This document reflects the grant proposal submitted by the Commonwealth of Massachusetts to the Centers for Medicare and Medicaid Innovation on February 5, 2013. Grant activities will be contingent on federal approval and funding.

IV. PROJECT NARRATIVE

1. THE MODEL TO BE TESTED

Historically, the payment and delivery systems in Massachusetts have been grounded in a traditional fee-for-service (FFS) structure that does not inherently promote efficiency, quality, or coordination of care. Massachusetts is fully committed to transforming its payment and delivery systems, particularly in light of the recent passage of comprehensive health care reform legislation, Chapter 224 of the Acts of 2012. Massachusetts proposes to use grant funds to accelerate the migration to a statewide multi-payer model in which providers, particularly primary care providers, assume accountability for the quality and cost of care provided to their patients across the delivery system. In this model, providers are supported by a shared savings/risk payment framework and an aligned multi-payer operational structure. The specific investments proposed under this funding opportunity close key gaps between our current and desired health care systems by facilitating the participation of public payers in the model and building out the multi-payer operational structure.

A. DESCRIPTION AND PURPOSE OF THE MODEL

The multi-payer model is based on a shared vision for primary care providers to take accountability for the quality and cost of care through a patient-centered medical home (PCMH) that includes care coordination and care management, enhanced access to primary care, coordination with community and public health resources, integration with behavioral health, and population health management. We define primary care providers broadly to include group practices, hospital based primary care providers, and community health/mental health centers

that provide primary care services. These provider organizations may be embedded in larger organizations, ranging from integrated delivery systems to independent practice associations to Accountable Care Organizations (ACOs). This PCMH model applies to a variety of patient populations, including children, people with behavioral health conditions, and the elderly.

The model includes a common payment framework involving a shared savings/risk arrangement with quality incentives. Shared savings is an incentive structure in which providers share in the savings if the actual costs of care, for a population of patients attributed to them, fall below expected costs over a specified time period. Shared risk arrangements expose providers to liability if actual costs exceed expected costs. These arrangements incentivize providers to manage the total cost of care. Quality performance may be used as a basis for independent quality incentive payments or to determine the amount of shared saving payment and/or shared loss a provider organization may receive. The payment framework would also support delivery transformation into medical homes through per-member-per-month medical home payments, infrastructure payments, advance payment of shared savings, or capitated primary care payments.

The operational structure for this model consists of four key elements, each of which motivates investments proposed under this grant: 1) a statewide cross-payer approach to providing provider organizations with the data required for care coordination and accountability; 2) a statewide quality strategy, which aligns all payers around a standard set of quality metrics and facilitates multi-payer data collection, measure calculation, and data transmission via the Health Information Exchange (HIE); 3) a robust set of public health and community-based services and strong linkages among these services and other parts of the health care delivery system; 4) a multi-payer statewide approach to learning, evaluation and dissemination of best

practices. This shared operational structure minimizes the burden of participation on providers, reduces redundancy and promotes alignment of operational systems across payers.

B. GAPS BETWEEN THE CURRENT STATE AND PROPOSED MODEL

Massachusetts has made significant progress in shifting towards the specified alternative payment model, with many major payers already participating. Medicare, MassHealth and its contracted Managed Care Organizations (MCOs), Blue Cross Blue Shield (BCBS) of Massachusetts and Tufts Health Plan are all moving toward alternative payment contracts consistent with the model. The model of the PCMH has been widely adopted across the state. Medicare's ACO programs emphasize the importance of primary care and attribute members on the basis of primary care provider relationships. The Pioneer ACO program requires that participants have PCMH capabilities. MassHealth, both through its internal Primary Care Clinician (PCC) Plan and its contracted MCOs, has spearheaded the Patient Centered Medical Home Initiative (PCMHI), a multi-payer effort to establish PCMHs across the state. The Group Insurance Commission (GIC), which purchases insurance for public employees and retirees, also participates in the PCMHI and is partnering with MassHealth to develop an aligned approach in its procurement of health plan contracts. BCBS has established the Alternative Quality Contract (AQC), which emphasizes PCMH principles in holding primary care practices and the systems that employ them accountable for quality and for the total cost of care. The Tufts Coordinated Care Plan (CCP) and a number of Harvard Pilgrim Health Care's provider contracts also emphasize PCMH principles. The recent health care reform law also supports primary care in the PCMH framework and accountability for cost and quality outcomes.

A shared savings framework is also common across several of the current initiatives in the state. Both Medicare ACO programs rely on a shared savings/shared risk approach. PCMHI

includes an upside-only shared savings approach. In MassHealth's Duals Demonstration, Integrated Care Organizations (ICOs) are encouraged to use alternative payment methodologies to contract with providers, including shared savings/shared risk arrangements. The BCBS AQC relies on a "global budget" system, including a shared savings component, and is moving towards a shared savings/shared risk framework. The Tufts CCP also uses a form of shared savings in its contracts. In many of these models, quality performance affects the extent of eligibility for the shared savings payment.

All of these programs include additional components to support practice transformation into a medical home. Medicare offers advance payment of shared savings to some Medicare Shared Savings Program (MSSP) participants and will transition its Pioneer ACOs to population based prospective payments. PCMHI, the AQC, and the CCP all provide infrastructure payments to participating organizations. Other major commercial payers in the Commonwealth have expressed agreement with the basic principles included here and are working to develop aligned payment frameworks.

By virtue of their size and history, public payers have the potential to catalyze significant change in the market. We propose to use State Innovation Model (SIM) funds to support MassHealth's development of a payment and delivery system reform effort called the Primary Care Payment Reform (PCPR) Initiative and the GIC's effort to develop and implement an aligned approach in its upcoming health plan procurement.

To support this model, the state also proposes to use grant funds to address several operational gaps. Many payers have recognized the need for practices to receive data on the services their patients receive in other settings. Medicare provides claims data to participating ACOs, while BCBS, Tufts, and other commercial payers have set up portals for providers to

access claims data and some real-time information on emergency department (ED) visits and hospital admissions. In PCMHI, Medicaid payers provide some claims data and limited real-time information. These fragmented systems are not always able to give providers the comprehensive data needed to effectively manage care. Moreover, behavioral health providers and long-term services and supports (LTSS) providers have been largely excluded from existing health information technology (HIT) incentive payments, and many do not have electronic medical records (EMRs). We propose to use grant funds to strengthen the data infrastructure for care coordination and accountability, including leveraging the All Payer Claims Database (APCD) to provide cross-payer claims-based reports to practices, and providing technical resources to behavioral health and LTSS providers to participate in the HIE.

Quality measurement is a key ingredient of the specified model, and, recognizing the potential for measurement to improve outcomes and motivate excellence, the state's payers work together in several important areas. First, the Statewide Quality Advisory Committee (SQAC) represents a multi-stakeholder effort to design a standard set of quality measures. This set of measures takes into account the diverse population covered by the model and builds upon existing measure sets such as the Children's Health Insurance Program Reauthorization Act (CHIPRA) core measures, the Centers for Medicare and Medicaid Services (CMS) ACO measures, and quality measures in use by private payers. Second, Massachusetts Health Quality Partners (MHQP) conducts cross-payer statewide surveys of patient experience, reporting results to practices and publicly, and calculates and reports cross-payer Healthcare Effectiveness Data and Information Set (HEDIS) measures. In addition, the APCD facilitates multi-payer calculation of claims-based measures. Finally, the HIE will enable the transmission of measures of clinical quality captured by electronic health records (EHRs) as providers attain Stage 2 of

meaningful use (MU). At the same time, several gaps exist in current activities. Notably, public payers are excluded from MHQP's work, due to lack of funding. The Medicaid Management Information System (MMIS) system that covers MassHealth and the Health Safety Net requires upgrades to facilitate the analysis of quality data and its use in alternative payments. Also, some smaller and less sophisticated providers may require technical assistance in order to transition to EHRs and use the HIE.

Other key gaps addressed by this proposal are integration of public health initiatives and LTSS with the primary care system and ongoing learning and dissemination of best practices. The proposed investments are described in greater detail below.

C. THE FIVE INVESTMENT AREAS

i. SUPPORTING PUBLIC PAYERS IN TRANSITIONING TO THE MODEL

MassHealth Primary Care Payment Reform. MassHealth proposes to use grant funds to support the transition to the model via its PCPR Initiative. This initiative gives primary care providers greater flexibility and resources to deliver care in the best way for their patients. PCPR will include MassHealth's PCC Plan, with MassHealth MCOs implementing an aligned strategy. Participants would enter into a shared risk/savings arrangement and receive a risk-adjusted per-member-per-month payment for a defined set of primary care and behavioral health services. They may also qualify for quality incentive payments. Grant-funded investments in this area would support: 1) program development and analytic staff; 2) grants to support selected practices in reporting on quality metrics and in creating innovative solutions to improve access to and coordination of care, including telemedicine; and 3) technical resources to implement the model, such as contracted expertise in benefit design, rate-setting, program management, and MMIS.

