Connecticut

State Innovation Model Operational Plan

Award Year 3 Update

February 1, 2018

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Appendices

Acronyms

ACO	Accountable Care Organization
ACH	Accountable Communities for Health
AHCT	Access Health CT
AMH	Advanced Medical Home
AN	Advanced Network
APCD	All-Payers Claims Database
ASO	Administrative Services Organization
AY	Award Year (AY1, AY2…)
BRFSS	Behavioral Risk Factor Surveillance System
CAB	Consumer Advisory Board
CCIP	Clinical & Community Integration Program
CDAS	Core Data Analytics Solution
CDC	Center for Disease Control and Prevention
CHW	Community Health Worker
CMMI	Center for Medicare & Medicaid Innovations
CMS	Centers for Medicare and Medicaid Services
DMHAS	Department of Mental Health and Addiction Services (CT)
DPH	Department of Public Health (CT)
DSS	Department of Social Services
EHR	Electronic Health Record
FQHC	Federally Qualified Health Center
HEC	Health Enhancement Community
HIE	Health Information Exchange
HISC	Healthcare Innovation Steering Committee
HIT	Health Information Technology
ICM	Intensive Care Management
MAPOC	Medical Assistance Program Oversight
PCMH+	Person Centered Medical Home +
MSSP	Medicare Shared Savings Program
NCQA	National Committee for Quality Assurance
NQF	National Quality Forum
OSC	Office of the State Comptroller
PCMH	Patient Centered Medical Home
PCP	Primary care provider
PMO	Program Management Office (SIM)
PSI	Prevention Service Initiative
PTTF	Practice Transformation Task Force
QC	Quality Council
RFP	Request for Proposals
SIM	State Innovation Model
SSP	Shared Savings Program
TA	Technical Assistance
VBID	Value-based Insurance Design
VBP	Value-based payment

A. Project Summary

1. Connecticut State Innovation Model Project Summary

Over a five year period (2015-2020) Connecticut's SIM is working to improve Connecticut's healthcare system for the majority of residents. We have been investing in a transition away from paying for a volume of healthcare services towards paying based on whether people receive high quality care with lower growth in costs. This includes funding the design and launch of the state's first Medicaid Shared Savings Program ("PCMH+"), which rewards healthcare providers who build on Person Centered Medical Home standards by implementing enhanced care coordination activities, and connect with community-based organizations to address social determinant needs, for improved quality outcomes and better cost trends.

We are providing technical assistance and supports to healthcare providers who want to succeed in these new payment models, so that they can connect individuals to community and behavioral supports, deploy community health workers, use data to track and improve their performance, and more. Providers access these resources through our Community & Clinical Integration and Advanced Medical Home programs.

Simultaneously, we engage consumers by promoting insurance plans that remove financial barriers to, or introduce rewards for preventive care, medication adherence, chronic disease management, and high-quality provider selection. We promote these "Value-Based Insurance Designs" by convening employers and creating easily adoptable templates and disseminating best-practices.

Lastly, we are creating and testing components of our Population Health Plan. This longer-term strategy will combine innovations in clinical healthcare delivery, payment reform, and population health strategies to improve health as a community approach, rather than one focused solely on patient panels.

This Operational Plan outlines the strategy that we will execute over the duration of the SIM test grant, with a focus on the next award year (February 1, 2018 – January 31, 2019). This document is consistent with the approach set forth in our Test Grant Application and is supplemented with plans developed since the application was submitted. It outlines model goals, supporting strategies, milestones, and allocation of funding among project components. This Operational Plan will govern the business relationship between Connecticut and CMMI, and establish accountability for proposed strategies.

2. End State Vision

As part of the SIM initiative, Connecticut released its State Healthcare Innovation Plan (SHIP) articulating a shared vision to transform healthcare:

> **Vision**: *Establish a whole-person-centered healthcare system that improves community health and eliminates health inequities; ensures superior access, quality, and care experience; empowers individuals to actively participate in their health and health care; and improves affordability by reducing healthcare costs.*

We track our progress towards this vision through statewide indicators associated with the Triple Aim of healthier people, better care, and smarter spending. However, improving overall health can still leave underlying differences in the health outcomes of people of different races, ethnicities, and economic statuses. For this reason, we emphasize health equity within each of our aims.

Connecticut intends to continue these efforts beyond the Model Test period and has set quality measure and process goals that reach into 2020:

- Improved rates of diabetes, obesity, and tobacco use, with improved health equity.
- Improved health care outcomes on measures including preventable ED admissions, hospital readmissions, cancer screenings, cardiovascular deaths, diabetes care, and child well-visits, with improved health equity.
- Provider and multi-payer participation in alternative payment models that support a transformed model of care delivery.
    - 88% of the Connecticut population goes to a healthcare provider that is accountable for quality and total cost of care (Shared Savings Models).
    - Public and private insurers ("payers") are implementing alternative payment models.
    - Over 1,600 healthcare providers undergo a transformation program to improve care delivery.
- 87% of the commercially insured population has a value-based insurance plan that removes financial barriers/has rewards for preventative care, chronic condition management, and more.
- Population health and health system transformation efforts are aligned and coordinated for a greater collective impact.
- Transformed health information technology and analytics statewide enable care transformation.
- 1-2% reduction in the annual rate of healthcare spending across public and private payers.

3. Driver Diagram

Connecticut is striving to achieve challenging yet attainable goals for population health, healthcare outcomes, health equity and cost reduction. The grant is also meant to accelerate state-wide transformation efforts towards value-driven and sustainable models in healthcare. Achieving our goals requires a multi-faceted approach with multiple interventions being leveraged at once to impact the majority of those living in Connecticut. Instead of applying singular reforms or interventions, we apply multiple levers simultaneously to drive change, such as changes to payment incentives, healthcare delivery standards, consumer-driven reforms, health information technology infrastructure, and regulatory levers.

Although SIM funds support many initiatives directly, we also coordinate with other major initiatives such as the Medicare Shared Savings Program (SSP), the Department of Social Services' person-centered medical home (PCMH) and administrative service organization (ASO) Intensive Care Management (ICM) initiatives, and the CMMI funded Practice Transformation Network (PTN) initiative.

A *Driver Diagram* was developed to illustrate how SIM initiatives connect with one another and our hypothesis about which drivers will enable us to achieve our aims. The diagram also creates the high- level framework that guides this Operational Plan.

The Driver Diagram identifies the following: *project aims, primary drivers, secondary drivers, and accountability targets*.

Our Driver Diagram reflects principles and strategies identified in Connecticut's State Healthcare Innovation Plan, as well as the refinements and new plans developed since then in collaboration with our key partners. The diagram provides a shared vision of our scope of work. It illustrates where we are focusing our interventions and which targets we use for monitoring our progress. It will remain an iterative document, requiring updates as lessons are learned and milestones are met.

All of our measures will be tracked for the entire state population by our evaluation team. More detail about measures and project evaluation is provided in ***Section D***.

Please see Driver Diagram on the next page.

EXHIBIT 1: SIM DRIVER DIAGRAM

Aims	*Primary Drivers*	*Secondary Drivers*
By 6/30/2020 Connecticut will establish: Healthier People While Promoting Health Equity: **Reduce statewide rates of diabetes, obesity, and tobacco use** Better Care While Promoting Health Equity: **Improve performance on key quality measures, increase preventative care and consumer experience, and increase the proportion of providers meeting quality scorecard targets** Smarter Spending: **1-2% percentage point reduction in annual healthcare spending growth**	Promote policy, systems, & environmental changes, while addressing socioeconomic factors that impact health	Engage local and state health, government, and community stakeholders to produce a population health plan
		Identify reliable & valid measures of community health improvement
		Design Health Enhancement Communities (HECs) model that includes financial incentive strategy to reward communities for health improvement
		Connect CBOs and healthcare providers through the Prevention Service Initiative (PSI)
	Engage consumers in healthy lifestyles, preventive care, chronic illness self- management, and healthcare decisions	Promote use of Value-Based Insurance Designs that Incentivize healthy choices by engaging employers and others
		Provide transparency on cost and quality by creating a public scorecard and deploying consumer experience survey
		Develop informed and actively participating consumers for health reform
		Execute stakeholder engagement to support data analytics and deploy HIT tools that engage consumers
	Promote payment models that reward improved quality, care experience, health equity and lower cost	All payers in CT use financial incentives to reward improved quality and reduced cost: including the launch of the Medicaid Person Centered Medical Home+ (PCMH+)
		Recommend a statewide multi-payer core quality measure set for use in value-based payment models to promote quality measure alignment
		Support data analytics and deploy HIT tools, including a multi-payer solution for the extraction, integration, and reporting of eCQMs
	Strengthen capabilities of Advanced Networks and FHQCs to deliver higher quality, better coordinated, community integrated and more efficient care	Community & Clinical Integration Program (CCIP): Provide technical assistance & awards to PCMH+ participating entities to achieve best- practice standards in: comprehensive care management; health equity improvement; & behavioral health integration
		Advanced Medical Home (AMH) Program: Provide support to primary care practices, within PCMH+ participating entities, that are not medical homes, to become AMHs
		Promote use of CHWs through technical assistance, resource development, and policy recommendations
		Convene providers for peer-to-peer learning (PCMH+ and CCIP collaboratives)
	Enable HIE, analytics, and health IT to drive transformation	Establish shared health information exchange (HIE) services (including alerts, longitudinal health record, image exchange, immunization system, and more)
		Establish Core Data Analytics Solution (CDAS) and enable the use of eCQMs in value-based payment

In addition to the Driver Diagram, and in order to enhance focus, coordination and alignment across the various SIM work streams, five priority areas have been selected from our list of aims:

1. Individuals with Complex Health Needs
2. Diabetes: prevention and control
3. Hypertension (HTN): prevention and control
4. Asthma
5. Depression

The following table outlines how major SIM work streams contribute to impacting our goals around these five priority areas. Please note that this is an iterative document that may change after further vetting with SIM councils.

EXHIBIT 2: ALIGNMENT GRID AROUND PRIORITY SIM AIMS

	VALUE BASED PAYMENT	CARE DELIVERY REFORM			CONSUMER EMPOWERMENT	POPULATION HEALTH			HEALTH IT	
	Commercial SSP & Medicaid PCMH+ Scorecard	**Community & Clinical Integration Program**	**Advanced Medical Home Program**	**PCMH+ elements**	**Community Health Worker Initiative**	**Value Based Insurance Design**	**Community Measures (2018)**	**Prevention Service Centers (2018)**	**Health Enhancement Communities (2019)**	**HIE/ADT/ eCQMs**	**HIT: Other (mobile apps, EHR SaaS, Care Analyzer)**
Individuals with Complex Health Needs	Readmission payment measure	Standard 1: comprehensive care management	Foundational PCMH skills	Employ a care coordinator/ assign care coordination activities	Enable CHW workforce that can integrate into care teams	Recommended: Complex case management program			TBD	Providers have access to comprehensive info about patients (eg ADTs); enable referral f/u	Care Analyzer allows identification of individuals with complex health needs
Diabetes: prevention and control	A1C control (NQF 0059) measure as core reporting (short term) and payment (long term) measure *	Standard 2: Health Equity Intervention focused on diabetes, HTN, or asthma	Foundational PCMH skills	Foundational PCMH skills	Ensure CHW workforce that can do diabetes prevention and control	Recommended: Obesity screenings, chronic disease management	Obesity incidence/ prevalence & up-stream indicators	Include diabetes prevention, pre-diabetic identification	TBD	Enable use of clinical data to track A1C control & act on data	Mobile apps focus on diabetes management & sharing info with provider
Hypertension (HTN): prevention and control	HTN control (NQF 0018) measure as reporting (short term) and payment (long term) measure *	Standard 2: Health Equity Intervention: diabetes, HTN, or asthma	Foundational PCMH skills	Foundational PCMH skills	Ensure CHW workforce that can identify undiagnosed HTN and do HTN control activities	Recommended: Blood pressure screenings, chronic disease management, anti-hypertensives, ACE inhibitors	Obesity incidence/ prevalence & up-stream indicators	Include HTN prevention, undiagnosed HTN identification	TBD	Enable use of clinical data to track HTN control & act on data	Mobile apps focus on HTN management & sharing HTN info with provider
Asthma	Asthma Hospital/ED admission measure as payment measure *	Standard 2: Health Equity Intervention: diabetes, HTN, or asthma	Foundational PCMH skills	Foundational PCMH skills	Ensure CHW workforce that can do home asthma assessments	Recommended: chronic disease management	(?)	Include asthma triggers assessments	TBD		Mobile apps focus on asthma management & sharing info with provider
Depression	Depression remission & progress (NQF 0710, 1885) as reporting (short term) and payment (long term) measure	Standard 3: Behavioral health integration into primary care, focus on PHQ-9	Depression screening is a new critical element	Promote universal screenings	Enable CHW workforce that can integrate into care teams	Recommended: mental health screenings, anti-depressants	(?)		TBD	Enable use of clinical data to track depression remission control & act on data; enable referral f/u	EHR SaaS enables behavioral health providers to connect to primary care

*In addition to process-oriented claims measures already adopted by most commercial payers and Medicaid (e.g., diabetes eye exam, medication management for people with asthma, etc.)

4. Master Timeline

The following Master Timeline provides an overview of the rollout of SIM components over the three year performance period. This is meant to serve as a high level guide. More detailed and complete operational components can be found in **Section C. Detailed SIM Operational Work Plans by Driver.**

The SIM test grant funds activities from February 2015 to December 31, 2019. A pre-implementation period (PIP) from February 2015 to September 30, 2016 is not included in the Master Timeline. During the PIP additional planning details were developed, councils were established, and select implementation activities took place. The timeline focuses on the three performance years of the grant:

- The first award year (AY1) (pre-implementation year) ran from February 1, 2015 – September 29, 2016
- The second award year (AY2) ran from October 1, 2016 – January 31, 2018
- The third award year (AY3) runs from February 1, 2018 – January 31, 2019
- The fourth award year (AY4) runs from February 1, 2019 – January 31, 2020

The reforms in the Connecticut SIM are intended to be transformative and sustainable past the test grant period. Therefore, many metrics have a goal set beyond the test grant period. Please see the last section: Sustainability Plan, for more information on a framework for sustainability.

EXHIBIT 3: MASTER TIMELINE GANTT CHART FOR AWARD YEARS 2016-2020

Master Timeline Gantt Chart for Performance Years 2016-2020																	
	SIM Component/Project Area	Complete	Lead	AY2				AY3				AY4				Milestone/ Due Date
				1	2	3	4	1	2	3	4	1	2	3	4	
Pop Health Plan	Identify funding options & federal authority to support PSI and HECs		DPH/PMO													9/30/2018
	Conduct statewide scan to identify entities that can provide prevention services	Y	DPH													1/31/2017
	Establish community health improvement measures and integrate into model(s)		DPH/PMO													4/30/2018
	Design Prevention Service Initiative (PSI)	Y	DPH/PMO													9/30/2017
	Prevention Service Initiative implementation		DPH/PMO													AY3, Q1
	Develop detailed design and designation standard for HECs		DPH/PMO													AY4, Q4
	Implement HECs		DPH/PMO													1/1/2019
PCMH+	Develop & execute provider contracts with common performance measures	Y	DSS/Mercer													AY2, Q1
	Go live with Wave I (1/1/2017)	Y	DSS/Mercer													AY2, Q2
	Update performance measures and SSP requirements		DSS/Mercer													AY2, Q3
	Develop Wave II RFP for provider entry	Y	DSS/Mercer													AY2, Q3
	Go live with Wave II (4/1/2018)		DSS													AY3, Q1
	Under-service monitoring	Y	DSS/Mercer													Under-service reviews performed for each wave
	Coordinate evaluation, data monitoring, and contract monitoring	Y	DSS/Mercer													Contracts in compliance, evaluation complete
CCIP – TA and	Enroll Advanced Networks (ANs) and FQHCs for Wave 1	Y	MS, JL, FD													AY2, Q1
	Wave I: Provide transformation support for Wave 1 participating entities	Y	MS, JL, FD													AY2, Q1
	Enroll ANs and FQHCs for Wave II		MS, JL, FD													AY3, Q1
	Wave 2: Provide transformation support for Wave 2 participating entities		MS, JL, FD													AY3, Q1
	Complete evaluation report		MS, JL, FD													AY4, Q4
	CCIP Awards Wave I: Core transformation activities	Y	MS, JL, FD													AY2, Q2
	CCIP Awards Wave II: Core transformation activities		MS, JL, FD													AY3, Q1
AM	Enroll primary care practices from ANs for Wave I	Y	SS													AY2, Q1
	Wave 1: Provide transformation support	Y	SS													AY2, Q1
Health IT	HIE and eCQM Design Groups	Y	HITO													AY2, Q4
	CDAS- Payer and employer engagement & Provider data submission		HITO													AY3
	Governance established		HITO													AY3
	Technical infrastructure for CDAS and shared HIE services established		HITO													AY3

Master Timeline Gantt Chart for Performance Years 2016-2020

	SIM Component/Project Area	Complete	Lead	AY2 1 2 3 4	AY3 1 2 3 4	AY4 1 2 3 4	Milestone/ Due Date
	Wave 1 HIE shared services deployed		HITO				AY3
	Wave 2 HIE shared services deployed		HITO				AY4
VBID	Recommend and launch VBID products	Y	OSC				AY2, Q1
VBID	Periodic update of VBID templates, with semi-annual consortium meetings	Y	OSC				AY2, Q2
VBID	Provide targeted technical assistance to Connecticut employers	Y	OSC				AY2, Q4
VBID	Work with commercial market and AHCT to encourage VBID adoption		OSC				84% of commercially insured pop. In a VBID plan
CAB	Develop tools and types of communication forums	Y	PMO, CAB				AY2, Q1
CAB	Conduct issue-driven forums, focus groups, and listening sessions		PMO, CAB				6 events held in AY3
CAB	Conduct outreach and provide education to consumers, CBOs, stakeholders		PMO, CAB				90 consumers engaged in events AY3
CHWW	Develop CHW policy framework	Y	SWAHEC				AY2, Q4
CHWW	Engage stakeholders to promote CHW integration and employment		SWAHEC				6 ANs/FQHCs with CHWs integrated AY3
CHWW	Provide technical assistance to CCIP PEs to ensure effective integration		SWAHEC				AY2, Q3
CHWW	Initiate identification and development of CHW apprenticeships		SWAHEC				AY3, Q4
QMA	Core quality measure set approved	Y	MS, FD				AY2, Q1
QMA	Promote voluntary adoption across payers of core set for use in VBP contracts	Y	MS, FD				75% alignment across health plans
QMA	Payers begin to incorporate measures into VBP contracts		MS, FD				AY3, Q1
QMA	DSS HIT/analytics design and programming for cross-payer performance analytics		MS, FD				AY3, Q4
Scorecard	Publish first online scorecard		MS, FD				AY3, Q4
Scorecard	Quality Councils rolls out plan for consumer education and access to scorecard		MS, FD				AY4, Q2
Scorecard	Review performance analytics and measures and make periodic changes		MS, FD				25 measures publically reported AY3
Scorecard	Assess and deploy other capabilities or broaden scope (e.g., specialists, hospitals)		MS, FD				45 new measures recommended AY3
Evaluation	Produce pace dashboards and quarterly cost, quality, outcomes dashboard	Y	RA				Quarterly dashboards released
Evaluation	Physician survey		RA				AY4, Q4
Evaluation	Rapid Response Team: ad hoc team reviews dashboard data as issues arise	Y	RA				Ad hoc team meetings held
Evaluation	CAHPS: Identify attributed members, sampling frame	Y	PC, MS				Annual
Evaluation	CAHPS: Conduct care experience survey	Y	PC, MS				Annual
Evaluation	CAHPS: Analysis & reporting of results to health plans for SSP calculations	Y	PC, MS				Annual
Evaluation	CAHPS: Establish survey fee collection procedures and collect fees		PC, MS				AY4, Q4

Master Timeline: Unidentified Acronyms

AHCT: Access Health CT (insurance marketplace)
AMH: Advanced Medical Home program
AS: Amy Smart
CAB: Consumer Advisory Board consumer engagement efforts
CAHPS: Consumer Assessment of Healthcare Providers & Systems (consumer survey)
CCIP: Community & Clinical Integration Program
CDAS: Core Data Analytics Solution
CHW: Community Health Worker work stream
DPH: Department of Public Health
DSS: Department of Social Services
eCQM: Electronic Clinical Quality Measures
FD: Faina Dookh
HEC: Health Enhancement Communities
HIE: Health Information Exchange
HIT: Health Information Technology
HITO: Health Information Technology Officer (Allan Hackney)
HPA: Health Program Associate
JL: Jenna Lupi
MG: Mario Garcia
MS: Mark Schaefer
OSC: Office of the State Comptroller
PC: Paul Cleary, Yale
PCMH+: Patient Centered Medical Home Plus
PMO: State Innovation Model Program Management Office
PSI: Prevention Service Initiative
QMA: Quality Measure Alignment
RA: Robert Aseltine, UConn
RFP: Request for Proposals
SS: Shiu-Yu Schiller
SSP: Shared Savings Program
SWAHEC: Southwest Area Health Education Center
TA: Technical Assistance
VBID: Value-based Insurance Design
VBP: Value-based payment

B. General SIM Policy and Operational Areas

The sections that follow provide detailed information on specific operational components of SIM:

1. **SIM Governance**
    a. **Management Structure and Decision-making Authority**
    b. **Leveraging Regulatory Authority**
    c. **Stakeholder Engagement**
2. **Health Care Delivery System Transformation Plan**
    a. **Care Delivery Models and Payment Models**
    b. **Quality Measure Alignment**
    c. **Plan for Improving Population Health**
    d. **Health Information Technology**
    e. **Workforce Capacity: Community Health Workers**
    f. **Consumer Empowerment**
3. **SIM Alignment with State and Federal Initiatives (relevant to SIM)**
    a. **CMMI**
    b. **CDC, ONC, HRSA**
    c. **State Initiatives**

1. SIM Governance

a. Management Structure and Decision-Making Authority

Connecticut's SIM is being implemented with a broad array of stakeholder involvement and input. The Lieutenant Governor provides overall leadership and oversight for SIM. SIM initiatives are being executed in collaboration with multiple agencies and organizations including the DSS, DPH, OSC, AHCT and UConn Health. The SIM PMO, within the OHA, is leading the implementation. The PMO coordinates activities across work streams, oversees the evaluation, engages stakeholders, manages vendors, executes care delivery reform initiatives, and communicates progress to the public.

The PMO has engaged more than 150 stakeholders through a number of advisory work groups that focus on particular components of SIM such as health information technology, quality measurement, and practice transformation. These work groups are comprised of consumers, employers, healthcare providers, community organizations, and subject matter experts. Our Model Test also includes the participation of all five of Connecticut's major commercial payers, Medicare and Medicaid. Work groups will inform the Healthcare Innovation Steering Committee, which will provide key guidance and recommendations regarding SIM initiatives. Our work groups are supported by the SIM PMO and partner agencies.

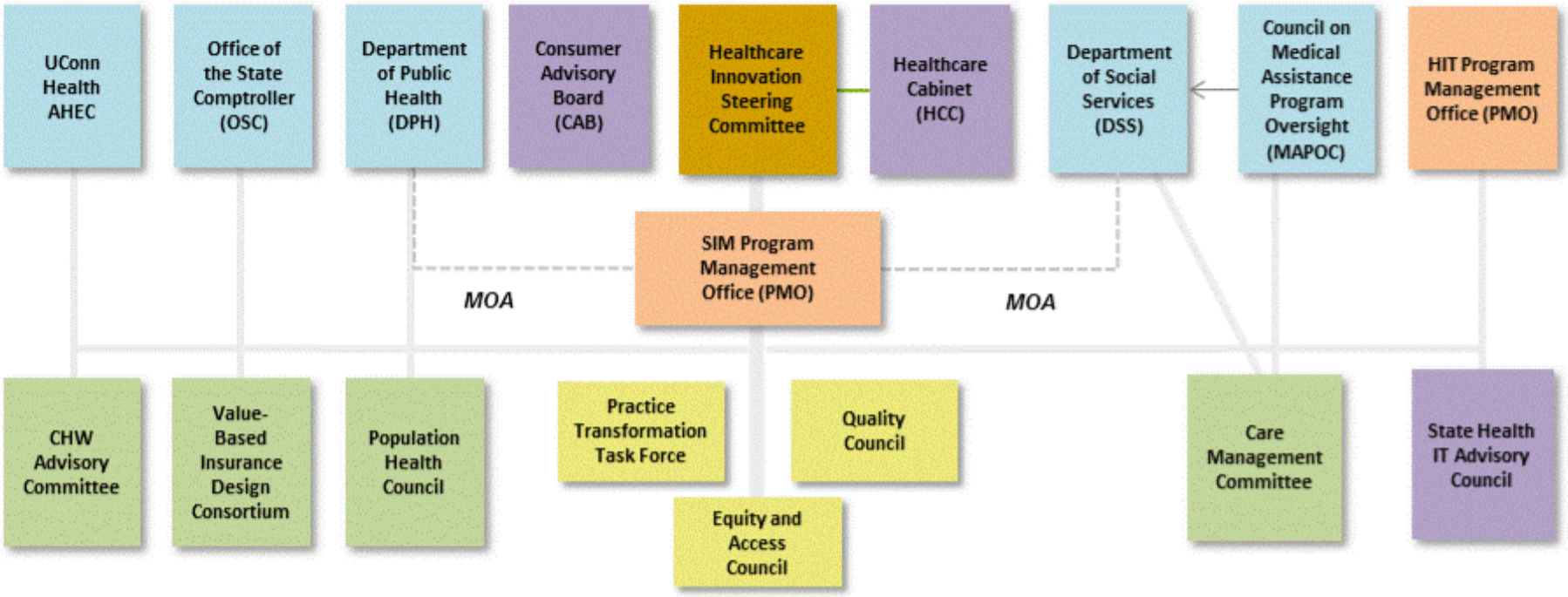
CT has established a workgroup and committee structure that includes a broad range of stakeholders with direct and ongoing involvement in SIM design, implementation and evaluation.

This engagement structure includes the following committees and work groups:

1. Healthcare Innovation Steering Committee (HISC)
2. Program Management Office (PMO)
3. Consumer Advisory Board (CAB)
4. Healthcare Cabinet (HCC)
5. State Health IT Advisory Council (Health IT Council)
6. SIM workgroups:
    a. Practice Transformation Taskforce
    b. Quality Council
    c. Equity and Access Council
    d. CHW Advisory Committee (led by UConn Health AHEC)
    e. Employer VBID Consortium (led by Office of the State Comptroller)
    f. Population Health Council (led by Department of Public Health)
7. Medical Assistance Program Oversight Council Care Management Committee (advisory to the Department of Social Services)

EXHIBIT 4: SIM WORKGROUP/ COMMITTEE STRUCTURE

SIM Governance Structure



SIM KEY WORK STREAM, LEAD, AND RELEVANT COMMITTEE

SIM DRIVER	LEAD IMPLEMENTER	RELEVANT COMMITTEES	WHO LEADS COMMITTEE
PAYMENT REFORM			
PCMH+	Department of Social Services (Medicaid)	Care Management Committee (a sub-committee of MAPOC) Council on Medical Assistance Program Oversight (MAPOC)	DSS
Quality measure alignment	SIM Office	SIM Quality Council	SIM Office
TRANSFORM CARE DELIVERY			
Community & Clinical Integration Program *Advanced Medical Home Program*	SIM Office SIM Office	SIM Practice Transformation Taskforce SIM Practice Transformation Taskforce	SIM Office SIM Office
Community Health Worker Initiative	SIM Office with UConn Health (with AHEC)	SIM Community Health Worker Council	SIM Office with UConn Health (AHEC)
EMPOWER CONSUMERS			
Public Scorecard *Consumer Experience Survey (CAHPS)*	SIM Office with UConn Health (evaluation)	SIM Quality Council	SIM Office with Evaluation team
Consumer Engagement	SIM Office/ Consumer Advisory Board with contractor	Consumer Advisory Board	Consumer Advisory Board
Value-Based Insurance Design	SIM Office with Office of State Comptroller	VBID Consortium	SIM Office, with OSC and consultant
POPULATION HEALTH			
Prevention Service Centers *Health Enhancement Communities*	Department of Public Health (DPH) with SIM Office	SIM Population Health Council	DPH with SIM Office
HEALTH IT			
ALERTS, ECQMS, HIE		HIT Council	HIT PMO
EVALUATION	UConn Health (evaluation)	N/a	N/a
OTHER			
Overall SIM guidance		SIM Steering Committee ("HISC" Healthcare Innovation Steering Committee)	SIM Office
Equity And Access – Underservice		SIM Equity & Access Council	SIM Office

1. Healthcare Innovation Steering Committee (HISC)

The HISC is chaired by Lieutenant Governor and serves as the key advisory body for the design and implementation of the SIM, while addressing key strategic, policy, and programmatic concerns. Participants include private foundations; consumer advocates; representatives of hospitals, Advanced Networks, home health, physicians and APRNs; health plans; and employers. Additionally, the OPM and the Comptroller's office are included as well as line agency Commissioners with responsibility for public health, Medicaid, behavioral health, health insurance exchange, APCD, and child welfare.

2. Program Management Office (PMO)

Effective February 1, 2018, the SIM PMO is consolidated within the Office of Health Strategy (OHS). The SIM PMO is responsible for administering the Connecticut SIM Grant. The PMO will be accountable for the conduct of specific SIM initiatives and will work closely with state agencies and stakeholders that hold accountability for components of the plan. The PMO will communicate SIM progress to the public and state government, engage with stakeholders, and provide staff support to SIM. The PMO convenes a SIM Core Team comprised of representatives from the HIT PMO, DSS, DPH, OSC, OPM, APCD, OPM, DMHAS, Consumer Advisory Board, and the UConn Health evaluation team. The SIM Core Team supports overall program management and coordination amongst the various lead entities.

3. Consumer Advisory Board (CAB)

The CAB is an independent advisory board that provides advice and guidance directly to the HISC (on which it has a seat) and the PMO. The CAB is racially and ethnically diverse, with members involved in advocacy and community development, health services, and housing. The CAB is the main vehicle in the governance structure to ensure community and consumer engagement. The CAB's mission statement is to advocate for and facilitate strong public and consumer input to inform policy and operational decisions on health care reform in Connecticut.

4. Health Care Cabinet

Connecticut's Healthcare Cabinet was established in 2011 to advise Governor Dannel P. Malloy and Lieutenant Governor Nancy Wyman on issues related to implementation of federal health reform and the development of an integrated healthcare system for the state. The Cabinet is chaired by the Lieutenant Governor and includes nine state agencies. Other representatives are appointed by legislative leadership. The Healthcare Cabinet is charged with improving the physical, mental and oral health of all state residents while reducing health disparities by maximizing the state's leveraging capacity and making the best use of public and private opportunities.

5. State Health Information Technology Advisory Council (Health IT Council)

In 2015, the Health IT Council was created through Public Act 15-146. The council's purpose is to advise on: (1) developing priorities and policy recommendations to advance the state's health information technology and health information goals; (2) develop and implement the statewide health information technology plan, data and technology standards, and the statewide health information exchange; and (3) develop appropriate governance, oversight, and accountability measures to ensure success in achieving the state's HIT and HIE goals. In 2016, Public Act 16-77 made various changes to requirements for health IT including: (1) designation of a Health Information Technology Officer (HITO) by the Lieutenant Governor, (2) transfers various responsibilities from DSS Commissioner to the HITO; and (3) adds additional members to the state Health IT Advisory Council. As a result of P.A. 16-77 and the onboarding of a HITO, the advisory process for P.A. 16-77 and the former SIM HIT Council have been consolidated under the Health IT Council.

6. Medical Assistance Program Oversight Council (MAPOC) Care Management Committee

CT law established the Medical Assistance Program Oversight Council (MAPOC) as the legislative oversight body for the Connecticut Medicaid/CHIP programs. The MAPOC leadership designated the Care Management Committee of the MAPOC to review and comment on each aspect of the design of the PCMH+ program, including the establishment of consumer protections and implementation activities. Committee membership was supplemented by members of the Steering Committee and CAB. Additionally, MAPOC has designated up to two members to participate in each SIM work group and the Steering Committee.

7. SIM Workgroups

Six workgroups ensure that the necessary stakeholders and technical experts are continually engaged and actively involved in the implementation of the SIM grant. There are four broad categories of representation on these workgroups: consumer/advocate, payer, provider, and state agency. The workgroups participate in detailed planning, and provide oversight across a range of areas.

