JOHN R. KASICH
GOVERNOR
STATE OF OHIO

July 7, 2014

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U.S. Department of Health and Human Services
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OHIO APPLICATION FOR STATE INNOVATION MODEL TEST ASSISTANCE

Dear Mr. Nah:

Ohio is ready to test innovative payment and service delivery models to reduce Medicare and Medicaid spending while improving overall health system performance. I am pleased to submit the attached application for test assistance, which builds on Ohio's already strong payment innovation activities.

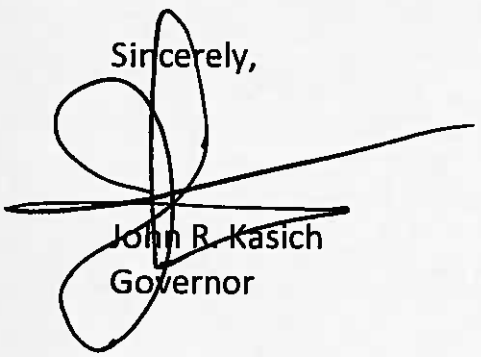
As a result of the State Innovation Model design process, Ohio achieved multi-payer agreement across Medicaid, state employee, and commercial health plans to launch episode-based payments statewide in November 2014, and to adapt Southwest Ohio's Comprehensive Primary Care Initiative for a statewide roll-out of patient-centered medical homes (PCMH) beginning in 2015. Together these models reset the basic rules of health care competition so the incentive is to deliver better care instead of more care and keep people as healthy as possible.

The SIM test is well-timed for Ohio to keep its strong multi-payer coalition engaged in health transformation. The Director of my Office of Health Transformation, Greg Moody, will serve as the principle contact for the state. We

will continue to rely on the Governor's Advisory Council on Payment Innovation (representing employers, health plans, health systems, and consumer advocates) to coordinate payment innovation activities statewide and assign experts to work with OHT. We also will keep in place a multi-payer "Core Team" (Aetna, Anthem, Buckeye, CareSource, Medical Mutual, Paramount, and United) that co-designed and committed to test Ohio's PCMH and episode-based payment models.

We are excited that the CMS Innovation Center continues to encourage states to provide leadership in payment innovation and service delivery model implementation. We look forward to meeting this challenge in Ohio and working with the CMS Innovation Center, Medicare, and others to improve the way we deliver and pay for care. Please let me know if there is anything more I can do to support your favorable consideration of Ohio's application for SIM test assistance.

Sincerely,



John R. Kasich
Governor

PROJECT ABSTRACT

As a result of the State Innovation Model (SIM) design process, Ohio achieved multi-payer agreement across Medicaid, state employee, and commercial health plans to launch episode-based payments statewide in November 2014, and to adapt Southwest Ohio's Comprehensive Primary Care Initiative (CPCI) for a statewide roll-out of patient-centered medical homes (PCMH) beginning in 2015. Together these models reset the basic rules of health care competition so the incentive is to deliver better care and keep people as healthy as possible.

The Governor's Office of Health Transformation will manage the SIM test for the state. The Governor's Advisory Council on Payment Innovation, which represents purchasers, plans, providers, and consumers, will align public and private payment innovation priorities. A multi-payer Core Team (Aetna, Anthem, Buckeye, CareSource, Medical Mutual, Paramount, United and Medicaid) will oversee implementation of the PCMH and episode models.

GOALS: Launch reporting on six episode-based payments across payers statewide in November 2014, tie to payment within one year, and define and launch additional episodes with a goal of 50 or more within four years.

Adapt Southwest Ohio's Comprehensive Primary Care Initiative for statewide roll-out of patient-centered medical homes to one additional market in 2015, all major markets within two years and statewide within four years.

SCOPE: Enroll 80-90 percent of the state's population (10.1 million Americans) in some value-based payment model (combination of episode- and population-based payments).