Group Insurance Commission. The GIC's current value based purchasing strategy includes incentives to encourage a shift to higher quality, lower cost providers. If awarded this grant, the GIC intends to develop an approach that is broadly aligned with MassHealth's PCPR Initiative. The GIC is interested in using its current five-year health plan procurement to further the goals of Chapter 224 and to promote accountability by holding plans responsible for costs and directing them to pursue risk-based contracts with providers. The GIC is required by Chapter 224 to transition to alternative payment methodologies "to the maximum extent possible" by July 2014. Grant funds would support consulting and actuarial support to the GIC.

Medicare. Although the state is not requesting funding related to Medicare programs, pursuant to Chapter 224, the state intends to seek a waiver to further Medicare's participation in alternative payment methodologies. Medicare's current ACO programs are broadly aligned with the multi-payer model, thus Medicare's participation in the state PCPR Initiative would not be required in order for the multi-payer model to succeed. However, the additional market power of Medicare's participation for its lives outside of Pioneer and MSSP would significantly boost the reach of the model.

ii. SUPPORTING A DATA INFRASTRUCTURE FOR CARE COORDINATION AND ACCOUNTABILITY

Leveraging the APCD. Under this grant, Massachusetts envisions establishing a provider portal to the APCD that would enable providers to access claims-based reports for their entire patient panels, with standard formats and timeframes. All major state payers provide monthly feeds of data to the APCD, and Medicare has committed to providing quarterly data to the APCD.[1] These reports would enable practices to receive comprehensive information on patients'

[1] The sole exception is small private insurers with less than $250,000 in annual premiums.

utilization, track population health measures and monitor progress against shared savings targets. The state would work with a vendor to ensure a multi-stakeholder process for creating the reports from the APCD.

Resources for HIE adoption – Providers of Behavioral Health Services and Long-Term Services and Supports. We also propose to support full participation of behavioral health and LTSS providers in the HIE through technical assistance. By increasing HIE participation among these critical constituencies, the grants would support behavioral health integration and potentially accelerate widespread HIE adoption, as the value of participation to any one provider increases with the participation of others.

Data Infrastructure for LTSS. A third investment in data infrastructure in this area enhances the capability of the Executive Office of Elder Affairs (ELD) case management system, the Senior Information Management System (SIMS), so that it can also process clinical assessment data. Providers would be able to upload data to the SIMS site, allowing the patient, caregivers, and case managers access to this data.

iii. SUPPORTING A STATEWIDE QUALITY STRATEGY

HIE functionality for quality reporting. As discussed above, the HIE will be an important mechanism for transmitting health information, including quality metrics. Massachusetts proposes to support the use of the HIE for transmitting quality metrics via two channels. The first is upgrading the MMIS system used by MassHealth and the Health Safety Net to enable it to incorporate quality data, utilize that data in alternate payment systems, and export that data for analytic purposes. The second is offering technical assistance to practices seeking to make full use of EHRs and the HIE for the purpose of quality reporting but requiring one-time technical support in order to do so.

Statewide quality measurement and reporting. The second investment in the statewide quality strategy is to include the public payers in existing efforts to collect practice-level data on patient experience and to calculate practice-level HEDIS quality measures. The grant budget includes the funds necessary to survey approximately 90,000 MassHealth and 110,000 Medicare members at two points during the grant period as an expansion of the existing multi-payer effort conducted by MHQP. The budget also includes the funds to include MassHealth and Medicare members in cross-payer HEDIS measure calculations at two points during the grant period, again as an expansion of existing multi-payer efforts. Bringing public payers into these initiatives is fundamental to creating, strengthening, and evaluating statewide delivery and payment reforms. By capturing the patient voice, we will have the feedback to create a delivery system model that is truly patient-centered.

iv. INTEGRATING PRIMARY CARE WITH OTHER SERVICES AND RESOURCES

Electronic referrals to community resources. The state would benefit from systematic linkages between primary care systems and other services to provide community-level health education, population interventions, and to encourage follow-up and coordination of services. The state proposes to invest in an electronic referral system that will facilitate clinical-community linkages for evidence-based self-management programs for chronic disease and for community-based health and wellness programs, delivered by community partners, such as the YMCA. The proposed funding would be allocated towards software development and technical assistance to pilot communities.

Access to pediatric behavioral health consultation. Pediatric practices often require support from psychiatrists to provide appropriate behavioral health care for children. However, Massachusetts currently lacks a sufficient supply of child psychiatrists. The Massachusetts Child

Psychiatry Access Project (MCPAP) provides psychiatric consultations to primary care clinicians, including real-time telephonic consultations, and facilitates referral to local resources when needed. The state proposes to use grant funding to enhance MCPAP's response time and to add resources for supporting substance abuse care for adolescents. These services are designed to support behavioral health integration by expanding the competency of practices in managing pediatric behavioral health.

Linkages between primary care practices and LTSS. The state proposes a second enhancement to the ELD case management system, SIMS, allowing for providers and caregivers to access the system and further integrating elders' primary care and case management services.

v. EVALUATING AND DISSEMINATING BEST PRACTICES

A key component of system-wide innovation is evaluation and dissemination of best practices. As multiple actors in the state move together to transform the payment and delivery system, a coordinated approach to evaluation and learning will allow for sharing of best practices and thus accelerate transformation.

Learning collaboratives. This proposal includes two broad learning collaborative structures: one for payers and one for providers, with regional and statewide meetings. These collaboratives would help promote multi-payer collaboration and alignment as well as support primary care practice transformation among payers, providers, and the general public.

Technical assistance to primary care practices. Small primary care practices may need to affiliate together to achieve sufficient scale to make investments in the expanded capabilities required to participate in any shared savings model but may lack the resources or staff for successful collaboration. It is an important strategic priority of the state to actively include these practices in its proposed model. The state would offer grants to support technical, legal, and

consulting support to help primary care practices come together to form affiliations, engage consumers, and set up telemedicine relationships.

D. SCOPE OF THE MODEL

The scope of the model is a statewide intervention across geographies and with participation by all of the large payers. Please refer to the project plan and financial analysis for the phase-in schedule. Integration of primary care services with community health and prevention is explicitly a part of the model, as defined in the vision and in the operating framework. Efforts to integrate primary care with community health and prevention are described in the investment appendices on electronic referrals to community resources. LTSS also play a key role in the state's multi-payer model. Care coordination and care management may require explicit engagement of a patient's LTSS providers. Also, providers may have incentives to manage LTSS spend under the shared savings program.

E. VALUE PROPOSITION

The model is built on the premise that appropriate payment incentives, accompanied by necessary infrastructure and augmented by public and community health resources, can drive changes in the delivery system and result in better quality and efficiency of care. Our model is built on a foundation of a strong medical home, which can provide efficient, coordinated, and high-quality care. Over time, we anticipate that this model would lead to more efficient provision of care and improve the health of Massachusetts residents, manifesting in decreased cost.

F. EVIDENCE BASE FOR THE DELIVERY MODEL

There is evidence to suggest that the delivery model, payment framework and operational structure of the model can improve quality and lower cost for Massachusetts residents. Studies related to the delivery model indicate that a strong primary care base can improve quality, reduce

cost, and reduce disparities in care, especially when delivered through a PCMH. Regular primary care provider utilization is associated with improved satisfaction, better compliance, fewer ED visits and hospitalizations, and improved morbidity and mortality results.[2] Increased availability of primary care physicians is linked to decreased admissions, ED visits, and surgeries.[3]

Evaluation of the PCMH delivery model is in the early stages, but initial results suggest potential to realize significant cost and quality improvements. Multiple medical home pilots have demonstrated significant improvements in health outcomes and patient experience metrics, with indications of decreased ED visits and hospital utilization.[4] Evidence from Medicare's Coordinated Care Demonstration indicates the importance of practice-based face-to-face care coordination and care management, with medical home capabilities.[5] North Carolina's Community Care model was estimated to save $200 million for Medicaid beneficiaries, with significant reductions in hospital utilization for chronic conditions.[6] Geisinger's medical home model yielded 4-7% savings over three years.[7] Washington University's site experienced a 12% reduction in hospitalizations and savings of $217 per enrollee by using medical home tools.[8] Medical homes also improve chronic disease management and adherence to regular screening guidelines, and can narrow racial disparities in health outcomes.[9]

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[2] Macinko, James, Barbara Starfield and Leiyu Shi. "Quantifying the Health Benefits of Primary Care Physician Supply in the United States" *International Journal of Health Services.* 2007. 37(1)*:* 111-126.
[3] Kravet SJ, Shore AD, Miller R, Green GB, Kolodner K, Wright SM. Health care utilization and the proportion of primary care physicians. Am J Med. 2008 Feb;121(2):142-8.
[4] Peikes D, Zutshi A, Genevro J, Smith K, Parchman M, Meyers D. Early Evidence on the Patient-Centered Medical Home. Final Report (Prepared by Mathematica Policy Research, under Contract Nos. HHSA290200900019I/HHSA29032002T and HHSA290200900019I/HHSA29032005T). AHRQ Publication No. 12-0020-EF. Rockville, MD: Agency for Healthcare Research and Quality. February 2012.
[5] Randall S. Brown, Deborah Peikes, Greg Peterson, Jennifer Schore and Carol M. Razafindrakoto. Six Features Of Medicare Coordinated Care Demonstration Programs That Cut Hospital Admissions Of High-Risk Patients. Health Aff (Millwood) June 2012 31:61156-1166.
[6] S. Wilhide and T. Henderson, "Community Care of North Carolina: A Provider-Led Strategy for Delivering Cost-Effective Primary Care to Medicaid Beneficiaries," American Academy of Family Physicians, June 2006.
[7] Maeng DD, Graham J, Graf TR, Liberman JN, Dermes NB, Tomcavage J, Davis DE, Bloom FJ, Steele GD Jr. Reducing long-term cost by transforming primary care: evidence from Geisinger's medical home model. American Journal of Managed Care. 2012 Mar;18(3):149-55.
[8] Deborah Peikes, Greg Peterson, Randall S. Brown, Sandy Graff and John P. Lynch. How Changes In Washington University's Medicare Coordinated Care Demonstration Pilot Ultimately Achieved Savings. Health Aff (Millwood) June 2012 31:61216-1226.
[9] A. C. Beal, M. M. Doty, S. E. Hernandez, K. K. Shea, and K. Davis, Closing the Divide: How Medical Homes Promote Equity in Health Care: Results From The Commonwealth Fund 2006 Health Care Quality Survey, The Commonwealth Fund, June 2007.