When necessary, work groups establish design groups to consider special issues and to engage additional external stakeholders who may have the expertise and knowledge necessary to inform the planning. **For the meeting schedule, minutes, and workgroup membership and charters click here.**

a. Practice Transformation Task Force (PTTF)

The PTTF provides guidance on SIM and broader care delivery reform efforts, including recommending the Advanced Medical Home design and standards and the Community & Clinical Integration Program design and standards. The PTTF has established design groups with expert consultation in the areas of health equity, behavioral health, and oral health.

b. Quality Council

The Quality Council's role is to recommend a set of quality measures that payers will be encouraged to use to assess the quality of services delivered under value-based payment arrangements. As needed, the MAPOC Care Management Committee will recommend supplemental measures that address the needs of the Medicaid program. The council will reassess the core measure set on a regular basis to identify gaps, to incorporate new national measures as they become available, and to keep pace with changes in technology and clinical practice. The council also advises on the development of a public scorecard.

c. Equity and Access Council

This council's role is to make recommendations to protect against under-service and patient selection as value based payment reforms are implemented. The council, along with design groups, has recommended retrospective and concurrent analytic methods to ensure safety, access to providers and appropriate services, and to limit the risk of under- provision of requisite care. They have released the Report of the Equity and Access Council on Safeguarding Against Under-Service and Patient Selection in the Context of Shared Savings Payment Arrangements.

d. Community Health Worker (CHW) Advisory Committee

The CHW Committee develops recommendations with respect to the training, promotion, utilization and certification of CHWs. They will also advise on a framework for sustainable payment models for CHWs. The Committee will examine critical issues for employers with regard to hiring, supervising and technical support of CHWs.

e. Employer-led Value-Based Insurance Design (VBID) Consortium (supported by the OSC)

The VBID Consortium provides advice and guidance on all aspects of the VBID initiative to encourage the uptake of VBID benefit plans throughout the state. The Consortium has developed and continues to develop recommendations to the HISC with respect to the promotion and adoption of VBID models for use by self-insured employers, fully insured employers and private and public health insurance exchanges. To date, the Consortium advised on VBID prototypes and an implementation guide for employers.

f. Population Health Council (supported by the DPH)

The Population Health Council is responsible for providing advice regarding the development of the Population Health Plan. The Council will develop a vision for improving Population Health in the context of payment, insurance and practice reforms, and community integration and innovation. The Council will also leverage existing resources and will build on the framework established in the State Health Improvement Coalition to advance population health planning and establish a long term public health strategy.

b. Leveraging Regulatory Authority

Connecticut has demonstrated that it is committed to using legislative and regulatory authority to support healthcare delivery and payment reform.

For example, the SIM CHW Advisory Committee worked diligently over 2016 to identify the elements necessary to build the infrastructure for the CHW workforce in CT. As a result, the Committee developed a definition, a scope of work (following the C3 Project guidelines) and the guidelines for certification of CHWs. In June of 2017, Public Act 17-74, "An Act Concerning Community Health Workers," solidified the definition for CHWs and their roles and responsibilities. The statute additionally creates the charge for the SIM Office to continue working with the CHW Advisory Committee and DPH to complete a feasibility study for certification of CHW by October 1, 2018. This study shall include requirements for certification and renewal of certification of community health workers, including any training, experience or continuing education requirements, (2) methods for administering a certification program, including a certification application, a standardized assessment of experience, knowledge and skills, and an electronic registry, and (3) requirements for recognizing training program curricula that are sufficient to satisfy the requirements of certification.

Additionally, in May of 2016 the state enacted Public Act 16-77: "An Act Concerning Patient Notices, Designation of a Health Information Technology Officer, Assets Purchased for the State-Wide Health Information Exchange and Membership of the State Health Information Technology Advisory Council." This act makes various changes to requirements for health information technology, hospitals, health systems, and health carriers enacted in PA 15-146. Changes about the health information technology include (1) designation of a Health Information Technology Officer (HITO) by the Lieutenant Governor, (2) transfers various responsibilities from DSS Commissioner to the HITO; and (3) adds additional members to the state Health IT Advisory Council.

Finally, a new Office of Health Strategy (OHS) was established in the 2017 legislative session to bring Connecticut's healthcare reform work under one umbrella. OHS will better align planning efforts, avoid duplication of work, streamline efforts to improve healthcare access and reduce costs over the long term,

and enable the use of data to drive health strategy. More information is located in the section, "Sustainability Plan."

The SIM PMO, through the OHS, plans on examining potential legislative options for AY3 that may include:

- Value based insurance design
- Regulatory approaches to address unit cost inflation
- Pharmacy costs (as part of Healthcare Cabinet process)
- Enablers of primary care payment reform, including options for increasing the magnitude of investments in primary care
- Community benefits
- Telehealth

These issue areas will be examined over the coming weeks and months with a broad set of stakeholders.

c. Stakeholder Engagement

Our governance and work group structure, described in the previous section, is one of the primary methods for engaging and empowering a broad array of stakeholders and formalizes stakeholder involvement across a variety of interests. SIM is engaging more than 150 stakeholders through our advisory groups alone.

CT's SIM continues to ensure transparency and the availability of information throughout the test period. The state maintains its website dedicated to disbursing information about SIM work group meetings, and other critical news. Meetings will continue to be public, with a public comment period designated at the beginning. A dedicated email address (sim@ct.gov) is also available and staffed to ensure a consistent feedback avenue.

Other engagement methods include a SIM News electronic distribution strategy, monthly work stream updates, conferences, forums, learning collaboratives, dissemination of information tailored to specific stakeholders (e.g., reports, data, etc.), and presentations.

Refer to our **SIM Stakeholder Engagement Plan** for more information on our engagement plans. The following table outlines the main engagement methods we aim to utilize during the testing phase.

Stakeholders engaged through SIM have been a critical part of healthcare reform efforts in the state. As we fully ramp up the implementation phase of SIM, stakeholder engagement will continue for initiatives such as PCMH+ to ensure continued input and support from the consumer and provider communities. The continuous input of our stakeholders will mitigate the risk of additional delays.

EXHIBIT 5: STAKEHOLDER ENGAGEMENT METHODS DURING THE MODEL TEST

Stakeholder	Engagement Method			
	Inform	Consult & Involve	Engage & Empower	
Government Stakeholders	CT SIM website	MOAs, Core Team	Internal Core Team meetings with the PMO	**Public SIM meetings:** • Steering Committee • Health Information Tech Council • Practice Transformation Task Force • Consumer Advisory Board • Quality Council • Equity and Access Council • Population Health Council • Healthcare Cabinet (HCC) • CHW Committee • VBID Consortium • MAPOC • MAPOC – Care Management Committee
Community and Consumer Stakeholders, Employers	• Community Presentations • Disseminate quality and cost information • CT SIM website	• Q & As via sim@ct.gov • Care Experience • Survey Public Comment	• Consumer Advisory Board • Annual Employer Conference • VBID Collaborative	
Payers	CT SIM website	Email correspondence	Individual and group meetings	
Providers	• CT SIM website • Reports about quality and cost • AMH curriculum • CCIP TA	• Provider Survey & • Q & As via sim@ct.gov • Forums • CHW annual conference • Public Comment	• AMH • CCIP • Learning Collaboratives, including for PCMH+ • Targeted Technical Assistance	

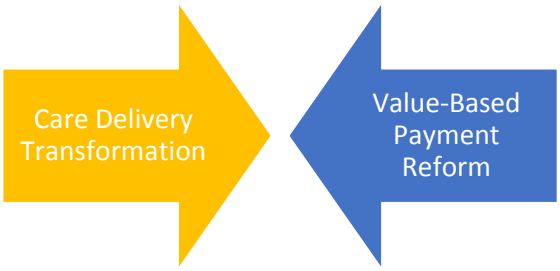
2. Health Care Delivery System Transformation Plan

a. Care Delivery Models and Payment Models

Connecticut SIM has launched two programs to provide technical assistance, on-site support, and direct funding to assist healthcare providers in mastering these capabilities:

1. **Community and Clinical Integration Program (CCIP):** Provides 15 months of technical assistance, learning collaborative support and CCIP Transformation Awards so that Advanced Networks and FQHCs achieve SIM-developed care delivery standards. These standards focus on comprehensive care management, health equity, and behavioral health integration. Community Health Collaboratives will bring together clinical and community stakeholders to develop consensus protocols for coordinated care and community linkages.
2. **Advanced Medical Home Program (AMH):** Provides a guided program with webinars and on-site support to practices that do not have patient-centered medical home status to achieve NCQA PCMH recognition.

We recognize the barriers that historic provider reimbursement models place on the ability of healthcare providers and organizations to invest in and sustain these care delivery model capabilities. Consequently, a core strategy Connecticut has adopted is to shift from paying for volume ("fee for service") to paying for value. Value-based payment rewards provision of care that is higher-quality and lower-cost. We align our care delivery support programs with these alternative payment models. We do this primarily by targeting our supports to "Advanced Networks," which are independent practice associations, large medical groups, clinically integrated networks, and integrated delivery system organizations that have entered into Shared Savings Program (SSP) arrangements with at least one payer. These providers have strong incentives to perform well on quality measures and improve the overall efficiency and effectiveness of patient care processes.



Connecticut has approximately 18 accountable care organizations (also called Advanced Networks), who participate in "Category 3" SSP arrangements with Medicare and/or commercial payer(s). In the past two years, considerable market consolidation has resulted in an estimated 85% of CT's PCPs employed by or affiliated with a provider organization that is participating in at least one SSP contract, and this percentage is growing. This is up from an estimated 60-65% during our first award year.

As part of SIM, the Department of Social Services (DSS) has launched the Medicaid **PCMH+** SSP initiative. This new model builds on the department's pay-for-performance PCMH initiative that has accelerated the advancement of primary care in Connecticut and has contributed to gains in quality performance and reductions in total cost of care.

We intend to implement this aligned strategy in three waves, two of which will occur during the test grant. The first wave of PCMH+, CCIP technical assistance and transformation awards launched on 1/1/2017. Over the course of five years, our goal is that 89% of Medicaid members receive their care from PCMH+

providers. We also aim to have more than 1,300 providers in 12 Advanced Networks and 15 FQHCs (CCIP); and 151 primary care practices (AMH) undergo a transformation program to improve care delivery.

137,037 (18%) of Connecticut Medicaid members are currently being served in a Category 3A Alternative Payment Model (APM) under PCMH+. Additionally, Connecticut Medicaid is serving 146,510 (19%) of Connecticut Medicaid members in a Category 2C APM through non-FQHC primary care practices under the PCMH program. This brings us to a total of 283,547 (37%) of Connecticut Medicaid members currently being served in an APM.

Strengthening Healthcare Delivery

Both the **CCIP** and **AMH program** aim to provide the necessary resources and supports to healthcare providers so that they can enter and succeed in new alternative payment models, including PCMH+.

CCIP

CCIP supports accountable healthcare organizations transform care at the network, or organizational, level. This means that we work with the healthcare organization leadership and quality improvement staff to help them disseminate best practices and reduce variation in performance across their practice sites.

The program is structured around a set of SIM-developed CCIP standards recommended by the Practice Transformation Taskforce. These standards align with opportunities for improvement in Connecticut's healthcare landscape and the SIM aims, with focus on:

1. Comprehensive care management: Identifying and managing the care of individuals with complex health care needs, including using multi-disciplinary comprehensive care teams.
2. Health equity improvement: Continuous health equity gap improvement through data analysis, deploying Community Health Workers (CHWs), and targeted health equity pilots.
3. Behavioral health integration: Identifying individuals with unmet behavioral health needs in the primary care setting and addressing the need.
4. E-Consults: Electronically consulting a specialist prior to referring them for a non-urgent care visit.
5. Comprehensive Medication Management: Deploying a comprehensive personalized medication management plan, supported by close collaboration between pharmacists and physicians.
6. Oral Health Integration: Routinely perform oral health assessments with recommendations for prevention, treatment and referral to a dental home.

CCIP Participating Entities receive technical assistance, resources, and guidance from SIM-funded subject-matter experts. They will also participate in a learning collaborative to support peer-based learning.

Additionally, they are eligible to apply for CCIP Transformation Awards to support their achievement of the standards. Proposed allowable costs may include:

- Redesigning internal clinical workflows and staff training to implement new workflows
- Contractors or staff to facilitate and support meeting CCIP standards
- Temporary funding for additional employed or contracted staff, such as CHWs.
- Sub-contracts to support new clinical processes.

- Health information technology and analytics to support the use of electronic clinical quality measures, health risk stratification, predictive modeling, data sharing, care management, decision-supports, sub- population performance analysis, and other.
- Costs associated with the tracking and analysis of measures outside of the PCMH+ measure set.

To align CCIP with our value-based payment efforts, only Advanced Networks and FQHCs that participate in PCMH+. We have excluded providers already receiving transformation support (i.e., through TCPI PTN). In AY2, we intend to extend CCIP technical assistance and awards to TCPI participants for CCIP standards that are not covered under TCPI including the health equity standard and elements pertaining to CHW integration. The combined effect of the PCMH+ required elements and the CCIP standards is to strengthen the capabilities of our increasingly accountable provider community with an emphasis on care coordination, team-based care, health equity, social determinant risks, community integration, community health worker supports, behavioral health integration, and the care of special populations. Although PCMH+ targets the Medicaid population, CCIP is aimed at increasing the health outcomes at lower costs for Medicare, Medicaid, and commercial plan enrollees. Both of the Advanced Networks that participate in CCIP also have SSP contracts with commercial payers and Medicare.

Wave 1 of both PCMH+ and CCIP launched on 1/1/2017. Two Advanced Networks and one Federally Qualified Health Center are currently enrolled in CCIP. These include Community Health Center Inc. which has 14 locations across the state; Northeast Medical Group which represents over 40 primary care locations across Southern CT, and Value Care Alliance made up of the Norwalk, Danbury, New Milford, Middlesex, and Griffin Hospitals, and St. Vincent's Medical Center.

Over the course of the first performance period for Wave 1, the experience of Participating Entities is actively being reviewed and the standards may be adjusted. For the Wave 2 PCMH+ procurement, achievement of the CCIP standards, as revised, will be a condition for all PCMH+ Participating Entities, including those entities that were exempt during the first wave.

In order to align CCIP with our population health efforts, Participating Entities and other clinical and community providers in a specified region, are participating in Community Health Collaboratives**.** These collaboratives will develop standardize protocols for linking community resources with clinical service providers to facilitate more efficient coordination.

More comprehensive information on CCIP can be found in the CCIP Report, and on our website.

AMH

The AMH program aims to increase the number of primary care practice sites within Advanced Networks that achieve patient-centered medical home recognition through NCQA. Although many practices have pursued practice advancement, only about 900 primary care physicians in CT have achieved or maintained NCQA 2011 medical home standards. We are providing on-site guided support over a 15 month period to help practice sites transform their care and apply for NCQA recognition.

The NCQA patient-centered medical home standards focus on patient-centered access, team-based care, population health management, care management and support, care coordination and care transitions, and performance measurement and quality improvement. The Practice Transformation Task Force recommended specific emphasis on some of the elements within these standards to underscore health

equity and patient-centered care. The AMH program also brings in subject-matter experts who focus on the patient and care team satisfaction. For a full list of AMH standards, criteria, and elements, click here.

Since the PCMH+ program currently has a prerequisite that a practice has to be a recognized patient-centered medical home to be eligible for shared savings, the AMH program increases the number of practices that can enroll in PCMH+. The PMO has recruited a total of 153 practices. To date, 63 practices have already received NCQA Level 2 or 3 PCMH recognition. The rest continue to receive transformation services.

Due to declining enrollment, the AMH Program will complete the technical assistance process with those practices enrolled during Award Year 2, but will not recruit additional practices. Resources allocated for the AMH Program to support other care delivery and population health reform efforts. This includes supporting the Health Enhancement Community initiative planning efforts, and expanding direct support to FQHCs in the Community & Clinical Integration Program.

Practice Transformation Coordination Efforts

We coordinate our efforts with other practice transformation investments occurring in Connecticut. For instance, three entities[1] in the state were selected to be Practice Transformation Networks (PTNs) as part of the CMS Transforming Clinical Practice Imitative (TCPI). The SIM PMO has corresponded both with CMS and the PTNs to develop protocols to reduce practice change fatigue and duplication. For example, PTN participating practices are ineligible to participate in duplicative CCIP technical assistance activities.

We also coordinate with the DSS PCMH program, which provides enhanced rates and free, multi-disciplinary practice transformation support to primary care practices that are working towards or have achieved patient-centered medical home recognition. The AMH vendor works with PCMH staff to ensure that AMH participants can also apply to receive enhanced rates.

Promoting Value-Based Payment Models

Our SIM program continues to promote multi-payer alignment around a common framework for value-based payment. That framework is the Medicare Shared Savings Program (MSSP). CT's five largest health plans, Medicaid, and the state employee health plan are implementing value- based payment arrangements through shared savings programs (SSP) for providers with sufficient scale and capabilities that are broadly aligned with Medicare SSP. To illustrate, Anthem has arrangements with more than fifteen Advanced Networks that cover more than 85% of their contracted primary care physicians. Maintaining engagement with payers like Anthem will continue to catalyze a broad foundation of primary care practices in Connecticut to adopt patient-centered and value-based care models. In addition, aligning with Medicare, and across payers is critical to reduce the fragmentation consumers and providers currently experience. This is especially important as it relates to the work of the Quality Council on quality measure alignment, which is critical to improving efficiency, more effectively driving improvement, and reducing the burden of SSP participation on providers.

We have set a goal of 88% of the Connecticut population obtaining their care from a primary care team that is accountable for the quality of their care, care experience and total cost by 2020. In order to achieve

[1] Community Health Center Association of CT (CHCACT) PTN, Southern New England PTN, and Vizient PTN

this goal, it is necessary to support Medicaid participation in these reforms recognizing that Medicaid covers approximately 21% of the Connecticut population.

Person Centered Medical Home + Program (PCMH+) Overview

DSS, Connecticut's single state Medicaid agency, has used SIM funding and state resources to establish an upside-only shared savings initiative entitled 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., ACOs), both of which have historically provided a significant amount of primary care to Medicaid members.

PCMH+ was developed and is being implemented by DSS with advice and comment by the Care Management Committee (the Committee) of the Medical Assistance Program Oversight Council (MAPOC), in a manner that is consistent with the best interests of Medicaid enrollees, and in accordance with the protocol between DSS and the SIM PMO.

PCMH+ amplifies the important work of the Connecticut Medicaid PCMH initiative. Currently, 111 practices (affiliated with 470 sites and 1,655 providers) are participating in the PCMH program, serving over 358,690 members (47% of Medicaid members). Connecticut's Medicaid PCMH model represents strong roots for PCMH+. 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. See this link for a detailed report on CY2015 quality results:

https://www.cga.ct.gov/med/committees/med1/2017/0913/20170913ATTACH_PCMH%20Update.pdf

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 also enabled DSS to begin migrating its federated, Administrative Services Organization-based ICM interventions to more locally based care coordination. While the ASO ICM will continue 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 as a PTN. DSS, the SIM PMO and CHCACT have collaborated to create materials that define, relate and distinguish these complementary strands of work. Please see the link below for more detail:

https://www.cga.ct.gov/med/committees/med1/2017/0614/20170614ATTACH_Overview%20of%20Practice%20Transformation%20Supports%20for%20Providers%20-%20updated%20June%202017.pdf

Finally, PCMH+ represents the first ever Connecticut Medicaid use of an upside-only approach. This has brought DSS along the curve of value-based payment approaches, which up until this year have focused exclusively on Category 2C APM rewards for performance.

All elements of PCMH+ model design have been, and as they are refined and revised will be, reviewed through an intensive stakeholder engagement and design process that is described below. This process informed implementation of Wave I, and will continue through implementation of Wave II.

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, 2017, focused upon support of 137,037 attributed Medicaid members. Only a small number of individuals opted out of participation in the time period between receipt of member notice and January 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.

Under the above SPA authority, PCMH+ Wave 1 PEs are receiving Medicaid-funded care coordination payments (**FQHCs only**) and, on the condition that they meet benchmarks on identified quality measures (including measures of under-service), will also receive a portion of any savings that are achieved (**FQHCs and Advanced Networks**).

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 PEs. Very recent confirmation of budget figures in support of the state investment in PCMH+ care coordination payments has now enabled DSS to model Wave II and a specific recommendation around the timing and extent of Wave II is pending review of executive leadership.

Program Design Process

At the inception of the process of designing PCMH+, DSS worked with the Committee and the SIM PMO to develop and finalize a PCMH+ "primer" document that introduced the premise for model design, as well as outlining the various aspects of model design that would be reviewed. DSS also worked with the Committee and the SIM PMO to articulate a protocol for interaction with, as well as review and comment by, SIM-affiliated councils.

DSS and its contractor Mercer Consulting then articulated a set of values that would inform decision-making and act as a litmus test for supporting the rights and interests of Medicaid members throughout model design.

Care Coordination Principles

Informed by advice and comment from the Committee, DSS selected care coordination elements with the goal of building on existing standards for FQHCs established by the Health Resource and Standards

Administration (HRSA), as well as PCMH Standards for ambulatory entities established by the NCQA and The Joint Commission (TJC).

Quality Measure Principles
Informed by advice and comment from the Committee, DSS selected quality measures with a lens toward:

- leveraging the current DSS PCMH reporting
- measures that are primarily claims based
- measures that are nationally recognized
- measures that use common CPT and HCPCS billing codes
- measures that do not have extended look-back periods
- measures that are relevant to Medicaid population:
- advance DSS' emphasis on preventative and primary care
- focus on conditions that are highly prevalent in Medicaid populations
- measures recommended by the SIM Quality Council, where aligned with PCMH+ goals
- measures that support identification and elimination of under-service

Shared Savings Model Principles
Informed by advice and comment from the Committee, DSS designed its shared savings approach consistent with these values:

- Only participating entities that meet identified benchmarks on quality standards and measures of under-service will be eligible to participate in shared savings
- Quality improvement (not just absolute quality ranking) will factor into the calculation of shared savings
- Higher quality scores will allow a Participating Entity to receive more shared savings
- Participating Entities that demonstrate losses will not be required to share in losses
- Participating Entities will be benchmarked for quality and cost against a comparison group devised from in-State, non-participating Entities as well as national benchmarks

Over 2017, DSS has continued to work in conjunction with Mercer Consulting and with advice and comment by the Committee to refine PCMH+ model design features and accountability features. At regularly scheduled monthly meetings of the Committee and also via webinar, DSS and Mercer presented material at and supported discussion on topics including the PCMH+ under-service strategies and a PE clinical compliance review process and schedule.

All of the work of the Committee is inventoried at this link:

https://www.cga.ct.gov/med/comm1.asp?sYear=2017

DSS also continued to participate in the SIM PTTF Council, and presented PCMH+ material to the same. Further, both DSS and a number of the PEs have made direct presentations on PCMH+ progress to date to the SIM Steering Committee. Finally, DSS and a number of the PEs made a direct presentation on PCMH+ progress to date to the full MAPOC, video of which is available at this link:

http://www.ctn.state.ct.us/ctnplayer.asp?odID=14303

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 has equipped the PEs with their attributed members' eligibility redetermination dates, so that the PEs can help support timely responses. Further, DSS is reexamining its procedure for restoration of individuals who regain eligibility to PCMH+ participation.

An example of an accountability feature that was developed this year is an onsite clinical compliance review process that was conducted in August, 2017 by DSS and Mercer. An overview of findings, as well as detailed reports on each PE, is available at this link:

http://portal.ct.gov/DSS/Health-And-Home-Care/PCMH-Plus/Documents

Further, all of the PEs' compliance reports, as well as other under-service reports, are being posted on that same dedicated DSS web page.

Overview of Model Design

Timing and Means of Assigning Members

DSS used its existing PCMH attribution model to identify where members sought care in the twelve months preceding launch of PCMH+, and to prospectively assign members to those practices in Wave I. The same process will be undertaken for Wave II. Members continue to have the right to seek care from any Medicaid provider, and have the right to opt out of PCMH+. As noted above, DSS documented only a small number of opt-outs prior to launch of Wave 1, and a handful over the course of the year. Notwithstanding the small numbers, DSS is continuing to carefully track any and all opt-out activity through a contractor and to respond and investigate any instance of the same.

Care Coordination/Quality Management Elements

The current PCMH+ care coordination elements focus upon the following:

- Behavioral and physical health integration:
    - Care coordinator training and experience
    - Use of screening tools
    - Use of psychiatric advance directives
    - Use of Wellness Recovery Action Plans (WRAPs)
- Culturally competent services
    - Training
    - Expansion of the current use of CAHPS to include the Cultural Competency Item Set
    - Incorporation of the National Standards for Culturally and Linguistically Appropriate Services (CLAS) standards
- Care coordinator availability and education
- Supports for children and youth with special health care needs
    - Advance care planning discussions and use of advance directives
    - Incorporation of school-related information in the health assessment and health record (e.g. existence of IEP or 504)
- Competence in providing services to individuals with disabilities

- Assessment of individual preferences and need for accommodation
- Training in disability competence
- Accessible equipment and communication strategies
- Resource connections with community-based entities

- Provider report cards

Quality Measures

Click the following link for the PCMH+ quality measures:
http://www.ct.gov/dss/lib/dss/pdfs/ratesetting/pcmhplus/pcmh_quality_measure_list.pdf

Strategies to Prevent and Address Under-Service

PCMH+ includes a multi-pronged framework, developed in collaboration with the Committee, for monitoring potential under-service to members. These aspects of model design have been extensively discussed and refined throughout the demonstration, and include the following prongs:

- Preventative and Access to Care Measures – 22 of the proposed PCMH+ quality measures track preventative care rates and monitor appropriate clinical care for specific health conditions
- Member Surveys – use of the CAHPS PCMH survey and consideration of the use of the CAHPS Cultural Competency Supplemental Item Set
- Member Education and Grievance Process – specific, affirmative education for members on PCMH+ as well as their grievance and appeal rights
- Secret Shopper – expansion of the Department's current secret shopper approach to gauge access to care as well as experience in seeking care
- Elements of Shared Savings Model Design – various elements of the shared savings model for PCMH+ (e.g. use of a savings cap, upside-only approach, high cost claims truncation, and concurrent risk adjustment claims methodology) were selected with a lens toward protecting member rights

Please see this link for more detail:
https://www.cga.ct.gov/med/committees/med1/2017/0223/20170223ATTACH_PCMH%20Plus%20Underservice%20Strategy%20Summary%20.pdf

Provider Qualifications

Key features of qualifications for PCMH+ Wave I and Wave II Participating Entities include the following:

- Participating Entities must have a minimum of 2,500 attributed Medicaid members
- Participating Entities must be enrolled as Medicaid providers
- Participating entities can be:
  - A FQHC, or
  - An "advanced network", defined as:
    - A single DSS PCMH program participant
    - A DSS PCMH program participant plus specialists
    - A DSS PCMH program participant plus specialists and hospital(s) or

- A Medicare ACO

During the design phase, DSS also sought review and comment on proposed features of leadership and advisory structure (with a particular emphasis on consumer representation), as well as requirements for connections with a range of community providers.

In their responses to the PCMH+ procurement, Wave I respondents were asked to provide information regarding their commitment, experience and capacity to serve Medicaid members; ability to meet identified standards for clinical and community integration; and capacity to effectively oversee quality measurement functions. DSS anticipates that similar credentials will be used for Wave II.

Shared Savings Model

The PCMH+ shared savings methodology creates a hybrid savings pool consisting of:

- an individual savings pool (where savings are pooled separately and accessible individually for each Participating Entity); and
- a secondary savings pool that aggregates all savings not realized individually due to failing to meet identified benchmarks on quality standards and measures of under-service. Information on how the savings pool will be calculated and distributed can be found here.

Important features of the proposed shared savings methodology include the following:

- Calculation of shared savings for a Participating Entity will be separate for each entity and will be based on quality measurement thresholds and scores, including measures of under-service.
- Quality measures used to determine savings distribution in the first performance year will be limited to claims-based measures that are currently being reported.

PCMH+ Participation Goals

The goal is that 89% of Medicaid members receive their care from PCMH+ Participating Entities by 2020. Provider participation targets can be found in Appendix C.

b. Quality Measure Alignment

Quality measures play an indispensable role within SSPs and other value-based payment models. As multiple payers increasingly use value-based contracts to pay healthcare organizations, the number of quality measures that providers have to track across their contracts has become overly burdensome. To address this lack of alignment, the SIM Quality Council has recommended a **core quality measure set** and has released the Report of the Quality Council on a Multi-Payer Quality Measure Set for Improving Connecticut's Healthcare Quality. This report displays contains the core set, describes the process for selecting the core measure set, guiding principles, and the alignment process. Connecticut views such a measure set as a key enabler of the shift to more comprehensive, person-centered, and accountable care and a means to drive continuous quality improvement.

The SIM core measure set is intended to:

- Support continuous quality improvement by focusing health care providers on a single set of measures that are recognized by all payers; and

- Reduce provider and payer burden, cost, and inefficiency.

Promoting Multi-Payer Alignment

The SIM PMO is working with all payers in Connecticut so that they voluntarily align around the recommended measures in their value-based payment contracts. The State encourages public and private payers to consider adopting recommended measures in one of two ways: (1) as part of a standard measure set for all value-based payment contracts or (2) as part of a suite of measures that are included in value-based payment contracts when there is an opportunity for performance improvement. The State recognizes that there are measures in the core set that may not be applicable to all plans or all providers. Payers are encouraged to use the measure set as a reference when negotiating or re-negotiating value-based payment contracts.

An initial baseline scan was completed and it was determined that there was 35% alignment across private and public payers. This year, in collaboration with the University of Connecticut Evaluation team, a survey is being conducted to assess quality measure alignment progress. The survey asks payers to identify the measures in the core set that are included in their value based payment contracts. The results will allow us to track progress and whether current engagement efforts with payers are sufficient.

Barriers to Alignment

The major challenge that remains as a roadblock to achieving optimal alignment is the voluntary nature of participation from payers. Most of the participants will provide information that is requested, however due to proprietary limitations with regard to business practices for contracts there remains gaps in reporting. The mitigation strategy for this is for the SIM PMO to continue to cultivate relationships with the payer participants and to ensure that commercially sensitive information provided to our evaluators is reported publicly and to the state in aggregate. Additionally the SIM PMO will encourage and create spaces for participation in quality measure improvement activities outside of formal committee participation.

Additionally, payers do not have the technological capability to incorporate some of the recommended quality measures. This is true particularly for the eCQMs and Health Equity Quality Measures. Initial alignment efforts focused on the quality measures that can be calculated using claims or other administrative data (referred to in this report as “claims-based measures”). However, the focus for the upcoming year is for the HIT solution, described in ***Section 2.d Health Information Technology***, to provide the capability for payers to incorporate the entire set.

Consumer Experience Survey Quality Measures

The most important means to improve consumer experience is to measure care experience, publish results, and link results to payment. The PMO invited health plans to consider including consumer experience measures in their value-based payment contracts once they have been provided with acceptable provider performance and statewide benchmark information.

To support this request, the PMO is contracting with a vendor to administer the PCMH CAHPS at the level of the Advanced Network. A PCMH CAHPS that is the same as or similar to that the one implemented on behalf of commercial payers will be deployed for the Medicaid population.

The goals of collecting CAHPS survey data include providing data that will be used by:

a. Health plans to assess and reward consumer experience performance under SSP contracts;
b. SIM evaluators to assess the impact of SIM reforms on care experience; and
c. SIM for producing a public scorecard displaying the performance of each Advanced Network.

Anthem, United Healthcare, and Medicaid agreed to participate in the PCMH CAHPS surveys. The Medicaid survey was completed in September. The first of the commercial surveys is expected to be completed by December 2017. A meeting has been scheduled with leadership at Medicaid to gather input on the metrics to inform value based payment using a single composite indicator and to ensure this data can be used while being consistent with previous practice.

The survey has garnered a robust sample of both Medicaid and commercially insured individuals, and Medicare data has been requested from CMS to have a complete assessment of the care experience in CT. A contributing factor in the delaying of deployment of the survey was due to having to refine the process for obtaining clean data records for commercially covered lives. Having this process in place will allow for improved alignment with regards to conducting the surveys in a timelier manner for subsequent years. Additionally, the SIM PMO hopes to increase payer participation beyond the three that were included in this past survey.

We intend to repeat these surveys annually, potentially to include additional payers. The resulting data will be provided to participating payers and considered for use in their value-based payment contracts. The results of the surveys will also be used to assess changes in consumer experience resulting from SIM care delivery and payment reforms.

Maintaining Quality Measure Recommendation

The Quality Council has undertaken a comprehensive strategy to review quality measures that have lost endorsement, are no longer applicable to the population of CT, and created a process to conduct environmental scans on an annual basis to ensure the capturing of emerging issues. In creating this structured process the Quality Council can be proactive in ensuring the maintenance of an optimal core measure set that is meaningful to all stakeholders.

Quality Alignment work stream lead: Quality measure alignment and care experience work streams will be led by the SIM PMO, in collaboration with the SIM Evaluation Team. The SIM Quality Council will serve as an advisory body to this work stream.

c. Plan for Improving Population Health

Purpose of the Population Health Plan

Connecticut is developing a plan to improve population health as part of the SIM health system transformation efforts over the four year performance period. The plan will reflect how to better coordinate state population health initiatives and health system transformation efforts and will align SIM activities with Connecticut's existing population health priorities. As new innovative payment and service delivery models are being tested to reduce health care costs and enhance the quality of care, the role of public health and the social determinants of health must be integrated into any forthcoming solutions to impact health outcomes in Connecticut communities.

Since health disparities may result from limited access to resources and/or policies that promote unhealthy conditions and behaviors, it is clear that optimal health outcomes are determined by factors beyond the provision of health care alone. In addition to addressing improvement of health care quality and reduction of costs, the population health plan will propose mechanisms to address community-based factors and socio-economic determinants of health that impact individuals at home, schools, worksites and neighborhoods. The Population Health Plan will direct attention to prioritizing investments and commitments to community-wide upstream interventions, and to sustaining multi-sector collaboratives for health by developing a coordinated community and social service care model.

