

CONNECTICUT HEALTHCARE INNOVATION PLAN



Connecticut State Innovation Model (SIM)

Report of the Quality Council on

A Multi-Payer Quality Measure Set for Improving Connecticut's Healthcare Quality

FINAL REPORT

Approved by

**The Healthcare Innovation Steering Committee
on November 10, 2016**

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Acronyms

ACO	Accountable Care Organization	HIE	Health Information Exchange
ACOG	American College of Obstetricians and Gynecologists	HISC	Healthcare Innovation Steering Committee
AHCT	Access Health CT	HIT	Health Information Technology
AMH	Advanced Medical Home	HPA	Health Program Assistant
AN	Advanced Network	ICM	Intensive Care Management
APCD	All-Payers Claims Database	LC	Learning Collaborative
ASO	Administrative Services Organization	MAPOC	Medical Assistance Program Oversight Council
BRFSS	Behavioral Risk Factor Surveillance System	MQISSP	Medicaid Quality Improvement and Shared Savings Program
CAB	Consumer Advisory Board	MSSP	Medicare Shared Savings Program
CCIP	Clinical & Community Integration Program	NCQA	National Committee for Quality Assurance
CDC	Center for Disease Control and Prevention	NQF	National Quality Forum
CMC	Care Management Committee	OSC	Office of the State Comptroller
CMMI	Center for Medicare & Medicaid Innovations	PCMH	Patient Centered Medical Home
CMS	Centers for Medicare and Medicaid Services	PCP	Primary care provider
CORE	Center for Outcomes Research and Evaluation	PIP	Pre-implementation period (SIM grant)
DMHAS	Department of Mental Health and Addiction Services (CT)	PMO	Program Management Office (SIM)
DPH	Department of Public Health (CT)	PSC	Prevention Service Center
DSS	Department of Social Services	PTTF	Practice Transformation Task Force
EAC	Equity and Access Council	PY1-3	Performance year 1-3 (SIM grant)
EHR	Electronic Health Record	QC	Quality Council
FQHC	Federally Qualified Health Center	RFP	Request for Proposals
HEC	Health Enhancement Community	SIM	State Innovation Model
		SSP	Shared Savings Program
		TA	Technical Assistance
		VBID	Value-based Insurance Design
		VBP	Value-based payment

Executive Summary

Connecticut's State Healthcare Innovation Plan (SHIP), adopted in 2013, articulates a vision to transform healthcare in the State. Connecticut seeks to 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 healthcare; and improves affordability by reducing health care costs. In 2014 Connecticut received a \$45 million State Innovation Model (SIM) grant from the Centers of Medicare & Medicaid Innovation (CMMI) to implement its plan for achieving this vision.

Value-Based Payment: A Core Strategy

A core strategy Connecticut has adopted in pursuit of its vision 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. This shift, already underway in Connecticut and across the United States, is a response to the fact that healthcare in the U.S. is nearly twice as expensive as in any other country, but falls short on most measures of quality and access. Connecticut has also been lagging in healthcare performance, with respect to both quality and cost; performing more poorly than most other states on healthcare outcomes, such as readmission and measures of health equity, yet spending more per capita on healthcare than all but three states. These results are in large part a product of the way the U.S. has historically financed healthcare. Volume-based payment has stimulated the provision of more care, but not better care or more affordable care.

Value-based payment is intended to bring about changes in care delivery that yield better clinical outcomes, keep people healthier, and make healthcare more affordable. It seeks to align provider organizations' economic incentives with the outcomes they achieve for their patients and their communities.

SIM is seeking to build on the leadership of Connecticut's commercial health plans, Medicare, Medicaid and members of the provider community to support the continued transformation from volume-based to value-based reimbursement. It aims to promote **multi-payer alignment** around a common framework for value-based payment, based on the **Medicare Shared Savings Program (MSSP)**. MSSP was introduced in 2012 as a key component of CMS's reform initiatives to facilitate coordination, improve the quality of care, and reduce unnecessary costs for Medicare beneficiaries. The benefits of shared savings programs, and the Accountable Care Organizations (ACOs) that participate in them, are starting to be observed across the U.S. Connecticut is following a similar course with the Medicaid Quality Improvement and Shared Savings Program (MQISSP), which builds on the success of the Department of Social Services' PCMH program—the foundation for the MQISSP program design.

The Role of Quality Measurement

Quality measures play an essential role within shared savings programs and other value-based payment arrangements. Payers generally **use quality measures to establish expectations, evaluate performance, and reward attainment of value** – improvements in clinical quality and health outcomes and/or reductions in the total cost of care.

The advent of quality measurement is generally acknowledged as having improved healthcare and health outcomes in the U.S.¹² However, it is not without its challenges. A principal challenge derives from the fact that, as multiple payers increasingly use value-based contracts to pay provider organizations, the **number of quality measures** has grown exponentially. Implementation of disparate measures can create so much administrative and clinical complexity that it undermines providers' efforts to improve. This lack of alignment is particularly counterproductive when several measures that address the same clinical condition with small or minimal variations are developed and maintained by different organizations.

One way to address this challenge is by developing a **core set of quality measures** that payers may use as a reference when developing their quality measurement strategy and negotiating value-based payment contracts. In doing so, the PMO recognizes that pursuing a course of alignment is voluntary for all payers, public and private, and that a variety of considerations will determine to what extent commercial health plans and Medicaid elect to work toward alignment. Nonetheless, 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 Quality Council and the Measure Selection Process

To that end, the SIM Program Management Office (PMO) convened the Quality Council to recommend a uniform and aligned set of quality measures recommended for use by payers in Connecticut to assess and reward the quality of services delivered under value-based payment arrangements. The Quality Council's charter specifically sets the objective of proposing a **core set of quality measures** for use in the assessment of primary care, specialty, and hospital provider performance in the State of Connecticut.³

The selection of quality measures must reflect the needs of the population to which the measures will be applied. The Medicare SSP has already defined a set of 33 quality measures for Medicare beneficiaries that are tuned to the health needs and conditions of individuals over 65 years of age. Medicare's measure set is the product of extensive research and public input and thus represents the standard of quality measurement for older adults. Recognizing this, the Quality Council focused its efforts on the commercial and Medicaid populations, particularly children and adults under age 65 years of age.

The Quality Council established a collaborative process to incorporate the views of four major stakeholder groups in Connecticut: consumers, payers, providers, and government agencies. The Council convened during the fourth quarter of 2014 and thereafter generally met at least monthly. It began by framing the work and developing a common understanding of the topic to inform its work. The Council devised a set of Guiding Principles to guide its work and evaluate quality measures. One of the key principles throughout the Quality Council's work has been alignment with existing quality promotion activities in Connecticut and across the U.S. The Quality Council built on existing work with sufficient flexibility to align stakeholders.

¹ [Nielsen, M. et al, \(February 2016\). The Patient-Centered Medical Home's Impact on Cost and Quality. *Patient-Centered Primary Care Collaborative*](#)

² [Health Affairs \(May 2016\). *Envisioning The Future Of Value Based Payment*](#)

³ The Quality Council's charter is presented in Appendix A.

To harness the expertise of its members, the Quality Council created three breakout groups and five design groups. The breakout groups were organized around three of the stakeholder groups: providers, payers, and consumer advocates. Government officials self-selected into whichever breakout group most aligned with their professional affiliation or state agency’s role.

The design groups focused on particular dimensions of the quality measure development process, as follows:

- **Care Experience**
- **Behavioral Health**
- **Pediatrics**
- **Obstetrics**
- **Health Equity**

The Quality Council surveyed several sources for potential measures to include in its measure set. In accordance with its guiding principles, the Council first looked at the MSSP measures and at quality measures that were already used in commercial contracts in Connecticut. The Council consulted with a variety of outside experts including national non-profit organizations such as the National Committee for Quality Assurance (NCQA), National Quality Forum (NQF), and Center for Outcomes Research and Evaluation (CORE) at Yale University. The Council ultimately considered over 100 measures for incorporation into the measure set.

The Council reviewed measures using a three level process, to narrow the list to approximately 60 measures. The Council then embarked on a process to prioritize and tier the measures. This led to the development of three categories of measures: (1) a core measure set that is recommended for value-based payment; (2) a set of measures that reflect areas of clinical importance, but which require significant development before they can be recommended for payment; and (3) a set recommended for reporting only. In its review the Council considered the Department of Public Health’s population health priorities as reflected in their [Live Healthy Connecticut](#) coordinated chronic disease prevention and health promotion plan, the [State Health Improvement Plan](#) and the [State Health Assessment](#).

On July 5, 2016, the SIM PMO released the draft report and recommended measures for public comment. Several adjustments were made to this report and the recommended measures based on these comments. We invite you to review the complete [compendium of comments and the PMO’s response](#).

Recommended Measures

Core Measure Set

The core measure set includes 29 measures recommended for the commercial/Medicaid population and two additional measures recommended for Medicaid only.

#	Provisional Core Measure Set	NQF	ACO	Steward	Source*	Equity	MQISSP
Consumer Engagement							
1	PCMH – CAHPS measure	0005		NCQA		✓	✓
Care Coordination							
2	Plan all-cause readmission	1768		NCQA	Claims	✓	
3	Annual monitoring for persistent medications (roll-up)	2371		NCQA	Claims		
Prevention							
4	Breast cancer screening	2372	20	NCQA	Claims		

5	Cervical cancer screening	0032		NCQA	Claims		
6	Chlamydia screening in women	0033		NCQA	Claims		
7	Colorectal cancer screening	0034	19	NCQA	EHR	✓	
8	Adolescent female immunizations HPV	1959		NCQA	Claims		
9	Weight assessment and counseling for nutrition and physical activity for children/adolescents	0024		NCQA	EHR		
10	Preventative care and screening: BMI screening and follow up	0421	16	CMMC	EHR		
11	Developmental screening in the first three years of life	1448		OHSU	EHR		✓
12	Well-child visits in the first 15 months of life	1392		NCQA	Claims		✓
13	Adolescent well-care visits			NCQA	Claims		✓
14	Tobacco use screening and cessation intervention	0028	17	AMA/PCPI	EHR		
15	Prenatal Care & postpartum care	1517		NCQA	EHR		✓
16	Screening for clinical depression and follow-up plan	418	18	CMS	EHR	✓	
17	Behavioral health screening (pediatric, Medicaid only, custom measure)			Custom	Claims		✓
Acute & Chronic Care							
18	Medication management for people w/ asthma	1799		NCQA	Claims	✓	✓
19	DM: Hemoglobin A1c poor control (>9%)	0059	27	NCQA	EHR	✓	
20	DM: HbA1c Testing**	0057		NCQA	Claims		✓
21	DM: Diabetes eye exam	0055	41	NCQA	EHR		
22	DM: Diabetes: medical attention for nephropathy	0062		NCQA	Claims		
23	HTN: Controlling high blood pressure	0018	28	NCQA	EHR	✓	
24	Use of imaging studies for low back pain	0052		NCQA	Claims		
25	Avoidance of antibiotic treatment in adults with acute bronchitis	0058		NCQA	Claims		✓
26	Appr. treatment for children with upper respiratory infection	0069		NCQA	Claims		
Behavioral Health							
27	Follow-up care for children prescribed ADHD medication	0108		NCQA	Claims		
28	Metabolic monitoring for children and adolescents on antipsychotics (pediatric, Medicaid only)	2800		NCQA	Claims		✓
29	Depression remission at 12 months	0710	40	MNCM	EHR		
30	Depression remission at 12 months – progress towards remission	1885		MNCM	EHR		
31	Child & Adlscnt MDD: Suicide risk assessment	1365		AMA/PCPI	EHR		

*Council recommendation regarding measures that require EHR or other data for production

**Continued need for this measure will be re-evaluated after NQF 59 is in production

Detailed information about the recommended measures that are NQF endorsed can be obtained at http://www.qualityforum.org/Measures_Reports_Tools.aspx.

The recommended instrument for measuring care experience is the Patient-Centered Medical Home (PCMH) Consumer Assessment of Healthcare Providers and Systems (CAHPS). Additional questions will be added to assess behavioral health access and coordination. The final survey will be comprised of approximately 35 to 45 questions that will be grouped into four to seven measures pending finalization by the measure developer.

A number of measures have been designated as high priority for race/ethnic stratification. The Council recommended that health equity stratified measures or gap measures be included in value-based payment scorecards and that health equity gap reductions be a factor in calculating payment rewards. However, recognizing the lack of validated methods for health equity measurement and reporting, the Council recommended that the SIM PMO seek funding to support measure development and validation before such measures are adopted for payment purposes. The Council’s health equity design group also recommended that the Department of Social Services (DSS) consider measuring the gap between Medicaid care experience and a commercial benchmark and using shared savings to reward reductions in this gap.

Development Set

The development set is comprised of 16 measures that are of clinical importance and under consideration for the core measure set, but which require significant development work or modification.

#	Development Set	NQF	ACO	Steward	Source
Care Coordination					
1	ASC admissions: chronic obstructive pulmonary disease (COPD) or asthma in older adults	0275	9	AHRQ	Claims
2	ASC: heart failure (HF)	0277	10	AHRQ	Claims
3	All-cause unplanned admission for MCC		38	CMS	Claims
4	All-cause unplanned admissions for patients with heart failure		37	CMS	Claims
5	All-cause unplanned admissions for patients with DM		36	CMS	Claims
6	Asthma in younger adults admission rate	0283		AHRQ	Claims
7	Preventable hospitalization composite (NCQA)/Ambulatory Care Sensitive Condition composite (AHRQ)			NCQA/AHRQ	Claims
8	Asthma admission rate (child)	0728			Claims
9	Pediatric ambulatory care sensitive condition admission composite			Anthem	Claims
10	ED Use (observed to expected) – New			NCQA	Claims
11	Annual % asthma patients (2-20) with 1 or more asthma-related ED visits				Claims
Prevention					
12	Oral health: Primary caries prevention	1419		None	Claims
Acute and Chronic Care					
13	Gap in HIV medical visits	2080		HRSA	EHR
14	HIV/AIDS: Screening for Chlamydia, Gonorrhea, and Syphilis	0409		NCQA	EHR
15	HIV viral load suppression	2082		HRSA	EHR

Behavioral Health					
16	Unhealthy alcohol use – screening			AMA/ PCPI	EHR

Most of the hospital admission measures appear to have base rate sufficiency challenges. These measures are a high priority for development. The ED use measures may lack appropriate risk standardization or a measure steward. The HIV measures have unresolved questions regarding base rate sufficiency, care setting, and data collection. The oral health: primary caries prevention measure has a need for additional testing and is expected to be adopted as a core measure at the Council’s first annual review.

Reporting Set

In the course of their review, the Council identified 11 measures that are recommended for performance monitoring, but not recommended for payment. The set is a product of the review of measures that were under consideration for payment rather than a comprehensive review of potential reporting measures. As such, this list may be supplemented in the future. These measures are recommended primarily for the public scorecard reporting that is being pursued by the SIM PMO, rather than for adoption in individual value-based payment contracts.

#	Reporting Only	NQF	ACO	Steward	Source	Equity
Coordination of Care						
1	30 day readmission			MMDLN	Claims	
2	% PCPs that meet Meaningful Use		11	CMS	EHR	
Prevention						
3	Non-recommended Cervical Cancer Screening in Adolescent Female			NCQA	Claims	
4	Well-child visits in the third, fourth, fifth and sixth years of life (Medicaid only)	1516		NCQA	Claims	
5	Frequency of Ongoing Prenatal Care (FPC)	1391		NCQA	EHR	
6	Oral Evaluation, Dental Services (Medicaid only)	2517		ADA	Claims	✓
Acute and Chronic Care						
7	Cardiac stress img: Testing in asymptomatic low risk patients	0672		ACC	EHR	
Behavioral Health						
8	Adult major depressive disorder (MDD): Coordination of care of patients with specific co-morbid conditions			APA	EHR	
9	Anti-Depressant Medication Management	0105		NCQA	Claims	
10	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	0004		NCQA	Claims	
11	Follow up after hospitalization for mental illness, 7 & 30 days			NCQA	Claims	

The Process of Multi-Payer Alignment

The State is encouraging 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.

The State encourages payers and providers to use the measure set as a reference when negotiating or re-negotiating value-based payment contracts. Quality measures that can be calculated using claims or other administrative data (referred to in this report as “claims-based measures” will be the initial focus of alignment along with state-administered measures of care experience. Quality measures that require the collection of data from electronic health records (EHRs) or registries (referred to in this report as EHR-based measures) will require additional lead time as payers do not currently have the means for efficient, automated collection of these measures. The Quality Council recommended to the SIM Health Information Technology Council that a technology solution be developed to support the production of these measures on behalf of all payers.⁴ The SIM PMO is working with the [State Health Information Technology Advisory Council](#) .

Quality measure alignment activities such as the Core Quality Measures Collaborative (CQMC), initiatives with quality measurement implications such as the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), and efforts to introduce new measures or improve existing measures will have implications for our alignment activities in Connecticut. Accordingly, the Quality Council intends to evaluate the core measure set annually.

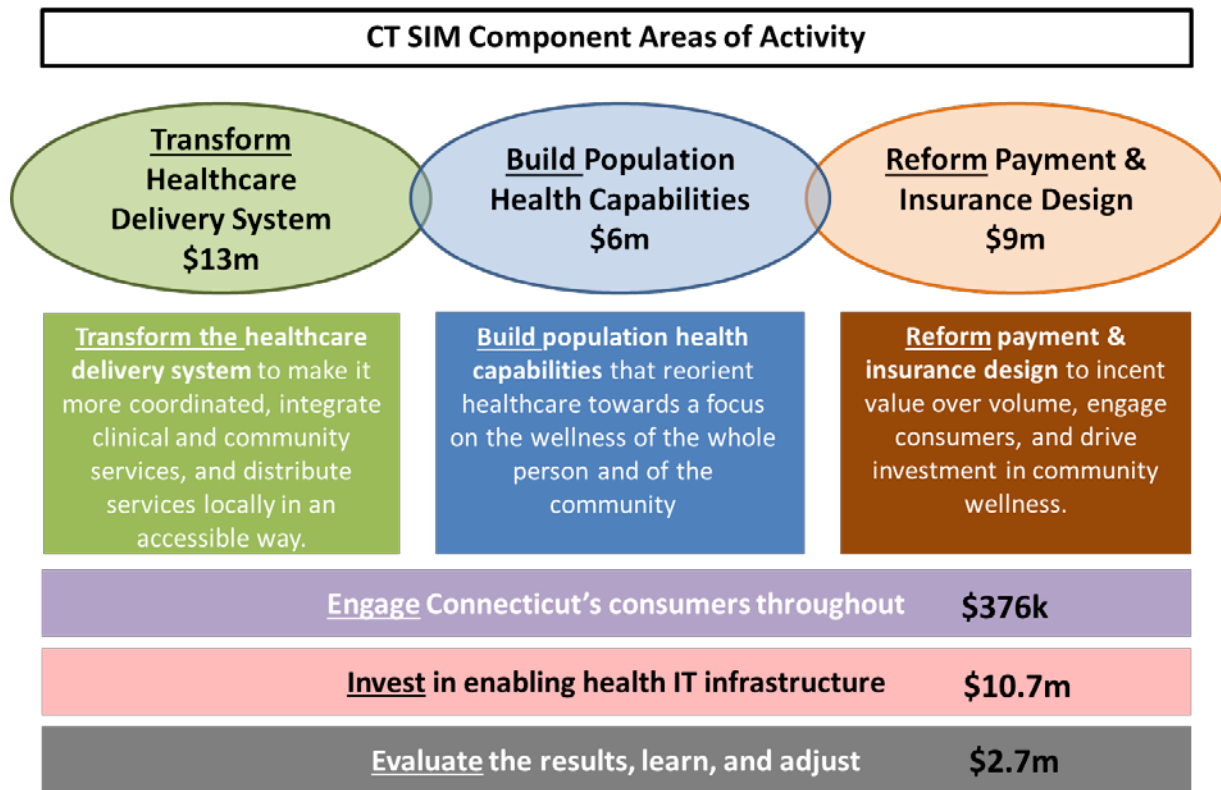
⁴ [http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/hit/2015-04-17/presentation - hit council - 4 17 15 - final.pdf](http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/hit/2015-04-17/presentation_-_hit_council_-_4_17_15_-_final.pdf), slides 12-14

I Introduction

Value-Based Reimbursement: Background and Role of Quality Measures

Connecticut’s State Healthcare Innovation Plan (SHIP) articulates a vision to transform healthcare in the State. Connecticut seeks to 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 healthcare; and improves affordability by reducing health care costs. In 2014 Connecticut received a \$45 million State Innovation Model (SIM) grant from the Centers of Medicare & Medicaid Innovation (CMMI) to implement its plan for achieving this vision.