The importance of promoting behavioral health integration with primary care is well documented as well. The National Institute of Mental Health estimates that in a given year, 26% of the US adult population has a mental health disorder.[10] An estimated 70% of primary care visits stem from psychosocial issues.[11] Behavioral health costs are also a significant driver of medical expenses, as annual medical expenses for patients with both chronic medical and behavioral health conditions are 46% more than those for patients who have chronic medical conditions only.[12] Studies have shown an increase of at least 50% in access to mental health care if offered in primary care settings and in an integrated fashion.[13] The Improving Massachusetts Post-Acute Care Transfers (IMPACT) model, which provided primary-care based care management for patients with depression, found significant improvements in quality and long-term associated cost savings.[14]

G. EVIDENCE BASE FOR THE PAYMENT FRAMEWORK

The FFS payment model has the potential to impede high-quality comprehensive primary care practice, because FFS compensates providers based on the financial value of the care they deliver, leading to weak financial incentives for careful diagnosis and management, which are typically the responsibility of primary care, and strong financial incentives for specialty care, including care of uncertain value. Evidence suggests that shared savings and shared risk models with quality incentives can address these poor incentives and improve quality and cost outcomes. For example, the AQC includes a global budget approach with quality gates and a quality

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[10] Kessler RC, Chiu WT, Demler O, Walters EE. Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). Archives of General Psychiatry, 2005 Jun; (6):617-27.
[11] Fries JF, Koop CE, Beadle CE, Cooper PP, England MJ, Greaves RF, et al. Reducing health care costs by reducing the need and demand for medical services. The New England Journal of Medicine, 1993 Jul; 329(5); 321-325.
[12] Petterson SM, Phillips RL Jr, Bazemore AW, Dodoo MS, Zhang X, Green LA. Why there must be room for mental health in the medical home. American Family Physician, 2008 Mar; 77(6):757.
[13] Bartels SJ, Coakley EH, Zubritsky C, Ware JH, Miles KM, Areán PA, et al. Improving access to geriatric mental health services: a randomized trial comparing treatment engagement with integrated versus enhanced referral care for depression, anxiety, and at-risk alcohol use. American Journal of Psychiatry, 2004 Aug; 161(8):1455–1462.
[14] Unützer J, Katon WJ, Fan MY, et al. Long-term cost effects of collaborative care for late-life depression. Am J Manag Care 2008;14(2):95-100.

incentive payment. Significant improvements in quality have been shown and were accelerated in the second year. Spending growth also slowed compared to comparison groups (1.9% savings in the first year, 3.3% in the second, measured in per-member per-year terms). Savings were even greater for providers who had no prior experience in risk contracts, with 6.3% and 9.9% savings in the first and second year respectively.[15] All ten of the Medicare Physician Group Practice (PGP) demonstration's sites displayed significant improvements in the quality metrics, with all ten groups achieving benchmark performance on 30 of the 32 measures by the end of the five year program. The number of groups earning shared savings bonuses increased over time, with two practices gaining a bonus in the first year, four in the second year, and five in the third year.[16]

H. EVIDENCE BASE FOR THE OPERATIONAL STRUCTURE

While this operational framework has not been evaluated as a whole, the various components of a united data strategy, statewide quality strategy, integration of public health and community resources with primary care, and learning and collaboration have significant evidence bases to support the approach the state has recommended. This detail is contained in Project Narrative Part 2: Individual Investments.

I. THEORY OF ACTION

The theory of action, outlined below, is based on the experience of payers nationally and within the state implementing shared savings models in the context of a medical home.

EXHIBIT IV.1 THEORY OF ACTION

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[15] Zirui Song, Dana Gelb Safran, Bruce E. Landon, Mary Beth Landrum, Yulei He, Robert E. Mechanic, Matthew P. Day and Michael E. Chernew. The 'Alternative Quality Contract,' Based On A Global Budget, Lowered Medical Spending And Improved Quality. Health Aff July 2012 10.1377/hlthaff.2012.0327.

[16] "Medicare Physician Group Practice Demonstration" (August 2008), available at http://www.cms.hhs.gov/DemoProjectsEvalRpts/downloads/PGP_Fact_Sheet.pdf.

Input	Intervention	Actions	Results
• Incentives for providers to redesign practices to take accountability for cost and quality of care • Provision of timely, accurate data through a statewide IT infrastructure • Connections to public health and community resources • Statewide quality strategy • Learning collaboratives and technical assistance	• Practices are redesigned. Providers coordinate care across settings and provide care management; connect and manage relationships with other resources; use enhanced data; provide patient-centered care; promote integration of behavioral health services and techniques	• Providers and patients reduce inappropriate underutilization and overutilization of services • Patients receive care in appropriate settings (e.g., in primary care office instead of ED) • Patient behavior change is promoted through patient-centered care and use of behavioral health techniques	• Improved patient outcomes and quality of care • Improved efficiency and lower costs for practices

J. COORDINATION WITH OTHER FEDERAL INITIATIVES

Massachusetts has a long history of partnering with the federal government, not only in support of the state's historic coverage expansion, but also in the development and implementation of new payment and delivery models. Through participation in a number of initiatives made possible by the Affordable Care Act (ACA), the state and its providers have demonstrated a commitment to leveraging opportunities to innovate with the federal government as it supports states' payment and delivery system reform agendas. The state has also used its 1115 Demonstration and other federal funding opportunities described below to accelerate the pace of innovation.

- Massachusetts has aligned core components of its multi-payer model with the MSSP and the Pioneer ACO Program. As these programs continue to evolve, they will add both momentum and scale to the state's broader transformation efforts.
- The Duals Demonstration is also aligned with this model. ICOs are encouraged to use alternative payment methodologies, including global budgets and shared savings/risk arrangements, in contracting with providers. MassHealth is committed to aligning ICO payment methodologies with the broader alternative payment strategy.
- The Delivery System Transformation Initiative (DSTI) is a three-way partnership between CMS, Massachusetts, and seven safety net hospitals that offers performance-based incentive payments to hospitals and thereby supports investments in areas such as developing PCMH models, care management, redesigning discharge processes, and IT and analytic capacity.
- The Pediatric Asthma Bundled Payment Pilot is designed to support the shared vision of integrated, preventive care for pediatric Medicaid patients with asthma. Eligible participants in Medicaid's PCPR Initiative would be encouraged to participate in the pilot.
- Money Follows the Person (MFP) provides support to disabled and elderly Medicaid beneficiaries living in the community. The model supported by the grant aligns with the vision in MFP of providing integrated, coordinated care in the appropriate long-term care setting. Primary care providers would be expected to coordinate with the range of appropriate LTSS providers who care for their patients, including MFP providers.
- IMPACT is an Office of the National Coordinator (ONC)-funded pilot program to improve care transitions by leveraging a health information exchange. The lessons

learned from the IMPACT project will inform provider organizations participating in the state's multi-payer model. The care coordination in the model will broadly support the aims of IMPACT as well, creating a positive feedback loop.

- CHIPRA Quality Demonstration Grant pilots several pediatric quality measures, and establishes a coalition (The Child Health Quality Coalition - CHQC) to manage and promulgate that measurement. The state is already leveraging the CHIPRA measures in the SQAC process and in selecting measures for MassHealth's PCPR Initiative, and will continue to engage the CHQC as a key stakeholder in support of the expansion of quality measurement with respect to pediatric patients.
- The state is drafting a state plan amendment to participate in the Medicaid Health Homes program and looks forward to working with CMS on this program.

Maintaining coordination and alignment among these initiatives will require active planning and stakeholder engagement. The state is committed to working with the relevant state and federal agencies. Pursuing alignment with concurrent programs will be one of the responsibilities of the project management team for the grant.

K. SUSTAINABILITY AND REPLICABILITY

The state's proposal is to leverage one-time-only grant funds to make investments that catalyze or accelerate transformation to an alternative delivery and payment system that is self-sustaining. Shared savings payments, quality payments, and practice transformation support would be provided by the individual payers and would continue after the grant period. Some of the proposed investments are intended to be pilot initiatives which, if proven successful, could be scaled through investments by payers or others. Please see "Individual Investments" for additional details.