Implement the SIM test models through Medicaid FFS and managed care, state employee benefit programs, and four private payers with 80 percent of the commercial market (Aetna, Anthem, Medical Mutual, and United Healthcare).

Include all providers within participating payer networks, regardless of size, sophistication, or geographic location (an estimated 90 percent of hospitals, 88 percent of specialists, and 53 percent of primary care practices by 2018).

BUDGET: Commit $204.8 million to implement the Ohio SIM test over four years (2015-2018), of which $98.6 million is requested from SIM test grant funding. SIM test grant funds will be used for PCMH model implementation and testing ($25.0 million), episode model implementation and testing ($38.7 million), and other activities that support both models, including program management, stakeholder engagement, and system infrastructure planning ($34.9 million). SIM test grant funds will not be used for any personnel costs, fringe benefits, equipment or supplies.

SAVINGS: Return savings of up to $12.6 billion across the system (2015-2020). For Medicaid, this represents a full percentage point reduction in the health care growth rate.

PROJECT NARRATIVE

1. POPULATION HEALTH PLAN

Our current health care payment system rewards medical care for individuals but neglects activities outside the doctor's office that contribute to better health where people live, learn, play and work. This systemic underrepresentation of population health in care delivery and coverage programs has contributed to the U.S. ranking below many countries in life expectancy, infant mortality, and other indicators of healthy life. This is particularly true in Ohio, which ranks 42 among states in the overall health of its population (CMWF 2014).

Ohio is taking steps to increase the number of residents who are healthy at every stage of life, with a goal of being the healthiest place to live, work, and raise a family. The state's current focus is to incorporate population health measures into regulatory and payment systems, and use those measures to align population health priorities across clinical services, public health programs, and community-based initiatives.

Ohio's health burden is worse than the national average across multiple health indicators. Chronic diseases (heart disease, cancer, chronic lower respiratory disease, stroke, diabetes, and kidney disease) account for nearly two-thirds of all Ohio deaths. Ohio adults have a higher estimated prevalence of coronary heart disease, stroke, hypertension, diabetes, and cancer compared to the U.S. median. Nearly one-third of Ohio adults with clinically diagnosed hypertension fail to achieve blood pressure control, while one quarter of diabetic adults are not in adequate control of their diabetes (HEDIS 2012).

There are several specific areas in which Ohio's health burden is particularly severe. Among states, Ohio ranks: 47 in infant mortality overall (7.7 per 1,000 births) and this rate is doubled for African American babies; 38 for rates of obesity; 45 for diabetes; 37 for cardiovascular disease; and 42 for tobacco use (BRFSS 2012). Similar to national trends, rates of heart disease, stroke, hypertension and diabetes in Ohio are higher among blacks, residents of Appalachian and rural counties, those with the lowest income and education, and those with disabilities. The average age of the first heart attack for black adults in Ohio (49 years) is more than seven years younger than the average age reported for white adults (56 years).

To improve population health and address the social determinants of health that lead to much of this burden, the Ohio Department of Health (ODH) has prioritized expanding patient-centered primary care, reducing tobacco use and exposure, preventing obesity and chronic disease, and reducing infant mortality. ODH receives several federal block grants to meet traditional public health needs, but also recognizes the changing health care landscape is shifting the role of public health. The extension of the Medicaid benefit has alleviated much of the service need, instead bringing into focus a different need to coordinate planning and fill gaps for special needs populations, and to address the underlying social determinants of health. Work is already underway to establish healthy and safe environments through local partnerships (Preventive Health and Human Services Block Grant), implement evidence-based risk reduction strategies (Creating Healthy Communities Program), reduce infant mortality (Ohio Collaborative to Prevent Infant Mortality), and reduce the burden of chronic disease (Ohio Chronic Disease Collaborative *Plan to Prevent and Reduce Chronic Disease: 2014-2018*).