The core initiatives being designed as part of the population health operational plan are the Prevention Service Initiative (PSI) and a related and more upstream strategy of Health Enhancement Communities (HEC). These initiatives will be supported by a system of population health indicators and community accountability metrics. The Population Health Plan will ensure that HECs are prepared to operate under an accountable structure, which may include managing backbone and wellness fund operations, fiscal and budget management, resource sharing agreements, and transparency mechanisms within the community. In turn, the PSI will complement the HEC's regional strategies by strengthening linkages between health care providers and community based organizations for the delivery of community-based interventions.

Lastly, the Population Health Plan will address sustainability concerns by exploring legislative opportunities, exploring establishing a framework for a HEC designation, and exploring financial support options through possible state allocations, Medicare waivers or Medicaid authority, payers' global budgets, community benefits redirection, pooling of funds through braided mechanisms and/or the creation of trust wellness funds.

Design and Implementation of a Health Enhancement Community Model

Models of health improvement through community accountability are coming to the forefront as a promising strategy to improve health outcomes and address health related priorities, such as food insecurity or unstable housing. These models differ from state to state, but commonly include linkages of clinical and community services, strategies to address health and social needs, an accountability structure, and a financing strategy.

An HEC is defined as Connecticut's model of community accountability for specific health outcomes, health equity, and cost reduction as it relates to all residents (total population) in a geographic area. HECs are expected to align public health and healthcare objectives by directly addressing root causes using data, community engagement and cross-sector activities with proven impact on population health. HECs will be designed to operate in an economic environment that sustainably funds and rewards cross sector activities by capturing the economic value of improved health. Sustainable HECs in combination with a successfully implemented PSI will constitute the Connecticut-specific model of community accountability for health outcomes and population health.

The working HEC concept builds on examples of community collaboration in and outside the State, and on preliminary concepts detailed in the State Health Innovation Plan. The concept of an HEC model will be further developed as the Population Health planning team explores, through technical assistance and stakeholder engagement, the suitability of currently tested models of community health accountability. To understand the type of current activity and recommend a path forward for existing community health

collaboratives, the plan proposes to establish an information baseline for HEC planning. This information is gathered through environmental scans, meetings with accountable providers and community organizations, and surveys of active health collaboratives. The Population Health Plan also relies heavily on findings from the State Health Assessment, the recommendations from the Healthy Connecticut 2020 and the Coordinated Chronic Disease Prevention and Health Promotion Plan. Consequently, the HEC model will place emphasis on improving health in areas with the highest disease burden, worst indicators of socioeconomic status, and pervasive health disparities.

The Department of Public Health (DPH) and the SIM Project Management Office (PMO) have established a planning team to develop a guiding framework for HECs. This includes assessing and leveraging community accountability strategies developed by other states and communities across the country. The planning team will obtain feedback from other SIM work streams on how the guiding framework for HEC design relates to or can be influenced by other health reform areas. This effort is to coordinate with other SIM work streams, but will also help to align the HEC approach with health reform projects in and outside of Connecticut. The planning team will secure input from the Population Health Council (PHC) and the Healthcare Innovation Steering Committee (HISC) to ensure fidelity to the overall SIM objectives, and to enhance both the HEC definition and the planning process.

The planning of an HEC model will rely heavily on stakeholder feedback through various methods of engagement. Stakeholder participation will be central to the HEC model operational plan. This engagement will build on existing activities conducted through the State Health Improvement Plan (SHIP) and regional Community Health Improvement Plans (CHIPs). At first, HEC planning will build on the work conducted in numerous Connecticut communities that have developed Community Health Needs Assessments (CHNA) as early as 2013. The CHNAs use local and state data to identify each community's most pressing health concerns and root causes. In several of these communities, CHNAs included reports on regional consensus about priority setting and health improvement plans (CHIPs). By directly engaging regional health collaboratives in the planning process, the Population Health Plan will ensure to design strategies that are actionable for specific local contexts, including opportunities and limitations of each participant community.

In order to effectively engage communities and develop a model tailored to the strengths and needs of each participating community, the State, with subject matter consultation support, will develop and implement a participatory planning methodology. This process will identify communities in Connecticut that had independently undertaken the challenge to advance multisector initiatives to improve health outcomes of individuals in geographically circumscribed populations. These reference community collaboratives will meet a minimum set of expectations in order to participate in a joint examination of their strengths and barriers in the HEC planning process. To this end, it is likely that Community Health Assessments would need to be completed and that the collaboratives would have a commitment to sustainability, continuous quality improvement and performance management of priority interventions.

The process of selecting reference communities may include a statewide solicitation of community health collaboratives, and lead to participants meeting regularly to discuss the feasibility of the model. The initial planning process will identify an actionable strategy for subsequent phases. For instance, a subsequent planning phase may seek to commit selected communities in an intensive solution seeking process by exploring all recommended components of an HEC. This may include health outcomes prioritization, accountability instruments, policies and systems change solutions for social determinants of health, and

financial sustainability mechanisms. This potential subsequent phase may also include the design of an actionable strategy and commitments to implement an HEC model in a later demonstration phase.

Financial sustainability of the PSI/HEC model will be a major consideration of this initiative. Several funding strategies including state/federal authorities to support HECs will be explored during the planning process. Observations of similar experiences in other jurisdictions show that possible avenues include state allocations, alternative payment models, global budgets, or pooling of funds through braided mechanisms. The State, with assistance from a vendor, will evaluate all of these opportunities for financial sustainability, as well as how healthcare reform transformation relates to financing options. This includes looking at entities such as payers, large employers or healthcare systems that could potentially obtain financial returns from the implementation of HECs priority interventions. Entities realizing positive economic outcomes could build a business-case to support up-front investments and an ongoing financial commitments to, for example, a wellness trust fund. This implies that shared savings rewards or other economic gains in the health care sector could be linked to community-wide interventions in areas designated as HECs. The proposed HEC strategy may include community health collaboratives adopting a financial strategy such as establishing a dedicated community wellness fund. A trust fund as a vehicle will be explored because of its ability to attract resources from a variety of organizations and sectors to support the goals, priorities and strategies developed by the HEC.

Traditional categorical grant funding tends to create silo entities within single communities. To counteract this, another possible approach to financial sustainability is the alignment and leveraging of grant-funded programs around prioritized interventions led by an HEC. For example, Stamford, CT has already harnessed Department of Housing and Urban Development (HUD) and US Environmental Protection Agency (EPA) resources to help fund a Health and Wellness District initiative. Access to block grants, such as prevention block grants used in the past, could also be examined as a financing alternative as they attempt to break down silos. Similarly, numerous disease prevention and control initiatives funded by federal or state agencies offer opportunities to align funding streams as they are administered at the local level by participating entities in an HEC (e.g. healthy food retail, local active transportation initiatives, screening programs, medication therapy management, etc.). Planning of the HEC model will look into blended or braided funding as these approaches may be an effective solution for pooling of funds by public-private partnerships to ensure support of the selected health priorities. The alignment of different funding streams could support services, projects and infrastructure that would not be supported by a single stream.

Several other approaches to sustainability will be examined through the planning of an HEC model. Public health organizations, health care providers and human services agencies participating in an HEC will be expected to align their mutually defined community health priorities. This represents an opportunity to incorporate hospital community benefit allocations as part of a support system for the health improvement effort. The HEC model plan could also include a request to DSS to review all available options for the Medicaid State Plan and waiver authority in support of HECs, and may include examining the possibility of enabling approaches to sustaining community health workers for preventive services. A detailed actuarial analysis of Medicare data could also open the possibility of State waivers that could potentially support the upstream initiatives put forward by HECs.

Planning of the HEC model will include creating a framework and recommendations around community health accountability measures, defining processes for collecting non-clinical regional data, and setting

improvement targets. It is important to highlight that availability of high quality local data together with reliable IT infrastructure is critical to advancing these components. DPH will support local data analysis, including coordination with other health and human services agencies, to the extent that data sources and IT infrastructure are available. Recommendations for regional health indicators and community measures may be incorporated into public score cards or other methods of health improvement transparency. The ability to foster and facilitate coordination between community-wide population health measures and shared savings program quality measures will be explored. The recommended measures may be primarily based on the total population, but may also include data segmented by individuals attributed to separate payers and healthcare providers.

HECs will be designed to address priorities that reflect local health concerns and assets in the selected communities. Similarly, the HEC strategy will focus on evidence-based interventions and community measures of population health that are tested. Core topic areas will include addressing social needs and upstream determinants of health along with the use of indicators that relate to community characteristics, health care factors and overall health system performance, especially as it pertains to health equity.

It is anticipated that HECs will have a specific focus on improving health disparities and will have to define clear and measurable target improvements. HECs will likely be required to have a Community Health Needs Assessment in place to demonstrate engagement of the community in identification and understanding of community needs based on data. Becoming a HEC will signal the beginning of a shift from a health care system accountable for segments of the population into a new system of community collaboratives accountable for health outcomes in the entire population. HEC results will provide evidence that the scope of care has expanded beyond clinical services to include well-coordinated community-wide interventions.

Governance will be an essential area to explore in the HEC strategy design. This includes governance models that feature a single lead agency in each of the communities that can act as a backbone or integrator organization to administer a portfolio of prevention and upstream interventions. Possible functions of a backbone organization include maintaining accountability mechanisms for performance and improved health and reduction of disparities in a geographically circumscribed populations. Keeping together a coalition of health care, public health and community service agencies would also be a critical role of a backbone organization. This entity would play a key role coordinating partners for specific interventions and the selection of financing vehicles. Therefore, a backbone organization would likely need to be a neutral, legally operational entity capable of contracting and characterized by a broad based governance.

The backbone organization may also facilitate the development of binding agreements across collaborative partners. Its authority and credibility will stem from broad inclusion of community stakeholders; therefore, this agency also convenes partners, coordinates health assessments, and defines interventions for health priorities. Local health departments, Advanced Networks and FQHCs can potentially play an important role as backbone organizations as they continue improving links between community and clinical preventive services. It is expected that Local health Departments, Advanced Networks and FQHCs in selected HECs will serve as partners in addition to other stakeholder entities.

HEC Initiative Coordination with Other Initiatives

The HEC Initiative aims to leverage the work of SIM in promoting value-based payment, while addressing the limitations of existing models. Specifically, the HEC planning will focus on developing financial models that reward a reduction in the risk of populations, rather than the cost-effective management of that risk. The HEC Initiative will also build on the care delivery improvements enabled by the CCIP and AMH programs, but augment them by creating more intersections with public health and the social determinants of health. The CCIP and AMH programs shift provider attention to the community and to establishing linkages to treat the holistic needs of the patient. The HEC initiative extends these capabilities further, while bringing more community partners to the table.

Implement a Prevention Service Initiative Demonstration

The DPH/PMO planning team, with the input of the Population Health Council and the endorsement of the Health Care Innovation Steering Committee, developed the PSI proposal over the course of 2017 based on a linkage model that strengthens the relationships between Community Based Organizations and Advanced Networks/Federally Qualified Health Centers (AN/FQHC), and that enhances the delivery and expansion of evidence-based prevention programs in non-clinical settings. To this end, participating CBOs that deliver evidence-based diabetes or asthma self-management services will be provided with technical assistance so that they can execute at least one financial agreement with accountable care providers. These services have shown to improve outcomes and generate a return on investment. However, CBOs that provide these services in Connecticut appear to be under-utilized and none of them have written referral agreements with accountable providers as they lack resources to expand capacity and meet the needs.

SIM will fund technical assistance and infrastructure awards to participating CBOs to help them offer high quality services and to be successful in these new agreements. CBOs will also be required to include community health workers as part of their service model in order to qualify. The financial agreement will be expected to have payment terms linked to successful patient engagement and program completion, and perhaps incentives for outcomes. The SIM program will also offer grants and technical assistance to accountable providers to enable them to identify appropriate patients, establish referral workflows, negotiate agreements, and to pay for PSI services for the first 12-to-18 months. Although accountable providers are investing in care coordination staff, usually nurses or social workers, and in some cases certified asthma and diabetes educators, they generally do not hire community health worker or support community partnerships that could help them to deliver better care at a lower cost. However, accountable providers now in new payment models have a financial interest in extending their investments to services and supports in the community that will enable them to deliver better care at lower cost.

There are two central goals of the PSI. First, to increase the number of individuals with unmet prevention needs who complete community-placed, evidence-based prevention services and maintain or improve wellness. Second, to improve Advanced Network/FQHC performance on quality measures related to asthma or diabetes and associated ED utilization or admissions/readmissions for an attributed population through the use of community-placed, evidence-based prevention services.

To achieve these goals, CBOs and local public health departments will receive technical assistance to enhance business competency skills and organizational capabilities to support at least one contractual relationship for the provision of evidenced-based chronic illness self-management services. Technical assistance will also be provided to Advanced Networks and FQHCs to both develop internal processes to

identify and refer patients that can benefit from community based services; and to assess the impact on quality and return on investment to support a sustained contractual arrangement beyond the period of the test.

The next phase for the PSI will be dedicated to launching a demonstration targeting Advanced Networks and FQHCs that are participating in accountable care arrangements with Medicaid, Medicare and/or commercial payers. The first wave of PSI will be implemented in three pre-selected regions with high PCMH+ penetration (Bridgeport, New Haven, and Middletown and surrounding areas). The designated target communities have been selected in coordination between the PSI and CCIP initiatives so they operate within the same target population and with aligned interventions.

The target date to complete all the procurement of technical assistance and CBOs solicitation is established prior to the beginning of the next performance period. A technical assistance consultant will be retained for 18 months to assist with CBOs organizational assessments including workforce capacity, business case/value proposition, and sites of service analysis. Once a framework for discussion and CBO-specific business plan for prevention services is completed, the technical assistance consultant will ensure that all parties in the financial arrangement agree upon contract templates

We expect that contract negotiation could be completed and contracts between CBOs and healthcare organizations executed around halfway through the performance year. This will be followed by an intensive peer-to-peer CBO collaborative characterized by several events held to discuss planning and implementation strategy. Results of the demonstration will be documented through data analysis on financial and program performance. Sustainability could be demonstrated through positive economic outcomes for all parties in the linkage model that would allow contract extension solely financed by the payers of services. This strategy will seed the subsequent proposal to make additional upstream investments under the HEC model.

PSI Coordination with Other Initiatives

The PSI and the CCIP are the two primary means within SIM to assist accountable providers to enhance their investments in care management and infrastructure to eliminate gaps in care. The PSI aligns with the central premise of our payment reforms—that the promise of a return on investment will encourage providers to invest in new capabilities and community partnerships to achieve higher value healthcare. The PSI extends the CCIP focus on CBO providers of social services to CBO providers of *evidence-based prevention services* including diabetes and asthma self-management.[2] These services have the ability to improve outcomes and generate a return on investment for eligible patients.

Additionally, CBOs and accountable providers participating in PSI will be required to evaluate the interventions to validate that they produce a return on investment. Payment reform through Shared Savings Programs is the central tactic in the CT SIM to spur accountable providers to invest in care improvements. Healthcare providers in new payment models are more likely to make investments in care delivery improvements. These investments in infrastructure and staff are largely not fee-for-service reimbursable and are motivated by improvements in quality and efficiency.

[2] Am J Public Health. 2014 August; 104(8): e25–e31. Published online 2014 August. doi: 10.2105/AJPH.2014.302041; https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4103232/

Develop a System of Community Level Accountability Metrics

The DPH established a SIM focused approach to population health metrics by providing data through the Behavioral Risk Factor Surveillance System (BRFSS), advancing specific methods of population projections and offering mapping expertise. The BRFSS is the only available source in the state for key health indicators such as asthma, obesity and diabetes. Indicators which in turn, are also required to evaluate SIM. DPH relies heavily on CT BRFSS to document health status, the SIM Plan will continue supporting the increased sample size for the CT BRFSS to allow sub-state geographic estimates and more robust assessment of racial/ethnic disparities, and ensuring that the annual survey includes questions on the selected SIM population health indicators.

Over 2017, DPH also documented various approaches to metrics of population health recommended by the National Academy of Medicine, the Robert Wood Johnson Foundation and the Prevention Institute. In the current performance period, the Population Health work stream will propose to stakeholders a framework of community measures and other health determinants indicators. An initial framework developed in 2017 is summarized below:

POTENTIAL POPULATION HEALTH INDICATORS FOR HEALTH ENHANCEMENT COMMUNITIES		
SOCIAL DETERMINANTS OF HEALTH	**PREVENTIVE AND RISK BEHAVIORS**	**CHRONIC MEDICAL CONDITIONS**
Structural Drivers **Community Measures** • Socio-Cultural (people) • Built Environment (place) • Economic (opportunity) **Quality of care** • Healthcare outcomes • Prevention outcomes	• No leisure Physical Activity • Current smoking • Ever used Hookah • Excessive Alcohol Consumption • Routine Check-up • Influenza Vaccination • Pneumococcal Vaccination Ever had an HIV test	• Current Asthma • Asthma in adults • Asthma in children • Ever Diagnosed with COPD • Ever Diagnosed with Arthritis • Ever Diagnosed with CVD/Stroke • Ever Diagnosed with Cancer • Told that has Pre-Diabetes • Ever Diagnosed with Diabetes • Kidney disease • Ever Diagnosed with Depression

Population health improvement is largely dependent on the ability of health systems to address and measure elements of health equity. This is particularly relevant in a context where statewide indicators may obscure important regional health disparities. It is also important to recognize that equity is one of the main dimensions of healthcare quality measures Therefore, we propose an additional framework of health determinants that includes structural, socio-environmental and economic drivers. Indicators of structural determinants of health explore inequitable distribution of resources and examines disenfranchised populations. Community health measures will look at three sets of measures. The first set (people cluster) assess the level of community participation and networks activation, a second set (place cluster) would have indicators of built environment, and the last one (economic cluster) will include metrics of income and education. In addition to quality of health care indictors which have been thoroughly examined by SIM, prevention process outcome indicators will be considered as part of the set of social determinants of health.

DPH provides technical expertise to maintain and annually update a series of town-level population estimates by age-sex-race/ethnicity using the demographic estimation models developed for the CT SIM project. While the majority of the states in the U.S. use county as the principal geographic level for local governance, Connecticut and a few others states rely on towns or cities. Currently, the only reliable source for town-level population data with demographic identifiers for Connecticut is the decennial census that occurs every 10 years. As the demographic distributions within each town evolve over time, the decennial counts become outdated and may insufficiently represent the true town populations. These detailed population figures are essential to improve the accuracy of calculated, population-based mortality rates, hospitalization rates, as well as BRFSS survey statistics which must be weighted according to the available state population estimates. Thus, these new population estimates for 169 Connecticut towns will further leverage our investment in more accurate BRFSS data and associated BRFSS health indicators. In addition, DPH will continue providing support for GIS mapping and spatial analysis to help define homogenous regions within the state that are of interest to SIM, and to calculate hospitalization and/or mortality rates for customized SIM regions. These activities may be extended to incorporate new data sources, as needed, for SIM-related planning and evaluation.

Multi-source datasets will continue being compiled and pre-processed as inputs for modeling. Tested data sources included birth and infant death data, school enrollment counts, DMV licenses/non-driver ID, residential utility customer data, and Medicare enrollment counts. Initial model targets have been carefully reviewed to obtain reasonable population projections for 2011-14. Further analysis is required to ensure that the selected criteria for model projections is consistent with the US Census Bureau estimates. Finally, the DPH will continue coordinating and providing data to the University of Connecticut, as the SIM evaluator, to support their dashboard indicators with population health data.

d. Health Information Technology

Background and Overview

The State of Connecticut is taking important steps to accelerate the use of health information technology (HIT) to enable healthcare transformation so that the state's residents receive timely, coordinated, and person-centered care. The HIT and health information exchange (HIE) approach described here will be undertaken with transparency and broad stakeholder input. The strategy is guided by a comprehensive 2017 environmental scan and subsequent report, which engaged almost 300 individuals and over 130 organizations. It is also guided by extensive input from the Health Information Technology Advisory Council, created under Public Act 16-77, and comprised of providers, consumers, payers, and representatives of the legislature, the state's executive branch, and several state agencies.

The State's stakeholder engagement and environmental scan reveals gaps and opportunities in Connecticut's HIT landscape. Consumers experience a fragmented health system where the information needed by their care team is not always easily transmitted or accessible. As alternative payment models and changes in care delivery proposed under SIM expand, accountable healthcare providers will need the data, information and tools to succeed. Connecticut contains a high penetration of accountable healthcare organizations who are making investments in data exchange and analytics. However, providers still struggle to electronically exchange health information between disparate health systems. The lack of widespread access to important medical information, including medical histories, diagnostic images, and emergency department notifications, negatively impacts diagnosis and treatment decisions, and increases the use of costly and potentially harmful duplicative tests.

Additionally, healthcare providers have incomplete information about how well they deliver care. They rely on claims-based, insurer-specific patient data, or clinical data from their lone EHRs. This is extremely limiting given that consumers frequently experience changes in their insurance coverage and seek care from providers from across the state. Incomplete and siloed data makes it difficult to manage gaps in care, target interventions, and compare their performance to peers and to aggregated populations. Similarly, payers enter into value-based contracts with providers using this same limiting data. Varying reporting requirements and processes across these value-based payment arrangements and other quality improvement programs add complexity and burden for providers.

In this context, and to achieve the State's SIM aims of healthier people, better healthcare, smarter spending, and health equity, the State will establish Core Data and Analytics Solution (CDAS) services, and interoperable (HIE) services as envisioned by Public Act 16-77:

> *There shall be established a State-wide Health Information Exchange to empower consumers to make effective health care decisions, promote patient-centered care, improve the quality, safety, and value of health care, reduce waste and duplication of services, support clinical decision-making, keep confidential health information secure and make progress toward the state's public health goals. [Sec. 6, § 17-b-59d (a)]*

Moreover, the State will establish a policy and governance framework for HIE and statewide analytics, and, to the extent practical, leverage existing interoperability initiatives and investments. Above all, the strategy will keep the consumer and the health needs of the people of the State as the primary focus.

The Health Information Technology Officer (HITO) is administratively responsible for the planning, design, implementation, and oversight of this strategy.

Solution Approach

As part of the State's stakeholder engagement, the HITO convened healthcare providers, informatics experts, payer and consumer representatives, state agencies and others through the HIE Use Case, Immunization Information System (IIS), and eCQM design groups. These intensive engagements, along with internal planning and alignment with the SIM strategy, led to an initial set of near- and long-term priorities:

Near-term:

1. **Establish statewide governance and operational structure:** Including establishing/designating a neutral and trusted HIE entity.
2. **Establish CDAS to promote use of eCQMs and advanced analytics:** Improve outcomes by increasing the use of eCQMs and analytics in quality improvement and alternative payment model efforts of payers, providers, and employers.
3. **Launch shared HIE services:**
    a. **eCQMs:** Support transport of clinical data for use by the CDAS for quality measures.
    b. **Longitudinal Health Record:** Improve treatment plans and reduce duplicative testing by establishing the use of a statewide longitudinal health record.
    c. **Clinical Encounter Alerts:** Improve care management by driving access to and adoption of clinical encounter alerts.
    d. **Image Exchange:** Reduce duplicative X-rays, ultrasounds, and other imaging by increasing the electronic sharing and viewing of imaging between providers.
    e. **Immunization Information System:** Reduce duplicative vaccine administration and improve reporting efficiency by creating the capability for healthcare providers, including school nurses, to electronically send vaccine information to the State, and by improving the ease of accessing this information at the point of care.
    f. **Public Health Reporting:** Improve efficiency by establishing a single gateway for public health reporting for healthcare providers.

Long-term:

4. **Expand CDAS outputs, including population health analytics:** Enable more targeted, holistic, and population health centered interventions through the use of additional data sources, such as social determinant of health data, public data sources, and other. Expanded analysis of individual health information at the population level will support machine-learning, automated analysis, geolocation, predictive analytics, evaluating health interventions, comparing healthcare services, identifying patient safety events, supporting policy and workforce planning, and solving complex social and health issues.
5. **Expand shared HIE services:**
    a. **Population Health Analytics:** HIE services can enable the transport of additional information from EHRs into CDAS.

b. **Medication Reconciliation:** Reduce medication morbidity, mortality, and adverse reactions by enabling the information exchange necessary for medication reconciliation and supporting process re-design for prescribers and pharmacies.
c. **Advanced Directives and Medical Orders for Life Sustaining Treatment (MOLST):** Enable person-centered and empowered care through the capture and accessibility of patient care preferences for treatment and end-of-life support.
d. **Patient Portal:** Enable consumer empowerment through patient access to their statewide longitudinal health record.

The SIM/State's strategy will enable the initial set of priorities, as described above. Increased health information exchange improves care decisions and reduces unnecessary and redundant care such as lab tests and radiology services. It permits more rapid diagnosis of disease, follow-up on chronic disease and comorbidities, potentially prevents treatment complications such as medication errors secondary to allergies and contraindications, provides insight into whether immunizations are up-to-date, and more.

While the State will establish a state-of-the-art, holistic, information management system, the strategy to enable health information exchange and better use of data requires more than a technical solution. The strategy, enabled with the technology, will align with the movement towards alternative payment models, as promoted by SIM. These new payment models give providers incentives to improve the efficiency, effectiveness and outcomes of patient healthcare, and therefore more of a reason to share information. Technical and analytics assistance to these providers on how to best use HIT tools, data and information will support transformation and influence behavior change. Trust and governance will accelerate progress in a transparent way. Moreover, the use of policies, legislative action, and other levers will ensure consumers and communities are the ultimate beneficiaries.

Holistic Information Management

To enable the stakeholders' business drivers, as captured in the initial use case development efforts, the State is developing a holistic information management solution that will support the sharing of data and information to guide stakeholder decisions and establish interventions to improve health outcomes and the quality of life.

The proposed solution architecture and roadmap are illustrated in **Figure 1,** highlights a phased implementation approach and alignment of internal and external dependencies, with a goal to establish a trusted and secure data sharing and information foundation across the delivery system. The architecture and roadmap is guided by the stakeholders' needs for data and information. The roadmap has three major lanes (i) Data Governance, (ii) HIE, and (iii) CDAS, discussed in the following sections.

This solution will initially focus on two core solution components: HIE services and the CDAS, as shown in **Figure 2**, which are both guided by the governance. The HIE services focus on increasing secure and authorized information exchange between disparate healthcare systems. CDAS will enable advanced analytics and quality and utilization measures production. The HIE will interface with the CDAS so patient health data, such as clinical labs, tests, and vitals, can be leveraged for the calculation of clinical quality measures.

Figure 1: HIE and CDAS Proposed Delivery Roadmap

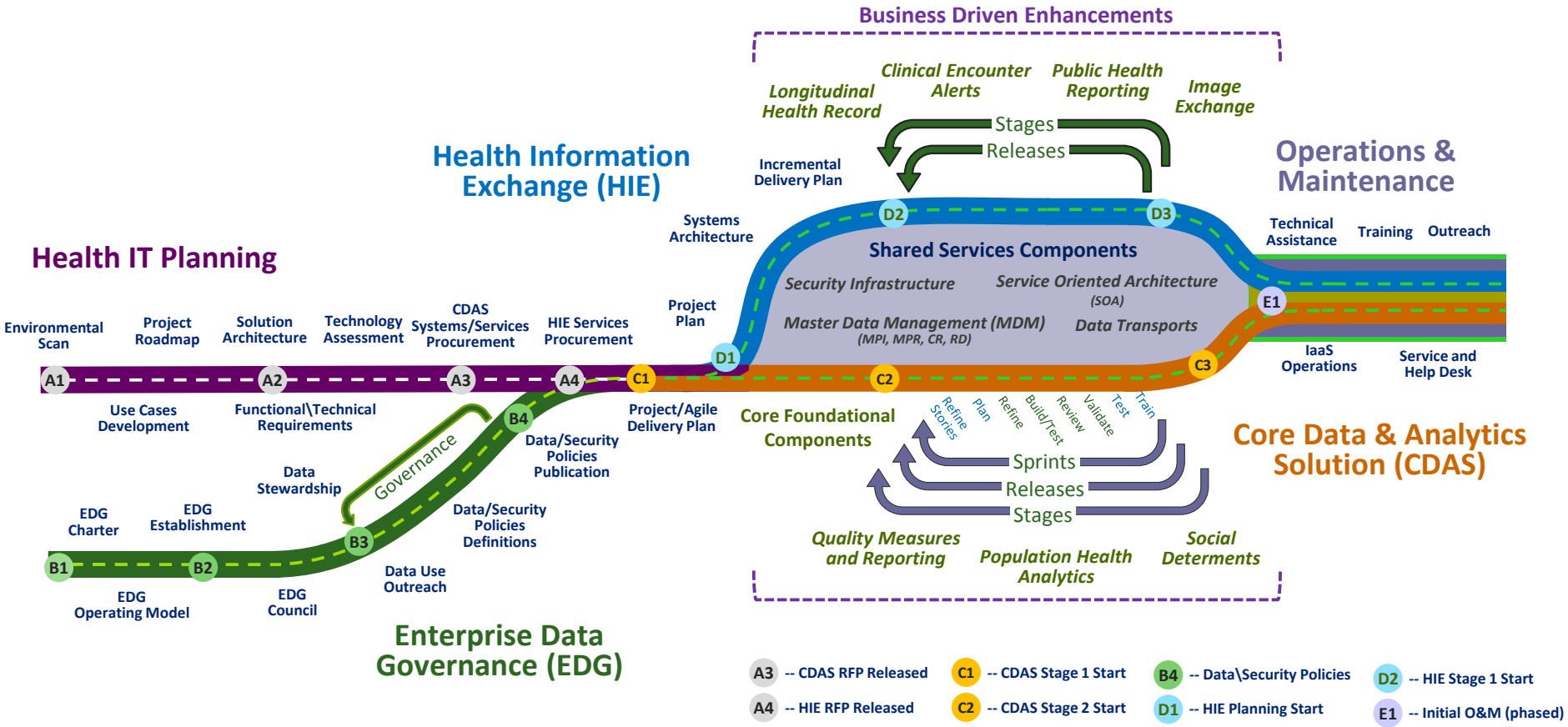
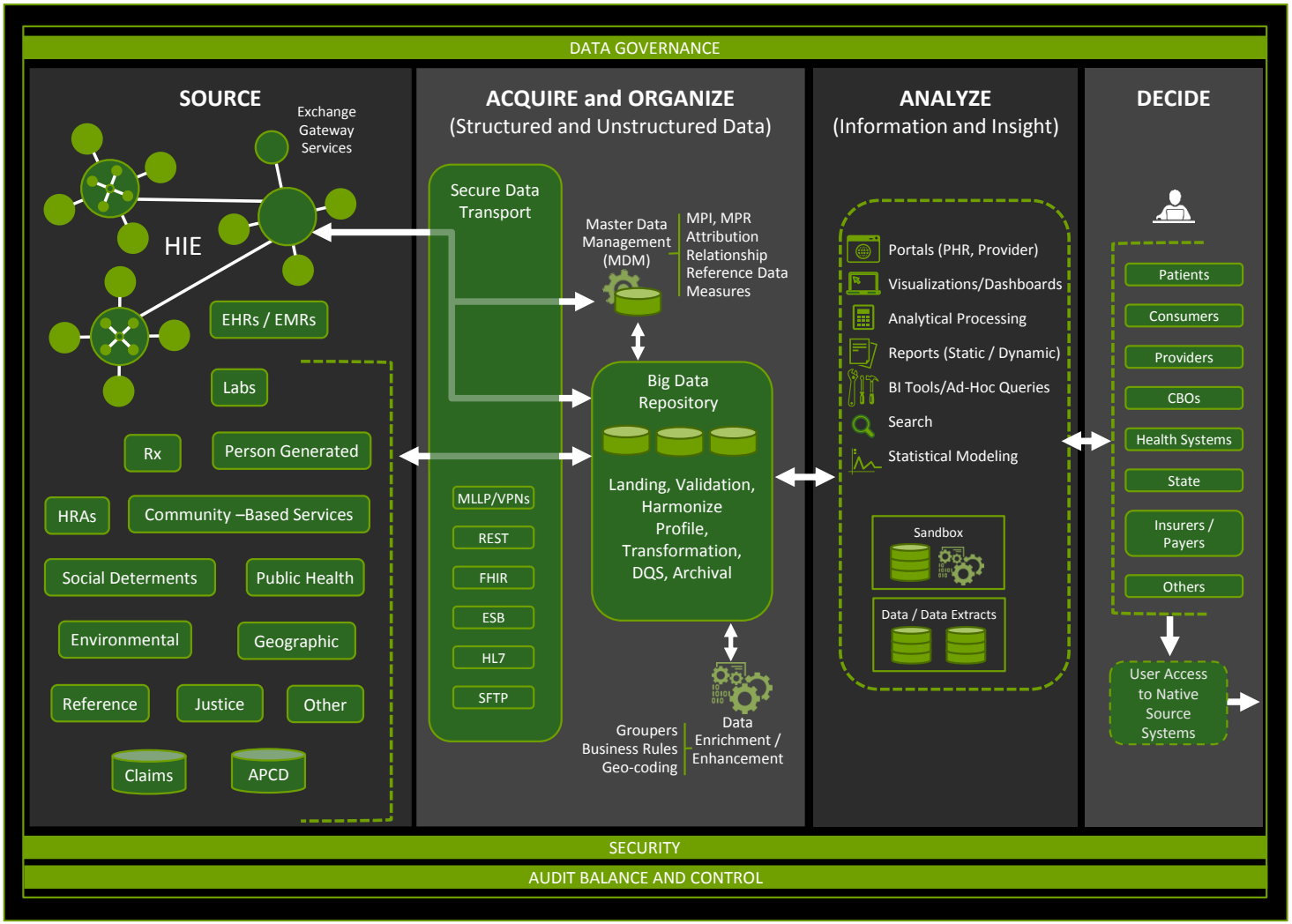


Figure 2: High-level HIE-CDAS Solution Overview



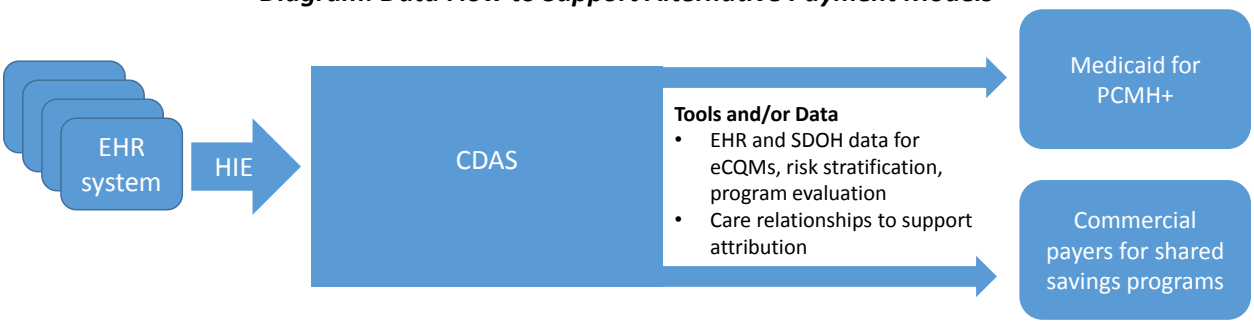
Health IT Strategy to Enable SIM Drivers

The capabilities that the HIE services and CDAS enable, including those above, are critical to the SIM drivers and to the care delivery and payment reforms that providers in the state are adopting. Below is a description of how the HIT functionalities support each SIM driver.