Massachusetts has a proud history of leading the nation in health care system transformation and innovation. The state's proposed multi-payer model for transformation is a framework that could apply in many states with a variety of market dynamics, as it affords flexibility for each payer to tailor the model to fit its specific needs.

L. GEOGRAPHIC FOCUS OF MODEL

The model is a statewide model.

M. RISKS AND HOW THEY WILL BE ADDRESSED

Because this model builds on a multiyear process of stakeholder engagement and existing market innovations, the likelihood of success of this project is high. However, we have identified several key risk areas and mitigation strategies:

- Stakeholder engagement: Ongoing support from the stakeholder community, including providers, payers, advocacy groups, consumers, legislators, and others will be essential to the success of this model. Section R, on "Other Stakeholder Commitment and Engagement," describes levels of commitment and plans for ongoing engagement.
- Transformation of the whole delivery system: Massachusetts has many provider organizations committed to transformation. However, some segments of the delivery system have been less deeply engaged in the transformation process. These include primary care providers in small practices, behavioral health providers, and LTSS providers. The grant includes investments targeted at these segments, such as quality reporting grants in the PCPR Initiative, HIE technical assistance for behavioral health and LTSS providers, the investments in LTSS case management systems, and the technical assistance specifically aimed at smaller primary care practices.

- Information technology risks: A shared information technology infrastructure, including the statewide APCD and HIE, is a key component of this model. Specific risks related to the implementation of information technology infrastructure include the timeliness of systems improvements; privacy and security concerns regarding data transmission; and the take-up rate of new technology. Funds in this grant provide support to manage these risks within the proposed IT projects.

N. BASELINE MEASURES AND IMPROVEMENT TARGETS

The proposed model is expected to improve patients' experience, clinical quality, and population health outcomes as well as to reduce costs. As part of the project plan for continuous improvement, described in Section VI, the state will conduct a thorough inventory of metrics in these areas and select areas of focus and improvement targets. This selection process will emphasize: 1) clinical significance, 2) room for improvement, as indicated by national norms and results in high-performing organizations, 3) the expectation that measures would be responsive to the model intervention, 4) alignment with national and state initiatives, and 5) stakeholder acceptability.

Based on the criteria listed above, we have identified a preliminary set of measures for the PCPR Initiative, including measures of clinical quality, patient experience, and health status.[17] Selected measures from this list, for which baseline rates are available for adults, include: 1) Antidepressant medication management (#105). *2012: Effective acute phase – 47.6%, effective continuation phase – 32.7%.* 2) Initiation and engagement of alcohol/drug dependence treatment (#4). *2011: Initiation - 52.7%, engagement - 19.9%.* 3) Follow-up after hospitalization

[17] These measures are listed in the state's request for information for the PCPR program posted at: www.comm-pass.com, keyword 13CBEHSCPCPRFI for details.

for mental illness (includes children and adults) (#576). *2012: 7 day 55.9%, 30 day 75.2%.* 4) Mammography screening (#31). *2011: 67.2%.* 5) Diabetes Composite (All or Nothing Scoring #729). *2011: HbA1c testing annual - 90.2%, LDL-C screening - 81.4%.* 6) Prenatal and postpartum care (includes post partum depression screening) (NQF 1517). *2011: 68.7%*. 7) Chlamydia screening (#33). 2012: 73.1%. 8) Cervical cancer screening (#32.*) 2011*: 76.2%. As described in our application for CMS' CHIPRA adult core grant opportunity, MassHealth plans to target two of these measures for quality improvement (QI) over the next two years: initiation and engagement of alcohol/drug dependence treatment and post-partum visits. The model is also projected to reduce hospital utilization, notably non-emergent emergency department use and hospital readmissions. An explicit target for hospital readmissions has been set (15% reduction, from 11.6% to 10%).[18] Section Q discusses linkages between the model and the population health objectives set by other state and federal initiatives, while Section F includes evidence related to other expected model effects.

The State Health Care Innovation Plan (Section III) addressed current levels of statewide outcomes. Although the SQAC creates a common framework, individual payers set improvement targets tailored to their own initiatives and populations. Multiple stakeholders collaborate in several noteworthy areas: 1. *Efforts to target obesity*, via the Mass in Motion program. 2010 baseline obesity rate: 23% of residents. 2. *Child health*. The state's CHQC's 2012 priorities are effective communication/coordination of care; using the most clinically appropriate site of care, particularly reducing potentially preventable ED use among children with asthma; and building measurement capability. 3. *Care transitions and preventable readmissions*. The State Health

[18] Baseline rate from Permedion study on MassHealth pediatric and adult readmissions, March 2011.

Care Innovation Plan describes four specific initiatives in this area, one of which, the State Action on Avoidable Rehospitalizations Initiative, targets a 30% reduction in avoidable rehospitalizations over four years. Moreover, the model proposed in this grant is part of the state's overall strategy to achieve the cost growth targets laid out in Chapter 224.

O. MEDICARE PAYMENT MODELS & MEDICAID WAIVER AUTHORITIES.

MassHealth's PCC plan currently operates according to an 1115 Demonstration. MassHealth plans to request a Demonstration amendment to specifically authorize elements of the PCPR Initiative, including paying a Comprehensive Primary Care Payment (CPCP) and paying out shared savings. MassHealth has submitted to CMS a draft Demonstration amendment authorizing PCPR. MassHealth does not currently anticipate any required Medicaid State Plan amendments.

Medicaid's participation in the model may be contingent on Demonstration amendments if CMS determines that it will not financially support shared savings payments that are not explicitly authorized in the 1115 Demonstration. Nevertheless, the other projects and investments that have been proposed would still promote broader delivery system transformation by supporting payer and provider organizations in transitioning to the specified model. The participation of the GIC will also add substantial additional public payer scale to the model.

The state would work with Medicare to align Medicare participation with the PCPR Initiative, potentially by developing a statewide version of the Innovation Center's Comprehensive Primary Care Initiative (CPCI). However, given the high percentage of Medicare fee-for-service lives already enrolled in MSSP and Pioneer, Medicare will have significant participation in the model even prior to any new arrangements with Medicare.

P. PROVIDER AND PAYER COMMITMENT, EXPECTED TRANSFORMATION [19]

Primary care providers and delivery systems across the state have committed to making the changes required by the new model. The five Pioneer ACOs and four MSSP practices committed to this transformation for their Medicare members and have expressed interest in similar arrangements with other payers. Over 40 primary care groups have committed to this transformation in the context of BCBS' AQC, covering over 700,000 lives.[20] In Massachusetts' multi-payer PCMHI, 46 practices including 30 community health centers (CHCs) have committed to transforming into PCMHs in the context of a shared savings model. Seven safety net hospitals have committed to taking more accountability for the cost and quality of care across settings. While the proposed model is centered on primary care, it reaches many other classes of providers. Participants in PCPR will be required to work with behavioral health providers to ensure integration, and behavioral health providers will be eligible to be medical homes in PCPR for those patients that select them. Many hospitals in Massachusetts own or are tightly aligned with primary care groups. The PCPR Initiative will also incentivize providers to coordinate with LTSS providers to reduce acute utilization.

The University of Massachusetts (UMass) Memorial Medical System, including several hospitals and multispecialty group practices, has demonstrated commitment to this model. Six practices in the UMass system, caring for over 30,000 patients, are participating in PCMH transformation programs, two of them in the state's PCMHI. Two major public payers, MassHealth and the GIC, will be developing an aligned strategy in the context of this proposal. Other payers in the state are also introducing aligned models and participating in building the

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[19] The topic of "other targeted improvements" is included in the section on "baseline measures and improvement targets,: while the topics related to "project processes and operational planning" are covered in the sections on individual investments and the project plan.

[20] Blue Cross Blue Shield of Massachusetts Testimony at the Division for Health Care Finance and Policy Cost Trends Hearing, May 23 2012, accessible at http://www.mass.gov/eohhs/researcher/physical-health/health-care-delivery/health-care-cost-trends/2012-health-care-cost-trends/health-care-cost-trends-witness-testimony.html.

foundational structures necessary for transformation, including the SQAC, APCD, HIE and HIT stakeholder processes, and learning collaboratives.

Q. LINKAGE OF MODEL TO STATE'S HEALTH CARE INNOVATION PLAN

As described in the State Health Care Innovation Plan, the recent passage of Chapter 224 has provided a framework for comprehensive health reform in Massachusetts. This framework encompasses many levers of state government, including using the government's role as a payer, as well as establishing clear market oversight, data collection and analytics, and health resource planning functions. The proposed multi-payer model, with its emphasis on patient-centeredness and provider accountability, will contribute to the goals of Chapter 224 related to health care quality, access, and cost. Widespread adoption of this model facilitates the framework created by the law. The investments proposed in this application will accelerate the transition to the model. Specifically, they will help MassHealth and the GIC meet targets for transition to alternative payment methodologies, and support the adoption of alternative payment methodologies by all payers throughout the Commonwealth. The proposal also advances the information technology, data infrastructure, and quality strategy goals of the new law, by accelerating HIE/EHR adoption, strengthening the data infrastructure, and promoting utilization of a shared quality strategy.