In addition to traditional public health strategies, Ohio also is testing new ways to share data across systems to improve population health outcomes. For example, Ohio Medicaid is using vital statistics from ODH to alert clinicians and health plans when a mother or infant might be at greater risk for poor health outcomes. A process is in place to make this data available within days after birth, enabling care teams through the Ohio Perinatal Quality Collaborative to target interventions to high risk populations and organize quality improvement efforts. This strategy converts public health data that too often is used only for reporting into powerful information that, in the right place at the right time, saves lives.

Ohio will continue the process of systematically incorporating population health measures into all of its regulatory and payment programs, including the SIM test. Ohio's process of measurement selection includes the difficult work of aligning metrics across specific populations. For example, there are at least nine separate national organizations with benchmarks for metrics or interventions to improve infant mortality. Ohio has been a leader participating in national conversations to drive improved outcomes through alignment around common measures (e.g., CMS expert panel to improve maternal and infant outcomes in Medicaid). In addition, the Health Policy Institute of Ohio has aligned diverse stakeholders around a measurement framework for overall health value, including metrics for population health, access to care, and social and environmental determinants of health.

Throughout the SIM design, a high priority was given to selecting measures that efficiently serve cross-functional needs (*see Table 3 on page 24*), including population-level health reporting (e.g., aligned with the National Quality Strategy), ease of provider reporting (e.g., available in electronic health records), program performance measures (e.g., Medicaid

MCO pay-for-performance programs), and payment innovation (e.g., PCMH, episode-based payments). Selecting measures in this way ties population health priorities directly into health care payment and delivery system performance, and begins the process of replacing financial incentives that only reward more health care with incentives that reward better health.

In addition, the state is working to align community health needs assessment and population health planning. Currently, Ohio's 124 local public health districts and multiple hospital systems are performing Community Health Assessments and Community Health Needs Assessments with varying levels of coordination. During the SIM test, the state will pursue better coordination of these plans, with the goals of identifying clear population health priorities across regions, facilitating stronger relationships among public health districts and health care delivery systems (e.g., PCMH), and explicitly tying hospital community benefit requirements to addressing regional population health priorities.

The Governor's Office of Health Transformation (OHT) will convene a population health leadership team to develop a broader statewide population health plan with CMMI input during the pre-implementation year. The population health plan will continue the process of cross-functional measurement selection, address regional population health planning, and specifically integrate population health priorities into all of the plans described in this application, including service delivery, payment innovation, workforce development, HIT, and quality measurement.

2. HEALTH CARE DELIVERY SYSTEM TRANSFORMATION PLAN

Ohio's health care delivery system, like the nation's, is fragmented in ways that lead to disrupted relationships, poor information flows, and misaligned incentives. As a result, nearly

30 percent of all health care spending is wasted (IOM 2009) and Americans receive only 55 percent of recommended treatments for preventive, acute, and chronic care (NEJM 2003).

In 2011, Ohio adopted an aggressive plan to systematically convert all of the state's health care delivery systems to person-centered models that engage patients in decisions about their care, engage providers in more integrated delivery models, hold providers accountable for quality and cost of care, and link payment to value (Table 1, p6).

Since 2011, OHT has consistently demonstrated its capability to design and implement delivery system reforms that improve care and hold down costs. The focus has been to integrate care across traditionally disconnected providers for target populations (e.g., dual eligibles, mental health, developmental disabilities). For each population, the state is moving to models that take a person-centered approach to manage total care and reduce fragmentation. For example, in May 2014, Ohio Medicaid began enrolling 60 percent of the state's Medicare-Medicaid population in *MyCare Ohio* managed care plans. *MyCare* plans use person-centered care coordination to integrate services across both programs, and support Ohio's already strong commitment to create community alternatives to institutions (Ohio participates in the federal *Balancing Incentive Program* and the state's *Money Follows the Person* Demonstration is ranked second overall – and first for Medicaid recipients with mental illness – in the number of Medicaid beneficiaries transitioned to a home setting). The benefit of Ohio's aggressive reforms has accrued to Medicaid, Medicare, and throughout the system. For example, Ohio Medicaid reduced average annual program growth from 8.9 percent (2009-11) to 3.3 percent (2012-14)