SIM Driver: Promote payment models that reward improved quality, care experience, health equity and lower cost

One of the primary SIM drivers is that alternative payment models are adopted to incentivize better care services, improved outcomes and lower healthcare spending, as described in ***Section 2.a Promoting Value-Based Payment Models*** and ***Section 2.a PCMH+***. Payers in the state who develop these value-based payment programs, including the Medicaid PCMH+ and commercial payers' shared savings programs, need access to better clinical and other data to establish more meaningful and accurate incentive-based systems. Better data from various data sources will enable more valid attribution models, better risk stratification, better quality indicators, more accurate program evaluation, and more robust tools offered to providers. CDAS will facilitate these data flows and enable payers to enhance their current value-based program efforts to meet SIM health improvement goals.

Diagram: Data Flow to Support Alternative Payment Models

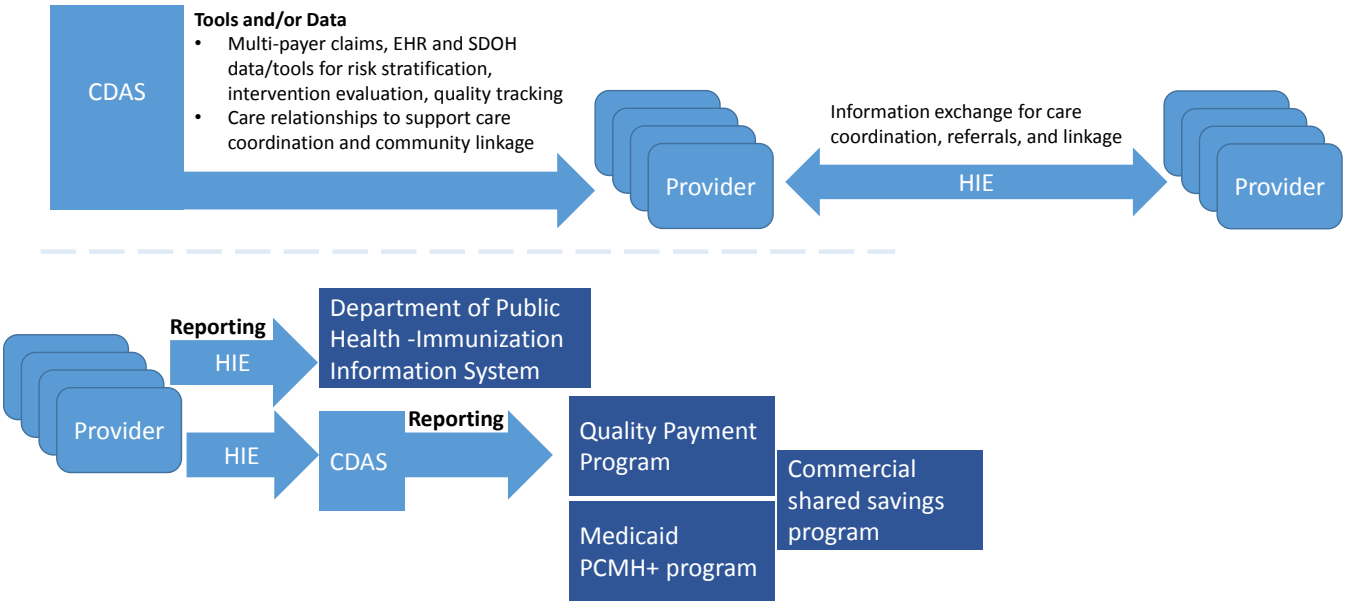


CDAS will also provide the capability to add electronic clinical quality measures (eCQMs) and health equity quality measures to payers' value-based payment scorecards, as recommended by the SIM Quality Council. This is essential to achieve multi-payer quality measure alignment, health equity, and reduced provider burden, as described in ***Section 2.b Quality Measure Alignment***. This HIT functionality is critical to this SIM objective for the next performance year.

SIM Driver: Strengthen capabilities of Advanced Networks and FHQCs to deliver higher quality, better coordinated, community integrated and more efficient care

Well-designed alternative payment models must be coupled with improved capabilities of healthcare providers to meet the quality and cost targets outlined in these arrangements. The HIT strategy described here supports this SIM driver by improving the data and tools available to accountable providers/patient centered medical homes, including to those participating in PCMH+ (***Section 2.a PCMH+***) and CCIP (***Section 2.a Strengthening Healthcare Delivery***).

Diagram: Data Flow to Support Care Delivery Models (PCMH+, CCIP, PCMH, QPP, Commercial SSPs)



Both PCMH+ and CCIP expect providers to better coordinate care, address health disparities, connect with community services, manage gaps in care, track their quality and cost improvements, and expand their care teams. However, providers have difficulty excelling in these areas due to lack of data and analytic capability. For example, CCIP requires that providers risk stratify patients to target care coordination and deploy their new non-physician workforce. To do this accurately, providers need patient information that integrates multiple data sources, such as data from other health systems, from social determinant of health databases such as the Homelessness Information Management System, from community referral sources, and from sources that contain complete race/ethnicity information. They also need better data to track their performance on quality key performance indicators (KPIs). Providers need the ability to see in near-real time how they are performing to incentive indicators, compared to peers and population aggregates, as this will provide visibility in how they can increase incentives based improving quality outcomes to patients. As illustrated in the above diagram, HIE and CDAS functionalities will support these providers in delivering on these capabilities.

E-consult capabilities are an optional delivery standard under CCIP. Healthcare providers are currently challenged to implement this capability and other telehealth solutions due to gaps in reimbursement for these services. Connecticut is examining solutions through the value-based payment and reimbursement pathways to address this. Therefore, no HIT requirement has been identified for this capability.

Additionally, accountable providers, including those who will patriciate in the Quality Payment Program (MIPS, advanced APMs) need to improve efficiency and reduce administrative burden. Currently, they are required to meet onerous and un-aligned reporting requirements to a multitude of agencies and organizations, such as Medicare, the Department of Public Health, commercial payers, and Medicaid. The HIE, CDAS, and IIS systems will offer reporting functions that reduce burden.

SIM Driver: Promote policy, systems, & environmental changes, while addressing socioeconomic factors that impact health

As described in ***Section 2.c Plan for Improving Population Health***, the SIM population health planning work recognizes that only 10% of health is influenced by healthcare[3], and engagement of the entire community is needed to influence health. Under the SIM Prevention Service Initiative, healthcare organizations will soon establish referral contracts with Community Based Organizations for community-placed services. Connecticut also has two CMS Accountable Health Community grants, which require an accountable healthcare systems in two regions to refer thousands of Medicaid/Medicare patients to community services annually. Additionally, Community Care Teams are used within hospitals across the state to navigate the care of the most complex patients. The health IT functionalities that may support these initiatives will be further examined to determine how and whether they can support this work. Possible enabling IT strategies may include:

- Supporting healthcare-to-community referrals and feedback loops through the HIE services.
- Offering regional, shared care coordination platforms.
- Establishing standardized consent and data sharing processes.
- Capturing social determinant data to support risk stratification, coordination, deployment of care teams, and targeted interventions.

Furthermore, Connecticut will soon embark on intensive planning for the SIM Health Enhancement Community Initiative. This planning will further determine how and whether the IT strategy can support Health Enhancement Communities and include HIT implementation plans. Possible enabling HIT strategies may include:

- Capturing and sharing regional quality of life and health indicators with Health Enhancement Community multi-sector collaboratives.
- Enabling the evaluation of regional interventions by supporting the calculation of their value of health (such as by taking into account healthcare and social service spending).
- Establishing standardized consent and data sharing processes.

SIM Driver: Engage consumers in healthy lifestyles, preventive care, chronic illness self- management, and healthcare decisions

Most importantly, SIM is working to empower consumers and enable patient-centered care. The proposed approach allows a person to experience a coordinated health system, knowing that their care team has access to the critical information needed to keep them healthier longer. It also allows the person more visibility of the performance of their health system and access to their own personal health record across their entire provider network.

The pubic scorecard, as described in ***Section 2.f.3 Public Scorecard***, is enabled by the HIT strategy. The APCD and CDAS are key data sources to populate this scorecard. The care relationships captured in CDAS will also be critical for calculating the ACO-specific quality indicators that will be visible on the scorecard.

No HIT requirements currently exist for the VBID and CAHPS work streams in ***Section 2.f***.

[3] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863696/

Establishing Governance for Shared HIE Services and CDAS

The State of Connecticut, enabled by recent legislation, will establish, or designate, a neutral, trusted organization representing public and private interests to operate agreed-to statewide HIE services and CDAS activities. This organization will establish and oversee a common set of policies, business practices, and standards to drive trusted health information exchange to support patient-centered care, ensure privacy and security of data exchanged, and to decrease the costs and complexity of exchange and analytics.

The organization will adhere to health information governance best practices which may include:

- Accountability to, and transparency with, stakeholders
- Governance by an engaged Board of Directors representing private and public sector leaders with decision-making authority in the organizations that they represent
- Foundational trust agreements that establish clear "rules of the road," including enforcement authority related to compliance
- Sound policies and procedures
- Business decisions driven by value-creation, leading to financial sustainability
- Judicious use of scarce public and private resources
- Effective engagement with the State of Connecticut for public policy and technology integration with State-run systems

The HIE organization will serve as the State Designated Entity (SDE) for health information exchange in Connecticut. The designation as an SDE will allow for a more coordinated health IT strategy that is clearly communicated to statewide stakeholders. The HIE organization will have a Board that consists of eight members, three of which will be from the Connecticut state government and five of which will represent other, non-government sectors of the state's healthcare community.

The HIE organization will establish a Data Governance Council (DGC) to include both HIE and CDAS services. Data governance activities will identify, research, create, establish, and audit State-approved HIE and CDAS-related policies, procedures, guidelines, and standards relating to data collection, use, privacy, compliance, di-identification/masking, encryption, and security. During the initial CDAS eCQMs and analytics work with the Office of the State Comptroller (OSC), an interim data use agreement will be developed and executed to support the first phase of measure calculations using flat file extracts.

The HIT PMO will continue to convene and facilitate the State Health IT Advisory Council. Public Act 16-77 authorizes and outlines some requirements for this council, which currently has approximately 30 members. The council will continue to provide overall guidance regarding State health IT and HIE strategies and policies and will work closely with the HIE organization's Board of Directors.

HIE and CDAS Core Infrastructure and Shared Services

A necessary first step to supporting HIE and CDAS use cases is to establish the core technical systems infrastructure and shared services. The solution architecture design is focused on reusability and modularity, to deploy systems by components, to support the use of open interfaces and exposed application programming interfaces (API) as part of a service-oriented architecture (SOA). This modular approach along with the guiding principles to use open source and industry leading commercial of the shelf (COTS) software was to mitigate the risk associated with developing extensive custom code and the continued dependency of the development contractors to maintain their custom code.

The solution architecture approach focuses on software configuration instead of software customization as well as components interfacing instead of the tightly coupled dependencies of systems integration. This approach enables the ability to easily change and/or enhance the solutions' system components to interoperate clinical and administrative ecosystem designed to deliver person-centric services and benefits.

The solution architecture will be implemented in multiple stages (or phases) to deliver functionality to the stakeholders/users in a timely and efficient manner, following an Agile system development life cycle (SDLC). Each stage will focus on the release of solution components as required to deliver and functionality captured in the use cases. This will require the stakeholders' continuous input to validate development efforts to requirements. Functionality enhancements can be made at development time instead of waiting for the system to be fully implemented.

As the HIE and CDAS mature, the HIE Entity and the Health IT Advisory Council will monitor emerging technologies and the needs of the stakeholders statewide.

HIE and CDAS Shared Services – Master Data Management

One of the required foundational services is to provide the ability to create, manage and share an authoritative, multi-hierarchical, and trust framework to assemble the single best version of the truth of data regardless of the data origination point. Connecticut will achieve a unified view of a person (such as Medicaid members), provider, active care relationships, and reference data in a manner to deliver identity as a service. These shared services will enable the HIE and CDAS use case functionality and share information across the ecosystem and as such will follow information management best practices of Master Data Management (MDM) multi-domains.

MDM multi-domains platform provides a single technology stack for managing data across internal groups and functions, and can integrate views across domains, such as person, provider, programs, suppliers, employees, locations, and other core components of the enterprise. Instead of distinct, uncoordinated approaches to separate master data domains (built on multiple technology stacks), multi-domain MDM enables an integrated master data approach, based on a single technology platform, with a unified governance framework, and much more straightforward data modeling and mapping.

One of the most significant wins for multi-domain MDM platforms is in data governance where it is much easier to ensure that standards are being met since there is only one repository for the master data. Another significant win is with the movement towards using Big Data Repositories, as is the underlying architectural approach of CDAS. The variety and amount of data in CDAS can apply to any number of domains and therefore a multi-domain MDM can offer an entire view of the relationship between data.

Leveraging an industry leading MDM software component provides the ability to further refine and enhance the data being mastered. For example, Active Care Relationships will continue to mature to different hierarchy levels dependent on the ingested data, such as patient-provider attribution based on claims data, attributed based on provided relationship mappings from payers and ACOs, and relationships as data received directly from FQHCs and hospitals. The attribution logic will be determined by the DGC, as standards and policies need to be established to address duplicate and/or conflicting data and relationship entries.

In Stages 1 and 2, MDM will be configured to create three domains, Person to create the Master Person Index (MPI), Provider to create the Master Provider Registry (MPR) and a reference data management domain. The initial domains will be configured to capture relationship within the MPI, such as family and caregiver, and MPR, such as provider groups and affiliations, as well as across each domain, such as care relationship and attributions of persons to providers.

Identifying MDM DOMAINs

Although certain domains, such as *Customer*, *Product*, *Locations*, and *Employee*, are the most commonly referenced MDM domains, the domain types and mix can vary due to the industry orientation and business model.

Here are some industry-oriented examples of how domains are often defined:

- **Manufacturing domains**: Customers, Product, Suppliers, Materials, Items, Locations
- **Health care domains**: Members, Providers, Products, Claims, Clinical, Actuarial
- **Financial services domains**: Customers, Accounts, Products, Locations, Actuarial
- **Education domains**: Students, Faculty, Locations, Materials, Courses

The reference data management domain will be configured to manage the solution's various reference data and historical crosswalks as well as the quality measures library, where each measure entry will be configured with the measures business logic required for calculation. This provides the ability to create and manage numerous quality measures easily in dynamic tables as opposed to hard coding in proprietary products.

The MDM solution component provides the ability to add numerous domains in future Stages, such as disease registries, through configuration of the software and not custom developed code as required in implemented siloed point solutions.

Operations and Maintenance

As HIE and CDAS core infrastructure and shared services are deployed, user and systems support operations and maintenance will be required. Deploying, testing, maintaining, and monitoring systems and performances in addition to issue tracking will require various tools, which can possibly be supported by the cloud hosting vendor, such as Microsoft Azure. Software support and maintenance will be provided

through the software vendors' typical agreements and any software configurations will be maintained in a hybrid approach of outsourced contractor and internal staff.

HIE Services Solution

The Health IT Advisory Council and HIE Use Case Design Group underwent a thorough deliberation process of over 30 use cases to select six "Wave 1" use cases for implementation in the first year, described below. These use cases were chosen based on their value for patients and other stakeholders, their impact on workflow, ease of implementation, integration and technical assistance potential, scalability and whether existing resources meet current needs.

1. **eCQMs** – Enable the transport of the clinical data needed to CDAS for the calculation of key quality measures. More information is contained in the CDAS section.

2. **Longitudinal Health Record** – Improve care quality by establishing and driving the use of a statewide longitudinal health record among accountable healthcare organizations, patient-centered medical homes and other caregivers.

   Rationale and Overview – Timely and efficient access to longitudinal medical histories by healthcare professionals informs diagnosis and treatment decisions, reduces duplication of costly and potentially harmful tests, and saves patients and providers time and money by reducing the burden associated with collecting information. Patients typically seek healthcare services from multiple locations, necessitating a compilation of clinical data from multiple EHRs or other data sources for a complete view of their health information.

   Approach -- Leverage national interoperability initiatives including eHealth Exchange, Care*Q*uality and CommonWell. These initiatives have enabled large scale data sharing, but have not been implemented widely in Connecticut. Provide technical assistance for onboarding to HIE services.

3. **Clinical Encounter Alerts** – Improve care quality, continuity-of-care and care transitions through the use of clinical encounter alerts.

   Rationale and Overview – Clinical encounter notifications improve the quality of care, care coordination, and reduce costs by proactively, in near real-time, notifying responsible caregivers, such as primary care providers, patient-centered medical homes (PCMHs), accountable care organizations, care managers, when patients have a clinical event such as an admission or discharge to/from an inpatient facility, emergency department or outpatient care facility. Clinical encounter alert systems currently in operation in Connecticut are not fully utilized by PCMHs and accountable healthcare organizations for all patients requiring care coordination or transition-of-care support.

   Approach -- Further delineate functional and business requirements of clinical encounter alerts technology and assess current systems in Connecticut to determine if they can be leveraged to meet this objective. Provide technical assistance to providers on how to incorporate alerts into workflows for quality improvement and care coordination. Additional data suppliers, such as skilled nursing facilities, will be recruited to enhance the value of such a system.

4. **Image Exchange** - Reduce duplicative x-rays, ultrasounds and other imaging by establishing and promoting the use of electronic sharing of images, thereby reducing costs and patient radiation exposure.

   Rationale and Overview -- The electronic exchange of images across organizations offers providers near real-time access to a patient's history of images and the ability to view and compare images from various locations and collaborate with other providers. This improves reduces operational costs for hospitals and imaging services providers, improving the speed and quality of care delivery and reducing radiation exposure from unnecessary duplicative imaging. Image exchange complements the provision of a longitudinal health record, offering clinicians enhanced information for clinical decision-making.

   Approach: Further define business and functional requirements of an image exchange utility; procure image exchange services from a best-in-class vendor; integrate image exchange utility with core infrastructure; recruit and contract with health systems, diagnostic imaging centers and physician practices whose images are to be shared; establish interfaces with contracted image providers; and provide technical assistance.

5. **Immunization Information System (IIS)** – Improve compliance with immunization guidelines and increase efficiency of immunization reporting by implementing a new IIS capable of electronic bi-directional exchange between providers, including school nurses, and the Connecticut Department of Health.

   Rationale and Overview – Electronic bi-directional immunization exchange was viewed by Connecticut stakeholders as a critical need, and this need was validated by the HIE Use Case Design Group. Value was documented across stakeholder groups and includes quality improvement, efficiencies, impact on population health and cost savings.

   Approach: Onboard providers to the bi-directional services, prioritized by age groups of provider patient panels, beginning with infants and children from birth to five years old, and expanding to all ages over time, including adults; integrate with HIE services; provide technical assistance, training and education.

6. **Public Health Reporting** – Improve efficiency by establishing a single gateway for public health reporting for healthcare providers.

   Rationale and Overview – With the implementation of a new IIS capable of bi-directional electronic exchange with providers, a public health reporting gateway should be implemented to facilitate data transport in a consistent and standardized manner. In addition to immunizations, other required reporting will be supported, including reportable labs, syndromic surveillance and reporting to the cancer registry, and other registries...

   Approach: Compare the technical capability and costs of American Public Health Laboratories Informatics Messaging Service with similar vendor-developed technology, to determine the most appropriate way to provision the public health reporting gateway; configure a gateway to integrate with systems in place at the Connecticut DPH; onboard providers; and monitor systems performance.

Candidates for Year 2 implementation were also identified:

- **Advance Directives/MOLST** – *further planning for this use case will initially focus on Advance Directives, with the possibility of extending to MOLST in consultation with DPH and Connecticut's new MOLST Advisory Committee.*
- **Medication Reconciliation** – *viewed as critical for quality, safety and efficiency, but with the need to address process re-design prior to deployment of technology.*
- **Population Health Analytics** – *to be considered further once the CDAS has been implemented, leveraging that technology for additional value creation.*
- **Patient Portal** – *Patient-facing tool to enable healthcare decision-making.*

The use case prioritization process informs the overall solution architecture and roadmap, which will be the blueprint to guide the determination, implementation, and establishment of the required HIE services. The HIE services will be implemented in stages, where each will deliver stakeholder functionality.

Design Considerations

The assessment of the State's HIE solution needs has determined that the HIE will be a network-of-networks configuration, allowing both individual EHRs and already existing HIE initiatives to connect and share data. This configuration supports the federated HIE data model, as the EHRs' patients' data will remain within the individual record systems and be pulled or pushed from HIE services as required. For example, for the longitudinal health record use case, providers can request and pull their patients' health data from other EHRs on the statewide HIE, based on data access rights, authorizations and permitted purposes.

The HIE will enable the sharing of patient health record data across EHRs and other data sharing means, such as stakeholder portals. Aligning the HIE in support of the overall statewide analytic capability will leverage the ability to capture patient's clinical data to enable and enhance the calculation of quality measures, as described in the next section.

Core Data and Analytics Solution

The CDAS will enhance statewide data sharing and enable the analytic capabilities to provide data and information to drive efficient, effective, and personalized patient-centered care to improve health outcomes. The CDAS is primarily focused on quality and utilization measures and analytics to enable value-based care initiatives. The first phase of work is related to the first priority listed in the Background and Overview Section: **eCQMs and Analytics.**

Connecticut's healthcare system has varied and often suboptimal performance on preventive care, diabetes outcomes, prenatal and postpartum care, and mental health outcomes. Clinical quality measures where EHRs are the primary data source, such as eCQMs, have come to the forefront as a means to shed light on healthcare performance, but they are not widely used in Connecticut. The State will work with public and private payers, employers, accountable healthcare organizations, and others to align strategies and increase the reporting and use of eCQMs for measuring outcomes and informing quality improvement activities. These actors have limited insight into the above priorities because this robust and actionable data from multiple sources is not available to them.

During the initial stages of CDAS implementation, provider outreach and engagement will be broad and inclusive, including outreach to ACOs and FQHCs to increase and expedite the submission of clinical data. The CDAS will provide self-service quality and utilization measures analysis with focused visualizations,

dashboards, data extracts and ad-hoc analysis capabilities to these providers. Providers will be able to track and trend the quality of care delivered, avoid preventable events, and address gaps-in-care to improve outcomes and maximize incentives. See subsequent sections for more information.

An initial set of accountable healthcare organizations will be solicited to work with the HIT PMO and the Office of the State Comptroller (OSC) (the State agency responsible for contracting for and managing health benefits for the state employee and retiree populations). The OSC will receive eCQM data to better monitor providers and give them feedback and tools so that they can improve care delivery to the state public employee population.

Additional provider groups, as well as commercial payers will also be engaged at the outset. The HIT PMO will collaborate with DSS to determine how CDAS capabilities can be leveraged to support the Medicaid program. CDAS will allow payers the self-service capability to view visualizations, dashboards and conduct ad-hoc analysis by providers and/or various programs.

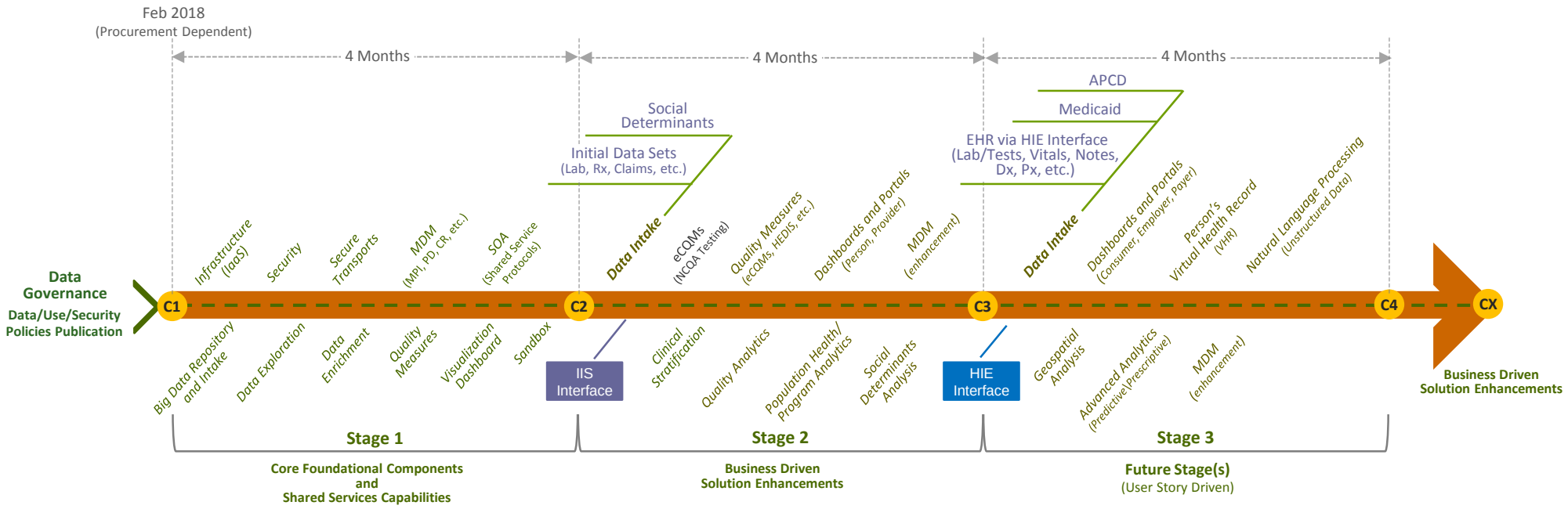
The CDAS architecture is designed as a purely modular framework to provide dynamic configurations and scalability to meet the needs of the stakeholders, current and future. The architecture is based on leading technologies that have been implemented across many other industries and leverages open source and commercial off the shelf (COTS) components. This architecture approach along with the technology components provides a configurable solution and not a custom coded solution.

Incremental System Releases

The CDAS, like the HIE, will be implemented in multiple Stages to deliver functionality to the stakeholders/users in a timely and efficient manner, following an Agile SDLC. Each Stage will focus on the delivery and release of solution components as they become available. The agile process will focus on the required functionality captured in the use cases and will require the stakeholders' continuous input to validate development efforts to requirements. Functionality enhancements can be made at development time instead of waiting for the system to be fully implemented.

The initial CDAS roadmap, **Figure 3,** focuses on the first three implementation Stages. Each Stage builds on the previous stage(s) and the incremental releases of functionality is structured to mature the CDAS analytics and information sharing capabilities.

Figure 3: CDAS Proposed Stage Implementation Delivery Roadmap



Stage 1 is focused on the implementation and interface configuration of core foundational components for the CDAS and the shared services components within the HIE. The following core components and capabilities will be completed at the conclusion of Stage 1:

- Core Components
  - The initial three (3) infrastructure cloud environments (development, test, and production) will be established along with the infrastructure management tools
  - The installation and base configuration of core software components, such as the Big Data Repository, Security, MDM, Data Transfer, Data Ingestion, Data Transformation, Data Enrichment/Enhancement, Visualizations and Dashboard, and Portal Framework
  - Initial configuration of service oriented architecture (SOA) and connection technologies, such as an enterprise service bus (ESB) or RESTful API
  - Initial configuration of MDM Domains, such as person, provider, care relationship, measures and reference data management
- Core Capabilities
  - Ingest data extracts into the Big Data Repository, such as claims/encounters, pharmacy, labs, person, provider, and program
  - Capture and ingest data into the Big Data Repository and MDM through electronic services
  - Dynamic capture and management of quality measures business logic in MDM reference data management
  - Conduct data exploration and mining on data ingested in Big Data Repository
  - Create visualization and dashboards

Stage 2 is focused on the configuration of core foundational components and implementation of business functionality as captured in use cases. The following core capability enhancements and configuration of functionality will be completed at the conclusion of Stage 2:

- Core Capabilities
  - Share services via service oriented architecture (SOA)
  - Access and build MDM Domains and relationship attribution through electronic services
  - Conduct Data Transformation and Data Enrichment/Enhancement,
  - Design and configure stakeholder Portal(s)
- Business Functionality
  - Ingest claims/encounters, pharmacy, labs, person, provider, program data (flat file extracts) into Big Data Repository
  - Ingest clinical data from HIE into Big Data Repository as necessary to support eCQM and population health analytics
  - Data exploration and mining
  - Data Enrichment/Enhancement and clinical stratification (groupers)
  - Process data and generate quality measures, such as eCQMs and HEDIS
  - Implementing visualization and dashboards for quality, population health and program analytics
  - Stakeholder/user access to Portals

Stage 3 is focused on the continued and new configuration of core foundational components and implementation of business functionality as captured in use cases. The following core enhancements and configuration of business functionality will be completed at the conclusion of Stage 3:

- Core Capabilities
  - Conduct Geospatial analysis within dashboards
  - Conduct Advanced Analytics, such as predictive and prescriptive modeling
  - Ingest unstructured data
  - Conduct Natural Language Processing (NLP) of unstructured data
- Business Functionality
  - Ingest APCD and Medicaid data into Big Data Repository
  - Process data and generate quality measures, such as eCQMs and HEDIS
  - Implementing visualization and dashboards for quality, population health and program analytics for Medicaid stakeholders
  - Stakeholder/user access to Portals

Design Considerations

The CDAS architecture is an innovative change from traditional data warehouse systems. The design considerations and guiding principles are focused on providing access to the data and derived information as quickly as possible through agile delivery.

Big Data Repository

The Big Data Repository will allow users to capture and ingest all types of data (structured and unstructured) in raw form into a common file system. In a Big Data Repository, using the open source tools, the raw data files, as ingested, are virtually harmonized to provide the ability to instantly conduct data mining and data exploration. This eliminates the extremely time-consuming tasks of data load and integration across multiple data sources, as required in traditional data warehouses.

As data is ingested, the Hadoop tools can copy data elements and send them to the MDM where it can be determined if a new domain entry is required or an existing entry may require data element updates. This MDM processing on data intake can also capture care relationships based on attribution models or relationship mapping directly from a source system, such as the HIE. Data ingested in the Big Data Repository can be masked and/or de-identified at the data element level prior to being stored in the HDFS, so only authorized users can access and see identified data elements while others see de-identified data. Ingested data can be transformed and enhanced as well as analyzed at the data element level to capture events and alert triggers prior to data file storage.

Leveraging industry-leading open source solutions enables users to conduct data mining and exploration as the data is stored in the file system. Traditional data warehouses can take months of staff time before the data is organized into the correct form to enable users the ability to analyze data, as the data needs to be extracted, transformed, and loaded into multiple data stores (landing, staging, integration, and dimensional). The data movement between stores also requires good upfront knowledge of the data, as that will drive the design and development of the extract, transform, and load (ETL) processes. Using a Big Data Repository drastically reduces the time and knowledge needed to set up and use a data store.