The goals set out in the Healthy People 2020 plan and the National Prevention Strategy also align closely with this plan. For example, with regard to physical activity (Healthy People 2020), overweight and obesity (Healthy People 2020), Healthy Eating (National Prevention Strategy), and Active Living (National Prevention Strategy), this model promotes investment in healthy eating and exercise habits by giving practices the resources and incentives to promote health behavior change by their patients. Practices can use transformation funds, medical home payments, or the CPCP in MassHealth's PCPR Initiative to fund health coaches, peer supports,

or other mechanisms to promote lifestyle change. Integration of behavioral health providers into the primary care practice site in PCPR also supports health behavior change by leveraging the unique role behavioral health service providers can play in influencing patient choices. The investment in electronic referrals to community services expands the reach of Mass in Motion to support active lifestyles and healthy eating.

Similarly, for Tobacco Use (Healthy People 2020), Substance Abuse (Healthy People 2020) and Preventing Drug Abuse and Excessive Alcohol Use (National Prevention Strategy), Tobacco Free Living (National Prevention Strategy), several programs give practices incentives and resources to help patients make health behavior changes. Additionally, the MCPAP investment provides substance abuse support to pediatricians for adolescent patients. Behavioral health integration is a key part of the model, and is relevant to Mental Health (Healthy People 2020) and Mental and Emotional Well Being (National Prevention Strategy).

The model directly addresses Environmental Quality (Healthy People 2020) by building linkages between public health programs and primary care practices. Immunization (Healthy People 2010) will be included as an important part of the statewide quality metric set and thereby incentivized.

The model also supports National Quality Strategy components. For example, the model ensures that patients are engaged as partners in their care by promoting patient-centeredness as a core component of the PCMH model, which has already been tested and refined through the state's multi-payer PCMHI. Learning collaboratives and technical assistance will address the need to educate patients about the reform model and to engage them as participants in their care. Similarly, effective communication and coordination of care are at the heart of the PCMH model and will be essential for primary care practices to realize savings or to improve on quality

metrics. In addition, the data and IT infrastructure supports envisioned in this proposal will facilitate improved coordination of care.

To promote the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease, the model envisions robust quality measurement as well as practice supports to ensure high-quality care. The statewide quality metric set will include cardiovascular disease metrics, which are found in the CMS ACO measures and the AQC measure sets. Also, shared savings promotes practice investment in prevention and chronic disease management to better manage cardiovascular disease.

Finally, the state is deeply committed to making quality care more affordable via new health care delivery models. The reforms envisioned by the state as part of Chapter 224, including the proposed model for testing, all serve the goal of achieving higher quality care at more affordable costs for all Massachusetts residents, for employers, and for the state and federal governments.

R. OTHER STAKEHOLDER COMMITMENT AND ENGAGEMENT

Massachusetts is fortunate to have an engaged payer, provider, and consumer community that is supportive of payment and delivery system innovations. Chapter 224 builds on many years of active, extensive stakeholder engagement on the issue of health care cost containment and payment and delivery system reform. Massachusetts' business and consumer advocacy communities have been strong supporters of the state's health reform efforts.

Chapter 224 envisions continued active engagement on the part of stakeholders and provides a number of formal venues for regular feedback on the progress of alternative payment methodologies and delivery system transformation within the state. Stakeholders will have a significant impact on the development and planning of healthcare resources across the state

through the Health Planning Council, the Health Policy Commission, the Health Care Workforce Advisory Board, the Behavioral Health Initiative, and the Health Information Technology Council. Members of these councils and commissions will represent a distribution of diverse perspectives on the health care system including providers, private and public third-party payers, consumer advocates and health care labor organizations.

The SQAC and the APCD are likewise governed by a multi-stakeholder committee. Finally, MassHealth's existing Medical Care Advisory Committee and Payment Policy Advisory Board, provided for in statute, have played an ongoing role in ensuring multi-stakeholder feedback on the development and implementation of new payment and delivery models in the Medicaid Program.

S. BENEFICIARY PROTECTIONS

Beneficiary protections are a priority issue for the state as we transition into alternative payment methodologies. Chapter 224 establishes many protections, including protections specific to ACOs and provider organizations. The state will abide by established federal and state legislation protecting consumer privacy as it transmits patient information to providers from the APCD and across the HIE. Robust quality measurement and patient surveys also serve to ensure that the quality of care remains high and that problems are identified promptly.

2. INDIVIDUAL INVESTMENTS

A. INVESTMENT AREA 1: SUPPORTING PUBLIC PAYERS

i. MASSHEALTH'S PRIMARY CARE PAYMENT REFORM

The purpose of the PCPR Initiative is to support primary care delivery transformation by giving primary care providers greater flexibility and resources to deliver care in the best way for their patients. This initiative will be available to providers who are in MassHealth's managed

care networks, including the PCC Plan and MCOs. MassHealth anticipates supporting these PCPR Initiative participants by providing timely data, targeted technical assistance, and some sub-grant funding to support care coordination, cost management, and other innovations consistent with the proposed model. The proposed MassHealth PCPR model is designed to support primary care delivery through practices that are consistent with a PCMH with integrated behavioral health services.

Payments would be calculated pursuant to three distinct payment methodologies: first, a CPCP, a risk-adjusted per-member-per-month payment for a defined set of primary care and behavioral health services; second, a quality incentive payment; and third, a shared savings/risk payment. MassHealth would continue to pay FFS for non-primary care services, but the shared savings payment is an incentive to coordinate those services as well. Participants would not be responsible for paying claims for non-primary care services.

The CPCP would give practices added flexibility to provide the right kind of care at the right time and in the right setting. This payment model may support expanding the care team, offering phone and email consultations, allowing group appointments, targeting appointment length to patient complexity, leveraging community health workers, etc., while allowing a range of primary care practice types and sizes to participate and to operationalize behavioral health integration.

The purpose of the shared savings/risk payment is to reward participants for improving the efficiency of care provided to patients in the context of improved quality. Participants must meet defined quality standards to be eligible for shared savings payments. MassHealth plans to offer three shared savings/risk tracks: one involving downside risk from the start, one allowing

providers to transition into downside risk, and one that remains upside-only throughout the program.

Potential list of metrics: MassHealth has tentatively selected 37 metrics for the PCPR program and will be refining this list; these metrics are based on the CMS ACO measures, the CHIPRA adult and child core measures, and the aims of the program.[21]

Evidence base: Comprehensive payments for primary care have been supported by a number of health policy experts.[22] When tested in commercial settings, this approach has generated promising results. For example, the Qliance Medical Group in Seattle operates on a per-member-per-month payment for primary care services delivered in a medical home model, and has seen 11% cost reductions, 62% reductions in emergency department visits, and 26% reductions in hospital days.[23] A similar approach is being piloted in the Capitol District Physicians Health Plan with 13,000 commercial lives, with an evaluation in process.[24]

Evaluation metrics: 1. Total cost of care, total amount of shared savings paid out, utilization metrics; 2. Quality metrics noted above; 3. Percent participation in the PCPR program (targeted at 25% of the managed care population in first year, 50% in second year, 80% in third year).

Sustainability: Most costs, including consulting and actuarial support, paying for quality metric reporting, upgrading IT systems, and providing technical assistance are one-time expenses associated with helping MassHealth and providers transition into this program. Ongoing staff costs will be covered to the extent required after the demonstration phase by the state, once the program reaches the maintenance phase.

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[21] Please see www.comm-pass.com, keyword 13CBEHSCPCPRFI for details.
[22] A. H. Goroll, R. A. Berenson, S. C. Schoenbaum, et al, Fundamental Reform of Payment for Adult Primary Care: Comprehensive Payment for Comprehensive Care, Journal of General Internal Medicine, March 2007 22(3)410-15.
[23] Bruce Japsen. "More Care Up Front for $54 a Month". New York Times. May 21, 2012. http://www.nytimes.com/2012/05/22/health/direct-primary-care-providers-extend-concierge-services.html?pagewanted=all;
Jane Anderson. "Direct Primary Care Practice Model Eyed to Trim Health Care Spending". Internal Medicine News, October 14, 2010. http://www.internalmedicinenews.com/index.php?id=2049&type=98&tx_ttnews[tt_news]=17683&cHash=da03e20e36.
[24] Ash, Arlene S. PhD; Ellis, Randall P. PhD. Risk-adjusted Payment and Performance Assessment for Primary Care. Medical Care:August 2012 - Volume 50 - Issue 8 - p 643–653.

ii. GROUP INSURANCE COMMISSION

The Massachusetts Group Insurance Commission (GIC) manages health plans for state and certain municipal employees and retirees, with approximately 400,000 covered lives. In the fall of 2012, the GIC is re-procuring all of its health plans for the five year period beginning July 1, 2013 to encourage the implementation of alternative payment methodologies aligned with the proposed multi-payer model and consistent with Chapter 224.

Evaluation metrics: Evaluation metrics will be built off of the GIC's existing measure set and, when suitable for the GIC's project parameters, the state's SQAC process.

Sustainability: The funds requested are supplemental to regular expenses of the GIC and of the health plans. Once the initial transformation is underway, the GIC and the plans have sufficient resources to continue the transformation.