A core strategy that Connecticut payers have adopted in pursuit of this vision is to **fundamentally change how they pay for health care**. Payment reform, in combination with insurance design reform, constitutes one of the three core areas of activity within the SIM program, as depicted below.



The type of payment reform envisioned by SIM follows the broader nationwide paradigm shift in healthcare financing, in which purchasers of healthcare are seeking to **shift from paying for volume (“fee for service”) to paying for value**. In this context, value is defined based on the relationship between the quality of care and the cost of care. Value-based payment rewards provision of care that is higher-quality and/or lower-cost.

The shift from volume-based payment to value-based payment is a response to the relatively poor results that historically prevalent volume-based payment models have yielded for American patients, consumers, and taxpayers. By most measures, the U.S. lags other developed nations on healthcare access, outcomes, and equity while spending substantially more on healthcare than any other country on a per capita basis and as a percent of gross domestic product.

The results in Connecticut are also lagging, especially with respect to quality and healthcare costs; Connecticut spends more per capita on healthcare than all but three states.⁵ These results are in large part a product of the way the U.S. has historically


financed healthcare.

Volume-based payment has stimulated the provision of more care, but not better care or more affordable care. It has led to a system of care delivery that is insufficiently coordinated, insufficiently oriented toward engaging patients and keeping them healthy, and insufficiently focused on providing the right care at the right time at the most affordable price. Moreover, insufficient funds have been directed to address the social, economic and environmental factors that often play a role in maintaining health or achieving favorable healthcare outcomes.⁶

Despite being a top spender, Connecticut is among the lowest performing states on key quality of care measures. For example, Connecticut ranks between 36th and 40th in the nation on unplanned re-admissions, avoidable use of the emergency department, and hospital admissions related to the care of chronic health conditions for individuals enrolled in Medicare.⁷

Another measure of quality of care is the extent to which the healthcare system reduces the known gaps in care among subpopulations and contributes to achieving similar health outcomes for all populations.⁸ This is commonly referred to as health equity. Connecticut performs poorly on a wide variety of

Exhibit ES-1. Overall Ranking

Country Rankings								
		AUS	CAN	GER	NETH	NZ	UK	US
1.00-2.33	2.34-4.66	3	6	4	1	5	2	7
4.67-7.00		4	7	5	2	1	3	6
OVERALL RANKING (2010)		3	6	4	1	5	2	7
Quality Care		4	7	5	2	1	3	6
Effective Care		2	7	6	3	5	1	4
Safe Care		6	5	3	1	4	2	7
Coordinated Care		4	5	7	2	1	3	6
Patient-Centered Care		2	5	3	6	1	7	4
Access		6.5	5	3	1	4	2	6.5
Cost-Related Problem		6	3.5	3.5	2	5	1	7
Timeliness of Care		6	7	2	1	3	4	5
Efficiency		2	6	5	3	4	1	7
Equity		4	5	3	1	6	2	7
Long, Healthy, Productive Lives		1	2	3	4	5	6	7
Health Expenditures/Capita, 2007		\$3,357	\$3,895	\$3,588	\$3,837*	\$2,454	\$2,992	\$7,290

Note: * Estimate. Expenditures shown in \$US PPP (purchasing power parity). Source: Calculated by The Commonwealth Fund based on 2007 International Health Policy Survey; 2008 International Health Policy Survey of Sicker Adults; 2009 International Health Policy Survey of Primary Care Physicians; Commonwealth Fund Commission on a High Performance Health System National Scorecard; and Organization for Economic Cooperation and Development, OECD Health Data, 2009 (Paris: OECD, Nov. 2009).

⁵ CMS (2011) Health Spending by State of Residence, 1991-2009.

http://www.cms.gov/mmrr/Downloads/MMRR2011_001_04_A03-.pdf

⁶ Bradley, E. H., & Taylor, L. A. (2013). *The American health care paradox: Why spending more is getting us less.*

⁷ D.C. Radley, D. McCarthy, J.A. Lippa, S.L. Hayes, and C. Schoen, [Results from a Scorecard on State Health System Performance, 2014](#), The Commonwealth Fund, April 2014.

⁸ Race/ethnic related inequities are well documented, however, health inequities may exist with many other subpopulations such as based on socio-economic status, disability status, or gender identify.

measures of health disparity. For example, Blacks in Connecticut are more than twice as likely to die of diabetes as the general population, and more than four times as likely to have lower extremity amputations.⁹ These statistics may reflect in part a failure of the healthcare system to provide effective care, but they also point to opportunities to improve health by addressing factors outside the traditional healthcare system, such as social determinants of health. The impact of such disparities is also reflected in excess costs on the healthcare system, for example, the cost of health disparities for the Black population in Connecticut is estimated between \$550 million and \$650 million a year.¹⁰

To start achieving better outcomes at a more affordable cost, the way care is delivered and used needs to change. In turn, **shifting from volume-based payment to value-based payment** is an essential catalyst to incent and sustain the requisite changes in care delivery.

Value-based payment is intended to bring about changes in care delivery that yield better clinical outcomes, keep people healthier, and make healthcare more affordable. It seeks to align provider organizations' economic incentives with the outcomes they achieve for their patients and their communities. This alignment, largely absent historically, will encourage providers, payers, and other healthcare stakeholders to coordinate across time and settings and engage patients as better partners in good health. So many adverse health outcomes currently experienced are caused by a lack of coordination and a failure to engage patients. Aligning payment incentives to promote coordinated care and care management has been shown to improve overall quality, strengthen provider skills in care management, promote engagement between providers and patients, optimize the efficient use of resources, and streamline delivery for an improved patient experience.

Value-Based Payment: *A form of payment for healthcare services that rewards providers for improving the quality of care they provide to patients and managing the cost. This differs from the more traditional fee-for-service payment method in which providers are paid based on the volume of services they render. The goal of value-based payments is to reduce unnecessary costs, improve the care experience, and improve health outcomes, by rewarding physicians, other healthcare professionals, and organizations for delivering value to patients.*

The shift to value-based payment and associated transformation of care delivery systems is well underway. Over the past several years, Connecticut's commercial payers, Medicaid and Medicare have partnered with providers to accelerate the adoption of these transformative payment models. For example, in 2012 the Department of Social Services introduced the successful Person-Centered Medical Home initiative for its Medicaid and CHIP programs. This pay-for-performance initiative has accelerated the advancement of primary care in Connecticut and has contributed to gains in quality performance and reductions in total cost of care. The Person-Centered Medical Home initiative will also serve as a platform for value-based payment in the form of the Medicaid Quality Improvement and Shared Saving Program (MQISSP). Similarly, commercial payers and Medicare have introduced value-based payment models that support the development of new provider capabilities to improve coordination of care and

⁹ http://www.ct.gov/dph/lib/dph/hems/chronic_dis/diabetes/ct_diabetes_stats_16apr2015_final.pdf

¹⁰LaVeist, Gaskin & Richard (2009). The Economic Burden of Health Inequalities in the US. The Joint Center for Political & Economic Studies.

reduce avoidable hospital and emergency department use while rewarding reductions in total cost of care.

At the federal level, the Department of Health and Human Services (HHS) is working in concert with stakeholders in the private, public, and non-profit sectors to transform the nation’s health system to emphasize value over volume. HHS has set a goal of tying 50 percent of Medicare fee-for-service payments to quality or value through alternative payment models by 2018. To support these efforts, HHS has launched the Health Care Payment Learning and Action Network¹¹ to help advance the work being done across sectors to increase the adoption of value-based payments and alternative payment models. This network recently released a White Paper¹² to create a clear and understandable alternative payment model framework, provide a deeper understanding of payment models, and to provide examples. In this report, they outline goals, as depicted below, to move public (Medicare and Medicaid) and private (commercial health plans) spending away from a fee-for-service model towards alternative and population based payment models.

Payment Model	Description
A. Pay for Performance	Umbrella term for models that tie a portion of provider reimbursement to performance on specific quality measures, typically on top of a FFS base. May be structured as a bonus or a withhold or penalty.
B. Shared Savings	Providers and payers share in the savings achieved on total healthcare expenditures if they achieve quality and cost targets for a defined patient population as a result of care being provided in a more efficient manner.
C. Bundled or Episode-based payment	A specified payment is established for a grouping of services, for which a provider takes responsibility for the costs of those services. Bundle can be established either for a discrete episode of acute care over a defined period of time, or for treatment of a chronic condition over a defined period of time.
D. Capitation	Provider groups receive prospective fixed payment and take responsibility for managing some or all healthcare services.
E. Management Payments	Additional payments are made (often a per member per month or per member per year) in order to compensate for non-billable services such as care management. Typically found in a “patient-centered medical home” arrangement. Less commonly, may be in the form of enhanced fees.
F. Infrastructure Grant	Additional funding received from the payor for general or specified infrastructural investments, often to support an agreed upon initiative(s)

One of the principal vehicles through which value-based payment is occurring is the accountable care organization (ACO)—an arrangement in which networks of providers agree to take responsibility for the

¹¹ <https://innovation.cms.gov/initiatives/Health-Care-Payment-Learning-and-Action-Network/>

¹² <https://hcp-lan.org/workproducts/apm-whitepaper.pdf>

quality and total cost of care for a given patient population. Approximately 838 ACOs have emerged as of January 2016¹³ with many reporting impressive results, including within Connecticut.

SIM is seeking to support this continued transformation from volume-based to value-based reimbursement by promoting **multi-payer alignment** around a common framework for value-based payment. The framework it has chosen is the Medicare Shared Savings Program (MSSP), which introduced the term ACO. MSSP was launched in 2012 as a key component of CMS’s reform initiatives to facilitate coordination, improve the quality of care, and reduce unnecessary costs for Medicare beneficiaries. Of those estimated 838 ACOs in the U.S., approximately half are participants in MSSP. The remainder participate in shared savings programs operated by commercial payers or Medicaid programs within their states. Many ACOs participate in multiple payers’ shared savings programs (Gordon D. , 2014; Muhlestein and Mclellan, 2016) since the key elements of success in an accountable care environment are similar across payers. The benefits of shared savings programs, and the ACOs that participate in them, are starting to be observed across the U.S.

Connecticut’s **SIM initiatives focus primarily on three payer populations: Medicare** beneficiaries, Medicaid beneficiaries, and members of **commercially insured or employer-funded** health plans¹⁴. Medicare beneficiaries in Connecticut have been substantially involved in value-based payment reform through the MSSP. For populations served by Medicaid, the next phase of payment transformation will be accomplished by implementing MQISSP. For the commercially insured population, while each payer will implement its own distinct value-based programs, all of Connecticut’s large commercial payers have endorsed broad alignment with MSSP, so the core design of all of the programs will be similar although inherent variations in design among individual commercial health plans and MQISSP will exist.

The introduction of **shared savings** programs to the market in Connecticut is already well underway. Approximately twenty organizations have shared savings contracts with Medicare and/or commercial payer(s). The MQISSP is being developed and implemented by the Department of Social Services (DSS), the single state Medicaid agency, under the guidance of the Care Management Committee of the Medical Assistance Program Oversight Council (MAPOC), in a manner consistent with the best interests of Medicaid enrollees and in accordance with the protocol between the PMO and DSS.

Shared Savings Program: *A form of a value based payment that incents networks of providers to manage healthcare spending and improve quality for a defined patient population by sharing with those organizations a portion of the net savings realized as a result of their efforts. Savings are typically calculated as the difference between actual and expected expenditures, and then shared between payer and providers. Shared savings programs typically require providers to meet defined targets with respect to quality metrics in order to qualify for shared savings.*

Accountable Care Organization (ACO): *A healthcare provider-led organization or network designed to manage the full continuum of care and be responsible for the overall costs and quality of care for a*

¹³ Leavitt Partners, as cited in “Growth And Dispersion Of Accountable Care Organizations In 2015,” Health Affairs Blog, April 16, 2016.

¹⁴ In this report the term “insurance” refers to products that provide health benefits for members. This includes employer-funded health plans that do not legally constitute insurance products.

defined population. ACOs exist in many forms, including large integrated delivery systems, physician–hospital organizations, primary care groups, multi–specialty practice groups, independent practice associations, and virtual interdependent networks of physician practices. In this report we use the term “ACO” to refer to provider networks or entities that enter into shared savings arrangement(s) with payer(s). In this use, the term is synonymous with the term “advanced networks” as employed elsewhere in SIM and may also refer to Federally Qualified Health Centers (FQHCs) in a shared savings program arrangement.

Quality measures play an essential role within value-based payment arrangements. Payers generally **use quality measures to establish expectations, evaluate performance, and reward attainment of value** – improvements in clinical quality and health outcomes and/or reductions in the total cost of care. Specifically, quality measures are often used:

- To define levels of performance for which ACOs or provider organization will earn incentive payments that supplement fee-for-service reimbursement
- To determine an ACO’s eligibility for payments tied to reducing the total cost of care (typically under a share savings program or similar arrangement)
- To provide useful performance data to providers and patients

Whether used to calculate incentive payments or to determine eligibility for payments that are calculated based on savings achieved, the process for measuring an ACO’s or provider organization’s quality follows a similar set of steps. Payers typically:

1. Define quality measures to be utilized
2. Define the patient population for which an ACO is responsible – typically by “attributing” patients to an ACO based on where patients obtained primary care during a given period of time¹⁵
3. Calculate an ACO’s performance on quality measures applicable to its attributed patient population for a defined period
4. Convert raw quality performance scores to “points” by assigning value to performance relative to a benchmark, grouping measures where applicable, and assigning relative weight
5. Use points to calculate payments for which ACOs are eligible

The advent of quality measurement is generally acknowledged as having improved healthcare and health outcomes in the U.S. The Agency for Healthcare Research and Quality (AHRQ) has found over time that healthcare is improving along many of the dimensions that have been measured to date. In fact, several measures have been retired, and others are retired each year, as overall quality performance reaches a defined target level.¹⁶

Quality Measure Alignment: Rationale and Concepts

Developing a core set of quality measures for use by payers in Connecticut is a key enabler of the shift to more comprehensive, person-centered, and accountable care. Whereas fee-for-service reimbursement

¹⁵http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/qc_report_patient_attribution_overview_11052015.pdf

¹⁶ AHRQ, National Healthcare Quality Report, 2013

is based on the provision of a service, value-based reimbursement is based in whole or part by meeting certain quality metrics, many of which indicate positive health outcomes or trends. In that sense, quality measures serve both as indications of good healthcare and as the basis for payment.

Utilizing measures to set thresholds for performance is a relatively straightforward concept that has been implemented across several industries. However, the complexity of healthcare’s regulatory environment, the rapidly evolving nature of the healthcare delivery market, and the challenge of defining quality in a uniform manner make the development and implementation of those measures more difficult for healthcare.

Moreover, the implementation of disparate measures devised by multiple sources for a variety of sub-populations can increase this complexity to the point of undermining the ultimate goals. As multiple payers increasingly use value-based contracts to pay provider organizations, the **number of quality measures** has grown beyond what providers can manage. NQF’s consolidated warehouse now includes hundreds of endorsed measures. A 2013 study of 48 measure sets found 1,367 measures in use, of which it determined 509 were truly distinct. Compounding matters, just 20% of measures were used by more than one program surveyed.¹⁷

This lack of alignment is particularly counterproductive when several measures that address the same clinical condition with small or minimal variations are developed and maintained by different organizations. Thirty eight percent (38%) of measure sets studied included measures that were truly innovative – more often than not, new measures address health concerns already found in established measure sets, rather than unaddressed health concerns.¹⁸

The end result of this lack of alignment is that if a provider participates in multiple value-based contracting programs (e.g., Medicare, Medicaid, and commercial health plans), they could be subject to more than a hundred different measures for reporting and reimbursement. This poses several challenges:

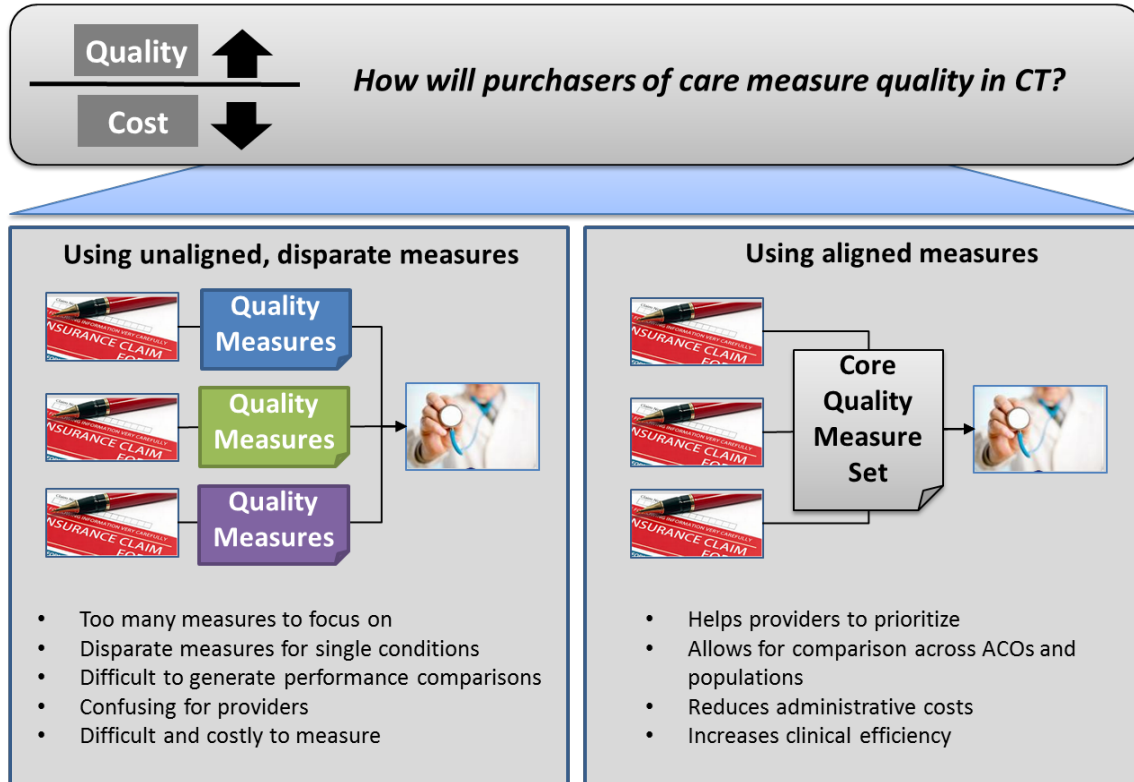
- Adhering to numerous, disparate quality requirements can lead to **administrative and clinical inefficiencies** that detract from patient care and add unnecessary costs to the system that are ultimately born by consumers and taxpayers. For example, Massachusetts General Hospital and Massachusetts General Physicians Organization report over 120 measures to different external entities at a reporting cost of over 1 percent of net patient service revenue.
- When providers are subject to an **excessive number of measures** or measures with multiple variations, in practice they often are forced to focus on just a subset of measures.
- The lack of a common measure set also makes it difficult to **compare provider performance** and health outcomes, and to identify best practices in care delivery and care management techniques.

These potential consequences of misalignment have led the State of Connecticut to **recommend a core set of quality measures for use in value-based contracts** to ensure a minimum baseline of quality healthcare delivery statewide, and to ensure that the adoption of value-based payment methods leads

¹⁷ Bailit Health Purchasing LLC, “The Significant Lack of Alignment Across State and Regional Health Measure Sets,” 2013

¹⁸ Ibid

to the desired improvements in care delivery, health outcomes, and affordability. **A core set of quality measures** can help streamline and ultimately reduce the administrative burdens of care delivery on provider organizations. This in turn allows providers to focus on improving the quality of outcomes and care experience for patients.