TABLE 1. OHIO HEALTH CARE DELIVERY SYSTEM TRANSFORMATION PLAN

MODERNIZE PROGRAMS	STREAMLINE INFRASTRUCTURE	PAY FOR VALUE
• ***Improve care coordination***	• ***Share services to increase efficiency***	• ***Pay for value instead of volume***
• ***Integrate behavioral/physical health***	• ***Right-size state/local service capacity***	• ***Make price and quality transparent***
• ***Rebalance long-term care***	• ***Streamline governance***	• ***Right data, to right people, right time***
• Extend Medicaid coverage • Restructure Medicaid managed care regions and rebid contracts • Reform nursing facility reimbursement • Integrate Medicare-Medicaid benefits • Prioritize HCBS services • Create Medicaid health homes • Restructure behavioral health system financing and rebuild system capacity • Enhance community ID/DD capacity	• Establish transformation teams for health, workforce, and human services • Implement a new MMIS • Create a Department of Medicaid • Consolidate the Ohio Departments of Mental Health and Addiction Services • Simplify and integrate eligibility determination • Coordinate programs for children • Share services across local jurisdictions	• Join Catalyst for Payment Reform • Convene a Governor's Advisory Council on Payment Innovation • Provide PCMHs statewide • Implement episode-based payments • Coordinate HIT/HIE infrastructure • Coordinate workforce programs • Report and measure performance • Support regional payment innovation • Federally Facilitated Marketplace

SOURCE: Ohio Governor's Office of Health Transformation Strategic Framework

and saved taxpayers $3.0 billion in the first two years of reform. This early success built momentum for Governor Kasich to extend Medicaid coverage to an additional 563,000 low-income Ohioans, simplify enrollment, and implement a new integrated eligibility system.

At the same time, Ohio's private sector health plans and providers have made significant investments to shift toward better-integrated, value-based systems of care. For example, some of the most clinically integrated large systems in the country are located in Ohio (e.g., Cleveland Clinic, Catholic Health Partners, OhioHealth, Premier Health Partners, Tri-Health), there is a high level of support for patient-centered medical homes (e.g., 494 recognized or accredited PCMH practices serving 3.7 million Ohioans as of June 2014, two Aligning Forces for Quality sites, at least three commercial health plan PCMH incentive programs, 700+ active stakeholder participants in Ohio's Patient-Centered Primary Care Collaborative), there are several bundled payment initiatives (e.g., Cleveland Clinic bundled contracts with employers, commercial health plan bundled payment tests for transplants, ED use, and hip replacements), and several nascent accountable care organizations (e.g., Children's Hospital Partners for Kids, ten Medicare Shared Savings ACOs). Altogether, these activities create an ideal environment to align payment innovation priorities, refine models to efficiently scale, and expand the benefits of value-based payment and service delivery models to more Ohioans.

Ohio adopted a goal to enroll 80-90 percent of the total population in value-based payment models that support health care delivery system transformation. Ohio's SIM-designed PCMH and episode-based payment models support a transition to paying for value, aligning provider incentives, providing data and supports to transform practices and empower patients, and connecting public health efforts with health care delivery systems. The

interdependent cost and quality incentives in the two models also encourage better care coordination and integration across providers and care settings.

Moreover, the PCMH model supports the population health plan by incorporating population health measures into PCMH performance reports and facilitating connections among PCMHs, public health services, and community-based resources. Both community-based resources and PCMHs play important roles in patient engagement. For example, PCMHs in Southwest Ohio's Comprehensive Primary Care Initiative (CPCI), on which the state model intends to build, are required to meet milestones for shared decision making with patients.