B. INVESTMENT AREA 2: DATA INFRASTRUCTURE

i. LEVERAGING THE ALL-PAYER CLAIMS DATABASE

All-payer reports could help providers better manage their patient panel and ensure that patients are receiving effective, efficient, high-quality, coordinated care. Existing tools for patient panel management are fragmented by payer, leaving physicians with incomplete data around areas for improved care within their panel. We propose creating a portal so that large and small provider groups can access data and/or reports for patients attributed to them, thereby creating "all payer" reports for their practices. The budget also includes resources for Division of Health Care Finance and Policy (DHCFP)/Center for Health Information and Analysis (CHIA) to analyze how providers are using the portal, data, and reports, and refine products accordingly.

Evidence base: Historically, payers have sent physicians "profiles" or "scorecards" based on claims data which have resulted in reductions in utilization.[25,26] Some payers use disease registries, which also have been shown to reduce costs and improve outcomes.[27] Profiles and registries are typically generated from a single payer's claims data, with the result that providers receive reports in mixed frequencies and formats. Fragmented reporting makes it difficult for providers to understand their progress in managing their patient panel as a whole.

Evaluation metrics: 1. Percentage of practices accessing reports from the provider portal to the APCD; 2. Additional measures of providers' utilization, such as frequency of access, data and reports downloaded; 3. Surveys of practices accessing data from the APCD on the effectiveness of reporting; 4. Correlation between cost and quality performance of practices accessing vs. not accessing data from the APCD provider portal.

Sustainability: Ongoing supports for the provider portal to the APCD are expected to be lower than set-up costs. These costs could potentially be funded through user fees.

ii. HIE TECHNICAL ASSISTANCE TO BEHAVIORAL HEALTH AND LTSS PROVIDERS

Behavioral health providers are not eligible for Medicare and Medicaid HIT incentive payments. Grant funding would be used to offer technical assistance with HIE adoption to behavioral health and LTSS providers. Primary care providers and partner behavioral health providers would access the assistance in conjunction with the PCPR program. LTSS providers would also be eligible for assistance.

Evidence base: The evidence supporting the importance of primary care – behavioral health integration is discussed in the section titled "Evidence Basis for the Delivery Model" of the

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[25] Balas, J., "Effect of Physician Profiling on Utilization." Journal of General Internal Medicine,1996; 11 584-590.
[26] Berwick, D., "Feedback Reduces Test Use in a Health Maintenance Organization." JAMA. 1986; 225: 1450-1454.
[27] Larsson, S. "Use of 13 Disease Registries in 13 Countries Demonstrates Potential To Use Outcome Data to Improve Health Care's Value." Health Affairs. 2012; 3: 220-227.

project narrative. Additionally, a pilot program in Missouri's Medicaid program demonstrates that behavioral health integration relationships supported by electronic information exchange mechanisms can produce dramatic cost savings.[28] The Substance Abuse and Mental Health Services Administration (SAMHSA) has documented extensively the lack of EMR systems in mental health and substance abuse providers, which has hindered appropriate primary care – behavioral health integration.[29]

Evaluation metrics: Evaluation metrics will mirror the PCPR metrics; grant recipients will be monitored to determine if they perform better on these metrics. Additional evaluation strategies include: 1. Surveys of provider perspectives and satisfaction; 2. Frequency of information flow between primary care and behavioral health site.

Sustainability: This grant program will not extend past the life of the grant period.

iii. DATA INFRASTRUCTURE FOR LTSS

The Massachusetts Executive Office of Elder Affairs (ELD) maintains a case management system for the individuals receiving their services (the Senior Information Management System – SIMS). This system binds together ELD, its regional elder care agencies, and their sub-contracted providers to record consumer information, to determine eligibility and need, and to authorize and invoice for home care services.

In this investment, a module will be added to this system to enable the system to receive and distribute information from clinical assessments, such as data from the minimum data set (MDS) and Adult Foster Care and Group Adult Foster Care assessment information. The module will also allow Nursing Facilities to signal that they have a Section-Q referral. Such data

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[28] Michelle Seslar. Improved Outcomes, $24M net savings delivered via Missouri Behavioral Health Integration. The Advisory Board on June 20, 2012. http://www.advisory.com/Research/Technology-Insights/The-Pipeline/2012/06/Improved-outcomes-24M-net-savings-delivered-via-Missouri-behavioral-health-integration.

[29] H. Westley Clark, MD. "Strategic Initiative #6: Health Information Technology, Electronic Health Records and Behavioral Health". Substance Abuse and Mental Health Services Administration. October 1st, 2010. http://www.samhsa.gov/about/siDocs/healthIT.pdf.

exchange will build operational efficiencies and increase coordination of care by enabling secure exchange of information among providers.

Evaluations Metrics: 1. Implementation of system; 2. Improvement in processing time; 3. Evidence of use.

Sustainability: The development of these functionalities in the system infrastructure is a one-time cost and does not need further funding for sustainability. ELD will work with providers to assure the timely and continued use of these functionalities in their system.

C. INVESTMENT AREA 3: STATEWIDE QUALITY STRATEGY

i. HIE FUNCTIONALITY FOR QUALITY REPORTING

Massachusetts will upgrade the MMIS system used by MassHealth and other public payers to enable it to incorporate quality data, use that data in alternate payment systems, and export that data to statistical and analytic software. In addition, this investment includes funding for some technical assistance to providers in using the HIE for the transmission of quality data and for some stakeholder engagement to ensure that the HIE functions effectively and is used for this purpose. Quality data flowing through the HIE will be aligned with CMS' and the ONC's MU standards and rely on federal standards for data format and reporting to the maximum extent possible.

Evaluation Metrics: Percentage of payers and practices sending EMR-based quality metrics through the HIE.

Sustainability: Funds support one-time expenditures to upgrade systems and assist providers in transitioning to new systems.

ii. STATEWIDE QUALITY MEASUREMENT AND REPORTING

We plan to expand existing multi-payer work in the areas of measurement and improvement of patients' experience and clinical quality to include MassHealth (Medicaid and Children's Heath Insurance Program - CHIP) and Medicare. To fully measure patient experience at the practice level, 90,000 MassHealth members and 110,000 Medicare beneficiaries will be incorporated into an existing multi-paper survey effort to be repeated twice in the grant period. Practice-level results will be reported to practices, physician organizations, payers, and the public. To create comprehensive practice-level data on clinical quality, MassHealth data will be aggregated with comparable data from other payers, aggregated at the provider level, and mapped onto a provider database. Like the patient experience results, these calculations will occur in both 2014 and 2015 and be reported to appropriate audiences.

Evidence base: Patients with better care experiences are more engaged and adherent[30] and have better health outcomes;[31] [32] all HEDIS measures are well-supported by evidence. All-payer information can reveal actionable system problems, such as delays in returning test results and gaps in communication that have broad quality and efficiency implications.

Evaluation metrics: N/A

Sustainability: Absent new funding, Medicaid and Medicare will not be included in these surveys and calculations after 2016; however, this measurement will be of particular value during the grant period because both Medicaid and Medicare will be making profound programmatic and payment changes during the period. The state may also elect to continue to fund participation after the grant period.

D. INVESTMENT AREA 4: INTEGRATING PRIMARY CARE WITH OTHER SERVICES AND RESOURCES

[30] DiMatteo, MR. Enhancing patient adherence to medical recommendations. JAMA. 1994; 271: 79-83.
[31] Greenfield S, Kaplan S, Ware JE Jr., Expanding patient involvement in care. Effects on patient outcomes. Annals of Internal Medicine. 1985 (102): 520-528.
[32] Stewart, MA. Effective physician-patient communication and health outcomes: a review. CMAJ. 1995; 152:1423-1433.

i. ELECTRONIC REFERRALS TO COMMUNITY RESOURCES

Massachusetts proposes to develop a public domain version of an e-referral system that links clinical settings to a wide variety of community resources. Massachusetts proposes to develop a generalized, vendor-neutral data exchange for two-way communication between providers and community resources. The resulting software will be developed as a public domain product available to all Departments of Health. Significant technical assistance will be provided to install the system in three community health centers per year for three years. More limited technical assistance will be offered to enable other sites to link themselves to same community resources.