Data Ingestion/Intake

The CDAS will leverage various sources of data (such as medical claims/encounters, pharmacy, lab, clinical, and administrative) to develop various levels of quality and utilization measures and enable quality analytics. The levels are based on the nature and quantity of data available and captured. CDAS is designed to support incremental implementation of functionality, of which acquisition and intake of data will follow. This approach is to leverage the data as it becomes available, where each additional source of data matures the ability to calculate various levels of quality measures. For example, if medical claims, pharmacy, and administrative data is available then some quality measures, such as HEDIS, can be calculated. But if a HEDIS measure, such as diabetic HgbA1c (>9%), requires clinical lab value data not currently captured, then the measure logic can be used to calculate a HEDIS-like measure that can identify the diabetic patients that have a potential HbA1c gap-in-care.

As shown in **Figure 3**, data intake is currently planned across Stages 2 and 3, but as the CDAS is following agile delivery, data intake may shift depending on the implementation of core solution components and the availability of the data.

Integrate Claims/Pharmacy/Lab/Enrollment/Program data

Once the core foundational components have been implemented in Stage 1 and the capability to ingest data into the Big Data Repository, the data will be ingested in Stage 2. The initial data intake is based on the Office of the State Comptroller (OSC) use case to capture better quality measures, such as eCQM and HEDIS, for the self-insured population. OSC's self-insured data from United Health Care and Anthem, which consists of medical claims/encounters, pharmacy, lab, provider, program, and member enrollment, will provide the initial well-rounded base of data to calculate quality measures.

Integrate EHR data (initial phase)

This initial clinical data intake is based on the OSC use case to calculate eCQMs. Building on OSC's relationships with accountable healthcare organizations, a select set of provider organizations will be asked to submit a clinical data in flat file extracts of standard CCD or QRDA-I formats, while the HIE transport mechanism is being established. This data will be ingested into the Big Data Repository and used to calculate eCQMs and other measures. Capturing this data will mature the CDAS' ability to advance the calculations of quality measures and demonstrate the capabilities to other stakeholder communities.

Integrate EHR data via HIE

As the solution matures with the deployed HIE services, CDAS Stage 2 will enable the ability to accept electronic submission of CCDs and QRDA-I from EHRs over the HIE, and migrate away from flat file extracts. Capturing this data will further mature the CDAS capability as the calculations and submission of eCQMs can be realized.

Data Enrichment/Enhancement

The CDAS will provide stakeholders the information to make decisions, such as care delivery and monitoring individuals and populations to determine the effectiveness and quality of care. To accomplish this, the CDAS must extract information from the base normalized data through various data

enhancement and enrichment processes. Once the information is attained, the CDAS will further apply advanced analytics, algorithms and care indices to generate insight across various data and informational elements, such as quality measures against health status stratification.

While the HIE – CDAS services provides the means to share information between patients, consumers, providers, and payers, we must look at innovative ways to leverage one of the most valuable assets, that of data, and transform it into information and insight to improve the effectiveness and efficiency of services and focus providers and payers to improve outcomes.

Clinical Groupers

Clinical groupers provide an overall understanding of an individual's health status by using longitudinally collected claims, pharmacy and other data processed through clinical categorical models.

CDAS has the ability to calculate various quality measures, such as eCQMs and HEDIS, which will provide visibility into the person-centric quality of care. While the quality measures focus at the individual person, it will be aggregated to providers based on his/her panel as well as at a higher level populations based on program enrollments.

Quality measure data is based on the services and/or clinical lab values at the person level and then aggregated by provider to provide the quality measure to understand how the providers are providing services, such as through eCQMs and HEDIS measures. While these base quality measures determine specific outcomes to care services, it ignores the fact that individuals are unique. It's important to identify the individuals with abnormal high test results, such as HbA1C (>9), to measure the providers' quality outcomes, the added dimension of knowing if the individuals are early onset diabetics as opposed to individuals that have comorbidities (multiple diseases) and a high health status severity level is an important factor to consider for value-based care delivery. Comparing two providers based on the number of patients that have an abnormal high test results, can mislead value-based care. A provider that has a higher number of patients with abnormal high test results may in fact be providing better care than the provider that has less.

To provide the clinical stratification, the CDAS will use the advanced capabilities of 3M Health Information Systems (HIS) and their advanced categorical grouping and risk adjustment software, including the 3M™ Clinical Risk Groups (CRGs) and 3M™ Potentially Preventable Events (PPEs) Classification Systems. While 3M grouping software are preferred, the CDAS is designed to incorporate other grouping software as required.

Clinical Risk Groups (CRGs)

The CRGs provide the clinical categorization of persons by disease or combination of diseases (comorbidities) and the state of their progression (that is, the severity of the illness). CRGs assign every person to a single, mutually exclusive severity adjusted category (one of 1,080), called a Clinical Risk Group (CRG), where each CRG represents a person's health status or disease burden category, which varies with the severity of the illness.

The CRGs clinical categorical stratification process is a hierarchical, open-logic process (no black box) in which each person is assigned to a risk group based on his/her most significant diagnosis or diagnoses. The process of identifying disease conditions is conditional, relying on rules governing the presence and

use of diagnoses, procedures, and pharmaceuticals along with places of service, dates of services, and age and gender demographic factors (excluding costs). The CRGs categorical stratification process reduces the false positives that may lead to the conclusion that a person has a disease when he/she does not.

CRGs have four levels of various aggregations, in which each base CRG (one of 1,080) maps at the highest level of aggregation, each 1,080 CRG will map to one of nine health statuses, which range from catastrophic conditions (Status 9), such as a history of a heart transplant, to healthy (Status 1). Based on the severity adjustment of the CRGs, all individuals with the same disease(s) are not categorized in the same bucket. For example, CRGs will identify all individuals with a single disease, such as diabetes, and begin to assign them into the CRG Status 5, one significant chronic disease. The clinical logic will evaluate where each person is within the progression of their identified disease and assign them to the appropriate CRG based on their individual disease progression. Each individual disease or comorbidity can have up to six different severity adjustment levels, shown in **Figure 4**, below.

Figure 4: Health Status and Severity Distribution

Population	Severity						
	1	2	3	4	5	6	Total
1- Healthy	185,858						185,858
2- Significant Acute	100						100
3- Single Minor Chronic	17,156	1,514					18,670
4- Multiple Minor Chronic	2,823	928	1,002	335			5,088
5- Single Significant Chronic	29,969	8,228	14,174	974	391	398	54,134
6- Two Significant Chronic	14,484	11,514	7,670	6,207	2,876	532	43,283
7- Multiple Significant Chronic	2,571	3,499	6,655	2,033	1,887	473	17,118
8- Complex Malignancies	103	519	896	1,219	473		3,210
9- Catastrophic	363	877	712	935	437	533	3,857

The assigned CRG provides the ability to trend individuals' health status to understand the progression of disease(s) for an individual and various levels of aggregation. This will provide care coordinators and providers a case mix and severity-adjusted view into their patients' data and conduct historical trend analyses on health status progression and performance outcomes overtime.

This will provide a unique way to analyze populations, such as Accountable Care Organizations (ACOs) programs, through a view that can be used to lay the foundation for value-based care.

Potentially Preventable Events

Visibility into the captured quality measures and the case mix and severity-adjusted view of individuals' health status, quality analytics requires a focus on service delivery and quality of care and the elimination of unnecessary or potentially preventable services.

There are five types of healthcare encounters or events that are potentially preventable and may lead to unnecessary services and advance the progression of disease(s):

- *Potentially Preventable Complications (PPCs)* - are harmful events or negative outcomes that occur after a client is admitted to a hospital or long-term care facility. They result from the process of care and treatment rather than from a natural progression of underlying disease and could reasonably be prevented according to accepted standards of care.

- *Potentially Preventable Readmissions (PPRs)* - are return hospitalizations that may result from deficiencies in care or treatment provided during a previous hospital stay. PPRs can also result from inadequate post-hospital discharge follow-up. They do not include unrelated events that occur post discharge.
- *Potentially Preventable Admissions (PPAs)* - are admissions to a hospital or long-term care facility that could reasonably be prevented if care and treatment were provided according to accepted standards of care. PPAs involve ambulatory sensitive conditions for which adequate client monitoring and follow-up can often prevent the need for hospitalization.
- *Potentially Preventable Emergency Room Visits (PPVs)* - are emergency room visits for conditions that could otherwise be treated by a care provider in a non-emergency setting. PPVs are similar to PPAs in that they involve ambulatory sensitive conditions that could be treated effectively with adequate patient monitoring and follow-up, rather than requiring emergency medical attention.
- *Potentially Preventable Ancillary Services (PPSs)* - are ancillary services provided or ordered by primary care physicians or specialists to supplement or support the evaluation or treatment of patients. They include diagnostic tests, laboratory tests, therapy services, radiology services and pharmaceuticals that may be redundant or are not reasonably necessary.

Visualization/Dashboards

A guiding principle in the design of the CDAS is to provide stakeholders self-service access to data and information through various pre-designed and developed dynamic dashboards as well as ad-hoc analytics workspace. This workspace provides the ability for stakeholders to conduct data analysis on their authorized data sets to create their own visualizations and dashboards that could be published to other users. The Visualization/Dashboard capability will leverage existing Tableau assets and will be scaled as required, such as the requirement to deploy Tableau server in the secured CDAS infrastructure so data will remain within the secured environment and not get pulled into local desktops/laptops.

Published dashboards will be accessible through the stakeholders' information portals. The dashboards and visualizations will be designed and developed from the captured use cases with continuous input from the stakeholder communities. The dashboards will allow authorized users to various views of information, depending on authorizations to access the data in identified and/or de-identified forms. The lowest level of data granularity is at the person-centric level, which can be aggregated based on attributes assigned at that person level, such as attributed provider(s), program(s), payer(s), and demographics. This enables the ability to view and analyze information at an aggregate (such as population) as well as the ability to drill down to the person view.

The dynamic dashboards are designed to allow users the ability to filter the information based on any captured attribute and/or calculated quality measure. This enables users with an easy point and click functionality to filter, analyze and view information to drive decisions. The dashboards will provide the ability to analyze information in a point-in-time snapshot or conduct trending analysis to view progressions to determine outcomes to various interventions. The dashboards will evolve as stakeholder needs evolve and as the data matures.

All dashboards will draw upon a common data foundation, which provides a means to open the lines of communications between all stakeholders, such as patients and providers. Providers will have access to

their patient panel and visibility to their patients' health status, quality measures and outcomes to drive conversation, establish interventions and manage them to outcomes. Providers can view their own quality measures, based on their attributed patient panel, to have visibility into their quality performance to proactively identify areas to focus upon to improve quality outcomes. Providers can compare their quality measures and specific KPIs to their peers and to baseline against various population aggregates.

These dashboards provide the ability to analysis information in a point-in-time snapshot or to trend outcomes over various periods of time to determine payers' trends in the health status of their clients. The state can keep track of the health status of the whole state down to individual patients and get in front of trends by implementing policy.

Patients will have access to their own information but also to broader information to enable them to make health care decisions, such as which providers best meet an individual's needs, as well as which treatment outcomes are an option to discuss with providers, thus empowering patients/consumers in their interactions with the healthcare system.

The benchmark dashboard gives users the ability to compare providers against their peers based on certain characteristics of the population (i.e., age, risk score, location, and disease).

CQMs/eCQMs/Quality Analytics and Dashboards

Once the HIE data is integrated into the data repository, we will enrich the visualizations and dashboards to enhance data and information sharing. These will support the ongoing eCQM and HEDIS measure analytics. Adding the HIE data to the clinical data initially obtained, and to the claims data will allow us to expand our dashboards into more accurate quality analyses.

Consumer Quality/Cost Analyses Dashboards

The Tableau visual analytic capability will be used to create dynamic analytic dashboards for determining consumer quality and cost analyses. We will create these as soon as the initial data is integrated into the data repository, and then they will be enhanced by subsequent data.

These dashboards will have many options for the user to explore the data. There will be selection options to allow the user to select only part of the data or all of the data views through selection of various filters. They will also be able to drill down from the population to the person-centric level (depending on the user level of access).

Data Exploration/Mining

Data exploration and mining will be done with several tools. The most ubiquitous tool is Tableau, as it can be used for data exploration with no coding experience. Tableau allows users to see the data in tables and choose what elements they want to use and create visualizations from that data based on what Tableau can pull out automatically. These visualizations can allow users to see representations of what the data look like to find patterns and commonalities. This is a basic form of data mining that requires no code experience.

For more advanced data mining techniques, we will turn to R, an open source statistical analysis tool with a lot of utility. R can be easily integrated with Tableau, using Tableau's tools for that purpose. Using R, advanced users can dig deep into the data, manipulating what is there and finding patterns that simple

visualization creation cannot. R has many additional add-ons that can modify and manipulate data in many ways. The versatility of R is its greatest asset when it comes to data exploration, as it has many different ways of mining through data.

Advanced Analytics

Advanced users will have Tableau desktop to create their own dashboards, though no data leaves the cloud. This can allow users to submit dashboards and analytic tools they have created to a testing group. If the submission is deemed useful to implement more broadly, we can incorporate it into the overall analytic solution.

Sandbox

The CDAS will provide a sandbox environment for stakeholders to conduct their own analytics research. Authorized users will be able to access the data in the cloud through a virtual environment that contains any analytical tools they may wish to use. If an authorized user creates a new dashboard, a new algorithm for quality measures, or any other useful analytical tools on the data, they can submit these to the Data Governance organization for testing and possible publication to the available premade tools.

We need to have the capability of providing a sandbox to authorized users, so they can do data mining and analysis for research to develop new algorithms to be used in our solution. Users need the capability to see authorized data and copy to sandbox (still in cloud) to do what they would like with it. We can have R and other open source tools available (or look at licenses for some users if they need it). The sandbox can have leased time that users apply for.

Health Equity, SDOH data, and Population Health Analytics

Health equity is a primary priority for the State of Connecticut. An analysis will be completed regarding the adequacy and source of data for race/ethnicity/language (REL) information to inform a strategy to promote the use of REL data by accountable healthcare organizations and payers to improve care. CDAS will enable the goal that payers are able to incorporate REL-segmented Health Equity Quality Measures into their value-based payment scorecards, as reporting then payment measures.

Additionally, opportunities exist to leverage CDAS analytics, and potentially HIE services, to support the SIM population health efforts will further be examined.

Lastly, social determinant of health priorities, data sources, and use cases will be established and incorporated into the health IT architecture in the next award year.

3. Driving Adoption and Usage

Achieving widespread adoption of HIE and CDAS in Connecticut is going to be crucial to the overall success of the efforts proposed here. We use the word “Solution” as our overall approach, but our strategy is to not just deploy a system, but to work with the various stakeholders and provide technical assistance and subject matter expertise to support them on how to use the incremental delivery of functionality within their workflows. Broad outreach will focus on establishing trust and understanding. The adoption and technical assistance strategy will be multi-pronged. Provider and payer onboarding will occur as use case functionality is delivered through the agile SDLC process. Once on-boarded, technical assistance with both the IT and business processes will be offered.

At the beginning of the first implementation year, we will conduct statewide outreach and education about available HIE and CDAS services, in addition to informing people about the newly formed HIE Entity and health IT strategy for Connecticut. Messages will be tailored to different types of providers, payers, agencies, community stakeholders, and others. We will accelerate the process by leveraging relationships with provider advocacy group, trade organizations, and other stakeholder groups. Targeted outreach will begin with eligible providers (EPs) that are currently participating in the Medicaid EHR Incentive Program, in addition to those that may have been eligible but did not start participation prior to the 2016 program year. Medicaid HITECH 90/10 funds will fund and support all Medicaid providers with which EPs want to coordinate care (State Medicaid Director (SMD) letter #16-003 dated February 29, 2016).

Developing and implementing a strategy for provider onboarding for HIE services will begin immediately, paying close attention to aligning efforts for all of the HIE services that may cross state agencies and stakeholder groups. Onboarding will include behavioral health providers, long term care providers, substance abuse treatment providers, home health providers, correctional health providers, social workers, etc. The first wave of onboarding for the eCQM use case will occur with accountable care organizations with established relationships with OSC and with the most readiness to participate. These providers will submit flat file clinical data extracts until interfaces with the HIE are established. OSC's contractual relationships with payers will open the way for another set of users for onboarding.

Technical assistance to providers will focus both on user training on technology usage, as well as TA related to privacy and security, work flows and business processes. Technology usage training and support will be a continual process as more pieces of the solution become available. User support will happen within incremental releases, as users run into issues with the production level pieces of the solution. Demos of new implementations will happen within sprints, as new features are created and need to be demonstrated to stakeholders. Online webinars and videos, FAQs, a forum/chat for users to talk to each other, and an online chat with help desk (with screen sharing capability) will be available in a user accessible portal, connected directly with their access to the solution.

Technical assistance with business processes will use proven methods of workflow redesign and leverage existing technical assistance programs to streamline the approach to provider interaction, including the Community & Clinical Integration Program. We will also build on proven methods of technical assistance from the Regional Extension Center (REC) program to ensure continued EHR adoption and use, HIE adoption and use, public health reporting, and use of quality measures and analytics. Much like the REC program, milestones and goals will be created and monitored on a regular basis. Resources may also be offered to users for needed IT and related expenses, such as interfaces.

Framework for Sustainability

It is recognized that financial sustainability has been a challenge for many HIEs and that hard data quantifying value derived from HIE services are not abundant. Yet there is also recognition that HIE services, properly designed and operated, will yield significant benefits for the citizens of Connecticut. Building upon the previous and current work of SIM, value-based care initiatives around the state, and widespread efforts to achieve the Triple Aim, Connecticut is committed to the creation of a new paradigm and business model for HIE that ensures long-term sustainability.

There are many dimensions to the framework for sustainability envisioned for the state. First and foremost is the creation of *demand* for interoperability and data sharing. Much has been accomplished

across the country on the "supply" side of interoperability, meaning the technical capability to exchange clinical data. Much less focus has been placed on how demand will be expanded far beyond today's level of data sharing, to the point that data sharing becomes a true standard of care that is integrated seamlessly into a clinician's workflow.

Accomplishing this overarching goal will require maintaining the value of services created for early participants while bringing important new players into the interoperability ecosystem. For example, clinical research has been identified as an activity that could benefit greatly from HIE services like longitudinal health records and clinical encounter alerts, but this work has rarely been done in partnership with a HIE service. Innovative approaches to monetizing the value of data as "currency" in the interoperability ecosystem should be identified and implemented. The active participation of payers is critical in this regard, and the stakeholder engagement process identified strong interest by this important group to participate in HIE initiatives.

In addition to these business model considerations, sustainability will not be achieved unless two conditions are met. First is that HIE services be designed for ease-of-use by clinicians and other users, including having a positive impact on workflow. Usability is an essential consideration in the design of any HIE services implemented in the state and is a foundational requirement for sustainability to be achieved.

Another requirement for sustainability is ensuring that the privacy, security and confidentiality of all HIE services. The confidence and trust of citizens and stakeholders in Connecticut will be foremost in all technical and operational aspects of HIE services.

The leadership role of the state is critical, and regulatory and legislative levers will continue to support increased data sharing. The National Governors Association (NGA), for example, highlights Connecticut's PA 15-146 which prohibits information blocking. The NGA also speaks to the role of the state in driving toward new economic models for the delivery of care: "*The primary way a state can create economic interest for information exchange is through its larger efforts to change the way health care is paid for, delivered and measured."*

This framework for sustainability will form the basis for a Financial Sustainability Plan, scheduled for development and adoption by the HIE organization's governing body in AY3.

4. Data-Driven Approach to Accelerate Impact

The HIE and CDAS strategy will be undertaken with a focus on assessing impact and gathering the needed information to demonstrate effectiveness and efficiency, and ultimately increased quality of care, improved health, and smarter healthcare spending.

The implementation approach will emphasize rapid-cycle evaluation and quantitative and qualitative feedback from users to inform continuous improvement. Additionally, adoption and usage indicators will be tracked to inform technical assistance and outreach resources and prioritize areas for improvement.

Although capturing the impact of HIE and CDAS services will have implications for individual users, such as hospital systems or payers, the ultimate value of HIE and CDAS cannot be defined solely in terms of benefits accrued to providers or any other single group. The value will be considered in terms of benefits to all participants in the healthcare system: patients, providers, payers, and communities.

e. *Workforce Capacity: Community Health Workers*

Community health workers (CHWs) are recognized by national and local health leaders, as well as in the ACA, as important members of the health care workforce, and are increasingly being used as integral members of primary health care teams. CHWs serve as an extension of the healthcare team into an individual's community or home. They can address cultural, linguistic, health-literacy-level, and social-determinant-based barriers that deter individuals from receiving the healthcare services they need.

CHWs provide health education and coaching, identify resources, assist with adherence to treatment plans, and ensure that individuals get the health and social services they need. They also provide informal counseling and social support, advocate for individuals and communities, provide direct services (such as basic first aid), administer health screening tests, and build individual and community capacity. The success of CHW work is largely attributed to their connections within the communities they serve, and in building trust and relationships with their clients.

The evidence shows that they help improve health care access and outcomes, play a critical role on health care teams, produce a return on investment, and enhance the quality of life for people in disadvantaged communities.

The SIM provides funding to promote the use of CHWs along the healthcare continuum, to help prepare this workforce to become members of inter-professional primary care teams, and to play key roles in improving population health. By engaging national and regional experts, the SIM will focus on stakeholder engagement, development of infrastructure, policy and sustainability development, as well as education and community integration.

The goals of the CHW initiative are to 1) demonstrate the effectiveness of CHWs as part of the healthcare team, and 2) to provide a policy framework for CHW integration. To achieve the first goal, the CHW team will provide CHW and Employer technical assistance to support the integration of CHWs on the healthcare teams of CCIP participating entities. As detailed below, the CHW team will help ensure that CCIP participating entities have the necessary resources and technical assistance to achieve the standards. To achieve the second goal, the CHW team will work with the CHW Advisory Committee to develop a policy framework and workforce development plan to ensure a sustainable CHW workforce in Connecticut. This policy framework and infrastructure will support the expansion of CHW utilization that will follow a successful demonstration through CCIP.

CHW Key Activities

SIM test grant funds will support the following activities of the CHW initiative over the test grant period:

1. **Technical Assistance for CCIP Participating Entities**
    a. Provide oversight on the technical assistance for CCIP participating entities establishing fidelity to their CHW models and assessing a return on investment.
    b. Provide ongoing support to the CCIP Vendor in the development of CHW resources to be featured on the CCIP Learning Management System.
    c. Identify and disseminate information about existing training programs for CHW core competency and specialty areas of training.
2. **Infrastructure, Policy, Sustainability Development**

a. Support the CT Public Act 17-74 by co-facilitating the CHW Advisory Committee meetings to provide guidance to the SIM Steering Committee on creating a sustainable policy framework for Certification of CHWs in Connecticut.
b. Work with IT consultant to develop online resources for CHWs and employers
c. Establish a CHW Apprenticeship program with the CT Department of Labor and workforce agency partners. Includes the development and approval of a class curriculum and an on-the-job training schedule, as well as formal MOUs with CHW employer host sites.
d. Identify resources available to CHWs and disseminate the information for CHW use via CHW website

In addition, the CHW Initiative will engage and complement the CHW efforts of other work streams:

- Advanced Medical Home Program: SIM funding promotes the advancement of primary care practices to become AMHs, an enhanced version of the team-based patient-centered medical home model. Practices and provider entities will be looking at new care delivery models and team compositions to improve quality, including the potential use of CHWs.
- Population Health Plan: SIM is funding the development of a Population Health Plan, which includes PSI and HEC initiative.

The proposed activities will build on work done during Award Year 2 which included:

- Developing Connecticut-specific recommendations for CHWs including: definition, scope of work, certification, and sustainable funding
- Drafting manuals for use by the CCIP Participating Entities on
- Securing national and regional experts to provide technical assistance in developing the necessary components for CHW workforce infrastructure, policy and sustainability
- Inventory of national CHW initiatives, focused particularly on core competencies, scope of work, models of certification and training, and mechanisms of payment
- Development of SIM CHW Initiative At A Glance document

Community Health Worker initiative lead: The SIM PMO has contracted with the University of Connecticut Health Center (UConn Health) to implement the CHW initiatives outlined above. UConn Health has subcontracted with Southwestern Area Health Education Center (AHEC) to help support this work. AHEC has experience and expertise in workforce development and community collaboration. The CHW Advisory Committee will serve as an advisory body to this work steam.

f. Consumer Empowerment

Healthcare reform will be most effective if it can leverage both "supply" and "demand" -side reforms. Supply-side mechanisms of improving healthcare include enabling clinicians to deliver better quality care more efficiently through medical home models, shared savings arrangements, and enhanced health information technology. However, engaging consumers on the demand side is critical to ensure people are involved and empowered within the health system and that initiatives are tuned to the needs of the CT population. The following three levers will be implemented to engage and empower consumers:

A. **Value-Based Insurance Design**: Increase the percentage of employed people in the state that have a "value-based insurance design" health plan, by engaging employers to adopt them, thereby removing barriers for essential, effective services.
B. **Consumer Empowerment & Communication**: Provide outreach and education to consumers, such as forums and listening sessions, and ensure consumers play an active role in SIM governance.
C. **Quality Performance & Cost Transparency**: Stand up a public dashboard with data about SIM progress, as well as a public scorecard of Advanced Networks & FQHC performance information.

A. Value-Based Insurance Design

Value Based Insurance Design (VBID) is a cost-effective employee benefit plan approach used by small and large, fully- and self-insured employers to lower or eliminate financial barriers to, or introduce rewards for preventive care, medication adherence, chronic disease management, and high-quality provider selection.

Objective

VBID is a means to empower consumers to make healthier lifestyle decisions and engage in effective illness self-management through insurance design.. The VBID initiative aims to increase the adoption of VBID programs among Connecticut employers as part of SIM's goals to improve residents' health outcomes while reducing unnecessary and potentially harmful healthcare utilization and spending. Our goal is to encourage adoption of VBID plans among the majority of self-insured employers in the state.

VBID-Promoting Activities

In AY3, we will continue our extensive VBID adoption efforts, leveraging the employer engagement and VBID template development work completed during the past two award years. We will expand our efforts by providing targeted technical assistance to self-insured employers who are prepared to develop and adopt VBID plans.

The VBID work will be comprised of the following activities and deliverables, building on the work completed to date:

- **SIM VBID Consortium**: During Award Year 1, a Consortium was established, bringing together health plans, consumers, employers, employer associations, providers, and state agencies to advise on all aspects of the VBID initiative, including recommended benefit plans, the effectiveness and feasibility of implementing various VBID principles and mechanisms, aligning consumer incentives with payment side reforms, and how their products may align with this initiative. The Consortium advised on the development of VBID templates and manuals which are currently available for employers use on the SIM website. The Consortium met again during Award Year 2 to advise on the refinement of the templates, and will continue to meet occasionally for the remainder of the test grant to advise on strategies for engaging employers and to provide feedback on future iterations of the VBID templates and employer guidance. We will also engage the consortium to identify potential employers to receive targeted technical assistance and to participate in peer learning opportunities with those employers.
- **VBID Templates**: During Award Year 1, the Consortium advised on the development of two prototype VBID templates: one targeting fully-insured employers and another targeting self-insured employers. These templates are available to be used and adapted by employers who wish

to implement VBID plans. During Award Year 2, the templates were modified to be more user-friendly. They will continue to be reviewed and updated annually.

- **VBID Implementation Guide**: During Award Year 1, a VBID Implementation Guide for employers was developed. The Implementation Guide includes the VBID Prototype templates, as well as advice, guidance, and considerations for implementation. Like the prototype templates, separate Implementation Guides have been developed for self-insured and fully-insured employers to address their unique needs and considerations in the adoption of VBID. The Implementation guides will be reviewed and updated annually.
- **Employer Engagement Activities**: To promote VBID, we have partnered with employer organizations, Chambers of Commerce, brokers, and Human Resources professional organizations through organized events and webinars. These employer engagements have yielded a key list of contacts throughout the state and more widespread understanding and interest in VBID. We will continue these activities in Award Year 3 in order to recruit for the Employer targeted technical assistance opportunity.
- **Employer Targeted Technical Assistance**: In Award Year 3, we will leverage the relationships we have developed through the employer engagement efforts to provide targeted technical assistance to self-insured employers interested in developing and adopting VBID plans. This technical assistance will be provided by the consultant, Freedman Healthcare (FHC), and will be strategically delivered to support the needs of each organization. FHC will recruit interested employers, develop a data dashboard with all pertinent employer health benefits information, work closely with the employer to select benefits for inclusion in a health plan, and assist in the development of a communications and evaluation strategy. The technical assistance will be delivered through in-person meetings and calls, and will also include a peer-to-peer learning opportunity for employers to share best practices. FHC will provide technical assistance for up to 20 self-insured employers over two cohorts in Award Years 3 and 4.

In addition, subject to board approval, AHCT may implement VBID in Year 4 of the Model Test. DSS may consider the implementation of incentives in alignment with the development of the state's population health plan.

Context

The uptake in VBIDs nationally and in Connecticut has been gradual. Some barriers to accelerated uptake of VBIDs include the capacity for employers to quantify clinical and economic return on investment, measure outcomes, accurately determine the value of specific services through comparative effectiveness research, and perform actuarial analysis to set copayments. Additionally, employers that offer their employees enrollment choice across multiple health plans may not be able to implement one standard VBID, as each health plan may have unique VBID products and administrative capabilities. This creates an additional layer of employee education and administrative burden on the employer.

Some large Connecticut-based employers, including the State of Connecticut, have already embraced and are managing successful VBID programs for their employees. Connecticut's SIM initiative seeks to promote the statewide adoption and integration of VBID by building on the experience and lessons learned by these employer groups. For example, the State of Connecticut's OSC successfully implemented the state Health Enhancement Program (HEP) in 2011. In exchange for lower member premium shares, the program requires employees and their dependents that elect to participate to undergo preventive care (e.g. annual

preventive visit, dental cleaning, cholesterol screening, vision exams, etc. as determined by age). Those participants having one or more chronic conditions are required to participate in a care management program, whereby the copayment for the medication to manage the chronic condition may be reduced or waived.

VBID Participation Goals

SIM set a goal that 84% of the total insured population in Connecticut will be in a value-based insurance design plan by 2020. The VBID prototype templates developed during the pre-implementation period will be used to establish a benchmark for what defines a VBID plan. This will allow the evaluation team to identify a baseline and measure VBID uptake annually.

EXHIBIT 6: NUMBER OF BENEFICIARIES (IN THOUSANDS) WITH A VBID INSURANCE PLAN

Coverage Category (000's)	2016	2017	2018	2019	2020
ASO (excluding State Employees)	453.7	589.9	766.8	881.8	1,014.1
Fully insured	350.6	420.7	525.9	631.0	757.3
State employees, exc. Medicare Supp.	134.0	136.0	137.0	137.0	137.0
Total	**938.3**	**1,146.6**	**1,429.7**	**1,549.9**	**1,908.4**

VBID initiative lead: The VBID initiative will be led by the OSC, in collaboration with the SIM PMO. The VBID Consortium will serve as an advisory body to this work stream. The SIM PMO and OSC have engaged Freedman HealthCare, LLC, a leading consulting firm in healthcare systems improvement to implement this initiative.

B. Consumer Empowerment and Communication Strategy

Consumer and community organization's input and active engagement is critical to designing and implementing changes in the health system that benefit the Connecticut population.

The Consumer Advisory Board (CAB) is the main vehicle in the governance structure to ensure community and consumer influence over SIM programs and policies. The CAB facilitates consumer participation on all SIM committees, and reinforces consumer participation in every part of the implementation process.

The CAB's mission statement is to advocate for and facilitate strong public and consumer input to inform policy and operational decisions on health care reform in Connecticut.

The CAB's mission is supported by the following strategies:

- Providing a forum for consumers, their advocates and the public to provide oral and written input on health care reform.
- Serving as a catalyst to engage consumers and solicit their input on specific health care reform issues.

- Helping to educate and engage consumers and the public about state and federal health care reform laws and health care reform policies and regulations as they are proposed and implemented.
- Informing policymakers about the importance of addressing healthcare disparities and consumer needs.
- Offering advice and feedback to the state's PMO and other health care policy leaders on best practices for implementing consumer assistance and consumer access systems.

In addition, the CAB will launch a **consumer engagement communication plan and strategy,** focused on three focus areas:

1. **Influencing Systems Change:** Organize diverse consumers to influence the design and implementation of person-centered, culturally appropriate health care reform initiatives and public policy.
2. **Promoting Provider-Consumer Partnerships:** Engage healthcare providers in what they need to develop culturally competent and relevant knowledge about diverse consumer needs. Promote communication and partnership between providers, consumers, and caregivers to support better healthcare and better outcomes.
3. **Engaging and Empowering Consumers:** Identify community-specific issues and share culturally relevant information to facilitate diverse consumer interaction with the healthcare system, particularly for communities facing barriers to effective care.

Key high level activities necessary to empower consumers include:

- Identify communities (i.e., special populations) that providers may know very little about.
- Conduct facilitated listening sessions around about strengths, needs, and best practices in serving the identified communities.
- Create toolkits/guides for community members to conduct forums and listening sessions.
- Compile and disseminate summary learnings geared to the healthcare community.

Influencing Systems Change

Consumers will influence SIM reforms by participating on the CAB, all SIM committees, and on the HISC. Priority initiatives include synthesizing key learnings from all CAB events to date; organizing community listening sessions and focus groups; collaborating around specific SIM work streams; creating a library of consumer empowerment related resources; creating specific policy objectives; and providing frequent updates to the Public Health and other Committees. A web/social media strategy will also promote bi-directional exchange of consumer feedback.

