services to address the social determinants of health.

Preliminary results at this stage of the initiative indicate that:

- **Consumer experience** measured by unadjusted CAHPS survey scores were relatively stable with slight improvements overall in the commercially insured in 2018 relative to 2017. With the exception of Asian respondents who tended to provide lower ratings on most measures, there were no significant differences in experience by patients' race and ethnicity. Medicaid recipients generally reported better care experience than did the commercially insured.
- Trends in premature death due to CVD and preventable hospitalizations will need to improve to achieve SIM targets. Improvement in population health outcomes such as CVD mortality may take several years to be observed.
- Profound race and ethnic disparities in CVD mortality and preventable hospitalizations were observed, with Blacks roughly twice the rates of Whites and Hispanics on both measures.
- Readmissions following preventable hospitalizations appear to be trending downward and as of 2017 exceeded our SIM target performance goals.
- Rates of preventable hospitalizations and 30-day readmissions following preventable hospitalizations varied greatly by patients' type of insurance. In 2017 Medicaid beneficiaries were over 8 times as likely as the privately insured to have had a preventable hospitalization.
- Rates of HbA1c testing improved slightly from 2014–2017 among the privately insured.

In subsequent reports we will present results related to changes in healthcare spending and affordability; updated results on patient and provider experience; and data addressing the impact of SIM initiatives supporting value-based payments and healthcare delivery transformation on health outcomes.

We expect that as a result of the achievements described in this Report, improvements in healthcare outcomes will follow. We have already identified a decrease in readmissions following preventable hospitalizations and an increase in HbA1c testing, as well as slight improvements in consumer experience. Although shared savings payment reforms have been underway in Connecticut since 2012, many SIM initiatives launched in 2017. An examination of 2018 and 2019 data will be key to assessing the impact.



In addition to building a strong infrastructure for healthcare reform in the state, the SIM has clearly uncovered the essential components of the next phase of work. In order to fully achieve the goals identified in the test grant and to expand on them in the future, it is critical that we continue along the continuum of value-based payment models. Such models will sustainably support the type of care delivery reform we know will support diverse patient needs and healthcare outcomes. We also know that to truly move the needle on our statewide goals, including health equity improvement, we need to focus on genuine primary prevention. This will require the shifting of funds, which are currently clustered in reactive healthcare, to prevention efforts that meet consumers where they are. Together, Health Enhancement Communities and Primary Care Modernization build on the SIM achievements, address many of the challenges identified in this Report, and offer the opportunity to fundamentally shift Connecticut's healthcare system to a more equitable, value-based, proactive model that improves outcomes for all Connecticut residents.