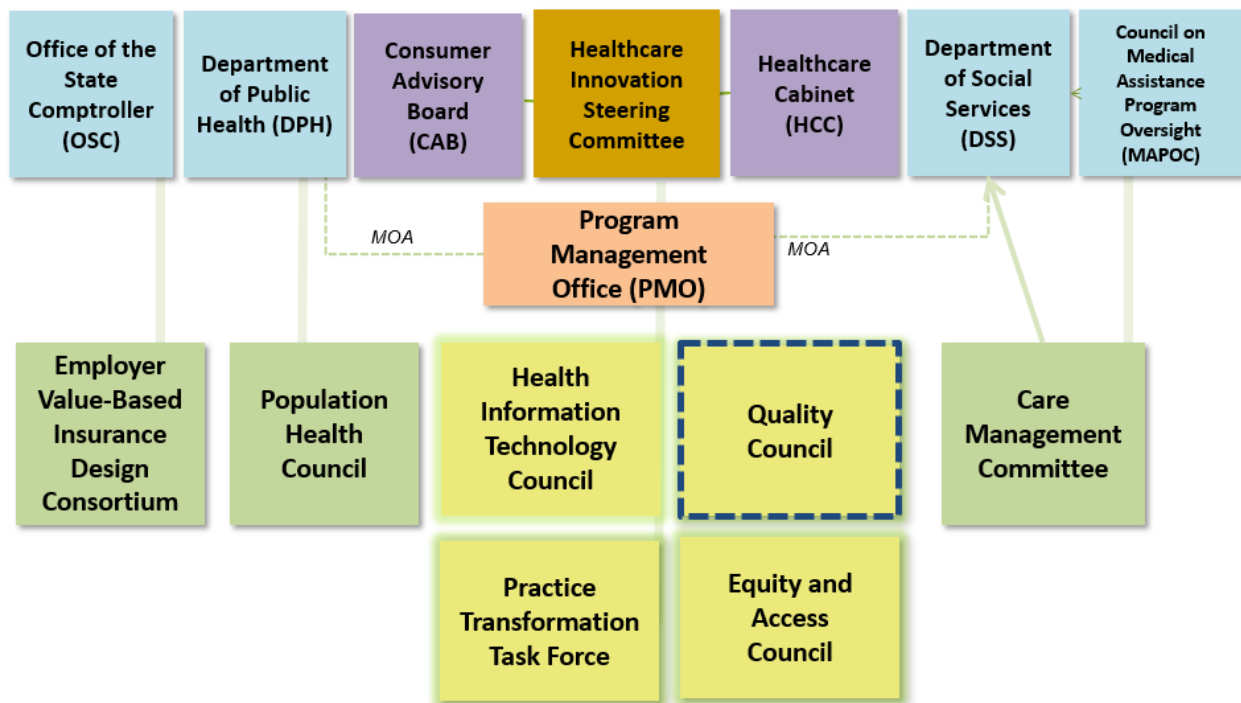


The SIM recommended core quality measure set will be finalized 2016 following a public comment period. Payers will be encouraged to work toward alignment over the next several years, recognizing that participation is voluntary. The PMO will initially focus on alignment around measures that can be produced by means of claims or other administrative data or by means of a survey. The Quality Council intends to update the core quality measure set annually.

II SIM Governance Structure

Oversight of Connecticut’s SIM initiative is provided by the Healthcare Innovation Steering Committee, which is chaired by Lieutenant Governor Nancy Wyman. The design and implementation of the SIM component initiatives is informed by a number of advisory groups that are supported by the SIM Program Management Office (PMO) or by our partner state agencies. In addition to the Quality Council, there have been work groups focusing on: Practice Transformation (PTTF), Equity and Access (EAC), and Health Information Technology (HIT). The Consumer Advisory Board is a key advisor to both the Healthcare Innovation Steering Committee and the SIM PMO, and is the lead entity providing recommendations on consumer engagement. All told, more than 160 stakeholders have participated in the SIM governance structure.

SIM Governance Structure



Although each of the four Councils/Taskforces has its own distinct charter and objectives to achieve the SIM vision, the outcomes of their work will impact one another in different ways. The PTTF is responsible for advising on the design of the SIM funded programs that enable care delivery reforms including the Advanced Medical Home (AMH) program and the Community and Clinical Integration Program (CCIP). The EAC recommended protections against under-service and patient selection. The Quality Council is charged with developing a uniform set of quality measures for use as part of value-based payment. The HIT Council was charged with developing HIT requirements and technology components in support of SIM goals, in accordance with the recommendations of the Council, the PTTF, and the EAC. This Council concluded its work in June 2016. Responsibility for advising the SIM PMO will transition to the State Health Information Technology Advisory Council under Public Act 16-77.

III The Quality Council’s Role and Composition

The PMO convened the Quality Council to propose a set of quality measures for use statewide by payers and providers to assess the quality of services delivered under value-based payment arrangements. The Quality Council’s charter sets the objective of proposing a **core set of quality measures** for use in the assessment of primary care, specialty, and hospital provider performance in the State of Connecticut.¹⁹ This report is limited to recommendations regarding a core measure set for primary care and particularly those providers that are subject to quality measurement under value-based payment arrangements.

The recommendations are further limited to measures for children and adults under age 65. The Council established this focus because these are the populations for which Medicaid and commercial payers are typically the primary payer. Moreover, it is for these populations that measure misalignment is particularly problematic. In contrast, most individuals over 65 years of age are covered by Medicare and the Medicare SSP has already established what has come to be regarded as a reference core measure set for this population.

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 that is caused by measures that are too numerous or misaligned.

The Council role in this process was to act as a collaborative vehicle to:

- Assess the current landscape nationwide and in Connecticut for the use of quality measures in value-based payment arrangements;
- Consider demonstrated public health needs in Connecticut;
- Analyze measure sets in use and their potential effectiveness in addressing demonstrated health needs;
- Analyze other potential measures for development that could address demonstrated health needs in Connecticut;
- Develop a core set of quality measures and a plan for alignment in Connecticut.

Quality Council Membership

This Council included members of four major stakeholder groups: consumers, payers, providers, and state agencies. Members included individuals with expertise in quality measurement, patient safety and healthcare delivery. The Council’s membership included individuals representing the following groups:²⁰

- Physicians
- Department of Social Services
- Consumer Advocates
- Health Plans²¹
- Department of Public Health
- Health Foundations

¹⁹ The Quality Council’s charter is presented in Appendix A.

²⁰ A list of the Quality Council members can be found in Appendix C.

²¹ Medicaid, Aetna, Anthem Blue Cross & Blue Shield, Cigna, ConnectiCare, and United Healthcare.

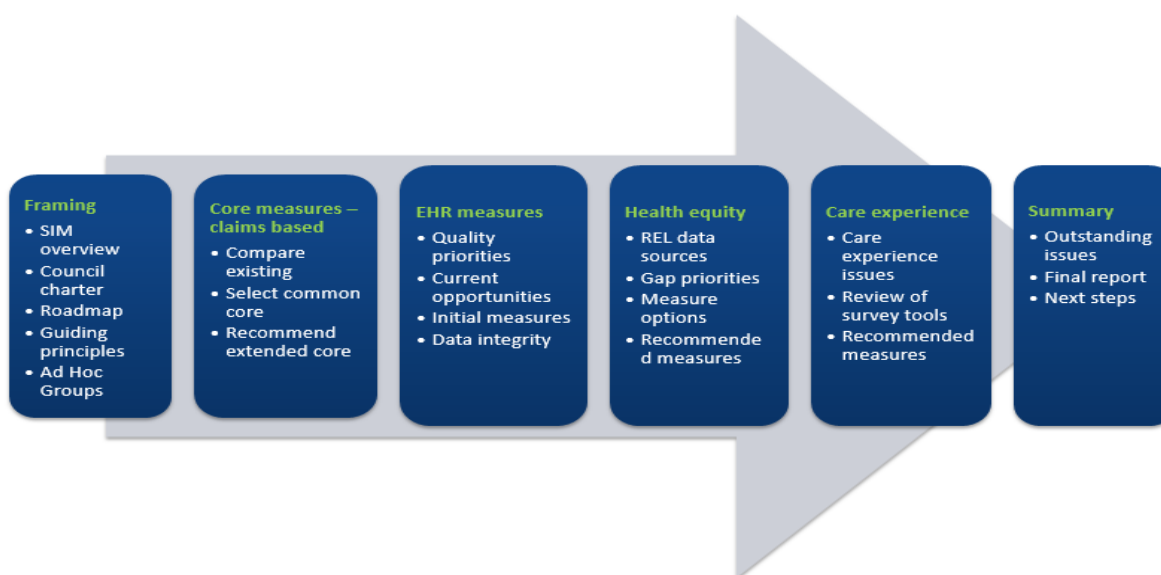
- Hospitals
- Specialists
- Nurses
- American College of Physicians
- Community Health Centers
- Office of the State Comptroller
- Department of Mental Health & Addiction Services
- Community Organizations
- Connecticut Hospital Association
- Medical groups
- Healthcare Advocacy Organizations

The Council began its work in September 2014 by outlining the Council’s charter and coming to consensus on the context and rationale for the work within the constructs of value-based insurance design. An **Executive Team** volunteered to serve as strategic advisors to the Council’s work and in particular to lead the Council’s membership to consensus. The Executive Team contains one representative from each of the major stakeholder groups (consumer organizations, health plans, providers, and Connecticut state agencies) to ensure an equitable voice in the direction of the Council’s work and to appropriately advise the PMO on materials and efficient meeting processes. (Executive Team members are identified in Appendix C.)

IV The Quality Council’s Approach to Quality Measure Development

The Quality Council set forth the following process to guide its work. While this work plan encompasses the range of activities undertaken, many of the activities occurred in parallel or as integrated processes. The work of the Council included member **education** to build a common understanding of the context for SIM, the use of quality measures to improve patient care and value, and the current use of quality measures in Connecticut and around the country.²² The Council heard presentations from the Department of Public Health (DPH) and the payers about population health challenges in Connecticut. The Council also heard presentations on various quality measure initiatives around the country to inform the implementation of standardized quality measures in the State. Finally, the Council heard presentations from providers participating in the Medicare SSP. These presentations focused on the challenges of implementing quality measures that require the extraction of data from EHRs or registries, which we refer to in this report as “EHR-based measures.” These challenges included the problem of consistent data capture and aggregation across multiple EHR systems.

Quality Council Measure Development Process



Development of Guiding Principles

One of the Council’s first activities was to develop **Guiding Principles** as a point of reference when considering measures for inclusion in the core measure set. In developing the Guiding Principles, the Council considered the value of using measures that are already in widespread use in Connecticut such

²² See http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-04-01/presentation_quality_vbp_04012015_final.pdf for a presentation to the Council on value-based payment and the role of quality scorecards

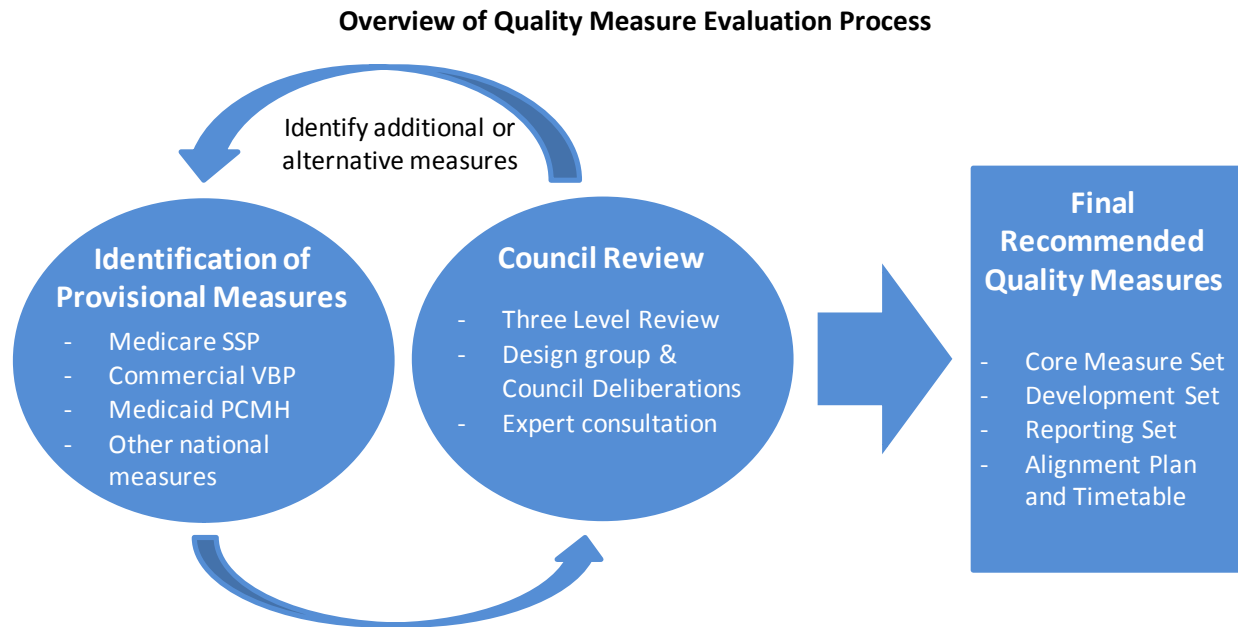
as those used by Medicare ACO program, which is recognized as a national standard in healthcare quality measurement. The use of existing measures with demonstrated value eases the implementation process for payers and providers. The Council also recognized the importance of adopting new measures appropriate to younger commercial and Medicaid populations, with special consideration of women’s health and behavioral health. They consulted with other sources and discussed a range of other considerations before settling on the following ten guiding principles:

1. Maximize alignment with the Medicare Shared Savings Program Accountable Care Organization (ACO) measure set.
2. Recommend additional measure elements that address the most significant health needs of Connecticut residents, the needs of non-Medicare populations (e.g., pediatrics, reproductive health), and areas of special emphasis such as behavioral health, health equity, patient safety, and care experience.
3. Wherever possible, draw from established measures such as those already established by the National Quality Forum (NQF) and those that comprise the Medicaid Adult and Child Health Care Quality Measures, the Physician Quality Reporting System, CMS Meaningful Use Clinical Quality Measures, National Committee on Quality Assurance (NCQA) measures, and the CMMI Core Measure Set.
4. Balance comprehensiveness and breadth with the need to prioritize and focus for the purpose of enabling effective and continuous quality improvement.
5. Promote measures and methods with the aim of maximizing impact, accuracy, validity, fairness and data integrity.
6. Promote credibility and transparency in order to maximize patient, employer, payer, and provider engagement.
7. Assess the impact of race, ethnicity, language, economic status, and other important demographic and cultural characteristics important to health equity. Leverage the output of this analysis to identify potential reportable metrics for inclusion in the scorecard.
8. Recommend measures that are accessible with minimal burden to the clinical mission; should draw upon established data acquisition and analysis systems; should be both efficient and practicable with respect to what is required of payers, providers, and consumers; and should make use of improvements in data access and quality as technology evolves and become more refined and varied over time.
9. Maximize the use of clinical outcome measures and patient reported outcomes, over process measures, and measure quality at the level of the organization.
10. Use measurement to promote the concept of the Rapidly Learning Health System.

Compiling Potential Quality Measures

The Council was tasked with compiling prospective measures, developing criteria against which to compare the measures, and then iteratively reviewing and refining the measure list until a provisional

set of core measures could be proposed to SIM governance and to the public for comment. This process is illustrated in the diagram below.



The Council began by compiling measures established under the **Medicare SSP program** because it is the nation’s largest value-based payment program and uses a single nationwide set of quality measures. The Medicare SSP measure set is among the more advanced, in as much as it includes clinical measures that rely on self-reported data obtained from EHRs. It has also been developed with an exceptionally robust national public comment process. As there is little or no opportunity to alter the quality measures that Medicare uses, aligning with the Medicare SSP also reduces the burden on providers who intend to participate in commercial or Medicaid value-based payment arrangements in Connecticut.²³

The Council then solicited the measures in use by each of Connecticut’s **five largest commercial payers** in their value-based payment programs.²⁴ These payers have been actively engaged in value-based payment with providers across Connecticut, many of which are also participants in the Medicare SSP.

Finally, the Council identified the quality measures in use by the **Department of Social Services** for its Patient Centered Medical Home (PCMH) Program. The PCMH program is a pay-for-performance program that was initiative in 2012 to improve services for Medicaid and CHIP beneficiaries.

Through this process, the Council compiled a list of over 100 quality measures for review. The measures were compiled into a measure comparison table.²⁵ The table was supplemented with information from

²³ The ACO measures for 2012 and 2015 can be found at: http://healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2014-11-19/mssp_qm_benchmarks.pdf and <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharedsavingsprogram/Downloads/ACO-NarrativeMeasures-Specs.pdf>

²⁴ A list of the quality measures in use by Connecticut’s Medicaid program can be found at https://www.cga.ct.gov/med/committees/med1/2015/0930/20150930ATTACH_MQISSP%20Quality%20Measure%20Rankings%202015%2009%2030.pdf

the Department of Public Health regarding the importance of each measure with respect to public health and health equity. Sources included the [Live Healthy Connecticut](#) coordinated chronic disease prevention and health promotion plan, the [State Health Improvement Plan](#) and the [State Health Assessment](#). Connecticut performance information was also provided where available from the Agency for Healthcare Research and Quality state benchmark database.²⁶ This table was the primary tool for facilitating Council review and recording the results of the review including issues for follow-up. The Council assessed perceived gaps between the measure sets and the strategic priorities of the Council.

The Council organized the measure by **domains**, using those established by the Medicare SSP program to categorize potential quality measures. Additional domains were added in the areas of “Behavioral Health” and “Obstetrics:”

- Patient/Caregiver Experience;
- Care Coordination/Patient Safety;
- Preventative Health;
- Acute & Chronic Care;
- Behavioral Health; and
- Obstetrics.

Over the course of the measure review process, it became apparent that measures for certain patient populations or conditions were not well represented. It was also determined that existing measures were inadequate for some conditions, such as behavioral health. The Council considered **other measure sets** including the Physician Quality Reporting System (PQRS), the Medicaid Adult and Child Health Care Quality Measures (CHIPRA), and the electronic Clinical Quality Measures (eCQM) developed by the federal government to support Meaningful Use reporting. The Council also reviewed measures that were implemented in other SIM states including Oregon, Vermont, Delaware and Maine. Because of the socio-economic, demographic, and health status differences between Connecticut and these states, measures implemented in those states did not necessarily fit with Connecticut’s priorities, but served as points of reference. Finally, the Council analyzed measures that are stewarded by national medical and accreditation organizations such as the National Committee for Quality Assurance (NCQA), the American Medical Association (AMA), and the American College of Cardiology (ACC) among others.

Stakeholder Sub-Groups

Break-out groups

The Quality Council organized the first phase of its measure review by forming three stakeholder **“break-out groups.”** The break-out groups were established to facilitate in-depth review of the measures outside of the full Council meetings. These informal, small group discussions allowed members to build consensus within their respective stakeholder group members. It also provided the opportunity to gauge the level of consensus among stakeholders who play a similar role, but have different experiences and perspectives. Members had the opportunity to discuss measures in depth

²⁵http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/measure_comparison_table_november_2014.xlsx

²⁶http://nhqrnet.ahrq.gov/inhqrd/National/benchmark/summary/All_Measures/All_Topics

before the full Council meetings. Moreover, the Council had to reconcile the perspectives of only three groups rather than more than twenty members.

Break-out Group	Description
Consumer Advocates	Development of consumer principles for the prioritization of quality measures including: measures that promote superior patient access; measures that encourage more patient participation in healthcare decisions for an improved experience; and those that demonstrate whole-person centered healthcare, improved community health, and the elimination of health equities.
Providers	Consideration of concerns, priorities, and common issues that frequently surface for the provider community in quality measurement including: measure specification and coding issues; perceived clinical value and alignment with the latest evidence; fairness as a measure of provider performance; administrative burden; and technological challenges.
Health Plans / Payers	Development of shared experiences related to administering value-based contracts including: historical experience with measures in Connecticut; challenges of quality measures that require clinical data; programming and implementing measures; updating measures over time; and issues of statistical sufficiency.

State agency representatives participated in these break-out groups according to their roles (i.e., DSS and Office of the State Comptroller (OSC) representatives participated as payers) or professional expertise (DPH physician and chronic disease director participated as a physician). The consumer advocate break-out group developed a [list of principles](#) for quality measure development that served as a guide for prioritization of measures based on the consumer perspective.

Design Groups

As the Council began assessing measures, it identified strategic priorities for the SIM initiative that required in depth review and analysis. The Council convened **Design Groups** to develop recommendations for the Council for each of the identified priorities as follows:

- **Care Experience:** The care experience design group convened to consider options for the measurement of consumer experience.
- **Behavioral Health:** The behavioral health design group considered behavioral health quality measures appropriate for primary care.
- **Health Equity:** The health equity design group convened to identify those measures that should be race/ethnically stratified and for which health equity gap reduction should be incentivized.
- **Pediatrics:** The pediatric design group convened to consider pediatric measures that address quality and performance issues with respect to pediatric primary care in Connecticut.

- **Obstetrics:** Two Council members with expertise in OB/GYN convened to consider obstetrics quality measures appropriate for primary care.²⁷

Council members self-selected into Design Groups based on their background and interests. In most cases, groups were supplemented by external stakeholders with expertise in the subject matter, e.g., pediatricians representing the CT Chapter of the American Academy for Pediatrics and an expert from the Child Health and Development Institute.