Promoting Provider-Consumer Partnerships

Healthcare providers will be engaged around specific consumer and caregiver communities and best practices related to providing more culturally-appropriate and person-centered care. This work will coordinate with PCMH+ efforts around consumer empowerment by engaging with consumers on PCMH+ Oversight or Patient Advisory councils. A collaborative approach between the CAB and these councils will be developed to promote dialogue. We will also target provider events or create continuing education offerings to promote consumer-related messages.

Engaging and Empowering Consumers

We will ensure culturally-relevant information and tools are available to consumers. Person-centered care is at the heart of our consumer engagement activities yet little information is available to consumers and caregivers about their health, their choices, or how to play an active role in the coordination of their care.

We will prioritize our communications to the most disenfranchised communities due to our focus on health equity and language accessibility. The healthcare system is often not responsive to these consumers' challenges. Provider behaviors may be off-putting and create barriers for open and honest two-way communication. We want to empower consumers to be active partners with providers in managing their health goals.

We will compile key messages from past listening sessions to share more broadly with the targeted community. Specific advice or message from community members will also be identified and disseminated through issue-based convenings and work products (e.g., videos, testimonials). We will continue to host consumer engagement forums focused on what information and tools consumers need to know about the health system in partnership with other consumer organizations.

Lastly, in order to ensure consumers are aware of SIM funded resources, we will ensure information is easily accessible. For example, we will develop explanations of how to use a public scorecard, how to interpret consumer experience survey results, etc.

Formative and summative evaluations of consumer engagement activities will be conducted to inform future approaches.

Consumer Engagement Initiatives lead: The CAB and the PMO will lead this work stream with the support of the Consumer Engagement Coordinator (contractor).

C. Public Scorecard

The Public Scorecard (hereafter referred to as "scorecard") will be a public facing web-based resource utilizing claims-based and consumer-reported data to compare quality measures across provider networks. The intent of the scorecard is to increase transparency, access and dissemination of critical information about performance in healthcare quality and care experience at ANs and FQHCs. This project will result in the development of Connecticut's first online scorecard. The scorecard will engage consumers in healthcare decisions by providing them with critical information about the performance of healthcare organizations in the state. In addition, healthcare providers and policy makers can utilize this information to inform population health and care delivery improvements.

The scorecard will report on select quality measures recommended by the SIM Quality Council on a public web-based platform. Data to assess AN and FQHC performance measures will be extracted from the All-Payer Claims Database (APCD). Consumer experience data will be collected through the CAHPS survey. The online scorecard will be published annually. A secure data storage facility with adequate capacity will be maintained throughout the project duration. The Evaluation Team will develop a robust protocol for initial data validation and cleaning. Project specific data cleaning and validation will precede the calculation of metrics. Metrics will be calculated at the measure, domain and overall levels. In addition, strategies for patient attribution to provider site; and risk adjustment to examine trends while controlling for multiple factors; will be developed. In order to compare the quality performance of the state with

national average, benchmarks will be identified and examined on an annual basis. Prior to publication, any data discordance will be resolved through an interactive process of clinical audits involving the respective entities. During subsequent years, trends in performance measures will be examined and reported on an annual basis. During AY3, the Evaluation Team will leverage the state's efforts to develop a new health information exchange to examine the feasibility and effectiveness of incorporating electronic health record data to provide additional metrics through this scorecard. There are four consumer advocate representatives on the Quality Council who will be integral to the design and review of the scorecard and its implementation plan. There are many important advisory groups and committees where it is important to obtain feedback on the scorecard including the medical community, health IT, policy decision makers, and consumers. The scorecard and its functionality will be vetted through all stakeholders.

The Evaluation Team will work closely with the APCD staff and the Health Information Technology PMO to assess presentation tools and applications to construct an online platform with the optimal ease of use, utility and visual appeal. The Evaluation Team is currently examining options for development such as contracting out as well as in-house construction of part or all of the platform components. The scorecard will provide a unique user interface with advanced capabilities to search measures of interest stratified by ANs/FQHCs. Construction of this online platform will ensure technical sustainability of the scorecard program requiring only maintenance and data upload in subsequent years with potential for further innovation. The SIM Quality Council is responsible for establishing a plan for consumer education regarding access to the online scorecard in order to ensure widespread use of the scorecard.

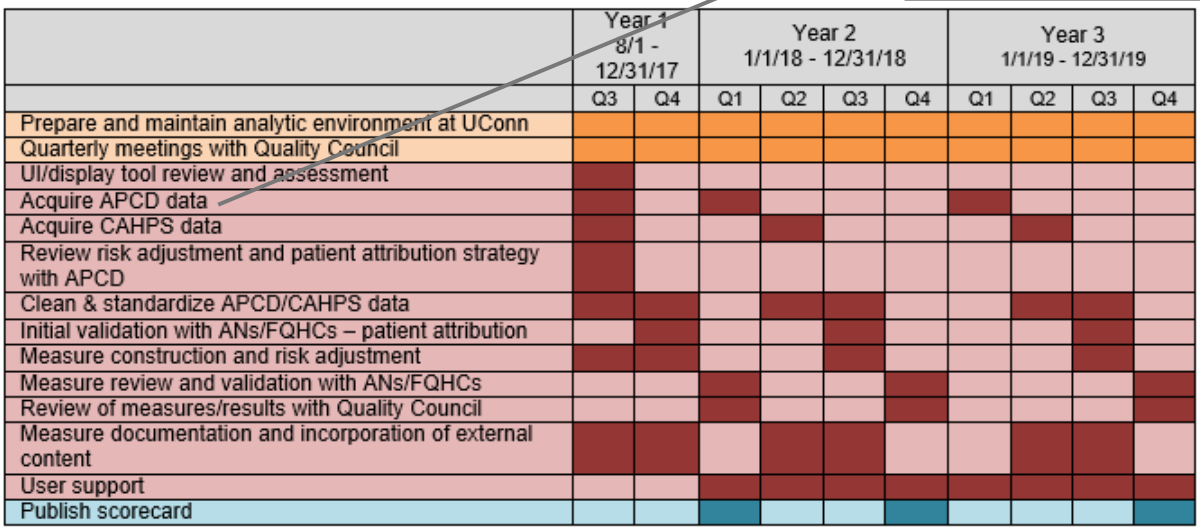
One of the unique features of CT's first online public scorecard is the availability of data regarding racial and payer disparities. This information may be used to better understand issues related to disparities and inform policy makers on what is needed to further healthcare reform efforts including advancement of care delivery reform, alternative payment reform efforts and population health design.

There have been significant administrative barriers in executing the DUA between Access Health CT and UConn resulting in the delay of accessing data from the APCD in order to move forward with scorecard production. However, there have been advances including a successful test of the data transfer method and deployment of a secure, HIPAA compliant storage and data analysis environment. It is expected the DUA will be executed by the end of December 2017. There has also been significant progress on platform, content and functionality development activities for the scorecard.

The following is the orginial proposed timeline regarding the Public Scorecard:

Quality Scorecard
Tasks and Timeline

Task of acquiring APCD data will be pushed to Q1 2018 resulting in a 1-2 month delay of the timeline



	Year 1 8/1 - 12/31/17		Year 2 1/1/18 - 12/31/18				Year 3 1/1/19 - 12/31/19			
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Prepare and maintain analytic environment at UConn										
Quarterly meetings with Quality Council										
UI/display tool review and assessment										
Acquire APCD data										
Acquire CAHPS data										
Review risk adjustment and patient attribution strategy with APCD										
Clean & standardize APCD/CAHPS data										
Initial validation with ANs/FQHCs – patient attribution										
Measure construction and risk adjustment										
Measure review and validation with ANs/FQHCs										
Review of measures/results with Quality Council										
Measure documentation and incorporation of external content										
User support										
Publish scorecard										

Bold shading indicates period of activity for particular tasks

Scorecard lead: The SIM PMO and the UConn Evaluation Team will serve as leads for this work stream. The Quality Council and Health IT Advisory Council will serve as advisory bodies to this work.

5. SIM Alignment with State and Federal Initiatives (relevant to SIM)

SIM focuses on improving healthcare for the entire state of Connecticut. For this reason, it necessarily leverages and aligns with concurring State and Federal initiatives. Key alignment areas are listed below.

a. CMCS (waivers, SPAs, and other)

In 2016 and 2017, 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 was received timely for launch of PCMH+ on January 1, 2017. Under SPA authority, PCMH+ Wave 1 PEs are receiving Medicaid-funded care coordination payments (FQHCs only) and, on the condition that they meet benchmarks on identified quality measures (including measures of under-service), will also receive a portion of any savings that are achieved (FQHCs and Advanced Networks). In 2017, DSS will work with CMS and CMMI to extend SPA authority for Wave II.

b. CMMI (e.g., CPC+, AHCs, TCPI, ACOs, etc.)

The SIM strategy is being implemented with close coordination and alignment with many of the CMMI priority areas. SIM aligns with and helps promote the movement towards alternative payment models, including those released and promoted by CMS and CMMI. This includes our alternative payment strategy, which aligns with the Medicare Shared Savings Program.

We coordinate our efforts with federal practice transformation investments. For instance, three entities[4] in the state were selected to be Practice Transformation Networks (PTNs) as part of the CMS Transforming Clinical Practice Imitative (TCPI). The SIM PMO has corresponded both with CMS and the CT PTNs to develop protocols to reduce practice change fatigue and duplication.

Connecticut has also received two Accountable Health Community (AHC) grants. This initiative aligns closely with our goals for community and clinical integration and improved community health. Additionally, by emphasizing practice improvement, the CMS Quality Payment Program (QPP) (including MIPS and advanced APM) provides additional incentives for provider participation in the SIM AMH and CCIP initiatives.

We also believe providers will be interested in a pathway to meet the APM participation thresholds for their Medicare, commercial and Medicaid populations. We recognize that APMs that qualify under the QPP must be more advanced than the payment models that are in use in Connecticut today. Therefore, we will educate our payer partners in both the private and public sectors, and others, to promote payment models that support providers' ability to maximize incentives under Medicare.

c. Other Federal Agencies (CDC, ONC, HRSA, etc.)

Our SIM efforts are guided by close technical assistance from both CDC and ONC. For example, our Prevention Service Initiative focus aligns with the interventions described in the CDC 6/18. Additionally,

[4] Community Health Center Association of CT (CHCACT) PTN, Southern New England PTN, and Vizient PTN

our HIE and HIT strategy is closely aligned with ONC's push for interoperability and health information exchange.

d. State Initiatives (e.g., state-funded, private initiatives, etc.)

The PCMH+ program builds on the DSS PCMH Program and Intensive Care Management initiatives. Connecticut's Medicaid PCMH model is a strong premise from which to start in that PCMH practices have demonstrated year over year improvement on a range of quality measures. The PMO also coordinated with DSS to implement the AMH Program. The AMH program will help practices qualify for participation in the Medicaid PCMH program and thereby qualify for enhanced fees and quality of care incentive payments.

Our SIM Population Health Plan work builds on and coordinates with the Healthy CT 2020 Plan. Prioritization and barriers identification will be made based on assessments available through CT2020. The DPH/SIM Population Health Director is the lead of both the SHIP Health Systems Workgroup and the SIM Population Health Council, allowing for increased coordination. This population health planning work also involves direct and frequent involvement with local health collaboratives, CBOs, and others.

Finally, our VBID planning is builds upon the Health Enhancement Program of the Office of the State Comptroller (OSC).

C. Detailed SIM Operational Work Plans by Driver

Driver 1: Promote policy, systems, & environmental changes, while addressing socioeconomic factors that impact health

Milestone/ Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	
PREVENTION SERVICE INITIATIVE (PSI)						
Increased number of financial contracts between ANs/FQHCs and CBOs for chronic disease self-management	Provide TA to CBOs	CBO contracts executed and 18 month TA launch	Q1	PMO/DPH	Contractual (Vendor TBD)	1
		Organizational assessments complete for each CBO and results synthesized	Q1	PMO/DPH	Contractual (Vendor TBD)	2
		Technical Assistance Plan for each CBO complete	Q1	PMO/DPH	Contractual (Vendor TBD)	3
		Workforce capacity, Business case/value proposition, and sites of service analysis documented for each CBO	Q2	PMO/DPH	Contractual (Vendor TBD)	4
		CBO-specific Prevention Service Business Plans complete	Q2	PMO/DPH	Contractual (Vendor TBD)	5
		Contract agreement templates and examples disseminated	Q2	PMO/DPH	Contractual (Vendor TBD)	6
		Framework for partnership discussions complete	Q2	PMO/DPH	Contractual (Vendor TBD)	7
	Provide TA to ANs/FQHCs	Develop Technical Assistance Plan for each AN/FQHC	Q1	PMO/DPH	Contractual (Vendor TBD)	8
		ANs/FQHCs have designed and implemented workflows for patient identification and referral	Q2	PMO/DPH	Contractual (Vendor TBD)	9

		ANs/FQHCs have designed and implemented data analytics strategy to support quality and ROI evaluation	Q2	PMO/DPH	Contractual (Vendor TBD)	10
		Contract agreement templates and examples disseminated	Q2	PMO/DPH	Contractual (Vendor TBD)	11
		Framework for partnership discussions complete	Q2	PMO/DPH	Contractual (Vendor TBD)	12
	Linkage activities (CBOs+ ANs/FQHCs)	Discussions and joint activities held between CBOs and healthcare providers	Q2-Q4	PMO/DPH	Contractual (Vendor TBD)	13
		Contract negotiation strategy complete	Q2	PMO/DPH	Contractual (Vendor TBD)	14
		Contracts executed between CBOs and healthcare organizations	Q3	PMO/DPH	Contractual (Vendor TBD)	15
		Ensure TA is meeting CBO/AN needs and manage CBO/AN contracts	Q1-Q4	PMO/DPH	Personnel	16
	Provide CBO awards	Award funding to CBOs in PSI	Q1-Q4	PMO/DPH	Contractual (CBO Awards)	17
		Monitor funding to CBOs and ensure compliance	Q1-Q4	PMO/DPH	Personnel	18
	Provide AN/FQHC awards	Award funding to ANs/FQHCs in PSI	Q1-Q4	PMO/DPH	Contractual (AN/FQHC Awards)	19
		Monitor funding to ANs and ensure compliance	Q1-Q4	PMO/DPH	Personnel	20
		Monitor and asses performance and economic outcomes of the linkage model	Q1-Q4	PMO/DPH	Personnel	21
HEALTH ENHANCEMENT COMMUNITY INITIATIVE (HEC)						22
Actionable HEC strategy and design exists	Leverage best available information in model design	Guidance and subject matter expertise regarding HEC design and operational strategy provided	Q1-Q4	Vendor TBD	Contractual (Vendor TBD)	23
	Engage multi-sector stakeholders	Population Health Council meeting facilitation	Q1-Q4	PMO/DPH	Personnel & Contractual (Vendor TBD)	24

	Periodic presentations to the Healthcare Innovation Steering Committee provided	Q1-Q4	PMO/DPH	Personnel & Contractual (Vendor TBD)	25
	Description of communication and stakeholder Engagement Strategy complete	Q1	Vendor TBD	Contractual (Vendor TBD)	26
	Multi-sector stakeholders engaged	Q1-Q4	PMO/DPH	Personnel & Contractual	27
Research and design model	Synthesize the Connecticut-specific problems being solved and what success looks like	Q1	PMO/DPH	Personnel & Contractual	28
	Recommend the role of key sectors in enabling HECs to succeed	Q1	PMO/DPH	Personnel & Contractual	29
	Recommend community-wide measures and methods	Q1	PMO/DPH	Personnel & Contractual	30
	Recommend financial models	Q1	PMO/DPH	Personnel & Contractual	31
	Review existing value-based payment models and recommend adjustments	Q1	PMO/DPH	Personnel & Contractual	32
	Recommend statutory and regulatory levers	Q1	PMO/DPH	Personnel & Contractual	33
	Recommend health information technology enablers	Q1	PMO/DPH/ HITO	Personnel & Contractual	34
	Recommend levers regarding workforce	Q1	PMO/DPH	Personnel & Contractual	35
	Define HEC boundaries	Q1	PMO/DPH	Personnel	36
	Partial Draft 1 of report detailing the HEC initiative strategy	Q1	PMO/DPH	Personnel & Contractual	37
Conduct data analysis	Conduct financial modeling using Medicare data	Q1	Vendor TBD	Contractual (Vendor TBD)	38
	Produce a flexible financial modeling tool using Medicare data	Q1	Vendor TBD	Contractual (Vendor TBD)	39
	Conduct analyses with respect to other state agency service expenditures to which health improvement	Q1	Vendor TBD	Contractual (Vendor TBD)	40

		benefits would likely accrue				
		Work with 2-3 employers to model the potential value of prevention efforts	Q1	Vendor TBD	Contractual (Vendor TBD)	41
	Finalize HEC model	Final draft of report detailing the HEC initiative strategy	Q2	PMO/DPH	Personnel & Contractual	42
		Final Draft of report disseminated to Healthcare Innovation Steering Committee	Q2	PMO/DPH	Personnel & Contractual	43
		Presentation to Healthcare Innovation Steering Committee – Review and discussion	Q2	PMO/DPH	Personnel & Contractual	44
		Release HEC Report and Recommendations for public comment	Q2	PMO/DPH	Personnel & Contractual	45
		Presentation to Healthcare Innovation Steering Committee – Final Review and Approval	Q2	PMO/DPH	Personnel & Contractual	46
COMMUNITY HEALTH INDICATORS						47
Reliable & valid community health measurement approach is identified	Research and design of measurement approach	Identify potential regional measures, taking into account IOM Core Metrics recommendations	Q1	PMO/DPH	Personnel & Contractual	48
		Identify baselines for regional measures	Q1-Q2	PMO/DPH	Personnel	49
		Assess availability of data sources and the consistency of data points overtime	Q1-Q3	PMO/DPH	Personnel	50
		Implement a local subset of BRFSS sample-based indicators	Q1-Q4	PMO/DPH	Personnel	51
		Identify community score card approaches; and identified needs, gaps, and assets	Q1-Q2	PMO/DPH	Personnel	52
Driver 2: Engage consumers in healthy lifestyles, preventive care, chronic illness self- management, and healthcare decisions						53
Milestone/Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	54
VALUE BASED INSURANCE DESIGN (VBID)						55

Individuals have VBID health plans available that Incentivize healthy choices	Provide Technical Assistance to 5-10 Employers to Develop and Implement VBID Plans (Cohort 1)	Develop VBID Resource Library	Q1	Freedman Healthcare (FHC)	Contractual	56
		Develop Benefits Inventory Checklist	Q1	FHC	Contractual	57
		Establish data dashboard template	Q1	FHC	Contractual	58
		Develop employee communication materials	Q2	FHC	Contractual	59
		Develop evaluation framework	Q2	FHC	Contractual	60
		Prepare final report	Q3	FHC	Contractual	61
	Provide Technical Assistance to 5-10 Employers to Develop and Implement VBID Plans (Cohort 2)	Launch employer application and recruit participants	Q4	FHC	Contractual	62
		Develop VBID Resource Library	Q4	FHC	Contractual	63
		Develop Benefits Inventory Checklist	Q4	FHC	Contractual	64
		Establish data dashboard template	Q4	FHC	Contractual	65
	Support VBID Consortium and VBID Template Updates	VBID Template Updates	Q3	FHC	Contractual	66
		Develop first consortium meeting agenda and materials	Q4	FHC	Contractual	67
		Prepare first consortium meeting summary and report	Q4	FHC	Contractual	68
	Employer Outreach	Website and Online Tool development	Q1	FHC	Contractual	69
		Outreach plan implementation to recruit Cohort 2 Employers for Technical Assistance (see activities above)	Q4	FHC	Contractual	70
		Employer Marketing Materials to recruit for Cohort 2 Employers	Q4	FHC	Contractual	71
		Twitter Feed and Newsletter for Employers working to implement VBID	Q1-Q4	FHC	Contractual	72
PUBLIC SCORECARD						73
Transparency on cost and quality of provider performance exists	Prepare and maintain analytic environment	Acquire APCD data for second scorecard	Q3	UConn Health/Yale	Contractual	74
		Acquire CAHPS data for second scorecard	Q4	UConn Health/Yale	Contractual	75

through a public scorecard		Perform weekly, monthly and annual server maintenance, and comply with all processes and procedures required for HIPAA compliance	Q1-Q4	UConn Health/Yale	Contractual	76
		Execution of data cleaning and validation protocols for second scorecard	Q4-AY4 Q1	UConn Health/Yale	Contractual	77
	Measure construction and risk adjustment	Calculation of raw and risk-adjusted results for each measure and domain; demographic breakdowns for each measure and measure domain; change since previous year for each measure/measure domain; each separately by Advanced Network/ FQHC for second scorecard	Q4-AY4 Q1	UConn Health/Yale	Contractual	78
		Apply risk adjustment in data analysis for second scorecard	Q4-AY4 Q1	UConn Health/Yale	Contractual	79
	Benchmarks	Research benchmarks for each scorecard measure	Q1-Q4	UConn Health/Yale	Contractual	80
		Update benchmarks as necessary for second scorecard	Q1-Q4	UConn Health/Yale	Contractual	81
		Refine validation protocol to get the input from entities about entity specific performance reports	Q2-Q3	UConn Health/Yale	Contractual	82
	Initial validation with ANs/FQHCs – patient attribution	Quarterly meetings with APCD and Quality Council as needed to update attribution and validation methods for second scorecard	Q2-4	UConn Health/Yale	Contractual	83
	Disseminate results	Provide results for first scorecard to rated entities at least eight weeks prior to public release.	Q1	UConn Health/Yale	Contractual	84
		Work with entity representatives following the four week	Q1	UConn Health/Yale	Contractual	85

		review and comment period to address entity concerns as appropriate.				
	Measure review and validation with ANs/FQHCs	Exchange of data with Advance Network and FQHC leadership as necessary to create confidence in data validation protocols and results for second scorecard	Q4	UConn Health/Yale	Contractual	86
	User support	Develop user friendly explanations to facilitate user understanding of the scorecard including methodology and user directions	Q1-Q4	UConn Health/Yale	Contractual	87
		Refine and finalize text based on feedback	Q1-Q4	UConn Health/Yale	Contractual	88
CONSUMER EXPERIENCE SURVEY (CAHPS)						89
Multi-payer CAHPS survey is deployed	CAHPS	CAHPS surveys are implemented, data is analyzed and report is produced.	Q3	PC	Contractual (UConn Health/Yale)	90
CONSUMER EMPOWERMENT AND COMMUNICATION PLAN						91
Consumers are informed and actively participating in health reform	Forums	Organize listening forums, focus groups, and other activities to inform adjustments to existing programs or needs for other SIM work streams.	Q1-Q4	PMO	Personnel	92
		Identify and compile key messages from past forums and events for community members, providers and policy makers to achieve partnership or joint decision-making	Q1-Q4	PMO	Personnel	93
	Consumer tools	Create tools to share specific key messages from and for community members that will promote a person-centered care process.	Q1-Q4	PMO	Personnel	94
	Consumer Advisory Board	Convene consumers and advocates to plan	Q1-Q4	CAB	Personnel	95

		around healthcare reform				
		Engage with other committees and ensure consumer voice is represented	Q1-Q4	CAB	Personnel	96
Driver 3: Promote payment models that reward improved quality, care experience, health equity and lower cost						97
Milestone/Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	98
PCMH+						99
All payers in CT use financial incentives to reward improved quality and reduced cost: **Including the launch of PCMH+**	Project management	Provide continued project management during Performance Year 2		DSS	Mercer	100
		Provide support in framing, facilitation of, and administrative support for operations meeting bring together State Agency partner organizations including, DSS, Mercer, CHN, HPE, Conduent and the PMO.		DSS	Mercer	101
	Community Information Sessions	Plan, coordinate, and hold Community Information Sessions		DSS	Mercer	102
	Ad Hoc Program Design and Support	Perform analysis and support as directed by the Department		DSS	Mercer	103
	Operations - Wave 2 & SPA	Develop contracts to provide authority for savings and reinvestment of funds into the provider community.		DSS	Mercer	104
		Develop provider contracts for SIM participation that include common performance measures; up-side only risk agreement, and; reporting requirements to SIM data aggregator and population health management entity		DSS	Mercer	105

MAPOC Committee Meetings	Provide support in framing, facilitation of, and administrative support for MAPOC CMC monthly meetings, monthly work sessions and adhoc subcommittee workgroups. Support will primarily be focused on soliciting and synthesizing committee information and input for DSS decision-making in the areas of operationalizing the PCMH+, under-service utilization monitoring strategies, care coordination activities and attribution methodologies.	DSS	Mercer	106
Shared Savings - Annual Maintenance	Receive, clean and validate data related to the target population (all sources)	DSS	Mercer	107
	Develop expenditure benchmark with calculation.	DSS	Mercer	108
	Link quality score and shared saving loss percentages	DSS	Mercer	109
Compliance Reviews	Provide support in framing, facilitation of, and administrative support for care coordination compliance reviews of Participating Entities.	DSS	Mercer	110
Technical Assistance	Provide quarterly Technical Assistance via interactive webinars to the PEs starting in the first quarter of 2018.	DSS	Mercer	111
Provider collaborative	Convene bi-monthly PCMH+ Participating Entity provider collaborative meetings for detailed review and peer learning on enhanced care	DSS	Personnel	112

		coordination elements, connections with community-based organizations, and technical presentations on shared savings methodology				
QUALITY MEASURE ALIGNMENT						113
Increased alignment on value-based payment quality measures across payers	Quality Measure Alignment	Maintain and update core quality measure set with reference to the CQMC, MACRA, NQF, etc.	Q1-Q4	PMO	Personnel	114
		Publish annual report outlining progress toward multi-payer statewide alignment	Q4	PMO	Personnel	115
		Survey payers to determine progress towards alignment	Q4	PMO	Personnel	116
		Collaborate with UCONN Evaluation team to make recommendations to public scorecard in order to measure performance	Q1-Q4	PMO	Personnel	117
Driver 4: Strengthen capabilities of Advanced Networks and FHQCs to deliver higher quality, better coordinated, community integrated and more efficient care						118
Milestone/Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	119
COMMUNITY & CLINICAL INTEGRATION PROGRAM (CCIP)						120
ANs/ FQHCs achieve CCIP standards in: **Comprehensive care management; health equity improvement; & behavioral health integration**	Technical Assistance (Wave 1)	Continue technical assistance and learning collaborative activities for Wave 1 Participating Entities	Q1-Q3	Qualidigm	Contractual (Qualidigm)	121
		Perform validation activities with select practices to measure progress toward standards	Q1-Q3	Qualidigm	Contractual (Qualidigm)	122
		Convene and facilitate Community Health Collaboratives- draft consensus protocols to standardize linkages	Q1-Q4	Qualidigm	Contractual (Qualidigm)	123

		and provision of socio-economic services				
		Complete development of resources for the Learning Management System	Q1-Q3	Qualidigm	Contractual (Qualidigm)	124
		Complete final on-site validation of CCIP Standard achievement by the Participating Entities	Q3-Q4	Qualidigm	Contractual (Qualidigm)	125
		Assess Wave 1 technical assistance strategy, and prepare report of findings	Q3-Q4	Qualidigm	Contractual (Qualidigm)	126
	Technical Assistance (Wave 2)	Conduct readiness assessments for Wave 2 Participating Entities	Q1-Q2	Qualidigm	Contractual (Qualidigm)	127
		Develop transformation plans for Wave 2 Participating Entities	Q2	Qualidigm	Contractual (Qualidigm)	128
		Launch technical assistance and learning collaborative activities for Wave 2 Participating Entities	Q2-Q4	Qualidigm	Contractual (Qualidigm)	129
		Perform validation activities with select practices to measure progress toward standards	Q2-Q4	Qualidigm	Contractual (Qualidigm)	130
	CCIP Transformation Awards	Launch RFA for Wave 2 Participating Entities	Q1	PMO	Personnel	131
		Select Transformation Award Recipients	Q1	PMO	Personnel	132
		Finalize TSA agreements with award recipients	Q1	PMO	Contractual (Transformation Awards)	133
		Assess opportunity and need to extend awards for Wave 1 Participating Entities	Q3	PMO	Contractual (Transformation Awards)	134
ADVANCED MEDICAL HOME (AMH) PROGRAM						135
Primary care practices achieve AMH designation	Technical Assistance	Provide technical assistance to primary care practices to achieve NCQA PCMH and AMH designation	Q1-Q4	PMO	Contractual (Qualidigm)	136
COMMUNITY HEALTH WORKER WORK STREAM						137

Community Health Workers are utilized in care teams	Technical Assistance for CCIP Participating Entities	Provide oversight on the technical assistance for CCIP participating entities establishing fidelity to their CHW models and assessing a return on investment.	Q1-Q4	UCONN/Southwestern AHEC (AHEC)	Contractual	138
		Continue providing support in the development of CHW resources to be featured on the CCIP Learning Management System	Q1-Q4	AHEC	Contractual	139
	Infrastructure, Policy, Sustainability Development	Support the CT Public Act 17-74 by co-facilitating the CHW Advisory Committee to develop and implement a feasibility study for state certification of CHWs	Q1-Q3	AHEC	Contractual	140
		Implement CHW Apprenticeship program with the CT Department of Labor and workforce agency partners	Q1-Q3	AHEC	Contractual	142
		Launch the second phase of the CHW website and update content as needed for CHWs, employers, and other stakeholders.	Q2	AHEC	Contractual	143
HEALTH IT AND HIE						147
Milestone/Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	148
GOVERNANCE						149
Operational governance is established and operational	HIE Entity Board of Directors	Recruit and install board members	AY2	HITO	Personnel & Contractual	150
		Implement board training related to HIE governance by 1/18	Q1	HITO	Personnel & Contractual	151
		Establish committee structure for corporate functions	Q2	HITO	Personnel & Contractual	152
		Establish trust framework, including related trust agreements	Q2	HITO	Personnel & Contractual	153

		Establish policies and procedures, including consent model	Q2	HITO	Personnel & Contractual	154
		Secure corporate insurance, including cyber insurance	Q2	HITO	Personnel & Contractual	155
		Approve provider onboarding and credentialing	Q2	HITO	Personnel & Contractual	156
		Approve Financial Sustainability Plan	Q3	HITO	Personnel & Contractual	157
		Approve Year 2 HIE services	Q4	HITO	Personnel & Contractual	158
		Approve Year 2 budget	Q4	HITO	Personnel & Contractual	159
		Board self-evaluation	AY4	HITO	Personnel & Contractual	160
		Audit	AY4	HITO	Personnel & Contractual	161
		Policy and Procedure review	AY4	HITO	Personnel & Contractual	162
Data governance is established and operational	Data Governance	Develop Data Governance Council (DGC) Charter	AY2-Q1	HITO & UConn	Personnel & Contractual	163
		Establish a Data Governance Office (DGO), select/assign Stewardship, and appoint Lead	Q1	HITO & UConn	Personnel & Contractual	164
		Define organizational roles and responsibilities	Q1	HITO & UConn	Personnel & Contractual	165
		Organize Data Stewardship Workgroups to establish data definitions, usage, sourcing, integration, security, access, and protection policies, standards, and guidelines	Q1	HITO & UConn	Personnel & Contractual	166
		Establish outreach policies/procedures to distribute data related information to Stakeholders	Q2	HITO & UConn	Personnel & Contractual	167
		Publish and enforce policies, standards, requirements, and	Q2	HITO & UConn	Personnel & Contractual	168

		guidelines to align projects				
		Develop processes, mechanisms, and escalation paths for data related issues resolution	Q2	HITO & UConn	Personnel & Contractual	169
MANAGEMENT AND OPERATIONS						170
HIE business entity is established	HIE Entity	Recruit and onboard executive team and support staff	AY2	HITO	Personnel & Contractual	171
		Establish and maintain help desk services	Q1	HITO	Personnel & Contractual	172
		Establish and maintain provider training and data stewardship services, regulatory compliance program, communications and engagement plan, and data monitoring and audit functions	Q2	HITO	Personnel & Contractual	173
CORE INFRASTRUCTURE						174
Technical infrastructure exists for CDAS and HIE services, deployed through an Agile process	Software	Identify and purchase software (COTS and open source)	AY2-Q1	AIMS	Contractual (CDAS)	175
	Cloud Environment	Determine virtual machine (VM) sizing and configurations	Q1	AIMS	Contractual (cloud hosting)	176
		Implement, configure, and test VMs; load and test base software; configure and test software (MDM, audit balancing, security); establish and test secure data transport	Q1	AIMS	Contractual (cloud hosting)	177
	Security	Enable and test security protocols and data encryption	Q1	AIMS	Contractual (cloud hosting)	178
		Establish and test user access and authentication, and user roles	Q1-Q2	AIMS	Contractual (cloud hosting)	179
		Implement data masking	Q1-Q2	AIMS	Contractual (Big Data Repository)	180
	MDM	Load data and establish domains (person, provider, reference data)	Q1-Q2	AIMS	Contractual (MDM)	181