Evidence base: The preponderance of evidence supports the effectiveness of quitlines to reduce tobacco use.[33] Having access to an easy one-click referral process can double the number of patients doctors refer to quitlines.[34] Related research showed that tobacco intervention systems (which included referrals to the state quitline) increased the likelihood of self-reported quitting by 40% and decreased the likelihood of primary care office visits for smoking related illnesses by 4.3%.[35] Similar results can be cited for chronic disease self-management programs,[36] sustained physical activity programs,[37] strength training for seniors,[38] and the use of visiting nurses to reduce health care costs.[39] Yet, there is no generalized system for making referrals to these programs from clinical settings. Currently, the vast majority of community referrals

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[33] Fiore, MC, et al., Treating Tobacco Use and Dependence: 2008 Update-Clinical Practice Guideline, U.S. Public Health Service, May 2008, http://www.surgeongeneral.gov/tobacco/treating_tobacco_use08.pdf.
[34] Op. cit.
[35] Op. cit.
[36] Bodenheimer T, Lorig K, Holman H, and Grumbach K. Patient Self-management of Chronic Disease in Primary Care. JAMA. 2002;288(19):2469-2475.
[37] Marcus B, Bock BC, Pinto BM, Forsyth LA, Roberts MB, and Traficante RM. Efficacy of an individualized, motivationally-tailored physical activity intervention. Annals of Behavioral Medicine. Volume 20, Number 3 (1998), 174-180, DOI: 10.1007/BF02884958.
[38] Seguin R and Nelson ME. The benefits of strength training for older adults, American Journal of Preventive Medicine. Volume 25, Issue 3, Supplement 2 , Pages 141-149, October 2003.
[39] Rogers J, Perlic M, Madigan EA. The effect of frontloading visits on patient outcomes. Home Healthcare Nurse. 2007;25(2):103-109.

throughout the United States rely on paper reports to update providers about services delivered to their referred patients.[40]

Evaluation metrics: 1. Process measures: Number of CHCs able to make electronic referrals; number of community resources enabled to receive electronic referrals and to return information; number of electronic referrals made; 2. Interim measures: proportion of referrals where patient is contacted; proportion of referrals where patient engages in referred activity; number of visits to evidence-based program; number of pounds lost since electronic referral; number of attempted smoking quits; A1C values; blood pressure; fasting LDL; 3. Outcome measures: Pre-diabetes diagnosis reversed, prevented incidents of cardiovascular disease, reduction in primary care ill-visits, prevented ED visits.

Sustainability: Software development will be a one-time cost. The cost of providing assistance to pilot sites is a one-time cost associated with the grant. To the extent it deems necessary, the state will support technical assistance as the project is scaled.

ii. ACCESS TO PEDIATRIC BEHAVIORAL HEALTH CONSULTATION

Introduction: The Massachusetts Child Psychiatry Access Project (MCPAP) supports access to mental health services for children by providing access to telephone-based physician-to-physician consultations between a pediatrician and psychiatrist, and access to a referral network for community resources for the mental health treatment of children. By enhancing the ability of pediatricians to address children's mental health needs, this service mitigates the shortage of child psychiatrists. MCPAP has been operating in Massachusetts since 2005, supported by state funding. Pediatricians attest to the significance of MCPAP in giving them confidence to provide appropriate mental health treatment to their patients. Grant funding would be used to support

[40] Op. cit.

enhancements to MCPAP that would allow real-time access to psychiatrists via telephone. It would also enhance MCPAP's ability to meet the substance abuse needs of adolescents.

Evidence base: The MCPAP program has been rigorously evaluated and found to be significantly effective in improving access for children in Massachusetts. Ninety-five percent (95%) of children in Massachusetts see a pediatrician who uses MCPAP services. Data indicates that pediatricians primarily consult MCPAP psychiatrists for diagnostic assistance, information about resources in the community, and medication questions. Over 90% of pediatricians agreed or strongly agreed that MCPAP consultations were useful. Perceptions of adequate access to child psychiatrists jumped from 5% to 33% over the course of the program. Additionally, the percentage of primary care providers that felt they could adequately meet the needs of children with psychiatric problems rose from 8% to 63%.[41]

Evaluation metrics: 1. Percentage of pediatricians in the state accessing MCPAP services; 2. Percentage of MCPAP calls responded to within 15 minutes, half an hour, same-day; 3. Satisfaction surveys from pediatricians; 4. Pediatricians' perceived confidence in adequately meeting the needs of adolescents with substance abuse problems; 5. Utilization of psychotropic drugs by pediatricians participating in MCPAP.

Sustainability: Depending on outcomes, enhanced MCPAP services could potentially be supported by a combination of funds, including as part of a capitated payment arrangement.

iv: LINKAGES BETWEEN PRIMARY CARE PRACTICES AND LTSS PROVIDERS

In this investment, a second module will be added to the SIMS system (discussed above) to enable new communities including caregivers, family members, and their primary care

[41] Barry Sarvet, Joseph Gold, Jeff Q. Bostic, Bruce J. Masek, Jefferson B. Prince, Mary Jeffers-Terry, Charles F. Moore, Benjamin Molbert and John H. Straus. Improving Access to Mental Health Care for Children: The Massachusetts Child Psychiatrist Access Project. Pediatrics. Published online Nov 8, 2010.

physicians, to access the SIMS system. In Phase 1 of the enhancement, ELD will work with the current SIMS system to create and approve view-only access to relevant SIMS data to these audiences. Relevant data will be tailored to the needs of each new user group. In Phase 2, the view-only model will be extended to an end-to-end information sharing system, where authorized caregivers and physicians' offices could securely add information (feedback, corrections, commentary, questions) to the consumer's status and plan for long-term community care.

Evidence Base: Several Aging Service Access Points (ASAPs) in the state have collaborated and conducted focus groups with primary-care medical practices in order to refine the dataset to be viewed by physicians. In addition, a prototype of the proposed functionality for caregivers was piloted and serves as proof-of-concept for functionality and other operational processes.

Evaluations Metrics: 1. Process measures: numbers of users, views, etc.; 2.User satisfaction and suggestions derived from qualitative interviews and focus groups.

Sustainability: The costs of licenses are the only ongoing costs. If SIMS access is deemed valuable, then users will be willing to cover these costs after the initial grant-funded year.

E. INVESTMENT AREA 5: EVALUATION AND DISSEMINATION

i. LEARNING COLLABORATIVES

Massachusetts would expand on the existing multi-payer learning collaborative program in PCMHI. The state would establish two "tracks" of learning collaboratives – payer and provider. The payer-oriented track would focus payers' efforts on aligning payment models and quality reporting standards, sharing best practices in communicating data to providers, and working together to promote delivery system transformation. The provider-oriented track would focus on diffusing and sparking the uptake of established best practices in areas such as: the

medical home model, developing infrastructure, patient education and engagement, and promoting high-quality, evidence-based care.

The state will make every effort to design the learning collaboratives for maximum impact. Our design for the provider track will encourage active participation. Each provider will be encouraged to set goals, test new practices, measure results, as well as share thoughts and ask questions at meetings. The design for both tracks will emphasize other evidence-based principles for the effective design of learning collaboratives such as: integrating evaluation into learning, recruiting key opinion leaders, using learning collaborative communities to form coalitions to support change, and developing toolkits and technical support to provide practical guidance to organizations.[42] We will invite CMMI to collaborate with us on the design of the learning collaborative.

Evidence base: Evaluations of health disparities collaboratives, collaboratives undertaken a decade ago with CHCs and focused on specific clinical topics, showed significant and lasting changes in processes of care and, in some significant areas, changes in outcomes as well.[43] [44] The collaboratives also reduced racial disparities in outcomes. Furthermore, some of the barriers these collaboratives confronted—such as the lack of alignment of payment systems and limitations in data availability—are addressed by the current model. The state will also build on lessons learned from 18 months of experience with the state's PCMHI learning collaboratives, which have collected quality and cost data from participants along with practice satisfaction surveys on learning collaborative elements.

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[42] Christina T. Yuan, Ingrid M. Nembhard, Amy F. Stern, John E. Brush, Jr., Harlan M. Krumholz, and Elizabeth H. Bradley. Blueprint for the Dissemination of Evidence-Based Practices in Health Care. The Commonwealth Fund, May 2010. http://www.commonwealthfund.org/~/media/Files/Publications/Issue%20Brief/2010/May/1399_Bradley_blueprint_dissemination_evidencebased_practices_ib.pdf.

43 Landon BE, Hicks LS, O'Malley AJ, et al. Improving the management of chronic disease at community health centers. N Engl J Med. 2007;356:921–34.

44 Chin MH. Quality Improvement Implementation and Disparities. Med Care 2011 49: S65-S71.

Evaluation metrics: 1. Measures of provider engagement, such as percent of members speaking or asking questions at meetings; percent of members testing new practices in response to collaborative meetings. 2. Participant surveys.

Sustainability: To the extent required after the grant period, learning collaboratives will be supported by a combination of state funds, private payer funds, and fees on participating provider organizations.

ii. TECHNICAL ASSISTANCE TO SMALL PRIMARY CARE PRACTICES

Introduction: Massachusetts aims to include all primary care practices in delivery system transformation. While the key elements of patient-centeredness and accountability clearly pertain to practices of all sizes, specific investments and approaches may be needed for small practices to participate fully in all aspects of the model. For example, small practices may need to affiliate in order to have the scale needed to invest in new resources (such as care coordination) or participate in risk-bearing arrangements. Moreover, small practices may require innovative approaches, such as telemedicine, to offer the comprehensive package of primary care services envisioned by the new model. This investment would provide technical assistance to primary care practices seeking to participate in new models. This assistance might encompass legal, consulting, and financial support; assistance in identifying other practices with which to affiliate; research and start-up funds related to telemedicine or other strategies for providing more comprehensive care; development of shared strategies and resources for patient education and engagement; and ongoing efforts to convene small practices, assess needs, develop supports, and make necessary changes to policies and regulations to assure that the model remains accessible to all practices.

Evidence base: Nationally, over one-third of primary care physicians practice in one or two doctor practices (state data not available).[45] These physicians may also systematically care for sicker patients, and display significantly different care patterns than larger practices.[46] Smaller practices have made up a smaller share of participants in the AQC and the Medicare ACOs to date.

Evaluation metrics: Satisfaction scores of small practices participating in technical assistance programs; Percentage of small practices participating in alternative payment models, by region; Percentage of rural practices participating in alternative payment models; Performance of small practices on cost and quality metrics in alternative payment models.