Consultation from Outside Groups

The review process included **consultations with outside groups** with subject matter or quality measurement expertise. These groups included: (1) independent non-profit, research, and accreditation organizations with unique expertise in quality measure development and implementation; (2) other SIM states who undertook similar processes as part of their grant; and (3) state and federal government agencies with oversight over programs affected by the quality measure development.

Center for Medicare and Medicaid Innovation (CMMI)

CMMI provides technical assistance to SIM participating states to support the design and implementation of statewide reforms. The technical assistance involves a scan of information available from other SIM states, most of which are undertaking similar activities such as payment reform, care delivery reform and quality measure alignment. In this regard, CMMI has a unique perspective in terms of comparing Connecticut trends to others across the United States. In addition, CMMI has developed its own core measure set which served as an additional point of reference. The technical assistance sought from CMMI encompassed a range of topics such as the following:

- Preventable hospital admission measure information for Medicaid/commercial in value based payment contracts
- Information regarding use of ACO CAHPS instrument in other states for quality measurement alignment and quality measurement in Medicaid SSP arrangements
- Ranking systems/tools to prioritize measures for inclusion in common score cards
- Scorecard formats used by other states for value based payment or shared savings programs
- Discussion with two or three states (Maine or Massachusetts) that have undertaken similar alignment process, including issues such as use of Ambulatory Care Sensitive and readmission measures
- Call with Delaware related to design of common provider scorecard
- Review candidate measure list and provide feedback
- Summary of Massachusetts' quality measurement program (CHIA)
- Overview of potential approaches to measuring avoidable ED use
- Information regarding operationalization of measures on behalf of payers

²⁷ The Obstetrics recommendations can be found here: http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-02-18/obs_measure_recommendations_02182015_v2.pdf

- General background on approaches to developing benchmarks for provider performance
- Information re: other state’s approach to the development of a common measurement set

Independent Non-profit Organizations

There are a number of **independent non-profit organizations** in the United States that focus on healthcare quality. These organizations assist healthcare payers and providers with developing best operational practices that raise the standards for quality healthcare delivery including setting operational standards and advocating for policy change. Some of these organizations, such as NCQA, develop and maintain quality measures, owning the intellectual property for the measures, developing the evidence base in support of the measure, and advocating for their endorsement with both regulatory agencies and healthcare payers/providers. An organization that develops a measure in this way is referred to as the measure steward.

The Council engaged NCQA for consultative advice regarding measures they had stewarded for health plans, ACOs, and physicians, as well as new measures that they proposed during the review process. Similarly, the Council also engaged representatives from the Center for Outcomes Research and Evaluation (CORE) at Yale University which develops and maintains hospital admission and cardiology measures for the Medicare SSP. Yale CORE and NCQA provided advice regarding risk standardization, base rates, technical specifications, measure limitations, and the appropriateness of measures for the purpose of value-based payment with commercial and Medicaid populations. Other organizations, such as NQF, provided insight into the evidence-base for certain measures and their implementation in certain situations.

Background on key groups:

National Committee for Quality Assurance (NCQA): *NCQA is a private, non-profit 501(c)(3) organization in the United States that is widely recognized for its expertise promoting quality improvement processes within healthcare and elevating healthcare quality to the top of the national agenda. NCQA performs multiple functions, but two of which are especially relevant to the Quality Council; the organization acts as an accreditation organization, providing the highly-regarded NCQA “seal of approval” to high-performing organizations including for ACOs and health plans. NCQA also develops and maintains the Healthcare Effectiveness Data and Information Set (HEDIS), a widely used set of 81 performance measures across 5 domains used by over 90% of the health plans in the United States.*

National Quality Forum (NQF): *NQF is a non-profit, non-partisan, membership organization that convenes relevant stakeholders and establishes consensus standards on quality improvement and performance measurement. The NQF “endorsement” process is held in high esteem across healthcare stakeholders and is often considered a gold standard in terms of ensuring that measures and processes are evidence-based, valid, and effective. NQF works with a large number of reputable stakeholders to endorse various quality measures for value-based arrangements.*

Center for Outcomes Research and Evaluation (CORE): *CORE is an institute that is part of the Yale University's School of Medicine focusing on national healthcare outcomes research. CORE is currently participating in a variety of clinical research projects including comparison effectiveness research of various healthcare interventions, but it also is heavily involved in new quality measure development.*

Other expert consultation

In some situations, the Council sought counsel from individuals or groups with subject matter expertise related to selected conditions or measures. For example, the Council worked with Mary Boudreau of the Connecticut Oral Health Initiative and Joanna Douglass, BDS, DDS, UConn Health for guidance with respect to oral health measures. Similarly, the Council gathered a small group of independent experts in HIV care including: Dr. Michael Virata of Yale New Haven Hospital; Michael Ostapoff and Heidi Jenkins of Connecticut's Department of Public Health; and HIV/AIDS advocates Fernando Morales and Alice Ferguson to advise in the selection of HIV measures.

Other SIM States

The Council sought the assistance of **other SIM states**, including Vermont, Delaware, and Maine, which have already undertaken the process of developing and implementing quality measures as part of their health reforms. Vermont was helpful in explaining its rationale for choosing measures in the areas of care experience, readmissions, and emergency department admissions. Vermont also provided insights into implementation issues with EHRs and the challenges experienced by providers in abstracting information from quality measure reporting. Delaware provided background on the technical challenges with measures that require EHR data and their rationale for restricting their measure set primarily to measures that rely on claims data at this time. The team at Delaware also shared their early experience with introducing new level 2 claims coding requirements to capture clinically based measures that are ordinarily unavailable through traditional administrative claims data. Finally, they discussed how they are planning a multi-year alignment process.

While the experience of other states is helpful in providing insights into the implementation of quality measures, these consultations served primarily as a reference point for Council members. Variations in markets, regulations, and model design between Connecticut and those states limit the direct applicability of lessons in the State. Issues related to the implementation of these measures, especially around technical challenges with measures that require EHR or registry data are directly applicable to Connecticut.

Department of Social Services/Connecticut Medicaid

The Quality Council has been coordinating its work with the Department of Social Services (DSS) and the Care Management Committee (CMC) of the Medical Assistance Program Oversight Council (MAPOC), which advises DSS on the administration of the Connecticut Medicaid program. DSS conducted an assessment of quality measures with the CMC as part of its design work for the Medicaid Quality Improvement and Shared Savings Program (MQISSP). In early September, DSS presented recommended measures for consideration in the SIM core measure set.

The PMO and DSS have been following a protocol document, developed in consultation with the Care Management Committee of MAPOC, to guide communications between and joint work of that committee and of the SIM Quality and Equity & Access Councils. This document is available <https://www.cga.ct.gov/med/comm1.asp?sYear=2015>.

Three Level Review

The Council established a three level process to guide the review of each measure. Each level consisted of specific criteria for evaluating the measures under review. The criteria were adjusted at several points in the process, but were finalized as follows:

Level 1

- Is the measure part of the Medicare ACO SSP set?
- Does the measure address a significant population health concern based on prevalence?
- Does the measure address a health disparity concern?
- Is there another compelling reason that the measure should be used for SSP, e.g., the measure represents a known patient safety, quality, or resource efficiency/cost concern?

Action: Provisionally accept if one, two, or three of the above is true.

Level 2

- Is the measure appropriate for VBP for ACOs (e.g., eliminate measures recommended for individual clinicians, home health agencies, hospitals, etc.)?
- Is the measure easily tied to QI efforts at the level of the ACO?
- If the measures within a performance domain or sub-domain (e.g., diabetes care) are in excess of what is necessary to demonstrate improved performance, retain those measures which serve as the best indicators of improvement.
- De-duplication
 - Is the measure the same or similar to another measure (e.g., “hospital admissions for asthma among older adults” is subsumed within “hospital admissions for COPD or asthma among older adults”)

Action: Provisionally accept if one of the above is true.

Level 3

- Culling
 - Is the measure a process measure for which an available outcome measure would better serve?
 - Is there an opportunity for improvement or does the measure represent an area where the state is already performing well (consider for significant sub-populations if known)
 - Is there likely to be sufficient variation among provider organizations?
 - Does measure meet feasibility, usability, accuracy and reliability standards (e.g., can the measure be reliably produced with available or SIM proposed technology?, is the data sufficiently complete and accurate to be tied to payment?, will the measure be useful for quality improvement?, are base rates likely to be sufficient?)

- If the number of performance areas or measures (e.g., diabetes care, epilepsy care) is too high, such that organizational focus and improvement would be compromised, Council will rank and retain the highest ranked areas
- Check for conflicts with guiding principles
- Reconsider previously rejected measures if necessary

Action: Accept those that remain.

Level 1 and 2 Review

The Council applied Levels 1 and 2 simultaneously in their initial review. The recommendations of each break-out group were discussed and discussion focused on areas where break-out groups were not aligned in their recommendations. During this phase, the Council paid particular attention to each measure's **clinical appropriateness with regards to the specific public health need within Connecticut, including health equity**. A number of measures were eliminated because the evidence underlying the targeted clinical process was in question (e.g., LDL targets) or because of overlap with other measures (e.g., tobacco screening for diabetic patients vs tobacco screening for the general population). Some measures were eliminated because the measure had little opportunity for improvement (e.g., asthma medication management) or because they had been overtaken by a superior measure (e.g., medication reconciliation vs documentation of medication in the medical record). Other measures were eliminated because of new evidence that efforts to improve the measure could introduce unintended risks (e.g., diabetes A1c good control). Finally, in at least one case (prenatal and postpartum care, NQF 1517), a measure was restored despite mixed support in the interest of obtaining public comment on the appropriateness of this measure for ACO arrangements and the opportunity for improvement.

The Council completed most of the Level 1 and 2 review between December 2014 and March 2015, the results of which were documented in the measure comparison table.²⁸ A process update and partial, draft provisional measure set was presented to the Healthcare Innovation Steering Committee on March 12, 2015.²⁹ A number of open issues were discussed including the question of base rate sufficiency for hospital admission measures, which are intended to reflect the quality of ambulatory care and coordination for chronic conditions. At the time of the presentation, Medicaid, Anthem and ConnectiCare were in the process of examining their utilization data in order to respond to this concern.³⁰ In addition, the PMO determined that available data were insufficient to assess the opportunity for improvement as initially contemplated in the Level 1 and 2 review. The PMO began negotiating with NCQA to obtain access to Quality Compass, which would enable the Council to assess the opportunity for improvement for commercial and Medicaid populations for NCQA HEDIS measures. The assessment of base rates and opportunity for improvement were folded into the Level 3 process and the criteria were adjusted accordingly.

By the end of the Level 1 and 2 review, the Quality Council had eliminated more than 70 measures, commending approximately 60 measures for Level 3 review. Measures were eliminated for a variety of

²⁸http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/quality_measure_comparison_table_03042015.xlsx

²⁹ http://www.healthreform.ct.gov/ohri/lib/ohri/sim/steering_committee/2015-03-12/presentation_hisc_quality_update_03122015_final.pdf

³⁰ http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-02-18/base_rate_analyses_02172015.pdf

reasons including loss of NQF endorsement, replacement by an updated measure, insufficient base rates, technological barriers to data collection and reporting, limited relevance for the commercial and Medicaid populations, and limited clinical value. Some of measures were placed under consideration for specialists or for older adults. Other measures were considered important for reporting only or prioritized for further development.

Level 3 Review

In order to facilitate Level 3 review, the PMO proposed to use a measure selection tool, which was developed by the Robert Wood Johnson Foundation to facilitate quality measure alignment. The “Buying Value Tool” is designed to incorporate and allow the application of local decision-making criteria for quality measure selection. It also provides easy access to information regarding measure steward, measure descriptions, and the extent to which each measure is aligned with federal, state and commercial measure sets. It also calculates an overall alignment score for the measure set under consideration to help users compare and rank measures. This interactive spreadsheet allowed Council members to review a variety of important decision inputs for each measure, including federal measure sets primarily focused on ambulatory care, national hospital measure sets, and selected state measure sets.

In order to apply the Buying Value tool, the Council selected criteria from the Level 3 process to incorporate into the tool. The criteria were limited to those for which information was available and could be applied to most measures. These criteria included the following:

- Base rate sufficiency
- NQF endorsement
- Availability of an appropriate benchmark
- Opportunity for improvement
- Outcome vs process measure
- Health equity value

In addition, in accordance with the Guiding Principles, the Council used the Buying Value Tool to summarize information regarding the extent to which our provisional measures align with state and federal measure sets and the commercial measures already in use by Connecticut’s commercial payers and Medicaid.

The PMO entered the provisional measures into the Buying Value Tool and added information regarding Connecticut payers and the above criteria.³¹ The PMO then used the criteria to assign points to each measure.³² The opportunity for improvement scores were based on NCQA Quality Compass data and comprised four of the available fourteen points. Both commercial and Medicaid performance were a point of reference in assigning opportunity for improvement point values. The opportunity for improvement information was integrated into the Buying Value Tool and also provided as a separate

³¹Populated tool can be found at

http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/bvta_measure_selection_tool_10142015.xlsx

³² See [http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-07-](http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-07-15/level_3_criteria_app_to_bvt_07092015.pdf)

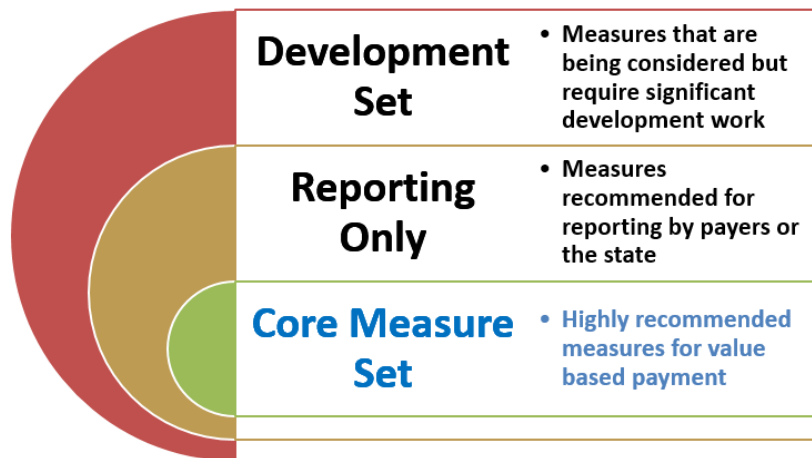
[15/level_3_criteria_app_to_bvt_07092015.pdf](http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-07-15/level_3_criteria_app_to_bvt_07092015.pdf) for the rules that the PMO followed in assigning points.

reference summary for Council members.³³ The assigned points resulted in a ranking that was used as a reference in Council review. The Council was provided with the complete tool as well as summary sheets for each of the measure domains.³⁴

The Council undertook one additional process to facilitate Level 3 review. The PMO undertook a survey to enable Council members to rate the measures. Members were asked to rank each measure based on its clinical importance and other Level 3 criteria, but to disregard the issue of feasibility, given that this is a known issue for all measures that require clinical data. Ranking categories included highly recommended, recommended, and not recommended for inclusion in the core measure set. Members were encouraged to use materials that had been prepared to inform their review, such as the summary information from the Buying Value Tool.

All of the above information informed the final Council discussions in which measures were recommended for the core measure set. During this process, Council members reconsidered alignment with the guiding principles, number of measures representing various domains and conditions, and relative importance. In some cases, the Council also reconsidered previously rejected measures.

The Council considered recommended elimination of measures or assignment to one of four categories. (1) a core measure set that is highly recommended for value-based payment; (2) a supplemental set of recommended measures for payers that wish to extend beyond the core set; (3) a set recommended for reporting only; and (3) a set of measures that remain under consideration because of their clinical importance, but which require significant development. After extensive discussion, the Council elected to retain only three of these categories as illustrated in the figure below:



Important Concepts in Measure Development:

Base Rates: Base rate sufficiency means that there are sufficient individuals or events in the numerator and denominator to provide a statistically valid representation of trends and performance

³³ http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-08-12/opportunity_for_improvement_data_08132015.pdf

³⁴ http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-10-21/qc_ranking_summary_4.pdf

improvements – or lack thereof – from period to period. Measures with insufficient base rates cannot accurately depict performance over time as changes in measured performance can be a result of chance rather than real improvement. Base rate sufficiency must exist in order for a measure to be a fair basis for assessing the performance of a network of providers.

Benchmarks: In quality measure implementation benchmarks serve the same purpose as they do in other situations, as a standard or point of reference against which provider performance is measured. There are several nuances between benchmarks in quality measure programs that distinguish them from one another (e.g. length of periods), but they all follow the same general path. Benchmarks for a given reporting and performance period are based on the prior period(s) by analyzing the quality data that was previously submitted. Following the creation of the benchmark relative to desired performance, the payer will then weight the measures and assign points for providers to reach certain thresholds relative to the benchmarks.

Opportunity for Improvement: Opportunity for improvement is an important consideration in quality measure implementation. There must be a gap in performance between what providers are achieving and what is achievable. There must also be sufficient variation among providers to distinguish levels of performance. For example, if all providers within a network are performing at 97% relative to the selected benchmarks, then there is little opportunity for improvement to statistically assess performance improvements. For the purposes of this process, the PMO gathered the performance of Connecticut (or regional data when Connecticut-specific data was not available) compared to national benchmarks. The following scale was used to judge: >90% was little or no opportunity for improvement; 75-89% was low opportunity for improvement; 50-74% was moderate opportunity for improvement; 25-49% was substantial opportunity for improvement; and <25% was very substantial opportunity for improvement.

Design Group Recommendations

Care experience

The Care Experience Design group began its work in the fall of 2014. The group held a series of meetings, several of which included Dr. Paul Cleary, the lead researcher for one of the teams that supports Consumer Assessment Healthcare Providers and Systems (CAHPS) development for Agency of Health Research and Quality (AHRQ). CAHPS’s represent the most widely used source of patient experience measures in the United States. There are no other patient experience surveys that the care experience design group was able to identify that have been thoroughly tested, are in widespread use, or that are an accepted standard in the field. This is in

	ACO CAHPS	PCMH CAHPS
Pros	<ul style="list-style-type: none"> • Medicare SSP aligned 	<ul style="list-style-type: none"> • National benchmark data is being developed by NCOA • Aligned with CT Medicaid • CMMI is seeking to use PCMH CAHPS across their innovation programs; working with senior research leadership to develop the most appropriate version etc.
Cons	<ul style="list-style-type: none"> • No national benchmark data for commercial and Medicaid populations 	<ul style="list-style-type: none"> • Not aligned w/Medicare • Focus on practice team rather than neighborhood team • Does not assess specialty access, shared decision making, health promotion

contrast with other instruments such as developmental or depression screening tools, where a number of standardized, evidence-based options exist.

The CAHPS is comprised of a family of measures that target different entities in healthcare such as hospitals, primary care practices, ACOs and health plans. The design group initially favored the ACO CAHPS, which has been used by the Medicare SSP to assess the performance of ACOs and physician quality reporting system (PQRS). However, the group later settled on the PCMH CAHPS, which is the Clinician/Group (CG-CAHPS 3.0) with additional questions specific to medical home capabilities. The PCMH CAHPS is intended to assess the performance of practices that are providing advanced primary care, such as person-centered medical homes. Before settling on this recommendation, the Council examined the advantages and disadvantages of each instrument.

As noted in the table, the PCMH CAHPS has several advantages including the availability of national benchmark information through NCQA for commercial and Medicaid populations. This is in contrast to the ACO CAHPS, whose benchmark is comprised entirely of Medicare beneficiaries over the age of 65 years. The PCMH CAHPS also has the advantage of having been used by DSS for its PCMH program. This means there are several years of historical performance data available for Connecticut Medicaid beneficiaries.

Many of our Council members reported significant problems with accessing behavioral health specialty care. These concerns were substantiated in a recent SIM funded survey of physicians conducted by the UConn Health Center for Public Health and Health Policy and Yale University. This survey found that 80% of physicians report behavioral health referrals as “very or somewhat challenging,” in contrast with 38% when referring for medical specialty care.³⁵ To address this concern, the design group recommended that the measure include questions related to access to behavioral health providers. Dr. Cleary proposed the addition of selected items from the ECHO, a survey specially designed to assess behavioral health care, however, these measures did not perform well on cognitive testing. Consequently, the PMO worked with Dr. Cleary to develop new behavioral health questions that examined various elements of behavioral health access. These measures tested well and will be included in the final measure. The design group further recommended that the state use survey administration methods that maximize the participation of vulnerable populations in the survey process.