		Load care relationships from attribution files **Critical for SIM Driver: Payment Reforms, SSPs, PCMH+**	Q1-Q2	AIMS	Contractual (MDM)	182
		Develop matching business logic and single best record **Critical for SIM Driver: Payment Reforms, SSPs, PCMH+**	Q1-Q2	AIMS	Contractual (MDM)	183
		Establish your service oriented architecture (SOA)	Q1-Q2	AIMS	Contractual (MDM)	184
CORE DATA AND ANALYTICS SOLUTION (CDAS)						185
Technical infrastructure exists for CDAS, deployed through an Agile process	Cloud Environment	Determine virtual machine (VM) sizing and configurations	Q1	AIMS	Contractual (cloud hosting)	186
		Implement, configure, and test VMs; load and test base software	Q1	AIMS	Contractual (cloud hosting)	187
		Configure and test software (Big Data Repository, data intake, data masking, data mining, groupers, dashboard)	Q1-Q2	AIMS	Contractual (cloud hosting)	188
	Agile SDLC	Develop Agile implementation plan	Q1	AIMS	Contractual	189
		Load data into Big Data Repository	Q1-Q2	AIMS	Contractual (Big Data Repository)	190
		Data transformation and virtual harmonization	Q1-Q2	AIMS	Contractual (Big Data Repository)	191
		Conduct data mining and exploration	Q1-Q2	AIMS	Contractual (Big Data Repository & dashboard)	192
		Initial dashboard development	Q2-Q3	AIMS	Contractual (dashboard)	193
		Data enhancement and enrichment (groupers)	Q1-Q2	AIMS	Contractual (groupers)	194
		Enhance MDM with reference data and measures business logic	Q1-Q2	AIMS	Contractual (MDM)	195
		Test measure calculations and validate with ONC approved process **Critical for SIM Driver: Payment reform -**	Q1-Q2	AIMS	Contractual (MDM)	196

		Quality Measure Alignment				
		Calculate quality measures **Critical for SIM Driver: Payment reform - Quality Measure Alignment**	Q1-Q2	AIMS	Contractual (MDM & Big Data Repository)	197
		Organize and publish data, create visualizations and configure dashboards **Critical for SIM Driver: Improve healthcare capabilities (CCIP, PCMH+)**	Q3	AIMS	Contractual (Big Data Repository & dashboard)	198
		Configure and implement user portals **Critical for SIM Driver: Improve healthcare capabilities (CCIP, PCMH+)**	Q3	AIMS	Contractual (portal & dashboard)	199
		Develop and implement testing plans (SIT, smoke, load, regression, and UAT)	Q3	AIMS	Contractual (testing)	200
		Develop and conduct end user training (Webinars, classes, videos, etc.)	Q3	AIMS	Contractual (training)	201
		Production releases and user support **Critical for SIM Driver: Improve healthcare capabilities (CCIP, PCMH+)**	Q3	AIMS	Contractual (operations & maintenance)	202
Increased number of eCQMs and hybrid QMs accessible to providers, employers, and payers for quality improvement and VBP	CDAS-Employer (OSC)	Finalize requirements for CT Office of State Comptroller (state self-employer group)	AY2	HITO & AIMS	Personnel & Contractual	203
		With OSC, engage providers and health systems to gain support for participating in reporting	AY2	HITO & UConn	Personnel & Contractual	204
		Data use agreement developed and approved	Q1	HITO	Personnel	205

Execute Business Associate agreement with OSC	AY2-Q1	HITO	Personnel	206
Assess policy levers to increase provider data submission	Q1	HITO	Personnel	207
Receive OSC claims, pharmacy, lab, and administrative data; and potentially claims from APCD	Q1-Q2	HITO & AIMS	Contractual (Big Data Repository)	208
Update MDM (MPI, PR, care relationships, reference data) with received data	Q1-Q2	HITO & AIMS	Contractual (MDM)	209
Data use agreements signed with select number of ACOs to secure clinical data	Q1-Q2	HITO	Personnel	210
Receive attribution files from select ACOs	Q1-Q2	AIMS	Contractual (MDM)	211
Receive clinical data flat file extract from select ACOs	Q1-Q2	AIMS	Contractual (Big Data Repository)	212
Deploy technical/business assistance for provider workflows and gather information about data extraction capabilities of providers **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q2-Q4	HITO	APD (TA) & Contractual	213
Deploy technical resources as necessary **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q2-Q4	AIMS	Contractual (TA)	214
Data intake (profile and transform), and data quality control	Q2	AIMS	Contractual (Big Data Repository)	215
Calculate agreed upon quality measures [eCQMs, hybrid (such as HEDIS and HEDIS-like)] **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	Q2-Q4	AIMS	Contractual (MDM)	216

	Implement dashboards, with comparative and other analyses, and/or data extracts with OSC, and select ACO access **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3	AIMS	Contractual (dashboards)	217
	Evaluate use of data by OSC and ACOs	Q4	HITO & UConn	Contractual & APD (TA)	218
CDAS-Commercial Payer(s)	Engage OSC-contracted commercial payer(s) through OSC relationships to use CDAS for eCQMs for VBP **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	Q1	HITO	Personnel	219
	Assess need for Business Associate agreements	Q1	HITO	Personnel	220
	Finalize requirements for commercial payer(s)	Q2	HITO & AIMS	Personnel & Contractual	221
	Engage additional health systems to gain support for participating in reporting	Q1	HITO & UConn	Personnel & Contractual	222
	Data use agreements signed with additional health systems to secure clinical data	Q2	HITO	Personnel	223
	Receive additional commercial payer(s) claims, if required	Q3	HITO & AIMS	Contractual (Big Data Repository)	224
	Update MDM (MPI, PR, care relationships, and reference data) with received data **Critical for SIM Driver: Payment Reform - SSPs**	Q3	HITO & AIMS	Contractual (MDM)	225
	Receive attribution files from additional health systems	Q3	AIMS	Contractual (MDM)	226
	Receive attribution files from commercial payer(s)	Q3	AIMS	Contractual (MDM)	227

Receive clinical data flat file extract from additional health systems	Q3	AIMS	Contractual (Big Data Repository)	228
Deploy technical/business assistance for provider workflows and gather information about data extraction capabilities of providers **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3-Q4	HITO	APD (TA) & Contractual	229
Deploy technical resources as necessary **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3-Q4	AIMS	Contractual (TA)	230
Data intake (profile and transform)	Q3	AIMS	Contractual (Big Data Repository)	231
Calculate agreed upon quality measures [eCQMs, hybrid (such as HEDIS and HEDIS-like)] **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	Q3-Q4	AIMS	Contractual (MDM & Big Data Repository)	232
Assess potential for supporting HEDIS reporting	Q3-Q4	HITO & UConn	Personnel & Contractual	233
Implement dashboards and/or data extracts with commercial payer(s), and additional health systems **Critical for SIM Driver: Payment Reform**	Q4	AIMS	Contractual (dashboards)	234
Evaluate use of data by commercial payer(s) and additional health systems	AY4	HITO & UConn	Contractual & APD (TA)	235
eCQMs added as a reporting measure in value-based payment scorecard(s) **Critical for SIM Driver: Payment Reform -**	AY4	HITO	Personnel	236

	Quality Measure Alignment				
	eCQMs added as a payment measure in value-based payment scorecard(s) **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	2020	HITO	Personnel	237
CDAS - Medicaid	Collaborate with Medicaid around use of CDAS	Q1-Q2	HITO	Personnel	238
	Assess need for Business Associate agreement	Q2	HITO	Personnel	239
	Finalize requirements for Medicaid	Q2	HITO & AIMS	Personnel & Contractual	240
	Engage additional health systems/FQHCs to gain support for participating in reporting	Q1-Q2	HITO & UConn	Personnel & Contractual	241
	Data use agreements signed with additional health systems to secure clinical data	Q3	HITO	Personnel	242
	Receive Medicaid claims **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3-Q4	HITO & AIMS	Contractual (Big Data Repository)	243
	Update MDM (MPI, PR, care relationships) with received data **Critical for SIM Driver: Payment Reform (PCMH+)**	Q3-Q4	HITO & AIMS	Contractual (MDM)	244
	Receive attribution files from additional health systems/FQHCs	Q4	AIMS	Contractual (MDM)	245
	Receive clinical data flat file extract from additional health systems/FQHCs	AY4	AIMS	Contractual (Big Data Repository)	246

Deploy technical/business assistance for provider workflows and gather information about data extraction capabilities of providers **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	AY4	HITO	APD (TA) & Contractual	247
Deploy technical resources as necessary **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	AY4	AIMS	Contractual (TA)	248
Data intake (profile and transform)	AY4	AIMS	Contractual (Big Data Repository)	249
Calculate agreed upon quality measures [eCQMs, hybrid (such as HEDIS and HEDIS-like)] **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	AY4	AIMS	Contractual (MDM)	250
Assess potential to enable MU reporting	AY4	HITO & UConn	Personnel & Contractual	251
Implement dashboards and/or data extracts with Medicaid, and additional health systems/FQHCs **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	AY4	AIMS	Contractual (dashboard)	252
Evaluate use of data by Medicaid, and additional health systems/FQHCs	AY4	HITO & UConn	Contractual & APD (TA)	253
eCQMs added as a reporting measure in value-based payment scorecard(s) **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	AY4	HTIO	Personnel	254

		eCQMs added as a payment measure in value-based payment scorecard(s) **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	2020	HTIO	Personnel	255
Increased % of health systems, payers, and employers who have to race/ ethnicity /language (REL) stratified quality measure data	CDAS - Health Equity	Assess REL data sources, data quality, work flows/data collection, gaps, barriers, and opportunities Critical **for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	AY2- Q1	HITO	Personnel & State	256
		Stakeholder engagement and vision setting	AY2- Q1	HITO	Personnel & State	257
		Finalize strategy for data acquisition, policy levers, data governance	Q1	HITO & Aims	Personnel & State & Contractual	258
		Begin implementing strategy	Q2	HITO & Aims	Personnel & State & Contractual	259
		Health Equity Quality Measures available to first set of health systems and payers **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3-Q4	HITO & Aims	Personnel & State & Contractual	260
		Health Equity QMs added as a reporting measure in value-based payment scorecard(s) **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	Q4-AY4	HITO	Personnel & State & Contractual	261
		First public health equity dashboard released **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	AY4	HITO & Aims	Personnel & State & Contractual	262

		Health Equity QMs added as a payment measure in value-based payment scorecard(s) **Critical for SIM Driver: Payment Reform - Quality Measure Alignment**	2020	HITO	Personnel & State & Contractual	263
	CDAS - SDOH	Assess needs, opportunities, and potential use cases to enable the Community & Clinical Integration Program, Prevention Service Initiative, Health Enhancement Community initiative, and risk stratification/care management in VBP **Critical for SIM Driver: Improve healthcare capabilities, and Population Health (PSI, HEC)**	AY2- Q1	HITO & AIMS	Personnel & Contractual	264
		Assess data sources, data quality, work flows/data collection, gaps, barriers, and opportunities	Q1	HITO & AIMS	Personnel & Contractual	265
		Develop implementation strategy	Q2	HITO	Personnel & Contractual	266
HEALTH CARE PROVIDER OUTREACH, ENGAGEMENT, AND TECHNICAL ASSISTANCE						267
Number of providers engaged, and who receive TA	TA	Develop and implement strategy for provider engagement to support participation in HIE and CDAS services **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q1-Q4	HITO	APD (TA) & Contractual	268
		Develop and implement overall communication strategy with providers and caregivers re: HIE and CDAS services and value	Q1-Q4	HITO	APD (TA) & Contractual	269
		Develop and implement TA strategy with providers	Q1-Q4	HITO	APD (TA) & Contractual	270

		Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)				
		Align communications of Provider Engagement with ACOs and other value-based care initiatives **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q1	HITO	APD (TA) & Contractual	271
		Partner with provider advocacy groups and trade associations re: communication of services	Q1	HITO	APD (TA) & Contractual	272
		Engage providers in assessing value of services through rigorous data and analytics **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q1	HITO	APD (TA) & Contractual	273
		Establish Provider Advisory Board for providing input on how to optimize benefits from services	Q2	HITO	APD (TA) & Contractual	274
LONGITUDINAL HEALTH RECORD						275
Increase percent of health systems on boarded to eHEX, CeQ and/or CW	LHR	Evaluate and asses current and future state-level participation in eHEX, CeQ and CW	Q1	HITO	APD	276
Increase percent of providers with access to LHR		Establish onboarding strategy for CT providers in eHEX, CeQ and CW	Q1	HITO	APD	277
		Establish state-level trust agreement flow-downs as indicated	Q1	HITO	APD	278
		Define and finalize: functional, business and technical req's for provider portal and centralized hub	Q1	HITO	APD	279
		Assess vendor solutions	Q1	HITO	APD	280

		Procurement and contract process with vendor	Q1	HITO	APD	281
		Implementation and configuration of vendor solution: Portal and Centralized Hub	Q2	HITO	APD	282
		Integration with MDM/CDAS solution as appropriate	Q2	HITO	APD	283
		Certification: Transport and content testing with national network	Q2	HITO	APD	284
		Publish implementation manuals and certification process	Q2	HITO	APD	285
		Portal integration with local and eHex participants	Q3	HITO	APD	286
		Provider communications and user sign-up **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3	HITO	APD	287
		Publish metrics and reporting	Q3	HITO	APD	288
CLINICAL ENCOUNTER ALERTS						289
Increase percent of health systems providing ADT to HIE **Increase percent of ACOs receiving clinical encounter alerts** **Increase percent of PCPs receiving clinical encounter alerts**	Alerts	Define and finalize: functional, business and technical req's for clinical encounter alerts	AY2	HITO	APD	290
		Assess and determine whether current CT initiatives in clinical encounter alerts meet requirements	AY2	HITO	APD	291
		Assess vendor solutions	Q1-Q2	HITO	APD	292
		Procurement and contract process with vendor	Q2	HITO	APD	293
		Implementation and configuration of vendor solution: Clinical Encounter Alerts	Q2-Q3	HITO	APD	294
		Integration with MDM/CDAS solution as appropriate	Q2-Q3	HITO	APD	295

		Publish implementation manuals and certification process: Data Sharing Organizations	Q2-Q3	HITO	APD	296
		Data Sharing Organization recruitment (esp. LTPAC)	Q2-Q3	HITO	APD	297
		Integration with Data Sharing Organizations	Q2-Q3	HITO	APD	298
		Publish implementation manuals: Data Receivers	Q2-Q3	HITO	APD	299
		Data Receiver Communication and Recruitment: Provider/ACO communications	Q3-Q4	HITO	APD	300
		Onboard Data Receivers **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3-AY4	HITO	APD	301
		Publish metrics and reporting	Q3-AY4	HITO	APD	302
PUBLIC HEALTH REPORTING						303
Public health service is operational	Public Health Reporting	Define and finalize: functional, business and technical req's for Public Health Reporting	AY2	HITO	APD	304
		Assess current CT initiatives: AIMS capability	AY2	HITO	APD	305
		Assess vendor solutions	Q1	HITO	APD	306
		Procurement and contract process with vendor	Q1	HITO	APD	307
		Implementation and configuration of vendor solution: Public Health Reporting	Q2	HITO	APD	308
		Integration with MDM/CDAS solution as appropriate	Q2	HITO	APD	309
		Integrate solution with public health agency systems: IIS/Syndromic Surveillance/Lab/Cancer	Q2	HITO	APD	310
		Publish implementation manuals and certification process:	Q3	HITO	APD	311

		Data Sharing Organizations				
		Communication: Data Sharing Organizations	Q3	HITO	APD	312
		Onboard Data Sharing Organizations	Q3	HITO	APD	313
		Build and implement reporting capabilities for Stage 3 MU and beyond	Q4	HITO	APD	314
		Publish metrics and reporting	AY4	HITO	APD	315
IMMUNIZATION INFORMATION SYSTEM						316
IIS is operational	IIS	Implement new IIS system and implement new public health reporting hub	Q1	HITO	APD	317
		Integrate into new public health reporting hub	Q2	HITO	APD	318
		Integration with MDM/CDAS solution as appropriate	Q2	HITO	APD	319
		Stakeholder Outreach	Q1	HITO	APD	320
		Onboard provider, hospitals and other data sources	Q3	HITO	APD	321
		Establish bidirectional exchange with EHR vendors and providers	Q4	HITO	APD	322
		Build and implement reporting capabilities for Stage 3 MU and beyond	Q3	HITO	APD	323
		Integrate IIS fully into program operations	Q4	HITO	APD	324
		Publish metrics and reporting	Q1	HITO	APD	325
IMAGE EXCHANGE						326
Number of PACS on boarded for image sharing	Image Exchange	Define and finalize: functional, business and technical req's for Image Exchange	AY2	HITO	APD	327
		Assess current CT initiatives	Q1	HITO	APD	328
		Assess vendor solutions	Q1	HITO	APD	329
		Procurement and contract process with vendor	Q2	HITO	APD	330
		Implementation and configuration of vendor	Q2	HITO	APD	331

		solution: Image Exchange				
		Integration with MDM/CDAs solution as appropriate	Q2	HITO	APD	332
		Publish implementation manuals and certification process: Data Sharing Organizations	Q3	HITO	APD	333
		Integrate Data Sharing Organizations	Q3	HITO	APD	334
		Publish implementation manuals and certification process: Data Receiving Organizations	Q3	HITO	APD	335
		Communication: providers re: image exchange availability	Q3	HITO	APD	336
		Onboard Data Receiving Organizations **Critical for SIM Driver: Improve healthcare capabilities (CCIP, SSPs, PCMH+)**	Q3	HITO	APD	337
		Publish metrics and reporting	AY4	HITO	APD	338
FINANCIAL SUSTAINABILITY PLAN						339
Financial sustainability strategy is deployed	Sustainability Plan	Develop 5-year budget projections, Inc. capital and operating expenses	AY2	HITO	Personnel & Contractual	340
		Assess best practices in HIE & CDAS financial sustainability	AY2	HITO	Personnel & Contractual	341
		Develop near-term funding model driven by initial use cases and participants	Q1	HITO	Personnel & Contractual	342
		Develop long-term financial sustainability plan	Q2	HITO	Personnel & Contractual	343
		Implement long-term financial sustainability plan	Q3	HITO	Personnel & Contractual	344
		Implement measures of usage, value and benefits for all HIE & CDAS services	Q1	HITO	Personnel & Contractual	345
	IAPD, RFP, Contracts	IAPD for HIE serivces submitted to CMS review	12/31/2017	HITO	Personnel	346

		Expected IAPD approval	3/1/2018	HITO	Personnel	347
		RFP for HIE services submitted to CMS for review	Q1	HITO	Personnel	348
		HIE services RFP released	Q1	HITO	Personnel	349
		HIE services contract submitted to CMS for review	Q1	HITO	Personnel	350
		HIE services contract executed	Q2	HITO	Personnel	351
SIM EVALUATION						352
Milestone/Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	353
ONLINE EVALUATION DASHBOARD						354
Evaluation metrics are consistently reported publically	Dashboard	Data acquisition, analysis and publication of metrics on online dashboard quarterly	Q1-Q4	LB	Contractual (UConn Health)	355
MANAGEMENT						356
Evaluation results are effectively managed and communicated	Program monitoring and feedback	Presentation, discussion and reporting of evaluation results and participation in Rapid Response Team as needed.	Q1-Q4	RA	Contractual (UConn Health)	357
IMPUTATION OF RACE AND ETHNICITY						358
A strategy to attach race and ethnicity information to APCD claims is implemented	REL computation	Implementation of two-part strategy involving imputation algorithm and use of Birth Records to attach race and ethnicity to APCD claims data.	By 12/31/18	RA	Contractual (UConn Health)	359
OTHER						360
Milestone/Measure of Success	*Budget Activity*	*Action Steps necessary to complete activity (HOW)*	*Timeline*	*Responsible Party*	*Expenditure Category*	361
Sustainability Plan						362
Sustainability plan for SIM reforms has been developed	Sustainability Plan	Convene stakeholders around each work stream to document current sustainability plans developed to date and brainstorm potential additional levers	Q1-Q2	PMO	Personnel	363

	Draft Sustainability Plan complete	Q2-Q3	PMO	Personnel	364
	Draft Sustainability Plan vetted across stakeholders and revisions made	Q3	PMO	Personnel	365
	Sustainability Plan complete	Q4	PMO	Personnel	366

D. Program Evaluation and Monitoring

Our program evaluation is focused on the tracking progress towards our aims and provides opportunities for continuous quality improvement. We continue cooperate with CMS and its efforts to conduct the federal evaluation of our initiative.

1. State-led Evaluation

The SIM has identified key metrics, as well as accountability targets, that are being used to track progress and identify trends, best practices, gaps, and barriers to implementation. Measures are grouped into two categories: "Performance Measures" focus on progress toward our aims or the impact of our model on the state's population. "Pace Measures" represent measures that are process oriented and track milestones, such as the percentage of members impacted by value-based payment.

The pace and performance measures tie to the SIM Driver Diagram, located in **Section A. SIM Project Summary.** The Driver Diagram identifies the following: project aims, primary drivers, secondary drivers, and accountability targets.

The ***aims*** are the overall goals of our work. We strive to achieve the "Triple Aim" of healthier people, better care, and smarter spending, with an emphasis on improving health equity. ***Our Performance Measures quantify our impact on these aims, and are tracked for the entire state population:***

- Healthier people: Reduce statewide rates of diabetes, obesity, and tobacco use while reducing health disparities.
- Better care: Improve statewide performance on key healthcare quality measures, including:
    - adults with a regular source of care;
    - ambulatory care sensitive condition admissions and readmissions;
    - child well-visits for at-risk populations;
    - mammograms for women ages 50+;
    - optimal diabetes care- annual A1c tests;
    - asthma ED utilization;
    - percent of adults with hypertension taking hypertension medication;
    - Premature deaths due to cardiovascular disease;
    - Follow-Up after ED for Mental Health or Alcohol or other Drug Use;
    - Follow-up after hospitalization for Mental Illness;
    - Antidepressant Medication Management; and
    - Initiation and Engagement of Alcohol and Other Drug Dependence Treatment.
- Smarter Spending: 1-2% percentage point reduction in annual healthcare spending growth.

The four ***primary drivers*** are those high-level activities that contribute directly to achieving our aims:

1. Payment reform
2. Healthcare Delivery Transformation
3. Consumer Empowerment

4. Population health

Secondary drivers are lower-level actions or interventions necessary to achieve the primary drivers. Many of these activities overlap and are not meant to be implemented in silos. For example, the Community & Clinical Integration Program (CCIP) targets the same healthcare entities as the Medicaid PCMH+ program. Similarly, some of the work streams may have a targeted population focus, but many are statewide.

Performance Measures

Changes in the delivery system over the Model Test period are expected to allow the State to achieve the access and quality targets identified below:

EXHIBIT 7: IMPROVING HEALTHCARE OUTCOMES MEASURES

Category/Measure	Data Source	Base	2016	2017	2018	2019	2020
Adults with Regular Source of Care	CT All Payer Claims Database (APCD)	83.9	85.7	87.5	89.4	91.2	93.0
Plan All-Cause Ambulatory Sensitive Care Condition	DPH: Hospital Inpatient Discharge Database	15.9	15.3	14.8	14.2	13.7	13.1
Ambulatory Care Sensitive Condition Admissions	DPH: Hospital Inpatient Discharge Database	1448.7	1398.0	1347.3	1296.5	1245.8	1195.1
Mammogram for women >50 last 2 years	APCD	83.9	84.7	85.4	86.2	87.0	87.7
Diabetes care: 2+ annual A1c tests	APCD	72.9	74.3	75.7	77.1	78.6	80.1
ED use - asthma as primary dx (per 10k)	APCD	73.0	71.2	69.4	67.6	65.8	64.0
Hypertension control :% of adults with HTN taking HTN meds	APCD	60.1	62.0	63.9	65.7	67.6	69.5
Premature death: CVD adults (per 100k)	CT DPH: Death Records	889.0	819.2	749.4	679.6	609.8	540.0

*Quality measures and targets related to hospitalizations will be calculated using the AHRQ Prevention Quality Indicators (PQIs), 14 measures of conditions managed in ambulatory settings.

**Additional measures and targets, including behavioral health and oral health are under review

Health Equity

A major goal of the Model Test is to improve equity in access and quality. We are using SIM funds to incorporate race/ethnic data into the APCD, which will allow us to monitor equity gaps for the core Dashboard measures. Please see the following two exhibits for measure specifics. The implementation of statewide eCQM as part of our HIT work stream will enable us to extend our monitoring to clinical outcome measures.

EXHIBIT 8: POPULATION HEALTH EQUITY MEASURES

Population Health						
Measure Number	Measure	Reporting Frequency	Data Source	Health Disparities		
				Race/ Ethnicity?	Income?[1]	Subgroup Target
1	Percent of adults who are obese	Yearly	DPH: BRFSS	Y	Y	None
2	Percent of children who are obese	Yearly	DPH: BRFSS	Y	Y	Low Income
3	Percent of adults who currently smoke	Yearly	DPH: BRFSS	Y	Y	Low Income
4	Percent of youth (high school) who currently smoke	Yearly	DPH: YTS	Y	N	None
5	Percent of adults with diabetes	Yearly	DPH: BRFSS	Y	Y	Low Income
6	Premature death- CVD adults (per 100k)	Yearly	DPH: Death Records	Y	N	African American

1. Some categories will be suppressed because they do not meet requirements for publication

EXHIBIT 9: HEALTHCARE OUTCOMES EQUITY MEASURES

Healthcare Delivery						
Measure Number	Measure	Reporting Frequency	Data Source	Health Disparities		
				Race/ Ethnicity?	Income?	Subgroup Target
1	Percent of adults with regular source of care	Quarterly	APCD	N[2]	N	None
2	Risk- std. all condition readmissions	Quarterly	HIDD	Y	N	None
3	Amb Care Sensitive Cond Admissions	Quarterly	HIDD	Y	N	None
4	Children well-child visits for at-risk pop	Quarterly	APCD	N[2]	N	None
5	Mammogram for women >50 last 2 years	Quarterly	APCD	N[2]	N	None
6	Colorectal screening- adults aged 50+	Quarterly	APCD	N[2]	N	Income

7	Optimal diabetes care- 2+ annual A1c tests	Quarterly	APCD	N[2]	N	None
8	ED use- asthma as primary dx (per 10k)	Quarterly	APCD	N[2]	N	Hispanic
9	Percent of adults with HTN taking HTN meds	Quarterly	APCD	N2	N	None

2 The Evaluation Team is working to append the APCD with race and ethnicity information in hopes that we can use these data for disparities work in the future

3. Reduced Cost

The State has established the following PMPM cost targets:

EXHIBIT 10: COST TARGETS

Cost (PMPM)	2014	2015	2016	2017	2018	2019	2020
ASO/Fully insured	$457	$478	$501	$525	$550	$576	$603
State employees w/o Medicare	$547	$573	$600	$629	$658	$690	$722
Medicare	$850	$887	$926	$966	$1,007	$1,051	$1,096
Medicaid/CHIP, incl. expansion	$390	$408	$426	$446	$466	$487	$509
Average	**$515**	**$539**	**$565**	**$591**	**$619**	**$649**	**$679**

Our Pace Measures are high level markers of our progress on implementing our drivers:

- Shared Savings Program Penetration: Provider and beneficiary participation in Shared Savings Programs in Connecticut.
- Person Centered Medical Home+ Participation: Provider and beneficiary participation in the new SIM-funded Medicaid shared savings program.
- Care Delivery Reform Participation: Community and Clinical Integration Program: Provider penetration in the Community & Clinical Integration and Advanced Medical Home programs.
- Value-Based Insurance Design Penetration**:** Members who have access to a VBID health plan.

SIM Component	Key Test Grant Pace Targets
SSP	• 88% of insured population participates in any SSP by 2020 (including Medicaid, Medicare, and commercial SSP) • 5753 PCPs participate in any SSP by 2020
PCMH+	• 89% of Medicaid members in PCMH+ by 2020. • 2072 PCPs in 14 FQHCs and 16 Advanced Networks in PCMH+ by 2020.
Community and Clinical Integration Program	1,364 providers participate in CCIP by Q4 2018
Advanced Medical Home Program	150 non-medical homes become AMH practices by 2019*

Value-Based Insurance Design	84% of insured population is in a VBID plan by 2020

*Includes state and federally funded AMH technical assistance; target revised for AY3.

EXHIBIT 11: PRIMARY CARE PROVIDER PARTICIPATION IN ANY SHARED SAVINGS PROGRAM

PCP Type	Base	2016	2017	2018	2019	2020
APRN	803	880	957	1034	1111	1173
PA	654	717	780	843	906	956
Physician	2135	2340	2545	2750	2955	3120
Total	**3592**	**3937**	**4282**	**4627**	**4972**	**5249**

EXHIBIT 12: NUMBER OF MEMBERS (IN THOUSANDS) WITH A PRIMARY CARE PROVIDER IN ANY SSP

Coverage Category (000's)	2015	2016	2017	2018	2019	2020
ASO (excluding State Employees)	336.6	453.7	630.7	753.6	879.1	1,007.2
Fully insured	260.1	350.6	487.3	582.3	679.2	778.2
Coverage Category (000's)	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
State employees, exc. Medicare Supp.	40.7	54.8	76.2	91.0	106.2	121.6
Medicare	175.4	240.8	340.8	414.5	492.3	574.3
Medicaid/CHIP*	0	0	210.0	429.1	439.1	636.5
Total	812.8	1,099	1,745.0	2,270.5	2,595.9	3,118.0

*Includes approximately 137,000 single adults enrolled in the Medicaid Expansion

EXHIBIT 13: NUMBER OF MEMBERS (IN THOUSANDS) WITH A PCP IN MULTI-PAYER SSP WITH PCMH+

Coverage Category (000's)	2016	2017	2018	2019	2020
Commercial/Medicare members	0	580.8	1,510.0	1,812.0	2,400.0
Medicaid (PCMH+) members	0	210.0	429.0	439.0	636.0
Total	**790.8**	**1,939.0**	**1,939.0**	**2,251.9**	**3,036.0**

EXHIBIT 14: PROVIDER PARTICIPATION IN PCMH+

Coverage Category (000's)	Base	2016	2017	2018	2019	2020
Advanced Networks	16	0	3	12	12	16
Federally Qualified Health Centers	14	0	9	14	14	14

Primary Care Providers	2072	0	516	1,624	1,624	2,072

Accountability Targets are more detailed indicators and milestones for each secondary driver. These accountability targets will be updated as the transformation work unfolds, milestones are reached and new targets are set. The following table contains all of the SIM Accountability Targets.