Sustainability: At the end of the grant period, this technical assistance program will end. It is intended to support the transition of the market, and will not be required after the grant period.

VI. PROJECT PLAN FOR PERFORMANCE REPORTING, CONTINUOUS IMPROVEMENT, AND EVALUATION SUPPORT

The state shares CMS' commitment to reporting, continuous quality improvement, and evaluation. Our grant proposal includes resources to support these activities and to knit them together into a unified statewide strategy, including analytic staff dedicated to meeting the aims and requirements of this grant and learning collaboratives to diffuse best practices and identify needed systemic improvements. At a high level, Table VI.1 below summarizes the data that will be needed for Performance Reporting, Continuous Improvement, and Evaluation Support as well as processes for collecting and reporting this data.

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[45] Center for Studying Health System Change. "Proportion of Physicians in Solo / Two-Physician Practices Drops". http://www.hschange.org/CONTENT/942/ August 16th, 2007.

[46] Jonathan D. Ketcham, Laurence C. Baker and Donna MacIsaac. Physician Practice Size And Variations In Treatments And Outcomes: Evidence From Medicare Patients With AMI. Health Aff January 2007 vol. 26 no. 1 195-205.

We look forward to working with the Innovation Center and see this grant as an opportunity to build capacity in the areas of rapid cycle evaluation and continuous quality improvement. Upon award, key members of the state's project staff will meet in-person with representatives of the Innovation Center and their evaluator to understand their approach and requirements. Following this meeting, we will develop a coordinated plan for data collection, performance reporting, and continuous quality improvement. One component of this plan will be to ensure consistency/avoid duplication between CMS' evaluator, the state's evaluator, our contractors for data collection and analysis, and our own efforts on this and other projects. This plan will include a work plan that will set milestones and establish dependencies. We will invite CMS to review this plan and adapt it in light of CMS' comments. The Director of Analytics will serve as the point of contact for CMS and its evaluators concerning the SIM grant.

Massachusetts posted a solicitation for an in-state evaluation contract but has not awarded the contract. Subject to CMS' approval, the in-state evaluation will consist of both a general evaluation of new statewide delivery and payment models and a focused evaluation of MassHealth's PCPR program. Given the nature of our statewide model and of our plans for the PCPR program, these evaluations will, by necessity, use rigorous quasi-experimental designs, not randomized control groups, to test the impact of the model. As part of the meeting with CMS described above, we will discuss the appropriate scope for the in-state evaluation to ensure that it is appropriately coordinated with the Innovation Center evaluation.

Many new systems and processes will change rapidly over the SIM period, thus, it will be important to actively evaluate and review their performance and impact on quality. The Medicaid Quality Strategy establishes a "continuous improvement" methodology as a key strategy to help states deliver high quality care. We plan to use the *design-discovery-remediation-improvement*

(DDRI) continuous improvement model.[47] This data-driven approach, which ensures that the new processes and systems are monitored, evaluated, and adjusted as indicated by structured quality measurements, has four elements:

- *Design* that includes proactive mechanisms to avoid quality problems, defines performance measures, specifies how data will be collected, and embraces quality improvement.
- *Discovery* that uses the performance measures and other objective data to assess implementation and impact, including staff review and analysis of these data. This analysis may include examining the accuracy and validity of the measures; root cause analysis to uncover the sources of potential problems; and validating insights from quantitative analyses with stakeholders.
- *Remediation* that addresses individual quality problems when they occur. As a complement to remediation, we propose to closely examine cases of exemplary performance in order to extract best practices that can, potentially, be emulated.
- *Improvement* that defines and implements long-term, systemic solutions to the underlying quality problems discovered. The effectiveness of solutions is then validated via performance measures.

In the case of private payers and providers, most continuous quality improvement (QI) occurs within the organization; however, the multi-payer initiative is able to further QI by convening payers to set priorities and agree on common measures, collecting and analyzing data, and establishing forums for disseminating best practices and identifying needed systemic

[47] This discussion of DDRI draws on Sara Galantowicz, Thomson Reuters, "Implementing Continuous Quality Improvement (CQI) in Medicaid HCBS Programs," January 21, 2012 Accessed at http://www.dpw.state.pa.us/ucmprd/groups/webcontent/documents/document/d_007056.pdf, September 2012.

changes. Moreover, some types of improvement will require multi-payer action, such as regulatory and policy changes or investment in shared technology.

For the process of statewide transformation, the data collection and continuous quality improvement (CQI) plan will establish structured plans for continuous learning, adoption of best practices, and other performance improvement. Throughout the project, *discovery*, *remediation*, and *improvement* will occur via ongoing reporting and analysis and multiple statewide mechanisms, including regular reports and other dissemination mechanisms.

For the transformation of MassHealth to the new payment and delivery models, the MassHealth Office of Strategic Performance Management (SPM) will create an explicit performance management plan, following the DDRI approach. The analytics and quality staff will generate the requisite measure and analysis, and the operations staff will pursue both remediation and improvement. SPM will work with the in-state evaluator as appropriate. The components of the performance management plan comprise a full-cycle performance management approach, including 1) a project charter; 2) a project management plan; 3) a continuous improvement tracking system; and 4) an implementation plan. SPM will also convene and coordinate parallel efforts in the other State agencies participating in this project.

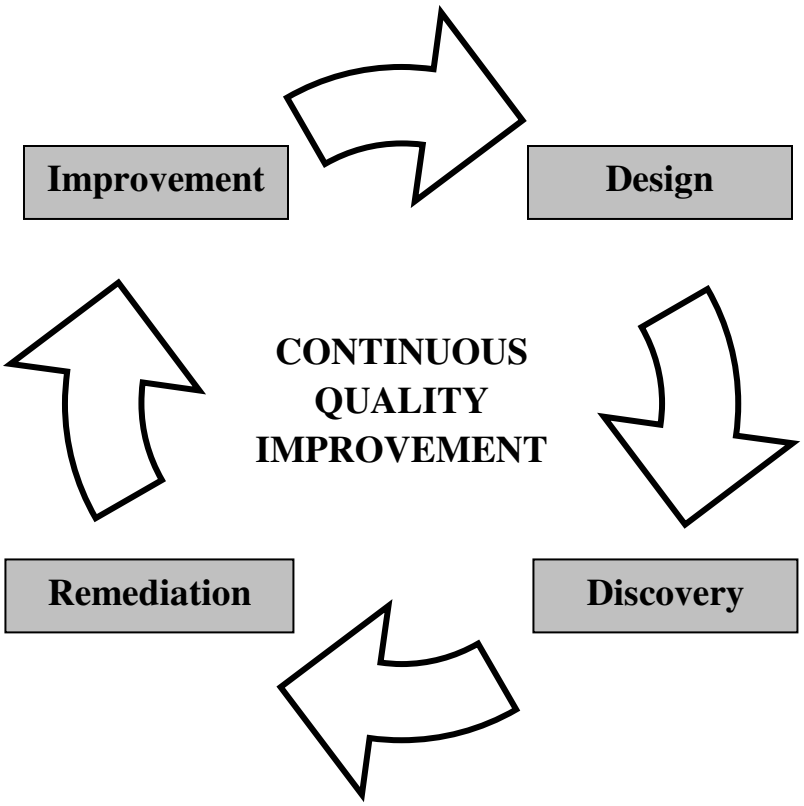
Improvement
Design
CONTINUOUS
QUALITY
IMPROVEMENT
Remediation
Discovery

EXHIBIT VI.1 DESCRIPTION OF DATA COLLECTION & PERFORMANCE REPORTING PROCESS – SELECTED MAJOR METRICS

Data type	Data collection	Performance reporting process
All-payer characteristics and reach of new models. Public and private payer cost trends relative to quality data.	All-Payer Claims Database (APCD).	Annual reports. Chapter 224 expands monitoring and reporting of costs and cost trends.
MassHealth characteristics and reach of new models, including patient-centered medical homes and PCPR. MassHealth cost trends.	State's Data warehouse. Grant adds: Improved quality for encounter data, data enrichment, enhanced reporting and analysis.	Limited reports to providers based on MassHealth data. Grant adds: portal on APCD and provider access to raw claims and enhanced reports.
Multi-payer patient experience measures (CAHPS) at practice level, multi-payer HEDIS clinical quality measures at practice level. Public payers currently excluded. Grant adds: public payers.	Currently collected by Massachusetts Health Quality Partners. Vendor TBD during grant period.	Reported to practices. Publicly reported via State's MyHealthCareOptions website.
MassHealth HEDIS clinical quality measures, including core set of child health measures and at least 15 adult core measures.	MassHealth employs a vendor to implement the measures and secures the data. CMS Adult Core Quality Grant adds: MassHealth will own and use HEDIS software. SIMS grant adds: leverage provider level reporting planned above.	Annual reports by plan. CMS Adult Core Quality Grant adds: MassHealth will conduct two QI projects and analyze all HEDIS data by sub-population. SIMS grant adds: enhanced analytics and reporting.
Provider and payer perspectives on new models.	Grant adds: Qualitative data collection by state evaluation contractor.	Used internally to develop programs and processes. Summary report will be public.