Note that the PCMH-CAHPS is comprised of more than 35 questions, which yield performance measures corresponding to a small number of care experience domains. The addition of several new BH questions to the PCMH CAHPS does not invalidate the other measures that are derived from the core PCMH CAHPS question sets. That said, Yale does intend to examine the data obtained in the baseline survey in order to determine the suitability of each CAHPS component measure for use in value-based payment. For example, it may be that there is insufficient opportunity for improvement to warrant the inclusion of one of the CAHPS measures in a commercial value-based payment scorecard. The characteristics of the BH items will also be examined, prior to recommending their use in reporting. Of particular interest is determining whether base rate responses to these items are sufficient.

³⁵ http://www.healthreform.ct.gov/ohri/lib/ohri/sim/steering_committee/2015-04-09/report_physician_survey_feb_2015.pdf

The Quality Council accepted the recommendation that the core measure set include the PCMH CAHPS with additional measure to assess behavioral health access and methods that support the participation of vulnerable populations. The Quality Council and the PMO remain concerned about whether the PCMH CAHPS will align with the CAHPS used for other value-based payment arrangements nationally. CMS appears to have adopted the ACO CAHPS for the Merit-Based Incentive Payment System (MIPS). In addition, we have learned from officials at CMS and America’s Health Insurance Plans (AHIP) that the recommendations of the Core Quality Measures Collaborative may be for the ACO CAHPS, rather than the CG-CAHPS 3.0, which is referenced in their measure summary. The Quality Council sought comment on the choice of CAHPS measures and will continue to consider events at the national level.

Behavioral Health

The behavioral health design group has joint representation from the Quality Council, the Practice Transformation Task Force, and outside stakeholders representing behavioral health and primary care. The design group’s initial deliberations focused on standards of behavioral health practice and associated clinical processes that should be the focus of measurement.³⁶ The second phase of their work focused on a review of measures that were included in the measure comparison table. Due to the paucity of measures in this table, they supplemented the measures under review with behavioral health measures from PQRS and eQIM Meaningful Use. They compiled their recommendations in a table, which included measures recommended for reporting and for inclusion in the core measure set.³⁷ Their recommendations informed the Council in its Level 1 and 2 review.

Health equity

The Health Equity Design Group (HEDG), led by Elizabeth Kraus of the Connecticut Health Foundation, has supported design questions presented by both the Quality Council and the Practice Transformation Task Force. The design group includes national experts in health equity including Ignatius Bau, JD, Health Policy Consultant and Dora Hughes, MD, MPH – Senior Policy Advisor, Sidley Austin, LLP. The Health Equity Design Group focused its attention on the issue of race/ethnic disparities for this phase of the Council’s work, which will be a multiyear process. Members considered questions about addressing inequities based on language, disability, sexual orientation, and gender identity, but anticipated fundamental challenges with demographic data collection and small numbers within ACOs. The HEDG recommended that SIM continue to identify emerging practices in addressing disparities based on language, disability, sexual orientation, and gender identity as the availability of demographic data in EHRs improves.

Design group members ranked core measures in importance based on the extent to which they reflect important population health issues for which there is evidence of a significant race/ethnic disparity. In doing so, members noted that commercial payers lack complete and reliable information about the race and ethnicity of their members. Because providers are increasingly required to collect race/ethnic information as a requirement under meaningful use, the production of EHR-based measures appears to present the earliest opportunity for commercial payers to incorporate race/ethnicity stratified measures into their value-based payment contracts. In contract, race/ethnicity information is substantially more

³⁶ See http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-02-18/bhdg_primary_care_recommendations_final_01302015.pdf

³⁷ See http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-03-04/behavioral_health_measure_list_03022015_r.xlsx

complete for Medicaid and the state employee health plan. DSS and the Office of the State Comptroller have the opportunity to implement race/ethnicity stratified performance measures in the near term using measures that do not require clinical data.

In light of the above, the Health Equity Design Group elected to rank measures that require EHR data separately from those that can be calculated using claims data only. This will allow those payers with relatively complete and reliable member information regarding race/ethnicity to begin to measure and reward reductions in health equity gaps for claims based measures, while providing the state with direction as to where it should focus its attention in the production of race/ethnic stratified EHR-based measures.

The Health Equity Design Group prepared the results of its initial ranking and provided their recommendations to the Council for their consideration.³⁸ The design group subsequently resurveyed its members with respect to claims based measure priorities as most of their recommended claims-based measures from the initial survey were eliminated or moved from the provisional core set to the development set.

The Council considered the gap in care experience between commercial and more vulnerable populations and supported consideration of this as a fifth measure, pending consultation with Dr. Paul Cleary and DSS about the opportunity for over-sampling. Dr. Cleary noted that over-sampling for different race/ethnic groups in commercial would be challenging, because race/ethnicity is not available in member files, and is only known after completion of the survey. Oversampling based on census tract or such is possible but increases methodological complexity and cost. One alternative is to compare PCMH CAHPS for commercial and PCMH CAHPS for Medicaid, recognizing the gap would reflect impact of income more than race/ethnic disparity.

Pediatrics

Dr. Rob Zavoski, Medical Director for the Department of Social Services, chaired meetings of the pediatric design group, which was comprised of leadership and member of the Connecticut Chapter of the Academy of Pediatrics and a representative of the Child Health and Development Institute. The design group considered measures identified by the Council and additional measures that they felt were of clinical importance to pediatric practice. They compiled recommendations that were provided to the Council for consideration in the Level 1 and Level 2 review.³⁹ Nearly all of the design group's recommendations were accepted for the Level 3 review. At the conclusion of Level 3, well-visit measures for primary school age and adolescents were recommended for Medicaid only, because Connecticut's performance is strong in commercial relative to other states. Post-partum depression screening was not supported due to feasibility issues and overlap with depression screening for the general population.

³⁸ The full HEDG overview can be found here:

http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/hedg/hedg_report_june_2016.pdf. The prioritization and rationale for measures can be found in Appendix I.

³⁹http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/pdg/quality_pediatric_dg_recommendations_11172014.pdf

Obstetrics

The obstetrics design group, which was comprised of Dr. Mark DeFrancesco and Amy Gagliardi, met to review the originally identified measures. In their comments, they noted that OB/GYNs act as specialists and primary care providers. They acknowledged that whether OB/GYNs are considered primary care or specialists, there exists a level of interaction between OB/GYNs, PCPs and sub-specialists that allows for mutual influence. They also noted that the amount of interaction will vary based on type of practice and practice style of provider and that medical practice is changing, leading providers to be more inclusive. They cited national data that suggests perhaps up to 2/3 of women have established care with an OB/GYN provider and self-refer for pregnancy care. They also noted that national data suggests approximately 50% of OB/GYNs self-identify as primary care and that this trend might grow as more OB/GYNs recognize the need to go “beyond the Pap and pelvic.”

The design group recommended measures of prenatal and post-partum care timeliness, frequency of prenatal care, and one measure of surgery, cesarean section rate.⁴⁰ In their review, they noted that the trend is toward greater interaction between primary care and OB/GYN providers and that the inclusion of such measures will promote PCP and OB/GYN engagement to improve quality in these important areas. The Council remained divided on this point. One payer noted that the timeliness of prenatal care is not a performance issue at present, although post-partum care may be. The Council felt that these measures and the cesarean section rate may be more appropriate for specialty specific alternative payment models. In recognition of the importance of promoting quality care to pregnant women and infants, the Council recommended that the prenatal and postpartum care (NQF 1517) be included in the core measure set with a proviso—the Council recommended that we use the public comment period to solicit input on the appropriateness of this measure for an ACO-type payment model, explore the American Congress of Obstetricians and Gynecologists’ involvement in alternative payment models at the national level, and explore soliciting additional data from payers to support a final decision.

A couple of public comments were received related to this NQF 1517, one strongly in favor and one urging the Council to consider the outcome of a review of this measure by the NQF Perinatal and Reproductive Health Standing Committee. The Council learned in October that the Standing Committee did not reach a consensus on whether to endorse Prenatal and Postpartum Care (NQF 1517). The vote was roughly split in terms of those in favor of endorsement and those not in favor. The measure is expected to lose NQF endorsement in November of this year.

The Standing Committee raised concerns that the timing of visits was based on expert consensus rather than evidence, and several members believed the measure should capture postpartum visits closer to delivery. Members also noted the measure addresses quantity rather than quality of visits.

NCQA indicated that it would continue to use and maintain the measure in HEDIS and any other programs for which its committees deem fit --- as long as it continues to pass NCQA’s rigorous consensus development process.

The Council met on October 31st and considered the above information as well as the opinion of the American Congress of Obstetricians and Gynecologists (ACOG). The Council recommended retaining both elements of the measure because the measure encourages prenatal and postpartum care and this

⁴⁰ http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-02-18/obs_measure_recommendations_02182015_v2.pdf

is an area on which it is important for Advanced Networks/FQHCs to focus. While the specifications may not be ideal, there is likely to be no better measure for several years and the Council did not feel it was wise to leave this area entirely unaddressed.

The Council further noted that retaining the measure on the core measure set means the State will have to begin to solve for the technology to extract EHR information necessary to produce these measures reliably on a statewide basis, which will likely entail extraction from OB/GYN EHRs. As the specifications evolve, the same or similar data will be required. The calculation will simply need to be updated.

Special Issues

Care coordination measures and base rates

One of the more important issues bearing upon measure selection is that of base rate sufficiency. The term base rate refers to the prevalence of a condition in the population for which a provider is accountable. If the condition that a measure is targeting is common, e.g., diabetes, the measure is likely to be statistically valid for the purpose of showing trends and demonstrating performance improvements – or lack thereof – from period to period. If a condition is uncommon, e.g., multiple sclerosis, the measure cannot be used to accurately depict a provider’s performance over time as changes in measured performance can be a result of chance rather than real improvement. Base rate sufficiency must exist for the network of providers who are being measured against.

The Council initially focused on the base rate of the measure denominator, which for treatment measures, is typically related to the prevalence of the condition. As a rule of thumb, the base rate was considered sufficient if there were likely to be at least 150 cases in a population of 5,000 children or adults, depending on the measure. This is equivalent to a prevalence rate of about 3% in the attributed population. The formula in the figure below illustrates the method for calculating base rate sufficiency.

The PMO partnered with Anthem, ConnectiCare and DSS to assess base rate sufficiency for a range of measures in which base rate sufficiency was suspect. Based on data provided by these payers, a number of measures were at risk of elimination because the conditions they represent are sufficiently uncommon that they cannot be used to measure the performance of small ACO populations (e.g., 5,000). The base rate information did result in the elimination of a number of chronic care measures, however, it also threatened to eliminate nearly all of the condition specific care coordination measures pertaining to hospital admission.

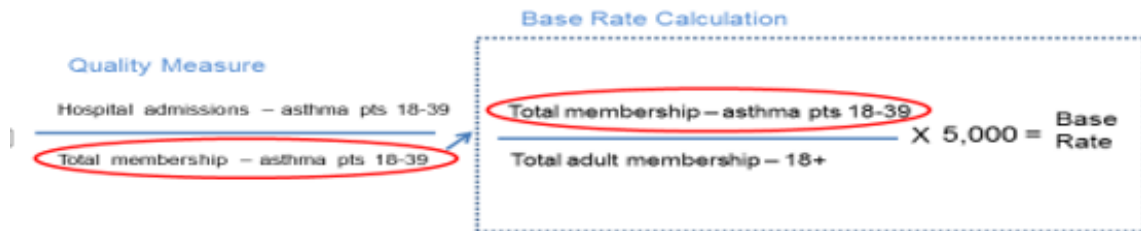
A number of members expressed serious concerns about the elimination of condition specific care coordination measures, especially those that were in widespread use in the Medicare SSP.⁴¹ The Council elected to form a Care Coordination Measure Design Group to examine the issue of hospital admission measures and base rates. The PMO prepared an issue brief to support the deliberations of this new design group.⁴²

⁴¹http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/qc_consumer_care_coordination_concerns_08272015.pdf

⁴² The Care Coordination Issue Brief can be found here:
http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-09-16/ib_care_coordination_measures_09152015_draft2.pdf.

Sample Base Rate Calculation – Ambulatory Care Sensitive Condition

Hospital Admission - Young Adults with Asthma



As a result of these deliberations, the Care Coordination Measure Design Group recommended that the Council recommend adoption of the hospital admission measures for diabetes mellitus and asthma (younger adults). It further recommended the development of methods to implement other low-base rate condition specific admission measures, such as those pertaining to COPD and CHF, and/or the development of a composite solution such as the Preventable Hospital Admissions, which was recently proposed by NCQA for the older adult population, or the composite currently in use by Anthem. The Council recommended the same for pediatrics.

The Council requested that payers examine the feasibility of implementing the hospital admission measures for diabetes mellitus and asthma (younger adults). Several payers examined the issue and reported that their data suggested the base rates were too low for these measures as well. The payers noted, and Yale CORE confirmed, that for hospital admission measures, numerator sufficiency is as important as denominator sufficiency when considering the viability of hospital admission measures. This is because the actual rate of admissions may be so low, e.g., 5 or 10 per year, that fluctuations in number of admissions could be attributed to chance. This is in contrast to most chronic care measures such as A1c control or medication management, where the cases in the numerator are typically more than adequate if the denominator is sufficient.

As a result of this new information, the Council decided that the hospital admission measures for diabetes mellitus and asthma (younger adults) should be included in the development set with the other condition specific measures.

HIV measures

At the recommendation of stakeholders, the Council reviewed and considered measures of HIV care. To assist with this review, the PMO gathered a small group of independent experts in HIV care including: Dr. Michael Virata of Yale New Haven Hospital; Michael Ostapoff and Heidi Jenkins of Connecticut’s Department of Public Health; and HIV/AIDS advocates Fernando Morales and Alice Ferguson. This small group of advisors reviewed a range of measures endorsed by NQF including measures stewarded by the National Committee for Quality Assurance, the Health Resources and Services Administration (HRSA), and CMS. The group recommended the following measures included in the table below. They noted that the care gap measure is the most up-to-date measure of engagement in care and is a prerequisite to achieving other process measures such as performance of CD4 cell count. Screening for sexually transmitted diseases is considered an important measure of behavioral change (cessation of high risk

behavior), which is important in reducing incidence of new cases. Finally, viral load suppression is the gold standard outcome measure for effective management of HIV.

Measure		NQF	Steward
Gap in HIV medical visits	Percentage of patients, regardless of age, with a diagnosis of HIV who did not have a medical visit in the last 6 months of the measurement year.	2080	HRSA
HIV/AIDS: Screening for Chlamydia, Gonorrhea, and Syphilis	Percentage of patients aged 13 years and older with a diagnosis of HIV/AIDS, who have received chlamydia, gonorrhea, and syphilis screenings at least once since the diagnosis of HIV infection	0409	NCQA
HIV viral load suppression	Percentage of patients, regardless of age, with a diagnosis of HIV and at least one medical visit in the measurement year with a HIV viral load less than 200 copies/mL at last HIV viral load test during the measurement year	2082	HRSA

In the course of their review, the group identified issues that may impede the implementation of these measures the most significant of which include whether there are sufficient base rates in commercial and Medicaid populations, whether the special privacy protections applicable to HIV will present a problem for data collection, and whether care is currently being provided primarily by primary care providers or specialists.

The Council recommended deferring action on the measures and working more closely with the Department of Public Health on the current state of data on HIV/AIDS management and data collection to ensure that new reporting requirements would not be duplicative with other state and federal reporting requirements including those associated with Ryan White. The Council also recommended that HIV measures recommended by the Core Quality Measures Collaborative also be considered. The HIV measures are currently included in the development set.

Oral health measures

The Connecticut Oral Health Initiative focused the Council's attention on oral health measures with its public comment on February 18, 2014.⁴³ Their commentary began an engagement that served the Council well as it considered how best to introduce measures that would reward better oral health care in primary care.

Subsequent to these comments, the Council solicited additional consultative input from Mary Boudreau, the Executive Director of the Connecticut Oral Health Initiative, and Joanna Douglass, BDS, DDS, an Associate Professor at the UConn School of Dental Medicine, on available oral health measures including

⁴³ http://healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-02-18/publiccomment_oralhealthmeasures_02182015.pdf

the role of oral health in primary care and the advantages and disadvantages of existing measures.⁴⁴ Ms. Boudreau also consulted with Amos Deinard at the University of Minnesota who maintains an oral health quality measure related to primary caries prevention.

As a result of this engagement, the Council considered the fact that dental caries is the most common chronic condition affecting children. Young children, particularly in low-income families and minorities, continue to suffer high rates of tooth decay. Research has shown that tooth decay can be prevented, slowed, or stopped most effectively by early and frequent applications of fluoride varnish. The U.S. Preventive Services Task Force (USPSTF) recommends application of fluoride varnish starting at tooth eruption in primary care practices and the importance of using fluoride varnish in primary care to address associated risks. The Council raised a number of concerns about this measure which COHI addressed in written comments.⁴⁵ All Council members acknowledged the clinical value of fluoride varnish application, however, lingering concerns with respect to the implementation of this measure led to the recommendation that it be included in the development set. These concerns include the measure's focus on high-risk children, a population that cannot be readily identified from claims, and the possibility of incentivizing over-use.

The Council gave serious consideration to the value of encouraging access to oral health preventive care. However, due to limitations in coverage and challenges associated with lack of access to dental claims data, the recommendation for an annual visit measure was limited to Medicaid.

In response to the request for public comment, the PMO received a number of the comments in support of the fluoride varnish application measure (Oral Health: Primary Caries Prevention, formerly NQF 1419). After reconsideration the Council elected to retain the measure as part of the development set. They cited concerns regarding lack of NQF endorsement and the limitations of the current measure specification, which continues to focus on high risk children and Medicaid. In fact, the measure specification contains terminology that is entirely foreign to commercial coverage such as Early and Periodic Screening, Diagnostic and Treatment (EPSDT). The Council has instead recommend that the PMO explore options for supporting further development and specification of this measure.

Meaningful Use

Beginning with the 2015 performance year, the Medicare SSP introduced a new care coordination/patient safety measure focused on meaningful use. The measure is defined as the percentage of PCPs that meet requirements for Meaningful Use under the federal EHR incentive Meaningful Use program. This meaningful use measure assesses the percent of a Medicare ACO's primary care providers that are participating in the Medicare or Medicaid Meaningful Use incentive program and receiving incentive payments. An ACO would have a lower score if it a) has providers that participate in the program but do not qualify for incentive payment, or b) has providers that do not participate in the program. Providers may not participate in the program because they are not eligible, e.g., due to insufficient percentage of Medicare or Medicaid patients in their panel. Providers may also

⁴⁴ A summary of oral health issues shared with the Council can be found here: http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-02-18/publiccomment_oralhealthmeasures_02182015.pdf

⁴⁵ http://healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-10-28/cohi_fluoride_varnish_measure_10262015.pdf

elect not to participate because they do not want to adopt an EHR, or because they do not want the administrative burden of demonstrating compliance.

Members of the Council place a high priority on measures of care coordination; however, opinions about the value of this measure were divided, much as opinions have been divided regarding the value of the Meaningful Use requirements that are the centerpiece of this federal program. Following extensive discussion and an analysis of the perceived advantages and disadvantages of this measure, the Council recommended this measure for reporting only.⁴⁶

The AMA, most state Medical Societies, and many Specialty Societies have since criticized the newest requirements for Meaningful Use, confirming the wisdom of this allocation. Concerns remain that even reporting requirements may pose significant burdens for clinicians. Moreover, under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), CMS signaled its intent to end Meaningful Use as a stand-alone program, elements of which may be folded into the new Merit-Based Incentive Payment System (MIPS).

Cardiology measures

The Council began its review process with a large number of quality measures pertaining to cardiac care. This was a result of the considerable emphasis that Medicare places on cardiac care in its SSP measures set, which in turn reflects the considerable disease burden that cardiac problems represent for older Americans. A Council member who is also a cardiologist undertook a review of additional measures that are included in PQRS and measures newly endorsed by NQF, and also consulted with Yale CORE, which has special expertise in quality measurement for cardiology. In the end, however, most of the measures under consideration were eliminated due to base rate considerations. While cardiac conditions are prevalent enough among individuals over 55 years of age, in small to mid-size ACOs with a population that also encompasses younger adults; the overall prevalence was insufficient to support inclusion in the core measure set. The biggest issue for a younger, commercial or Medicaid population, population is reducing the risk of developing cardiac conditions. For this reason, the Council focused its recommendations on measures of cardiac risk reduction, such as assessment of body mass index and counseling, tobacco cessation, hypertension control, and effective diabetes care.