EXHIBIT 15: SIM ACCOUNTABILITY TARGETS

Primary Driver	Secondary Driver	Measure	Accountability Targets					
			AY1	AY2	AY3	AY4	Total Target	Cumulative Achieved TD
Promote policy, systems, & environmental changes, while addressing socioeconomic factors that impact health	**Engage** local and state health, government, and community stakeholders to produce a population health plan	Number of multi-stakeholder council meetings held	3	12	12	12	39	7
		Number of external stakeholder engagements (including agency discussions, in and out of state interviews, community forums)	10	20	-	-	30	162
	Identify **reliable & valid measures** of community health improvement	Number of measures reviewed	5	30	-	-	35	91
		Number of different SES factors considered in measure recommendation process	-	10	-	-	10	0
		Number of community health measures recommended by council	-	5	-	-	5	0
		Number of community health measures incorporated into quality scorecards (per payer)	-	-	-	2	2	0
	Design **Health Enhancement Communities (HECs)** model that includes financial incentive strategy to reward communities for health improvement	Number of accountable community models assessed	0	5	5	-	10	2
	Design and implement **Prevention Service Initiatives**	Number of prevention models assessed	5	-	-	-	5	14
		Number of regions and organizations considered	0	5	-	-	5	5
		Number of CBOs receiving technical assistance	-	-	10	0	10	0
		Number of Advanced Networks receiving technical assistance	-	-	10	0	10	0
		Number of Formal Linkages established between CBOs and ANs	-	-	5	5	10	0
Engage consumers in healthy lifestyles,	Promote the use of **Value-Based Insurance Designs**	Number of different employers engaged in Learning Collaborative meetings	0	30	50	30	110	**155**

preventive care, chronic illness self-management, and healthcare decisions	**(VBID)** that Incentivize healthy choices by engaging employers and others	Number of Learning Collaborative meetings or events (webinars, etc.)	0	10	10	10	30	**5**
		Number of Employers participating in VBID Technical Assistance opportunity	-	-	5	5	10	**0**
		Number of Employers participating in VBID TA that adopt VBID plans	-	-	4	4	8	**0**
		% of Commercially Insured Population in a VBID plan that aligns with CT SIM's VBID threshold	44%	53%	75%	84%	84%	Measure anticipated by 12/31/17 using VBID Survey
	Provide transparency on cost and quality by creating a **Public Common Scorecard** to report provider performance, and deploying CAHPs	Number of valid measures recommended for public reporting	45	45	45	45	45	**45**
		Number of measures publicly reported	-	-	25	40	40	**0**
		Number of views to public scorecard	-	0	1,000	2,000	3,000	**0**
	Develop **informed and actively participating consumers** for health reform	Number of organizations/entities that have self-attested to using data from scorecard	-	-	20	40	60	**0**
		Number of consumers involved in SIM governance (SIM HISC, CAB and identified committees)	50	50	50	50	50	**50**
		New consumers in consumer-related SIM roles	-	5	5	5	15	**7**
		Number of issue-driven meetings (including in-person, focus groups, forums, webinars, etc.)	5	10	6	6	27	**7**
		Number of consumers engaged through events	200	300	90	90	680	**310**
		Number of trainings held	0	1	1	1	3	**1**
		Social media metric (e.g., followers, utility of info)	50	100	150	200	200	**93**
		Number of consumer-driven documents developed	0	5	6	6	17	**5**
		Number of action steps identified based on key learnings from consumer engagement events	0	3	18	18	39	**0**

		Number of CAB recommendations made to support policy changes	0	3	3	3	9	**0**
Promote payment models that reward improved quality, care experience, health equity and lower cost	All payers in CT use financial incentives to reward improved quality and reduced cost, including the launch of **Person Centered Medical Home +(PCMH+)**	Percent of beneficiaries in PCMH+	0%	23%	55%	63%	63%	**18%**
		Number of Advanced Networks in PCMH+	0	3	12	12	12	**2**
		Number of FQHCs in PCMH+	0	9	14	14	14	**7**
		Number of PCPs in PCMH+	0	516	1,624	1,624	1,624	**580**
		Number of beneficiaries in any SSP	32%	50%	64%	73%	73%	Measure anticipated by 12/31/17 using APM Survey
		Number of PCP participation in any SSP	3,937	4,693	5,072	5,450	5,450	Measure anticipated by 12/31/17 using APM Survey
	Recommend a statewide **multi-payer core quality measure se**t for use in value-based payment models to promote quality measure alignment	% alignment across health plans on core quality measure set (commercial/Medicaid)	-	55%	65%	75%	**75%**	Measure anticipated by 12/31/17 using APM Survey
		% alignment across health plans on core quality measure set (commercial)	-	59%	67%	75%	**75%**	Measure anticipated by 12/31/17 using APM Survey
		% health plans that use CAHPS in their scorecards tied to payment	-	-	50%	50%	50%	**0**
Strengthen capabilities of Advanced Networks and FHQCs to deliver higher quality, better coordinated, community integrated and more efficient care	**Community & Clinical Integration Program (CCIP)**: Provide technical assistance & awards to PCMH+ participating entities to achieve best- practice standards in: comprehensive care management; health equity improvement; & behavioral health integration	Number of Advanced Networks participating in CCIP	-	3	12	12	12	**2**
		Number of FQHCs participating in CCIP	-	1	1	1	1	**1**
		Number of participating providers in CCIP	0	356	1,364	1,364	1,364	**812**
		Number of Transformation Awards awarded	-	4	9	0	13	**3**
		Number of ANs/FQHCs that have met core standards	-	0	4	9	13	**0**
	Advanced Medical Home Program: Provide support to	Number of new practices that enroll in the AMH program	0	150	150	0	300	**151**

	primary care practices, within PCMH+ participating entities, that are not medical homes, to become AMHs	Number of practices that complete AMH program	0	150	150	0	300	**63**
		Number of practices obtaining NCQA PCMH Recognition	0	150	150	0	300	**63**
	Promote use of **Community Health Workers** through technical assistance, resource development, and policy recommendations	Number of training programs or resources collected	-	25	25	-	50	**62**
		Number of consultations with CCIP Vendor	-	6	6	3	15	**15**
		Number of CHW website visits	-	-	100	200	300	**0**
		Number of resources identified for inclusion on CHW site	-	25	25	10	60	**37**
		Number of Advanced Networks and FQHCs that have CHWs integrated into care teams (non-grant funded)	-	-	6	10	**16**	Measure anticipated by 11/15/18 using CCIP Quarterly Reporting
		Number of ANs and FQHCs that have CHWs integrated into care teams (grant-funded)	-	-	14	20	**34**	Measure anticipated by 11/15/18 using CCIP Quarterly Reporting
		Number of CCIP practices utilizing CHW services		30	50	70	**70**	Measure anticipated by 2/15/18 using CCIP Quarterly Reporting
Enable health information exchange, analytics, and health IT to drive transformation	Drive health information exchange through shared HIE services	% of providers submitting data to CDAS	0	0	10%	40%	40%	-
		Number of eCQMs incorporated into value-based payment scorecards (reporting or payment) (total - across payers)	0	0	0	10	10	-
		% user access of CDAS	0	0	40%	70%	70%	-
		% of eCQMs calculated by provider	0	0	50%	90%	1	-
		% of payers receiving/submitting data from CDAS	0	0	30%	70%	70%	-
	Enable advanced analytics and better use of data through Core Data Analytics Solution (CDAS)	Percent of health systems onboarded to eHEX, CeQ and/or CW	-	-	25%	50%	**50%**	-
		Percent of providers with access to LHR	-	-	10%	20%	**20%**	-

		Percent of health systems providing ADT to HIE	-	-	50%	90%	90%	-
		Percent of ACOs receiving clinical encounter alerts	-	-	50%	90%	90%	-
		Percent of PCPs receiving clinical encounter alerts	-	-	10%	20%	20%	-
		Number of PACS on boarded for image sharing	-	-	2	5	5	-
		Percent of Core Services implemented	-	-	100%	100%	100%	-

AY3 evaluation efforts will build on work accomplished during AY2 and will included refining metrics, maintaining data storage and analysis servers, data collection, analysis and reporting, and CAHPS survey administration.

a. Refining metrics- in AY3 the Evaluation Team and the SIM PMO will continue the review of measures. The review, which began in AY2, focuses on ensuring that measures are well supported by available data and will best support the tracking of progress towards SIM goals as well as identify potential best practices, critical gaps and barriers to implementation. One deficiency has been identified in the area of depression management. To better support this goal we added the following four metrics:

   1. Follow-Up after ED for Mental Health or Alcohol or other Drug Use
   2. Follow-up after Hospitalization for Mental Illness
   3. Antidepressant Medication Management
   4. Initiation and Engagement of Alcohol and Other Drug Dependence Treatment

   Additionally, upon closer inspection of available data and available established metrics, we determined that we do not have adequate data to support the initially proposed colorectal screening measure and have eliminated it from our measure set.

   In early AY3, as we perform analyses using the APCD data, we may suggest some additional changes to metrics. Additionally, the PMO and the Evaluation team will work together to determine if measures should be changed or added to better address the five priority areas that have been selected from the list of aims to enhance focus, coordination and alignment across the various SIM work streams (Individuals with Complex Health Needs, Diabetes: prevention and control, Hypertension (HTN): prevention and control, Asthma, Depression.) Ensuring that we have adequate metrics with which to evaluate these priority areas is vital to AY3 monitoring and continuous quality improvement efforts.

b. Maintenance of Data Storage/Analysis Servers- AY3 activities will include the maintenance and oversight of servers used to store and analyze the large data files required to support metrics. These servers, acquired and configured during AY2, are kept in UConn Health's High Performance Computing Facility. This facility provides secure HIPAA compliant storage and analysis space for large data files. In order to conform to HIPAA requirements the evaluation team will perform regular reviews (weekly, quarterly and yearly), perform user management, and record all server and data related requests and activities and will perform SIM related data analyses directly on the servers. These AY3 activities directly support tracking and continued quality improvement of SIM programming as they form the underpinning of evaluation analyses.

c. Data Collection - The evaluation employs the collection of real-time data to promote and support continuous quality improvement. In AY3 we continue data collection efforts with DPH, the APCD, and insurance payers including the following data collection activities:
   - Receipt of data from the 2017 Behavioral Risk Factor Surveillance System survey, 2015 CT Death Record data, and 2016 from the Hospitalization Inpatient Discharge Data from the Department of Public Health to support measures tracking outcomes under the aim of "Heathier People while Promoting Health Equity."

- Receipt of medical claims data from 2012-2017 from the CT APCD. Submission of Data Release Form to the APCD was accomplished in AY2 and data is forthcoming. These data to support performance measures tracking progress in the aims of "Better Care while Promoting Health Equity Health Equity" and "Reduced Healthcare Costs."
- Administration of the Value Based Insurance Design survey for 2017, designed and first implemented in AY2, for commercial insurers. Supports tracking of progress of Primary Driver 2 "Engage consumers in health lifestyles, preventative care, chronic illness self-management and healthcare decisions."
- Administration of an Advanced Payment Model Survey for Medicaid and commercial insurers. In August 2017, this survey was submitted to Medicaid and commercial health plans. The evaluator is in the process of collecting their responses. This survey supports tracking of progress in Primary Driver 3 to "promote payment models that reward improved quality, care experience, health equity and lower cost."
- Continued quarterly receipt of Advanced Medical Home metrics to track progress in Primary Driver 4 "Strengthen capabilities of Advanced Networks and FQHCs to deliver higher quality, better coordinated community oriented, community integrated and more efficient care."
- Continued yearly receipt of PMCH+ metrics to track progress in Primary Driver 3 "Promote payment models that reward improved quality, care experience, health equity and lower cost."

d. Data Analysis and Reporting-

Performance Measures: Activities in AY2 mainly focused on determining CT historical and baseline values for selected performance measures. Historical and baseline values were calculated for population health and hospitalizations for ambulatory sensitive conditions. Baselines were presented for overall CT as well as for breakdowns in gender, county, race and ethnicity, income and insurance payer (as data allows) to support tracking of changes in health equity. The following findings were published and updated on the online dashboard quarterly in AY2 (http://www.publichealth.uconn.edu/sim_dash.html). Quarterly updates will continue in AY3 and will include reporting on the remaining outstanding performance measures. Additionally, some performance measure results will be calculated for time periods under SIM programming and allowing for monitoring and continuous quality improvement of SIM programming.

Yearly targets have been set based on 2015 pre-SIM values baseline values. As baseline data was calculated in AY2 analyses also focused on the examination and re-basing of SIM targets as appropriate. Yearly SIM targets are set for overall CT values using these pre-SIM baselines as starting points. Original SIM targets were proposed in the grant application as estimates using 2012 data. Actual calculated 2015 baseline values have been found to differ from the estimated values rendering proposed targets inappropriate. In order to better support accurate monitoring and feedback updated targets were produced by re-basing them.

In AY2 the PMO, Evaluation Team and DPH held a series of meetings and determined methods for adjusting targets. Using available historical data trends were determined and future values predicted. A goal of 5% decrease off of predicted values over 5 years of SIM programming was

set and distributed equally over 5 years for yearly targets of 1% decrease per year off of predicted values. Predicted values were used to account for upward and downward trends that are found in many performance measures. In AY3 additional measures will undergo re-basing as appropriate.

EXHIBIT 16: PERFORMANCE FINDINGS PUBLISHED TO DATE

Measure	Publication Date	Results Published?			Targets Revised?
		2013	2014	2015	
Adult Obesity	**Jan 1, 2017**	✓	✓	✓	✓
Adult Diabetes	**Jan 1, 2017**	✓	✓	✓	✓
Adult Smoking	**Jan 1, 2017**	✓	✓	✓	✓
Child Obesity	**Jan 1, 2017**	✓	✓	✓	✓
Youth Smoking	**Jan 1, 2017**	✓	✓	✓	✓
Premature Death: CVD	**Jan 1, 2017**	✓	✓	**AY3**	**In AY3**
Ambulatory Sensitive Care Admissions	**April 1, 2017**	✓	✓	✓	✓
Ambulatory Sensitive Care re-admissions	**April 1, 2017**	✓	✓	✓	✓
Ambulatory Sensitive Care Admissions through the ED	**April 1, 2017**	✓	✓	✓	✓

EXHIBIT 17: PROPOSED (GRANT) AND FINAL PERFORMANCE MEASURE TARGETS

Measure	Estimated Baseline (Grant)	Proposed Targets (Grant)					Baseline	Final Target				
		2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
Adult Obesity	24.50%	23.6%	23.5%	23.3%	23.1%	23.0%	25.3%	25.2%	25.0%	24.9%	24.7%	24.6%
Adult Diabetes	8.50%	8.1%	8.1%	8.0%	7.9%	7.8%	9.3%	9.4%	9.2%	9.1%	9.0%	8.9%
Adult Smoking	17.10%	15.6%	15.3%	15.0%	14.7%	14.4%	13.5	14.2%	13.7%	13.2%	12.7%	12.2%
Child Obesity*	18.80%	18.2%	18.0%	78.9%	17.8%	17.7%	16.8%	16.4%		16.2%		16.0%
Youth Smoking**	14.00%	13.3%	13.1%	13.0%	12.9%	12.7%	5.6%	NA	10.4%	NA	9.7%	NA
Premature Death: CVD (per 100k)	889	819	749	680	610	540	TBD	TBD	TBD	TBD	TBD	TBD
Ambulatory Sensitive Care Admissions(per 100k)	1449	1398	1347	1297	1246	1195	13772	1304	1250	1197	1144	1093
Ambulatory Sensitive Care re-admissions	NA	NA	NA	NA	NA	NA	16.2%	16.1%	16.1%	16.0%	16.0%	15.9%

Ambulatory Sensitive Care Admissions through the ED	NA	NA	NA	NA	NA	NA	95.0%	95.3%	94.43 %	94.4%	94.4%	94.4%

*Data for child obesity only supports combined year analysis

**Youth Tobacco Survey is administered every other year

Pace Measures: Analysis of pace measures in AY2 is restricted to the progress of the Advanced Medical Home, Person Centered Medical Home Plus and Community & Clinical Integration Programs. In AY3 we expect to be able to report on the remaining pace measures allowing for a more complete monitoring of pace.

e. Monitoring- In AY2 Evaluation activities were developed that will support continuous quality control in AY3. In AY3 the online SIM Evaluation Dashboard will continue to present evaluation findings and SIM targets publically so that all work streams and committee members can view progress. Additionally, the Evaluation and the PMO will convene a Rapid Response Team (RRT) to review the dashboard and associated metrics of concern should any arise. The RRT membership is drawn from the Healthcare Innovation Steering Committee and its workgroups and serves to recommend corrective action should any performance or pace concerns arise. Lastly, the Evaluation Team provides expertise and discussion of performance metrics to the PMO and work stream leaders in weekly meetings with the PMO, biweekly meetings with work stream leadership, and periodic presentation to the Health Innovation Steering Committee. In AY3 monitoring and feedback will become more valuable to the PMO and work streams as more metrics will be available for years of SIM programming.

f. Imputation of Race/Ethnicity in APCD data- One of the major aims of SIM is to promote health equity. However, as most (about 97%) of claims data includes no race or ethnicity information, it is difficult to assess the impact of SIM on the healthcare delivery on all CT residents. In AY2 the UConn Health Evaluation Team developed a two-pronged strategy to make race and ethnicity data available through the APCD. The Department of Public Health has approved the use of Birth Records data as a source of race and ethnicity data. In AY3 these data will be provided to the APCD's vendor for matching with individuals found in the APCD. For those individuals not in Birth Records, the Evaluation Team used SIM funding to develop a model with which to impute race and ethnicity. This model is currently working with an 84% accuracy rate.

Work will continue During AY3 with continued improvement and testing of the imputation model. Additionally, the evaluation ream will provide birth records to the APCD's vendor for testing of the utility of those data as a source of race and ethnicity information. These tests will determine the percentage of CT residents for which race and ethnicity data can be obtained through Birth Records and the percentage for which the use of the imputation model will be necessitated.

These activities will ultimately support the addition of race and ethnicity data to the CT APCD which will allow for analysis that investigate progress and gaps towards the promotion of health equity. Additionally, when published, this model, can serve as a resource for APCDs in other states, thus greatly expanding the utility and ability to provide data on health disparities throughout the nation.

g. CAHPS Survey- The first commercial CAHPS administration was initiated in AY2 when the Yale University Evaluation Team contracted with a vendor for the survey administration and a sampling strategy was developed. The survey administration will be completed in AY2. During AY3 the final report of the first survey administration will be produced and activities leading up to the second CAHPS administration will commence. CAHPS administrations are planned yearly in AY3 and 4. **For complete information on CAHPS surveys please see Consumer Empowerment Section.** Results from CAHPS surveys support tracking and continuous quality improvement of SIM Primary Driver 2 "Engage consumers in health lifestyles, preventative care, chronic illness self-management, and healthcare decisions."

2. Federal Evaluation, Data Collection, and Sharing

Ability to provide current identifiable, individual claims data to the federal evaluator/CMS:

DSS has entered into a data use agreement (DUA) with CMS or its contractor for purposes of sharing the minimum necessary identifiable claims data to support the SIM evaluation.

In AY2 Access Health CT (AHCT) completed development of the All-Payer Claims Database (APCD.) Currently, commercial data from 01/01/2012-4/30/2017 has been submitted by commercial payers for a total of 888k commercial lives. Commercial payers continue to affirm their commitment to use the APCD as the primary and preferred source for the production of commercial health plan data and reports to meet the needs of the state and federal evaluation of the SIM program. Medicare data has been received and should be available for analysis and reporting beginning in AY3.

The APCD data infrastructure is managed by an outside data and analytics vendor with capabilities of maintaining and operating a robust data ETL process, transformation of this data from various data submitters into an equivalent data base structure and maintain historical data of eligibility, medical and pharmacy claims, and provider information. Data submitted to the APCD provides the time depth needed to calculate pre-SIM programming baseline measures as well as tracking of progress under SIM.

During AY2 we have submitted a Data Request form with a review by the APCD's Data Release Committee scheduled for August 16, 2017. We expect to receive data within a month of the review date.

Cooperation with the contractor performing the federal evaluation:

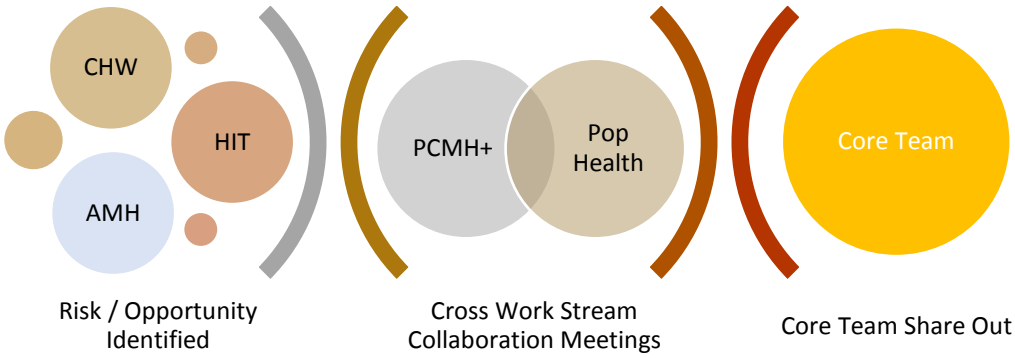
The state will continue to fully cooperate with the contractor performing the federal evaluation. The state will provide information in a timely manner that will allow CMS to review and comment on method and results from the state evaluation before publication of results. The Evaluation team will fully cooperate with primary data collection efforts as described in this document and as allowed by Connecticut and Federal laws and regulations.

3. Program Monitoring and Reporting

As described in Section "Management Structure and Decision-Making Authority," Connecticut's SIM is being implemented in collaboration with multiple agencies and organizations including the DSS, DPH, OSC, AHCT and UConn Health. The PMO will be accountable for the conduct of specific SIM initiatives and will work closely with state agencies and stakeholders that hold accountability for components of the plan.

The PMO coordinates activities across work streams, oversees the evaluation, engages stakeholders, manages vendors, executes care delivery reform initiatives, and communicates progress to the public.

The PMO administers a SIM Core Team comprised of representatives from the HIT PMO, DSS, DPH, OSC, OPM, APCD, OPM, DMHAS, Consumer Advisory Board, and the UConn Health evaluation team. The SIM Core Team supports overall program management and coordination amongst the various lead entities. This process allows for rapid cycle evaluation and discussion efforts. It also allows for cross-agency collaboration and risk mitigation efforts, as illustrated below.



The PMO also manages MOAs with key state agency partners, which lay out expectations and protocols for working together.

Lastly, PMO staff is assigned to be a liaison to agency partners, and holds frequent meetings with work stream teams to ensure progress towards SIM targets. PMO staff holds frequent check-ins and strategy meetings with contractors, and has a standard protocol to ensure contract terms are upheld.

Risk Mitigation Strategy

The PMO promotes a purposeful and collaborative approach to large scale systems change and anticipate and manages risks and issues crucial to success. Identifying risks and creating risk mitigation plans is an ongoing process throughout the implementation of the grant. Risks are reported by each work stream on an ongoing basis to ensure early detection and discussion and identify the need for escalation through the Governance structure. The SIM PMO manages a risk log across all work streams. It is updated by relevant leads as next steps are pursued and updates are needed. This information will be used to update work groups and committees as well as CMMI.

Each work stream determined their risks and mitigation strategies for AY3. Each work stream first delineated their accountability targets and objectives. For each accountability target, the likelihood of failure was identified for each related objective. Risk factors were determined based on the likelihood of failure. For example, if the accountability target was to receive data from a particular state agency, the likelihood of failure might be low, and a potential risk factor would be that the data file is not ready for release. This process was completed for all accountability objectives.

Each risk factor was then prioritized based on the likelihood of failure. Using this prioritization, work streams identified potential risk mitigation options, feasibility of resources, and the potential impact on SIM progress. Taking into account all factors, an overall priority level was assigned to each risk factor.

Those risk factors that were most likely to have the greatest impact on overall SIM progress were then detailed, including the risk mitigation strategies, priority level, lead person, relevant work groups, next steps, and timeline.

Attachment A contains the risk log for the next performance year. Each risk will associate a relevant time frame, a description, a priority level, mitigation plan, and next steps. The mitigation of risks and the collaborative approach to finding solutions is an important accountability process that will occur on a continuous basis.

Supporting document available: Appendix A - SIM Risk Log

4. Fraud & Abuse Monitoring, Detection, & Correction

Monitoring Sub-recipients

Sub-recipients who spent at least $500,000 in federal funds from all federal sources during their fiscal year must have an audit performed in accordance with OMB Circular A-133. The A-133 compliant audit must be completed within 9 months of the end of the sub-recipient's fiscal year. For those Transformation Award sub-recipients that meet this threshold requirement, the PMO will require the sub-recipient to provide the State with a copy of their completed A-133 compliant audit including:

- The auditor's opinion on the sub-recipient's financial statements;
- The auditor's report on the sub-recipient's internal controls;
- The auditor's report and opinion on compliance with laws and regulations that could have an effect on major programs;
- The schedule of findings and questioned costs;
- And the sub-recipient's corrective action plan (if any).

The PMO will issue a management decision on audit findings within 6 months after receipt of the sub-recipient's A-133 compliant audit report.

If a sub-recipient's schedule of findings and questioned costs did not disclose audit findings relating to the Federal awards provided by the PMO and the summary schedule of prior audit findings did not report the status of audit findings relating to Federal awards provided by the PMO, the sub-recipient may opt not to provide the A-133 compliant audit report to the PMO. In this case, the PMO will verify that there were no audit findings utilizing the Federal Audit Clearinghouse database.

Any sub-recipient that, because it does not meet the $500,000 threshold or because it is a for- profit entity, does not receive an audit performed in accordance with OMB Circular A–133 may at its option and expense have an independent audit performed. The independent audit should be performed to obtain reasonable assurance about whether the sub-recipient's financial statements are free of material misstatement. The independent audit should also take into consideration the sub-recipient's internal control, but does not necessarily have to contain the auditor's opinion on the agency's internal control. If the sub-recipient elects to have an audit report that covers more than the sub-recipient's financial statements, the PMO may request that the entirety of the auditor's report be provided to the PMO.

If the sub-recipient chooses not to have an independent audit and the sub-recipient will receive at least

$10,000 during the current fiscal year, they may be subject to on-site monitoring during the award period. Sub-recipients who are individual contractors will not be subject to on-site monitoring based solely on the lack of an independent audit.

Desk Reviews

All sub-recipients who are estimated to receive $10,000 or more during the fiscal year will undergo a desk review at least once during the grant period. If a sub-recipient receives less than $10,000, the PMO may at its discretion opt to conduct a desk review. During a desk review, sub- recipients might be expected to provide:

- Adequate source documentation to support financial requests including but not limited to an income statement, payroll ledgers, cancelled checks, receipts ledgers, bank deposit tickets and bank statements, and timesheets.
- If salary is funded under the award and if the staff whose salary is funded under the award is charged to other funding sources, time distribution records to support the amounts charged to federal funding provided by the State.
- A statement verifying that the organization has a system in place for maintaining its records relative to federal funding provided by the State for the amount of time as specified in the sub-award document.
- Adequate documentation to support required match, if any.

Monitoring Contracts

The SIM PMO has assigned a contract coordinator to each executed contract and each Memorandum of Agreement. The responsibilities of the contract coordinator may include, but are not limited to, the following:

- coordinating the flow of information between the SIM PMO and the contractor;
- responding to requests from the contractor;
- authorizing contractor payments against the contract's budget;
- monitoring progress against work schedules or milestones;
- reviewing and approving deliverables;
- taking corrective action when a contractor's or key partner's performance is deficient;
- resolving disputes in a timely manner; and
- maintaining appropriate records.

Each contract coordinator assigned to the project must ensure that the contractor meets the requirements of the contract and that the financial (and other) interests of the State and of CMMI are protected. The contract manager is well versed in both the contract and the operational components of the work stream that the contractor supports. The contract manager works closely with the contractors and the PMO's fiscal administrator to ensure payments are aligned with the work set forth in the contract.

Under-Service Monitoring

Shared savings programs are an increasingly central feature of the U.S. healthcare landscape since the Centers for Medicare and Medicaid Services (CMS) launched the Medicare Shared Savings Program (MSSP) in 2012. Given their relative youth, there is limited evidence available that these types of payment

arrangements do or do not lead to under-service or patient selection. However, the rapid growth in these programs' popularity and the potential for adverse responses to financial incentives has motivated Connecticut to proactively evaluate how these programs can be designed and monitored to ensure that all populations benefit.

Equity and Access Council

The SIM PMO formed the Equity and Access Council (EAC) to help ensure that as SIM reforms are implemented, at-risk and underserved populations benefit from, and are not harmed by, reforms. The EAC explored how the incentives inherent in shared savings payment design features can be structured, how they might impact an ACO's or a provider's behavior, and the extent and nature of the risk of under-service and patient selection. It also explored what supplemental safeguards might be layered on top of a program's internal structure to further minimize the risks of under-service and patient selection.

The EAC issued recommendations related to patient attribution; cost target calculation; payment calculation and distribution; rules, monitoring, and accountability; and communication. Its recommendations are intended to inform the actions of policymakers as well as those who purchase, provide, insure, administer, and utilize healthcare in Connecticut. For a list of the EAC's recommendations and further information on context and process, please see the Final Report of the Equity and Access Council on Safeguarding Against Under-Service and Patient Selection in the Context of Shared Savings Payment Arrangements.

PCMH+ and Under-service Monitoring

DSS has implemented a multi- pronged framework to prevent, identify and remedy under-service, consisting of five strategies. The design of these strategies took into consideration and incorporated various elements of beneficiary protections that were recommended by the SIM Equity and Access Task Force. The prongs include:

- Preventative and Access to Care Measures – 22 of the proposed PCMH+ quality measures track preventative care rates and monitor appropriate clinical care for specific health conditions
- Member Surveys – use of the CAHPS Person-Centered Medical Home survey and consideration of the use of the CAHPS Cultural Competency Supplemental Item Set
- Member Education and Grievance Process – specific, affirmative education for members on PCMH+ as well as their grievance and appeal rights
- Secret Shopper – expansion of the Department's current secret shopper approach to gauge access to care as well as experience in seeking care
- Elements of Shared Savings Model Design – various elements of the shared savings model for PCMH+ (use of a savings cap, decision not to include a minimum savings rate, upside-only approach, high cost claims truncation, and concurrent risk adjustment claims methodology) were selected with a lens toward protecting beneficiary rights

See this link for more detail:

http://www.ct.gov/dss/lib/dss/pdfs/ratesetting/pcmhplus/pcmhplus_underserviceutilizationstrategy_finaldraft_10_6_2016.pdf

All payers have previously committed to the principle that providers be disqualified from receiving shared savings if they demonstrate repeated or systematic failure to offer medically necessary services, whether or not there is evidence of intentionality. Additionally, the state will leverage the dispute resolution role of its Office of the Healthcare Advocate to adjudicate consumer complaints of suspected under-service.

E. Sustainability Plan

Office of Health Strategy

A new Office of Health Strategy (OHS) was established in recent legislation to bring Connecticut's healthcare reform work under one umbrella, to better align planning efforts, avoid duplication of work, and streamline efforts to improve healthcare access and reduce costs over the long term. The Office of Health Strategy executive director will report directly to the Governor. This structural governance shift will support sustainability and innovation of healthcare payment and care delivery reforms.

The OHS will ensure that the State moves forward with a clear and cohesive long-term vision for healthcare reform efforts. The office was developed out of the Healthcare Cabinet's cost-containment study. It requires no new funds or additional resources; instead it will be created through a consolidation and reallocation of staff from existing programs. OHS would house Connecticut's major health reform and planning initiatives including the State Innovation Model Program Management Office, the Health Information Technology Office, the All-Payer Claims Database, and the Office of Healthcare Access.

Continued Movement to Alternative Payment Models and Care Delivery Reforms

Payers in the state are demonstrating their commitment to meaningful payment reform and care delivery supports. It is anticipated that payers will continue to offer participating providers resources and tools to support their successful transformation to a proactive and coordinated care model in a way that augments any resources or tools provided on an all-payer basis after the SIM test grant implementation. SIM investments have also enabled the DSS Medicaid program to launch the PCMH+ value based payment program. The department can now build on this experience in their future models.

This movement to APMs creates lasting opportunities for healthcare providers to make investments in care delivery transformation and clinical-community linkages beyond the SIM grant. For example, we are witnessing that payment reforms are creating a new market for community-based services. While SIM is proposing initial financial support for accountable healthcare organizations to enable them to pay for CBO services, the expectation is that they will continue to fund these services because it helps them to succeed in value-based payment models.

Despite this positive movement, providers in the state are still finding it difficult to fully move away from a fee-for-service model and truly transition to team-based, patient-centered care. The sort of care delivery that is envisioned in CCIP, our CHW work stream, and our population health efforts is only possible with more evolved payment reforms. Payment reforms must provide healthcare organizations the means to invest in analytic, work force, and work flow changes. They must also redirect more healthcare spending to the primary care setting and allow primary care teams the flexibility they need to hire non-traditional health workers like CHWs and focus more on out-of-the-office interventions. They must align all the

payers around a unified approach to care delivery and quality measurement to focus provider efforts. Lastly, they must go beyond the traditional healthcare system and provide the incentives needed to activate the employer, social, and public health sectors in communities. Connecticut is eager to continue on the path of health transformation to get to these goals.

Engaged Stakeholders

CT's SIM has deeply engaged consumer, provider, payer, other state agencies, and employer communities. This is critical to sustainability, since many of the SIM reforms count on these stakeholders to sustain and implement these transformations in an ongoing way. These stakeholders participate on the SIM and other state councils and these forums will continue to provide formal mechanisms for them to remain actively engaged in care delivery and payment reforms beyond the SIM grant.

Engaging payers is necessary to ensure viability and sustainability of the payment reforms and the SIM Population Health Plan. New reimbursement innovations will depend in part on health plans' willingness to, for example, link reimbursement innovations with evidence-based policies and strategies to address social determinants of health and health equity (e.g., reimbursement for healthy homes assessments and community health workers). Payer engagement may play a role in ensuring sustainability financing of the PSI and potentially HECs.

Engaging providers so that they are knowledgeable and confident about reforms will spur their active commitment to and involvement over the long term. Over the course of the SIM grant, a substantial portion of the state's primary care community is projected to participate in PCMH+ and its associated components, as well as be affected by the common performance scorecard, and statewide HIT initiatives. Active provider engagement in our planning and implementation efforts of primary care transformation through the AMH Program, CCIP, and workforce development will ensure that the unique needs of the provider workforce in our state are sustained.

Attempting to impact the larger population health issues necessarily involves the participation of the community and public health sectors. Our engagement of these sectors through our population health and clinical-community integration efforts will create the momentum needed for multi-sectoral collaboration to sustain.

Lasting Policy and Legislative Changes

Through the SIM grant, the State has made and will continue to make changes to policies and legislation that will impact the healthcare landscape in the state over the long term. For example, CHW legislation sets up for a framework to promote this workforce and establish a certification process, and HIT related legislation sets the groundwork for meaningful health information exchange and interoperability.

Focus on Data and Return on Investment

Our SIM initiatives depend heavily on data and evaluation to demonstrate the impact of reforms. In CCIP, the PSI, and PCMH+, we have established quality measure and cost tracking requirements so that providers can internally validate how care delivery reforms and clinical-community linkages impact their ability to succeed in value based payment models. We also offer subject matter experts and technical assistance to providers and their partners to effectively measure their interventions. For instance, CHW

TA experts will give guidance to ANs/FQHCs on implementing and evaluating the ROI of the CHWs they hire.

Additionally, our programs were developed with an eye towards proving ROI to increase chances of sustainability. For example, our Prevention Service Initiative focuses on evidence-based services with demonstrated effectiveness in order to increase the chances that they will produce a return on investment for accountable healthcare providers. Our Health Enhancement Community initiative approach will include developing a financial model so that the State can quantify the magnitude of the economic opportunity associated with health improvements that may be undertaken by HECs. Efforts like this provide tools and information needed for stakeholders like providers and the state to continue to test and invest in health improvement approaches.