The decision not to include measures of cardiac care is contrary to the Council's first guiding principle of alignment with Medicare, and thus was not without controversy. However, some members emphasized the importance of focusing on a spectrum of measures that are appropriate to the life stage of the membership, noting that some measures for older adults (e.g., falls prevention) may be no more applicable to younger adults, than pediatric measures. Adding low prevalence measures challenges our ability to keep the scorecard appropriate in size and focused on high priority areas for improvement for the commercial and Medicaid populations. Providers will ultimately be subject to a range of measures established by the payers in each age group (child, adult, older adult). In the case of cardiac care, Medicare and Medicare Advantage plans are the dominant payers that can drive improvement because they account for the great majority of the care provided.

⁴⁶ http://healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-05-27/quality_mu_measure_pros-cons_05212015_draft5.pdf

The Council reserved the option of recommending cardiac and other measures of sub-specialist care for inclusion in specialty specific quality measure sets, consistent with the Council charter and recent efforts nationally to encourage the use of specialty specific alternative payment models.⁴⁷

Diabetes measures

Diabetes was the condition with the highest proportion of measures in the initial measure comparison table, which is consistent with the prevalence of this condition in the general population, the presence of significant health disparities with respect to clinical care outcomes, and the importance of effective management in avoiding serious long term complications. Because of the large number of measures, several Council members worked to identify for the Council those diabetes measures that would generate the greatest value as a focus of quality improvement. These members considered all of the individual measures as well as composite measures, which combine a number of discrete clinical process and outcome measures. Composite measures have emerged as a way to measure the overall quality of diabetes care and were in widespread use in value-based payment while the Council was conducting its review.

The Council decided not to recommend any of the composite measures because they were comprised of measures that were either a) no longer aligned with the latest evidence (e.g., LDL control), or b) because they duplicated areas that were subsumed by other measures targeted to the general population (e.g., tobacco screening and cessation counseling). Following a thorough review of measures in use by other states, especially Minnesota, and available evidence regarding clinical care and the opportunity for improvement, the Council recommended four measures for the core measure set (A1c testing, A1c poor control, eye exam, and medical attention for nephropathy). The first of these was added at the recommendation of DSS, recognizing the importance of regular A1c testing among patients with diabetes and the lead time that may be necessary to implement a measure of A1c poor control. After extensive discussion supporting the value of diabetes foot exams, and questions about its value in reducing health disparities related to lower extremity amputations, the Council recommended that this measure be assigned to the development set due to concerns about the current measure's design.

Recommendations of the Core Quality Measures Collaborative

In February 2016, the Core Quality Measure Collaborative (CQMC), led by the America's Health Insurance Plans (AHIP) and its member plans' Chief Medical Officers, leaders from CMS and the National Quality Forum (NQF), as well as national physician organizations, employers and consumers, released a consensus set of core performance measures for use in value-based payment. According to CMS, the Collaborative is using this multi-stakeholder process to "promote alignment and harmonization of measure use and collection across payers in both the public and private sectors."

The Collaborative recommended core measures in seven areas as follows:

- [Accountable Care Organizations \(ACOs\), Patient Centered Medical Homes \(PCMH\), and Primary Care](#)
- Cardiology

⁴⁷ <https://publish.mitre.org/hcplan/wp-content/uploads/sites/4/2015/10/2015-10-23-APM-Framework-White-Paper-FPO.pdf>

- Gastroenterology
- HIV and Hepatitis C
- Medical Oncology
- Obstetrics and Gynecology
- Orthopedics

The purpose of the ACO core measure set is the same as that of the Provisional Core Measure Set recommended by the Quality Council. They are intended to serve as measures of primary care quality for the purpose of value-based payment. Based on discussions that the PMO had with both CMS and AHIP leadership, these measures are intended for use by all payers, nationwide, for Medicare and commercial populations. State and federal Medicaid officials were not involved in the development of this set and, as such, its applicability to Medicaid populations is in question. In addition, several essential measurement areas are still under review by the CQMC including pediatrics and substance abuse.

CMS and AHIP officials acknowledge that there are circumstances where payers and providers may extend beyond the recommended measures in provider-payer arrangements or regions of the country where quality measurement is advanced and innovations are being pursued. It is not clear to what extent the CQMC recognizes the need for regional or state-based customization based on local population health priorities or opportunities for improvement. While CMS intends to pursue alignment with the CQMC proposed measure sets, formal adoption for the Medicare SSP or other value-based payment initiatives such as MIPS will require that CMS follow its usual rule-making process. Notably, the CQMC has not disclosed the names of participants in the measure selection process nor has the CQMC produced documents that justify the inclusion or exclusion of measures that were considered.

The Quality Council met in May 2016 to review the CQMC proposed measures. The Council considered measures that were recommended by the CQMC, but not on the Provisional Core Measure Set. The Council also re-considered recommended Provisional Core Measure Set measures that were not recommended by the CQMC.⁴⁸ Based on this review, adjustments were made to the Provisional Core Measure Set as follows:

- CAHPS – The recommendation for the PCMH CAHPS was retained, however, the ACO CAHPS may be considered as an alternative if this measure gains widespread use in Medicare and commercial populations. Public comment on choice of CAHPS is encouraged.
- Care coordination measures – The Council recommended elimination of ED visits/1000 due to its lack of risk adjustment and new information about the limitations of ED visit measures.⁴⁹ ED visit measures will remain a focus of the development set. The Council considered “Medication Reconciliation” (0097), but did not adopt this measure due to continuing concern that such measures may not reflect the quality of the medication reconciliation process. This measure will be revisited on annual review.

⁴⁸See http://healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2016/05-11/presentation_qc_05112016_draft6.pdf for a comparison of measure sets.

⁴⁹See <http://jama.jamanetwork.com/article.aspx?articleid=1669818> and <http://jama.jamanetwork.com/article.aspx?articleID=1669802>

- Preventive Measures – The Council elected to add “Non-recommended Cervical Cancer Screening in Adolescent Females” to its reporting set in order to examine the extent to which performance on this measure is a problem in Connecticut. It will be included in the Council’s annual review.
- Acute/chronic care measures – The Council did not support the two cardiac measures recommended by the CQMC due to base rate limitations, and, in the case of Ischemic Vascular Disease: Use of Aspirin or Another Antithrombotic (NQF 0068), problems with reliable measurement. The Council did eliminate the Asthma Medication Ratio (NQF 1800) measure in order to better align with the CQMC recommendations.
- Behavioral health measures – The Council added “Depression Remission at 12 months – Progress Towards Remission” (1885) at the recommendation of the CQMC. This will enable providers to receive credit for progress as well as full remission.
- Pediatric measures – The Council decided to retain its recommended pediatric measures, but may re-assess these measures on annual review. At that time, CQMC recommended pediatric measures should be available for consideration.

Additional information is available about the CQMC recommended measures at the [CMS](#) and [AHIP](#) websites.

V Proposed Measure Sets

Core Measure Set

The core measure set is comprised of 29 measures that are recommended for use by commercial and Medicaid payers in value-based payment arrangements. Two additional measures are recommended for Medicaid only.

One of the core measures is the PCMH CAHPS. The PCMH CAHPS has more than 40 questions, which we anticipate will be grouped into 4-7 measures, including a newly developed measure focusing on behavioral health access. At the time of this writing, the national PCMH CAHPS development team had not finalized the measures. Of the measures in the core measure set, 17 are claims based measures, the implementation of which should be easily achieved through administrative claims data. Fourteen (14) measures require additional information that resides in EHR systems, registries or other sources such as laboratory test data. These measures require technology solutions or other means for data collection and reporting. Payer support for these measures may depend on whether the state can develop an acceptable methodology for the production of these measures on behalf of all payers.

The proposed core measure set is as follows:

#	Provisional Core Measure Set	NQF	ACO	Steward	Source*	Equity	MQISSP
Consumer Engagement							
1	PCMH – CAHPS measure	0005		NCQA		✓	✓
Care Coordination							
2	Plan all-cause readmission	1768		NCQA	Claims	✓	
3	Annual monitoring for persistent medications (roll-up)	2371		NCQA	Claims		
Prevention							
4	Breast cancer screening	2372	20	NCQA	Claims		
5	Cervical cancer screening	0032		NCQA	Claims		
6	Chlamydia screening in women	0033		NCQA	Claims		
7	Colorectal cancer screening	0034	19	NCQA	EHR	✓	
8	Adolescent female immunizations HPV	1959		NCQA	Claims		
9	Weight assessment and counseling for nutrition and physical activity for children/adolescents	0024		NCQA	EHR		
10	Preventative care and screening: BMI screening and follow up	0421	16	CMMC	EHR		
11	Developmental screening in the first three years of life	1448		OHSU	EHR		✓
12	Well-child visits in the first 15 months of life	1392		NCQA	Claims		✓
13	Adolescent well-care visits			NCQA	Claims		✓
14	Tobacco use screening and cessation intervention	0028	17	AMA/PCPI	EHR		
15	Prenatal care & postpartum care	1517		NCQA	EHR		✓

16	Screening for clinical depression and follow-up plan	418	18	CMS	EHR	✓	
17	Behavioral health screening (pediatric, Medicaid only, custom measure)			Custom	Claims		✓
Acute & Chronic Care							
18	Medication management for people w/ asthma	1799		NCQA	Claims	✓	✓
19	DM: Hemoglobin A1c poor control (>9%)	0059	27	NCQA	EHR	✓	
20	DM: HbA1c testing**	0057		NCQA	Claims		✓
21	DM: Diabetes eye exam	0055	41	NCQA	EHR		
22	DM: Diabetes: medical attention for nephropathy	0062		NCQA	Claims		
23	HTN: Controlling high blood pressure	0018	28	NCQA	EHR	✓	
24	Use of imaging studies for low back pain	0052		NCQA	Claims		
25	Avoidance of antibiotic treatment in adults with acute bronchitis	0058		NCQA	Claims		✓
26	Appr. treatment for children with upper respiratory infection	0069		NCQA	Claims		
Behavioral Health							
27	Follow-up care for children prescribed ADHD medication	0108		NCQA	Claims		
28	Metabolic monitoring for children and adolescents on antipsychotics (pediatric, Medicaid only)	2800		NCQA	Claims		✓
29	Depression remission at 12 months	0710	40	MNCM	EHR		
30	Depression remission at 12 months – progress towards remission	1885		MNCM	EHR		
31	Child & Adlscent MDD: Suicide risk assessment	1365		AMA/ PCPI	EHR		

*Council recommendation regarding measures that require EHR or other data for production

**Continued need for this measure will be re-evaluated after NQF 59 is in production

A number of measures have been designated as high priority for race/ethnic stratification. It is strongly recommended that these measures be included in value-based payment scorecards and that health equity gap reductions be a factor in calculating payment rewards.

In order to stratify the PCMH CAHPS, it would be necessary to over-sample for major race/ethnic groups. This presents both resource and methodological challenges for the commercial population, because race/ethnic data is not complete. The PMO will work with our program evaluators to examine the extent to which race/ethnic disparities exist in the commercial population using available statewide datasets before formulating next steps.

Race/ethnic data is more routinely available for the Medicaid population. The health equity design group recommended that the Department of Social Services (DSS) consider one of two options: 1) over-sampling to enable measurement and rewards for reduction in health equity gaps, or 2) measuring the gap between Medicaid care experience and the PMO's commercial benchmark and rewarding a reduction in this gap, which reflects income/coverage related disparities.

Development Measure Set

The development set is comprised of 16 measures, which are of clinical importance and being considered for the core measure set, but require significant development work or modification. The development set is comprised primarily of hospital admissions measures (9), which for the most part reflect the quality of ambulatory care and coordination of care for certain chronic conditions. The primary challenge with these measures is that of base rate sufficiency and clinical relevance to children and adults under 65 years of age. The set also contains ED use measures, three HIV related measures, one diabetes measure, and one oral health measure focused on prevention of caries in children under the age of six years.

The 16 measures proposed for the development set are as follows:

#	Development Set	NQF	ACO	Steward	Source
Care Coordination					
1	ASC admissions: chronic obstructive pulmonary disease (COPD) or asthma in older adults	0275	9	AHRQ	Claims
2	ASC: heart failure (HF)	0277	10	AHRQ	Claims
3	All-cause unplanned admission for MCC		38	CMS	Claims
4	All-cause unplanned admissions for patients with heart failure		37	CMS	Claims
5	All-cause unplanned admissions for patients with DM		36	CMS	Claims
6	Asthma in younger adults admission rate	0283		AHRQ	Claims
7	Preventable hospitalization composite (NCQA)/Ambulatory Care Sensitive Condition composite (AHRQ)			NCQA/ AHRQ	Claims
8	Asthma admission rate (child)	0728			Claims
9	Pediatric ambulatory care sensitive condition admission composite			Anthem	Claims
10	ED Use (observed to expected) – New			NCQA	Claims
11	Annual % asthma patients (2-20) with 1 or more asthma-related ED visits				Claims
Prevention					
12	Oral health: Primary caries prevention	1419		None	Claims
Acute and Chronic Care					
13	Gap in HIV medical visits	2080		HRSA	EHR
14	HIV/AIDS: Screening for Chlamydia, Gonorrhea, and Syphilis	0409		NCQA	EHR
15	HIV viral load suppression	2082		HRSA	EHR
Behavioral Health					
16	Unhealthy alcohol use – screening			AMA/ PCPI	EHR

Reporting Measure Set

The 11 measures in the reporting set represent health domains that should be monitored because of their clinical or public health importance, but are not recommended for payment. They may not be recommended for payment because they are at this time too difficult for an ACO to influence; they are of clinical value, but judged to be less important than those that comprise the core measure set; or they are still being assessed with respect to opportunity for improvement. The Quality Council may expand on this set of reporting measures pending further review.

The 11 measures proposed for the reporting set are as follows:

#	Reporting Only	NQF	ACO	Steward	Source	Equity
Coordination of Care						
1	30 day readmission			MMDLN	Claims	
2	% PCPs that meet Meaningful Use		11	CMS	EHR	
Prevention						
3	Non-recommended Cervical Cancer Screening in Adolescent Female			NCQA	Claims	
4	Well-child visits in the third, fourth, fifth and sixth years of life (Medicaid only)	1516		NCQA	Claims	
5	Frequency of Ongoing Prenatal Care (FPC)	1391		NCQA	EHR	
6	Oral Evaluation, Dental Services (Medicaid only)	2517		ADA	Claims	✓
Acute and Chronic Care						
7	Cardiac strss img: Testing in asymptomatic low risk patients	0672		ACC	EHR	
Behavioral Health						
8	Adult major depressive disorder (MDD): Coordination of care of patients with specific co-morbid conditions			APA	EHR	
9	Anti-Depressant Medication Management	0105		NCQA	Claims	
10	Initiation and Engagement of Alcohol and Other Drug Dependence Treatment	0004		NCQA	Claims	
11	Follow up after hospitalization for mental illness, 7 & 30 days			NCQA	Claims	

VI Quality Measure Alignment Plan

In parallel with its measures review process, the Quality Council sought to develop a coordinated framework for promoting the use of recommended quality measures as part of value-based contracts across commercial and Medicaid payers. Because alignment with existing measures was a guiding principle of the Council’s work, some measures are already used by payers today. However, there are a number of questions about how payers will use the core measure set to inform their choice of measures for value-based payment. To inform this alignment plan, the Council sought information from health plans operating in Connecticut including:

- (1) Processes and requirements to program, produce, and report on SIM quality measures and associated technological challenges;
- (2) Contracting and negotiation processes including the lead time required to write measures into existing and new contracts with providers; and
- (3) Level of support for the production of a statewide quality scorecard that reflects provider performance across payers.

The PMO met with five health plans operating in the state that currently have enrollment sufficient to support value-based payment contracts.⁵⁰ The PMO then reviewed what was learned in these meetings with the Quality Council. This information was used to develop the proposed alignment process and timeframe.

Landscape in Connecticut

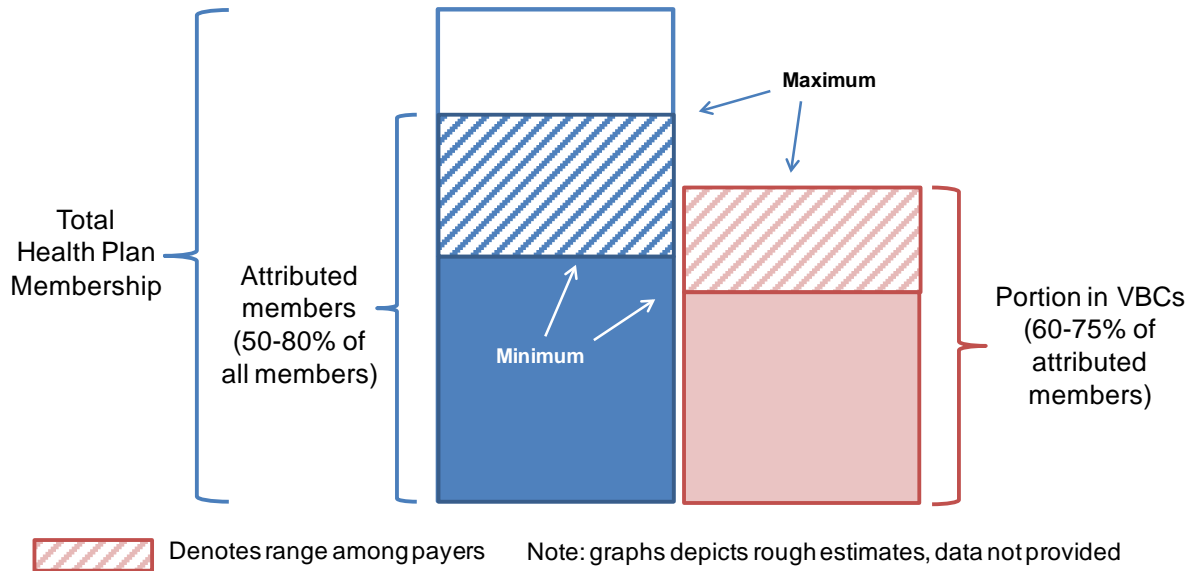
As part of the SIM initiative, the state has invited all health plans to voluntarily participate in working toward greater alignment on quality measures. Nearly all of the health plans have expressed support for quality measure alignment and a commitment to work in good faith to achieve greater alignment over course of the SIM grant period. The plans provided information about their current value-based payment arrangements and described at a high level contractual processes that bear directly on the feasibility and timing of adopting recommended quality measures. They emphasized the importance of flexibility and other considerations referenced in the following pages that may influence the extent to which they align and the pace of alignment.

Two plans reported that Connecticut has a high penetration of value-based contracts relative to other states. This is both a positive and negative in terms of aligning with the Council’s quality measure set. On one hand, payers and providers in the state have experience and familiarity with value-based contracts and quality measurement. On the other hand, many contracts are already in place with terms lasting several years, which reduces the flexibility to align with a core measure set. As with the Medicare SSP, the contracts are designed to encourage improvement against a defined set of quality measures over a

⁵⁰ The five health plans were: Aetna, Anthem, Cigna, ConnectiCare, and UnitedHealth Group.

multi-year period. Health plans reported that changes to the measure set during this period could disrupt provider focus on targeted quality improvement activities.⁵¹

Payers reported existing value-based payment contracts with up to twenty-one (21) ACOs operating in Connecticut. All but one plan reported that between 60-75% of their total attributed membership⁵² is covered by such value-based payment contracts. Although the percentage of the plans’ populations that were attributed varied from 50-80%, all of the payers were working to increase patient attribution. This will increase the number of patients in Connecticut over the years covered by value-based contracts.



Each payer requires a minimum number of attributed lives for a provider organization to participate in a value-based payment contract. Currently, the minimum number of attributed lives ranges from 2,500 to 5,000, with some exceptions. The uniform stated preference across payers was for a minimum of 5,000 covered lives, with one preferring a minimum of 10,000 lives. In Connecticut, the prevalence of small to mid-size ACOs and fragmentation of the payer market makes this threshold especially difficult to achieve. DSS is proposing a minimum threshold of 2,500 attributed members for MQISSP. Payers noted that circumstances such as forecasted growth in attributed lives, strong care management programs, and historical relationships encouraged them to accept contracts in which the provider organization did not meet the minimum threshold.

While the contracting process varies from payer to payer, there are some common practices. Many payers begin negotiating contracts six months before their effective date. At least one plan negotiates contracts six months before the date of execution, which is typically 90 days prior to the effective date. One payer indicated that negotiation of quality measures and associated targets tends to be accomplished earlier in the negotiation process. Contracts are typically negotiated for a three-year term. Some payers reported two-year terms, and only in one instance did a payer recall a contract with

⁵¹ Medicare waited until the end of its first three-year SSP performance cycle before substantially revising its 33 item measure set.

⁵² Please see Appendix J for a primer on patient attribution.

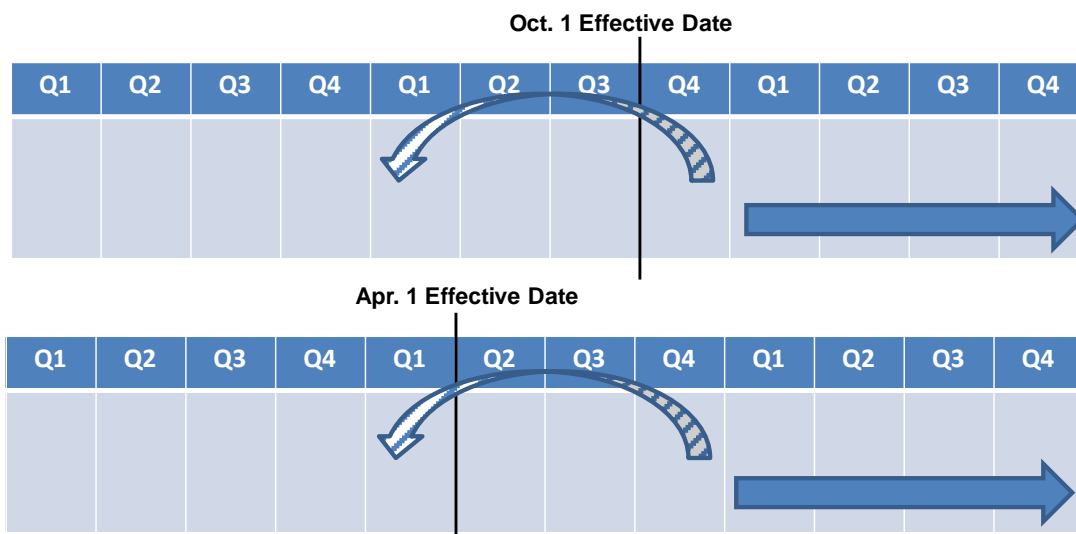
a term longer than three years. Provider performance targets and associated benchmarks are assessed and may be adjusted annually.

Contract effective dates vary and may be executed at the beginning of any quarter throughout the year. Each contract specifies the performance period that will be the basis for assessing the provider’s performance on quality measures and cost. These performance periods are typically one year in duration. At least one payer uses a standard calendar year performance period, regardless of the effective date of the contract (see figure X). Other payers have a rolling performance period that begins on the effective date of the contract. Consequently, these payers have annual performance period begin and end dates that vary across contracts (see figure Y). At least one of these payers expressed a desire to align all of its contracts around a uniform performance period.

All of the payers use a process of prospective attribution with look-back periods of 1-2 years. This means that effective from the start date – or execution date – the payer will review where the patient received care in the prior years to be assigned to a provider for the upcoming performance year.

Currently, health plans include between 10 and 27 quality measures in value-based payment contracts. These contracts may include additional measures that focus on resource efficiency or utilization such as inpatient days per thousand. Some payers use a standard set of measures for all value-based payment contracts in Connecticut or nationwide. Others maintain a pool of measures from which they choose a subset to be included in particular contracts. The size of the measure pool maintained by a plan varies widely from 20 to 100 measures.

Figure X: Standard Calendar Year Performance Period



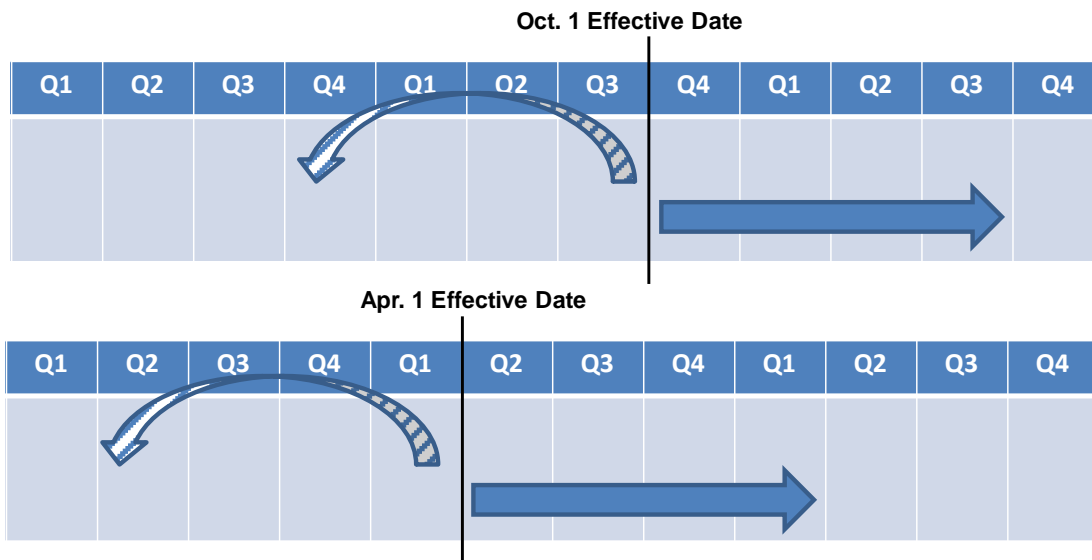
Different contracts have different effective dates, but performance periods are standardized



Look-back period for prospectively attributing patients*

*Look-back period can cover up to 24 months prior to the performance period in order to attribute patients based on where they obtained a plurality of their care.

Figure Y: Rolling Performance Period



Different contracts have different effective dates and different annual performance periods that are aligned with the contract effective dates



Look-back period for prospectively attributing patients*

*Look-back period can cover up to 24 months prior to the performance period in order to attribute patients based on where they obtained a plurality of their care.

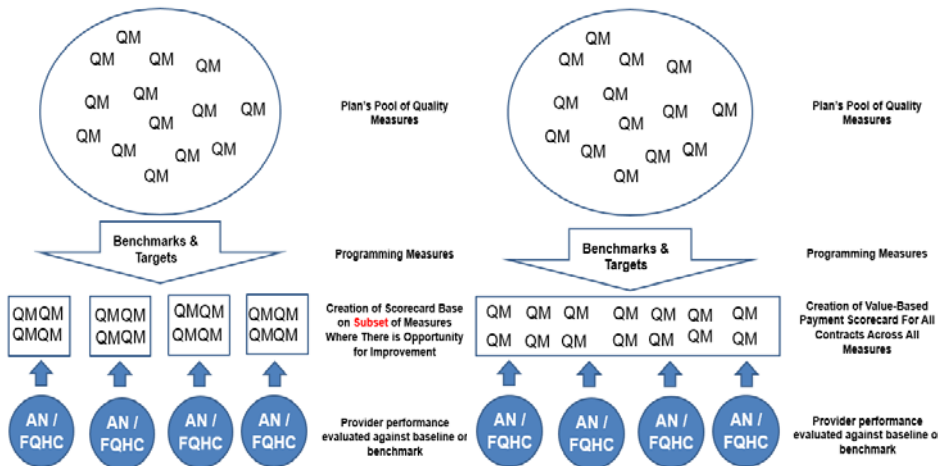
Payers may reassess their standard measure sets or measure pools annually; some measures may be replaced, updated, or removed, e.g., based on changes in the clinical evidence on which the measure is based or adjustments to the measure made by the measure steward. Pediatric measures are only included in value-based payment contracts if the network has a significant attributed pediatric population.

Plans currently rely almost entirely on claims-based measures. A couple of plans have implemented a small number of measures that require information from the EHR or what NCQA refers to as hybrid measures. Providers are asked to provide data on a sample of patients, which the payer uses to compute performance. This approach was described as resource intensive for both the provider and the payer. Payers acknowledged that a state-administered utility for producing EHR-based measures would be of interest, provided issues of reliability, validity, and methods for auditing could be addressed.

For those payers that individualize their value-based payment contracts, measures may be selected according to their relevance to the patient population (e.g. disease-specific measures) and the presence or absence of an opportunity for improvement.

The contract negotiation process normally begins with an assessment of a provider network’s baseline performance against a set of measures. Payers then take one of two approaches: (1) Payers that prefer to use a standard measure set across all contracts will negotiate improvement or maintenance targets for each measure, and performance on all measures factors into payment. (2) Payers that prefer to customize their contracts will negotiate targets for a subset of their suite of measures for which there is an improvement opportunity. If a provider’s performance on a measure is already quite good (e.g.,

above 90th percentile), the measure may not be included in the provider’s value-based payment scorecard or factored into payment. This helps ensure that the shared savings opportunity is tied exclusively to areas in which the provider needs to improve. There are exceptions—payers will occasionally include measures for which the provider is simply expected to maintain current performance.



Payers were asked how much lead time they would need to introduce a new claims-based measure recommended by the Quality Council. The most important factor in determining lead time is whether that measure is already programmed and maintained by the payer. For measures that

are already programmed, it is easy to determine provider baseline performance against a benchmark and to use this information in a contract negotiation.

In cases where the measure is not already programmed, the lead time can depend on the measure’s source, whether or not it is a standard NCQA/HEDIS measure, whether it is NQF endorsed, whether there is an appropriate benchmark, and whether the measure aligns with the payer’s national strategy. Payers with a regional presence may need to negotiate with the corporate office for the measure’s inclusion in the measure pool and for resources to program the measure. Allowing time for corporate approval of such measures, implementation could take as much as a year.

Key Lessons

The measure set of the Quality Council is aligned with the population health goals of SIM in Connecticut. Accordingly, the PMO is seeking to maximize alignment with the Core Measure Set across payers, recognizing that alignment is entirely voluntary for public and private payers. Conversations with Connecticut’s health plans uncovered several key contextual lessons that should be considered. While none of the stakeholders disagrees in principle with the measure set or intent of the Quality Council, there are several business, technological, and environmental issues that will influence the alignment process, including the following:

- The amount and type of quality measures that commercial plans use in a provider contract is a negotiation with the provider;
- Health plans must balance competing desires for clinical comprehensiveness with administrative burden and focus;

- Currently, there is no health information technology infrastructure that would allow for the deployment of EHR-based quality measures in an efficient, credible, and automated way;
- Measures are sometimes deployed based on their relevance to the patient population of the network, and customization may occur to address base rate issues;
- Contract periods vary in length from one to three years, impacting when the open period occurs to amend the measures within the contracts.

Unlike contracts for Medicare, Medicaid, and CHIP, contracts for commercial plans are negotiated with providers. In Medicare, for example, CMS has broad legal authority to set the Conditions of Participation including the requirements to adhere to sets of quality measures. In the commercial environment, on the other hand, payers and providers arrive at mutual agreement through a collaborative process. The number and type of measures is often a focus of these negotiations, and plans must balance competing desires for clinical comprehensiveness with administrative burden and focus. If payers employ too few measures, important opportunities for improvement may be missed, limiting the desired result of better population health management. This problem can be compounded if the few measures chosen play to the established strengths of provider networks. In that case, it is unlikely that performance improvements and better health outcomes will be achieved.

On the other hand, using an abundance of measures is no guarantee of accomplishing the stated goals. In some of these cases, provider networks can still meet performance targets at the aggregate level by selectively choosing where to focus their improvement efforts. If providers can still meet the thresholds for shared savings and bonuses without focusing on all of the measures, then the large measure set does little to encourage better care management. In addition, there are administrative burdens associated with each measure in order to document and report outcomes. Including too many measures in a required measure set can disrupt efficient work flows and distract from the goal of delivering better healthcare to patients. As noted in guiding principle #4, our core measure set should help providers “prioritize and focus for the purpose of enabling effective and continuous quality improvement.”

It is important to consider the administrative burden for both payers and providers when selecting sources for a measure set. For example, in the few instances where EHR-based clinical measures are currently in place, they are self-reported by means of manual or automated chart abstraction. This can be a time-consuming and resource intensive process for both payers and providers. Some payers have developed partial-solutions for A1c control using lab data submissions, but the information is incomplete because some lab data is inaccessible.

While payers recognize the importance of incorporating EHR-based clinical quality measures in the core measure set, none of them reported the ability to automate EHR-based data collection. Moreover, their support for including these measures in the core measure set may depend in part on the state’s ability to develop a technology solution for measure production. Even if barriers to EHR-based measure production are resolved, such measures will need to be auditable by payers or credible third parties to validate and ensure accuracy. Therefore, while the Quality Council wishes to increase the number of EHR-based clinical measures in the measure set, members acknowledged the production and alignment around EHR-based measures may take several years to accomplish.

Payers vary in how they apply measures in value-based contracts. Some payers have a set of standard measures applicable to the general population that are required across all contracts. Then, depending on the population that a network serves, their health needs, and the characteristics of the providers, additional measures may be added. For example, if an ACO treats a population with a small pediatric population and little incidence of asthma, then the inclusion of a pediatric asthma measure might not be essential (and the population might not be large enough to measure quality improvements in a way that is statistically significant). Measure customization can also be a result of attempting to cope with insufficient base rates. Payers sometimes modify NQF-endorsed measures, altering the numerator and denominator benchmarks to make them more relevant to the nature of the contract and local population. In addition, even if two payers use an identical measure, their methods of calculation may differ slightly, making direct cross-comparisons complicated. In promoting alignment, the PMO seeks to provide appropriate flexibility for plans to customize sets according to local needs, and acknowledges that this customization may reduce alignment.

Variation also exists with respect to contract periods. While benchmarks and performance are assessed and updated annually, contract periods tend to be three years in length. Shorter contract times offer providers less time to make the necessary adjustments in care management and other operational processes to hit targets, while periods that are too long risk becoming outdated. The existence of these multi-year contract periods affects implementation of statewide quality measure alignment since wholesale changes cannot be made to contracts without agreement between providers and payers. Therefore, because these contracts are likely locked down for several years, alignment will take years to achieve.

For these reasons, the PMO sought to accommodate instances in which perfect alignment may not be feasible and/or desirable: to achieve improvements in areas with specific health needs, to provide flexibility for payers to achieve alignment over time according to their current infrastructure and legal commitments, and to ensure that provider networks have the infrastructure in place to adhere to any changes with reasonable administrative effort. The PMO expects that the process of achieving its alignment goals will be a multi-year process with a focus on simplicity and flexibility in the early years.

Accordingly, the PMO is **not proposing to recommend weights assigned to individual measures, the benchmarks used for plan computed measures, or the application of the measures in provider contracts**. Similarly, the PMO **does not intend to address issues of patient attribution, acknowledging that attribution models used by the plans are usually proprietary and implemented nationally, which reduces their ability to modify the model for state-specific initiatives**. Finally, the PMO seeks to build flexibility into the alignment process to allow for changes over time. As population health needs change and technology solutions are built, the recommended core measures will change. National initiatives such as the Core Quality Measures Collaborative, the Healthcare Payment Learning and Action Network and CMS efforts to introduce additional measures for Medicaid are also expected to influence alignment in the future.

Alignment Process

The PMO is inviting all payers to begin the process of aligning with the recommended Core Measure Set once the set is finalized. Payers are encouraged to begin to adopt recommended claims and survey based measures from the Core Measure Set as new contracts are written or existing contracts come up

for renewal. The PMO recognizes that the alignment process is voluntary and that a variety of considerations will determine to what extent payers elect to participate in this process and over what timeframe.

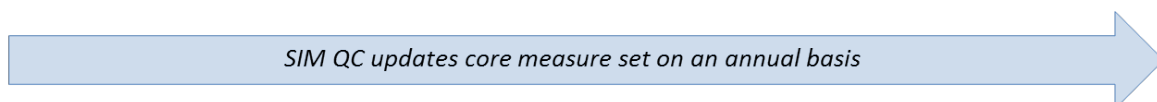
The PMO recommends that payers consider aligning with the core measure set by adopting individual measures in one of two ways:

- a. as part of a standard quality measure set for use in all value-based payment contracts; or
- b. as part of a suite of measures that are included in value-based payment contracts when there is an opportunity for performance improvement.

The PMO recognizes that payers typically enter into three-year contracts for value-based payment and that significant mid-cycle changes to quality measures can be disruptive. Accordingly, the windows of time that present the best opportunity for alignment include: (1) negotiation of a new value-based payment contract and (2) renegotiation of an existing contract after the term. At their discretion, payers and providers may consider other opportunities for alignment such as mid-cycle after an annual performance review.

The PMO recommends that survey-based and claims-based measures be the initial focus of alignment while the state develops methods to produce EHR-based measures. The PMO will encourage payers to consider the following timeline for alignment for survey-based and claims-based measures:

	2016	2017	2018	2019
Cons. Exp.	First annual survey to establish 2016 baseline		First performance survey tied to payment	Second performance survey tied to payment
Claims	Finalization of measure set after public comment	Programming and production of measures to include in VBP contracts	Core claims measures tied to payment; continued adoption in VBP contracts	Core claims measures tied to payment; continued adoption in VBP contracts



Consumer Experience Measures

The PMO is asking 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. The PMO is planning to contract with a vendor for the administration of the PCMH CAHPS with sufficient statistical reliability and validity at the level of the ACO to support the inclusion of care experience targets in value-based payment contracts as a factor in calculating SSP rewards. It is anticipated that Medicaid will administer a version of the PCMH CAHPS that is the same as or similar to that recommended by the Quality Council for inclusion as a payment measure in the Medicaid Quality Improvement and Shared Savings Program. Accordingly, the PMO is only proposing to undertake care experience surveys for the private health plans.

Care experience surveys are costly to administer, in part because of the large number of surveys that must be collected for each provider to achieve statistically significant results. For this reason, the PMO is proposing to draw the sample of members to be surveyed for each provider from the combined attributed populations across health plans. This means that the PCMH CAHPS survey measures would be payer agnostic—they would reflect each provider’s overall performance for their attributed commercially insured population.

We anticipate that the baseline survey will be conducted in late 2016 or early 2017 for the purpose of provide a baseline performance year. The survey will target all ACOs that have a contract with at least one commercial health plan.⁵³ The survey will be conducted by soliciting a list of members from each health plan with information as to which provider each member is attributed, if any, for the purpose of value-based payment.

The sample for each ACO will be weighted proportionate to each payer’s attributed membership. Following administration of the survey, the SIM evaluation team will undertake an analysis of the survey data and use these analyses to determine which measures have sufficient provider variation and opportunity for improvement to recommend for inclusion in commercial health plan scorecards. We will also assess response rates to the new behavioral health measures and reliability of responses across different units before deciding to use them in any reports or accountability measures.

The recommended measures and performance results will be distributed to payers that have agreed to begin to incorporate these measures in their value-based payment contracts. The results will include statewide benchmark performance of all ACOs. This data should provide the information necessary to support the negotiation of consumer experience targets in value-based payment contracts.

The PMO intends to conduct performance surveys annually beginning in the first quarter of calendar year 2018 for the 2017 performance year. We anticipate that the resulting data will be provided to participating payers so that the results can be factored into the payment calculations for future payment distribution cycles. Payers with asynchronous performance periods may wish to reference the most recently available performance data for the purpose of calculating shared savings distributions.

SIM test grant funds are expected to be available to support the conduct of the survey for the baseline year and two performance years. Based on experience gained during this test period, the PMO will engage stakeholders to assess the value of this survey process in our value-based payment strategy. If the value of this approach has been demonstrated, the PMO will engage payers and providers in a discussion regarding sustainable financing for the conduct of payer agnostic care experience surveys.

Claims-Based Measures

Claims-based measures are the initial focus in the early years of the alignment process since they do not have the same technology development requirements as the EHR-based measures. One factor of several factors that may influence the pace of alignment is the extent to which these measures are currently programmed and available to each health plan. If a measure is not programmed or already approved for use, the approval process and resource constraints may impact whether and at what pace a measure is

⁵³ FQHCs will not be included at this time because FQHCs are not participating in value-based payment contracts with commercial health plans.

adopted. There are 17 claims-based measures (15 commercial/Medicaid & 2 Medicaid only) recommended for alignment including the following:

#	Claims-based Measures	NQF	ACO	Steward	Source	Equity	MQISSP
Care Coordination							
1	Plan all-cause readmission	1768		NCQA	Claims	✓	
2	Annual monitoring for persistent medications (roll-up)	2371		NCQA	Claims		
Prevention							
3	Breast cancer screening	2372	20	NCQA	Claims		
4	Cervical cancer screening	32		NCQA	Claims		
5	Chlamydia screening in women	33		NCQA	Claims		
6	Adolescent female immunizations HPV	1959		NCQA	Claims		
7	Well-child visits in the first 15 months of life	1392		NCQA	Claims		✓
8	Adolescent well-care visits			NCQA	Claims		✓
9	Behavioral health screening (pediatric, Medicaid only, custom measure)			Custom	Claims		✓
Acute & Chronic Care							
10	Medication management for people w/ asthma	1799		NCQA	Claims	✓	✓
11	DM: HbA1c testing (possible interim measure until NQF 0059 is available)	57		NCQA	Claims		✓
12	DM: Diabetes: medical attention for nephropathy	62		NCQA	Claims		
13	Use of imaging studies for low back pain	52		NCQA	Claims		
14	Avoidance of antibiotic treatment in adults with acute bronchitis	58		NCQA	Claims		✓
15	Appr. treatment for children with upper respiratory infection	69		NCQA	Claims		
Behavioral Health							
16	Follow-up care for children prescribed ADHD medication	108		NCQA	Claims		
17	Metabolic monitoring for children and adolescents on antipsychotics (pediatric, Medicaid only)	2800		NCQA	Claims		✓

As discussed previously, a factor affecting the pace of claims-based measure adoption is the duration of existing value-based contracts. Upon the release of the measure set in 2016 following the public comment period, the PMO will encourage payers to begin measure approval, programming and production for inclusion into new or renegotiated value-based payment contracts.

Other factors may influence the ability of payers in Connecticut to align with the measure set, such as the national strategies of the multi-state payers that may restrict the ability of Connecticut plans to align with state-specific initiatives. The need to coordinate approval of new measures with national leadership could delay the alignment process, except where the national measurement strategy anticipates some of the measures adopted for the SIM Core Measure Set. Fortunately, our claims based measures are highly aligned with those of the Core Quality Measures Collaborative.

Payers with adequate race/ethnicity data for enrolled beneficiaries are encouraged to include the reduction of health equity gaps in their value-based payment contracts. This can be accomplished by applying separate weights to each race/ethnic stratum for the designated health equity measures in the table above or by rewarding a reduction in the performance gap between the highest and lowest performing race/ethnic groups.

EHR-based Measures

Clinical measures that require the collection of data from EHRs will require additional lead time. Although EHR-based clinical measures can be implemented via other means (e.g. sample based chart abstraction), a more efficient, automated solution is needed to implement these measures on a large scale. The fact that none of the payers report having this capability today led the Quality Council to recommend that SIM funds be used establish a state-utility to support the production of these measures on behalf of all payers.⁵⁴ Alignment on these measures will likely depend on the development and deployment of this technology solution.

There are 13 EHR-based clinical quality measures targeted for alignment including the following:

#	EHR-based Clinical Measures	NQF	ACO	Steward	Source	Equity	MQISSP
Prevention							
1	Colorectal cancer screening	0034	19	NCQA	EHR	✓	
2	Weight assessment and counseling for nutrition and physical activity for children/adolescents	0024		NCQA	EHR		
3	Preventative care and screening: BMI screening and follow up	0421	16	CMMC	EHR		
4	Developmental screening in the first three years of life	1448		OHSU	EHR		
5	Tobacco use screening and cessation intervention	0028	17	AMA/PCPI	EHR		
6	Prenatal care & postpartum care	1517		NCQA	EHR		✓
7	Screening for clinical depression and follow-up plan	0418	18	CMS	EHR	✓	
Acute & Chronic Care							
8	DM: Hemoglobin A1c Poor Control (>9%)	0059	27	NCQA	EHR	✓	
9	DM: Diabetes eye exam	0055	41	NCQA	EHR		
10	HTN: Controlling high blood pressure	0018	28	NCQA	EHR	✓	
Behavioral Health							
11	Depression remission at 12 months	0710	40	MNCM	EHR		
12	Depression remission at 12 months – progress towards remission	1885		MNCM	EHR		
13	Child & Adlscnt MDD: Suicide risk assessment	1365		AMA/PCPI	EHR		

The PMO is working with DSS and the State Health Information Technology Advisory Council to assess the viability of edge-server technology for the production of EHR-based measures, which may require that DSS conduct a pilot for further evaluation. The timetable for adopting EHR-based measures will

⁵⁴ http://www.healthreform.ct.gov/ohri/lib/ohri/work_groups/quality/2015-04-15/hit_2016_proofofsolution_performance_measure_production_v5.pdf

depend on the timetable for implementing this or another technology solution, the ability to run baseline performance reports in advance of the negotiation of contract targets, and the aforementioned consideration of contract cycles.

To that extent that a technology solution is successfully deployed, payers will be encouraged to use this technology to enable them to begin adopting the EHR-based measures. It may be necessary for payers to contractually require providers to participate in the state-administered EHR-measure reporting process in order to support the state-wide deployment of this technology. Initially tying payment to provider reporting on these measures may allow for necessary testing or baseline analyses. Once reported measures achieve minimum standards of completeness, reliability, and validity, we would suggest that payers transition from payment for reporting to payment for performance.

The PMO will also focus on ensuring that the measure set is able to accomplish the SIM goals of reducing health inequities in Connecticut. The Health Equity Design Group recommended core measures that represent health conditions where significant health disparities exist in Connecticut. In addition to working with the State Health Information Technology Advisory Council on technology to extract data from EHR systems, the PMO will also be working to ensure that this technology solution enables the extraction of race/ethnicity data to the extent that such data is available and extractable. The technology will need to permit the stratification across racial and ethnic groups for inclusion in value-based payment scorecards. This will create additional incentives for ACOs to provide more person-centered and equitable care to residents across Connecticut.

After the alignment process begins, the Quality Council will continue to review progress and evaluate the core measure set at least annually. The Council will also work on the measures proposed for development. The quality measure alignment lead of the PMO will work as the coordinator with relevant stakeholders for development activities.

Note: Developmental screening in the first three years (NQF 1448) is listed as an EHR-sourced measure; however, under some circumstances, claims-based reporting may be sufficient for use in value-based payment. Please see page 61 of the CMS document entitled: [Core Set of Children’s Health Care Quality Measures for Medicaid and CHIP \(Child Core Set\) Technical Specifications and Resource Manual for Federal Fiscal Year 2016 Reporting, June 2016](#) for guidance related to this issue.

Alignment Reporting

The PMO proposes to monitor progress toward alignment on an annual or semi-annual basis. The baseline assessment of alignment will occur after the measure set is finalized with annual or semi-annual reassessments thereafter.

The PMO is considering methodologies to calculate statewide alignment. One option under consideration is to calculate alignment as a percentage using the following formula:

$$\% \text{ Alignment} = \frac{\text{SUM (\# of measures Payer 1: \# of measures Payer X)}}{\# \text{ of payers} * \text{ number of measures}}$$

In this formula, the “# of measures for each payer” means the number of core measures that the payer has adopted as part of a standard quality measure set for use in all value-based payment contracts or as part of a suite of measures that are included in value-based payment contracts when there is an opportunity for performance improvement. The primary limitation of this approach is that it does not

factor in the number of contracts or number of members in each contract who are subject to each core quality measure. However, it is relatively straightforward to administer and ought to reflect the extent to which payers are aligned as a matter of policy.

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Appendices

Appendix A: Quality Council Charter

QUALITY COUNCIL

Charter

This work group will develop for recommendation to the Healthcare Innovation Steering Committee, a proposal for a core set of measures for use in the assessment of primary care, specialty, and hospital provider performance. This workgroup will develop a common provider scorecard format for use by all payers and reassess measures on a regular basis to identify gaps and incorporate new national measures to keep pace with clinical and technological practice. SIM aims to achieve top-quintile performance among all states for key measures of quality of care, and increase the proportion of providers meeting quality scorecard targets. The Council will identify key stakeholder groups whose input is essential to various aspects of the Council's work and formulate a plan for engaging these groups to provide for necessary input. The Council will convene ad hoc design teams to resolve technical issues that arise in its work.

Key questions this work group needs to answer

Measures

1. What are the structure, process, patient engagement and experience, efficiency, disparities-sensitive, outcome, and cost measures that are in use today by national quality bodies and CT's health plans? (e.g. NQF, AHRQ, NCQA, CAPHS)
2. Which of these measures should be adopted to measure provider performance, taking into consideration the target conditions identified in the Innovation Plan?
3. Which of these measures should be adopted to measure provider performance, taking into consideration the prevention goals identified in the Innovation Plan?
4. What other measures could be used as indicators for whole-person-centered care, enhanced access, and coordinated care (e.g. behavioral health, oral health)?
5. What measures could be used as indicators of workforce productivity/timely return to work?

Metrics

1. What are the metrics for each of the measures and how will they be calculated?
2. What methods will be used for risk adjustment and exclusions?

Common Performance Scorecard

1. What are the best examples of performance scorecards currently in use?
2. What will Connecticut's common scorecard across all health plans look like?
3. What is the process for all health plans to implement the common scorecard?
4. How will cross-payer analytics be integrated for a given practice profile, including commercial and public payers?
5. Is there a recommended frequency and schedule that could be adopted across payers?
6. How will the common performance scorecard be integrated with value-based payment calculations?
7. How will the scorecards be made available to the public?

Common Care Experience Survey

1. What are the best examples of care experience surveys currently in use?
2. Is there one survey that would best align with the goals of the Innovation Plan? Are there supplemental questions that should be considered?
3. What is the process for all health plans to implement the common care experience survey?
4. One what schedule should the common care experience survey be administered?
5. How will the common care experience survey be integrated with value-based payment calculations?
6. How will the results of care experience surveys be made available to the public?

Appendix B: Quality Council Membership Roster

Rohit Bhalla

Stamford Hospital

Aileen Broderick (Executive Team)

Anthem Blue Cross and Blue Shield

Mehul Dalal (Executive Team)

Department of Public Health

Mark DeFrancesco

Westwood Women's Health

Steve Frayne

Connecticut Hospital Association

Amy Gagliardi

Community Health Center, Inc.

Daniela Giordano

NAMI Connecticut

Karin Haberlin

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Kathleen Harding

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Elizabeth Krause

Connecticut Health Foundation

Kathy Lavorgna

General Surgeon

Steve Levine

ENT and Allergy Associates, LLC

Arlene Murphy (Executive Team)

Consumer Advisory Board

Robert Nardino

American College of Physicians – CT Chapter

Donna Laliberte O'Shea

United Healthcare

Marla Pantano*

ConnectiCare Inc.

Tiffany Pierce

Cigna

Jean Rexford

CT Center for Patient Safety

Rebecca Santiago

Saint Francis Center for Health Equity

Andrew Selinger

ProHealth Physicians

Todd Varricchio

Aetna

Steve Wolfson (Executive Team)

Connecticut State Medical Society (CSMS)

Thomas Woodruff

Office of the State Comptroller

Robert Zavoiski, MD

Department of Social Services

*Deb Dauser-Forrest, ConnectiCare, participated as an original member and as part of the Executive Team until September 2015, and more recently, as an alternate.

Appendix C: Design Group Participants

Group One: Pediatric Design Group

Anton Alerte, MD – Pediatrician, Burgdorf Health Center
Mary Boudreau – Executive Director, CT Oral Health Initiative
David Brown, MD – Pediatrician, ProHealth Physicians
Sandra Carbonari, MD – President, CT Chapter of the American Academy of Pediatrics
Robert Dudley, MD – Pediatrician, Community Health Center of New Britain
Alex Geertsma, MD – Pediatrician, Community Health Center of Waterbury
Lisa Honigfeld, PhD – VP for Health Initiatives, The Child Health & Development Institute
Elsa Stone, MD – Pediatrician, Retired
Jillian Wood – Executive Director, CT Chapter of the American Academy of Pediatrics
Robert Zavoski, MD – Medical Director, Department of Social Services

Group Two: Health Equity Design Group

Ignatius Bau, JD – Health Policy Consultant
Aileen Broderick – Director of Clinical Quality, Anthem
Dora Hughes, MD, MPH – Senior Policy Advisor, Sidley Austin, LLP
Elizabeth Krause, ScM – Vice President of Policy & Communications, CT Health Foundation
Theanvy Kuoch, MA, LPC – Executive Director, Khmer Health Advocates
Kathy Lavorgna, MD – General Surgeon
Wayne Rawlins, MD, MBA – Vice President, ConnectiCare

Jane McNichol, JD – Executive Director, Legal Assistance Resource Center of CT, is a member of the Healthcare Innovation Steering Committee and the Medical Assistance Program Oversight Council's Care Management Committee participated as an observer.

Group Three: Behavioral Health Design Group

Robert Cushman, MD – Family Practitioner, Asylum Hill Family Medicine
Chantal DeArmitt, MPH – Consumer Liaison, South Central Regional Mental Health Board
Jessica DeFlumer-Trapp, LPC – Behavioral Health Clinical Manager, Dept. of Mental Health & Addiction Services
Brunilda Ferraj – Senior Public Policy Specialist, CT Community Providers Association
Michaela Fissel – Behavioral Health Consultant, Advocacy Unlimited
Heather Gates, MBA – President & CEO, Community Health Resources
Daniela Giordano, MSW – Public Policy Director, NAMI CT
Larry Grab, MBA – Northeast Director of Behavioral Health, Anthem
Karin Haberlin, MA – Behavioral Health Program Manager, Dept. of Mental Health & Addiction Services
Steve Karp, LMSW – Executive Director, NASW CT Chapter
Knute Rotto, MSW – CEO, Value Options
Victoria Veltri, JD – State Healthcare Advocate

Susan Walkama, LCSW – President & CEO, Wheeler Clinic

Jeff Walter – Interim CEO, CT Community Providers Association

Jesse White-Frese – Executive Director, CT Association of School Based Health Centers

Group Four: Care Experience Design Group

Paul Cleary, PhD – Dean, Yale School of Public Health

Deb Dauser Forrest, PhD – Director of Predictive Analytics, ConnectiCare

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Appendix D: Glossary of Terms and Acronyms

ACC: American College of Cardiology

Accountable Care Organizations (ACOs): A health provider-led organization designed to manage a patient’s full continuum of care and be responsible for the overall costs and quality of care for a defined population. Multiple forms of ACOs are possible, including large integrated delivery systems, physician-hospital organizations, multi-specialty practice groups with or without hospital ownership, independent practice associations and virtual interdependent networks of physician practices.

ACO types cluster into three broad groups: those led by hospitals (Independent Hospital and Hospital Alliance), those led by physician groups (Independent Physician Group, Physician Group Alliance and Expanded Physician Group) and those led by integrated delivery systems (Full Spectrum Integrated).

Organization types include:

Full Spectrum Integrated ACOs:

Provide all aspects of healthcare directly to their patients, with a large, integrated delivery network.

Independent Physician Groups ACOs:

Are owned by a single physician group and do not contract with other providers for additional services.

Physician Group Alliances ACOs:

Similar to Independent Physician Groups ACOs but can be owned by multiple physician groups. They do not contract with other providers for further services.

Expanded Physician Groups ACOs:

Only offers outpatient services directly, but they do contract with other providers to offer hospital or advanced care services.

Independent Hospital ACOs:

ACOs with a single owner that provides direct inpatient services. Outpatient services can be provided directly by the ACO if the owner is an integrated health system or a physician-hospital organization.

Hospital Alliance ACOs:

ACOs with multiple owners with at least one owner directly providing inpatient services. Outpatient services can be provided either directly or by a contracted provider.

Accountability: Consequences for violating rules and methods for enforcing those consequences.

AHRQ: Agency for Healthcare Research and Quality.

AMA-PCPC: American Medical Association convened Physician Consortium for Performance Improvement.

ADA: American Dental Association.

CMMI: Center for Medicare and Medicaid Innovation.

CMS: Centers for Medicare and Medicaid Services.

Communication: Methods of informing consumers and providers about the definition and consequences of prohibited activities.

Concurrent Monitoring & Detection: Methods of detecting under-service and patient selection in real-time or near-real-time.

Cost Target Calculation: The method by which a patient’s benchmark (expected) cost of care is determined and adjusted for clinical and other risk factors.

Cost Benchmark: The expected (or targeted) cost of caring for the population attributed to the ACO.

Historic Benchmark: Sets the expected costs of a population based on the past experience of that population.

Control Group Benchmark: Uses a comparator population (e.g. all enrollees in a health plan throughout a broad regional area) to determine expected costs.

Risk Adjustment: Method to take into consideration demographics and the diagnoses of the population to allow for an “apples to apples” comparison in costs between populations with different risk profiles.

DPH: Department of Public Health

DSS: Department of Social Services

Electronic Health Record (EHR): a longitudinal electronic record of patient health information generated by one or more encounters in any care delivery setting.

Incentive Payment Calculation: The method that defines the amount of incentive payments generated for a given patient population.

Fee for Service (FFS): A method of paying health care providers a fee for each medical service rendered.

Health Disparities: Differences in health outcomes among groups of people.

Health Equity: Attainment of the highest level of health for all people. Health Equity means efforts to ensure that all people have full and equal access to opportunities that enable them to lead healthy lives.

Health Inequities: Differences in health that affect individuals or populations. Health inequities may be related to social, economic, and environmental conditions.

HRSA: Health Resources and Services Administration.

MMDLN: Medicaid Medical Directors Learning Network sponsored by AHRQ.

Minimum Loss Rate (MLR): Similar to an MSR, in a downside arrangement there is a threshold of excessive expenditures that has to be met before the ACO incurs a loss.

Minimum Savings Rate (MSR): Establishes the degree of savings an ACO must achieve in order to be eligible to earn any amount of savings. An MSR is used to ensure that ACOs only share in savings that are statistically significant and don't result from random variation in expenditures.

MNCM: Minnesota Community Measurement

NCQA: National Committee for Quality Assurance.

OSC: Office of the State Comptroller

OHSU: Oregon Health and Science University

Patient Attribution: The method by which patients are assigned to a provider.

Plurality of Visits Methodology: This technique assigns a patient to the provider that the patient saw most frequently within a defined period of time (i.e. the year prior to the performance year or during the performance year).

Patient-Selected: Patients designate their primary care provider when they enroll in their insurance plan.

Payer-Selected: Attribution relies on the payer to designate the patient's primary care provider when the patient selects the insurance plan.

Geography based: Also known as "population based", a technique assigns patients to a provider based on where the patients live.

Retrospective Assignment: Assigns a patient to a provider at the *end* of the first performance year of the shared savings contract.

Prospective Assignment: Assigns a patient to a provider at the *outset* of the shared savings contract period.

Patient Selection: Refers to efforts to avoid serving patients who may comprise a provider's measured performance or earned savings.

Pay for Performance (P4P): A method of paying health care providers differing amounts based on their performance on measures of quality and efficiency. While early P4P programs used quality and access measures to determine incentive awards, current models often include measures of physician practice efficiency, such as use of lower-cost generic pharmaceuticals. Payment incentives can be in the form of bonuses or financial penalties. Pay for performance is typically used in combination with fee for service payments to incentive improvement in quality of care and patient safety.

Payment Distribution: The method by which individual providers share in achieved savings.

Performance Measurement: Performance Measurement evaluates the impact on patients' care experience and quality of outcomes on their total health. Key goals of performance measurement are to

ensure accountability for the quality of care and to identify and drive improvement in areas of substandard care.

Population Health: The health of a group of people such as those who live in a geographic region, belong to a worksite, or are members of minority groups.

Retrospective Monitoring & Detection: Methods of detecting under-service and patient selection by observing it using data produced after a period of performance is over.

Rules: Rules for who can participate in a value-based contract and what activity is allowed and prohibited.

Shared Savings Program: A form of a value based payment that offers incentives to provider entities to reduce healthcare spending for a defined patient population by offering physicians a percentage of the net savings realized as a result of their efforts. Savings are typically calculated as the difference between actual and expected expenditures and then shared between payer and providers. An accountable care organization (ACO) is a type of shared savings program.

Upside Risk: An upside-only contract the ACO will have the opportunity to share in savings if actual costs are below the expected cost benchmark, but will *not* be at financial risk if costs are in excess of the cost benchmark.

Two-Sided Risk: In this arrangement the ACO will continue to have an opportunity for savings, but will also incur a loss if spending is higher than the expected cost benchmark. The loss will occur in the form of a payment back to the payer for costs that exceed what was expected.

Triple aim in health care: A framework developed by the Institute for Healthcare Improvement that aims to optimize the U.S. health care system by enhancing the patient experience, improving the health of populations and reducing the per capita cost of health care.

Under-Service: Refers to the systematic or repeated failure of a provider to offer medically necessary services in order to maximize savings or avoid financial losses associated with value based payment arrangements.

Value Based Insurance Design: Insurance plans with structural components that incent patients to engage in healthy behavior, participate in their healthcare decisions, and make intelligent use of healthcare resources.

Value Based Payment: A form of payment for healthcare services that rewards providers for managing the cost and/or improving the quality of care they provide to patients. This differs from the more traditional fee-for-service payment method in which providers are paid based on the volume of services they render. The goal of value-based payments is to reduce unnecessary costs, improve the care experience, and improve health outcomes, by rewarding physicians, other healthcare professionals, and organizations for delivering value to patients.