As described in the following sections, Ohio's plans for health information technology, workforce development, stakeholder engagement, and quality measurement are critical to enabling the new payment models and supporting health care delivery system transformation.

3. PAYMENT INNOVATION MODELS

Ohioans spend more per person on health care than residents in all but 17 states (CMS 2012) but higher spending does not correlate to better value – 41 states have a healthier population than Ohio (CMWF 2014). Ohio's predominantly FFS system encourages providers to deliver more care instead of better care. Despite broad agreement FFS should be abandoned, finding an alternative is challenging, particularly in a state as diverse as Ohio, with 11.5 million residents in seven metropolitan areas and 50 rural counties, no health plan with more than 20 percent market share, and multiple competing health systems within seven regional markets. This diversity is what makes Ohio a go-to state for consumer research companies to test new products – and why it is an ideal state to test innovative payment and service delivery models.

In 2011, Ohio Governor John Kasich issued an Executive Order to "engage private sector partners to set clear expectations for better health, better care, and cost savings through improvement." He instructed the Office of Health Transformation to reset the basic rules of health care competition so the incentive is to keep people as healthy as possible, pay for what works to improve and maintain health, and shift from FFS to population- and value-based payments that reward patient-centered care coordination and better health outcomes.

For SIM, the State of Ohio, along with its Medicaid managed care plans (Buckeye, CareSource, Molina, Paramount, and UnitedHealthcare) and a multi-payer coalition that includes four private payers with 80 percent of the commercial market (Aetna, Anthem Blue Cross Blue Shield, Medical Mutual, and UnitedHealthcare) will launch two models statewide: a patient-centered medical home (PCMH) model and an episode-based payment model. Ohio also proposes that Medicare support this effort by producing total cost of care reports for providers via a Qualified Entity and ideally by acting on the HHS Secretary's authority to take promising models to scale. After four years, the PCMH and episode models together will cover 50-60 percent of the state's medical spend and expect at scale, will cover 80 percent of medical spend and 80-90 percent of Ohio's total population.

Patient-Centered Medical Home Model. PCMHs improve quality, outcomes and cost of care by holding a single entity, the medical home, accountable for the coordination of care for patients across the health care delivery system, as well as total cost and quality. PCMHs help manage patients' overall care, ensuring they receive timely, high-quality, cost-effective care

tailored to their specific needs that goes beyond today's fragmented, visit-focused approach. PCMHs engage patients to maintain health and wellness, reduce health costs by managing chronic conditions, and prevent unnecessary emergency department visits and admissions.

During SIM Design, Ohio's multi-payer coalition created a PCMH Charter outlining desired levels of payer alignment across four elements of the PCMH model: (1) care delivery (target patients, care delivery improvements, target sources of value), (2) payment model (technical requirements, attribution, quality measures, payment incentives, patient incentives), (3) infrastructure (technology, data systems, and people to administer the model), and (4) scale-up and practice performance improvement (support, resources and activities to enable practices to adopt and sustain the PCMH model). The model includes standard requirements and milestones to qualify as a PCMH and standard quality metrics. Payers agreed to align in principle on the four elements of the model but will implement their own specific designs.

Overall, the PCMH model is designed to be flexible to meet the different needs of different types of providers and geographies (e.g., rural, urban, underserved areas). Given the diverse provider environment, Ohio will provide targeted capability-building support to some providers for a limited time. This support could include EHR implementation or performance measurement education. The state also recognizes that not all providers are prepared to take on total cost of care accountability at present, but over time the models will increase the emphasis on total cost of care accountability (e.g., shared savings).

Despite the challenges required to adopt the PCMH model, nearly 500 practice sites in Ohio have achieved NCQA PCMH recognition, 43 participated in the ODH PCMH Education Pilot, 61 are participating in CPCI in Southwest Ohio, and private payers are collaborating with

providers on additional programs. Early results from CPCI, which the SIM PCMH team intends to build on and roll out statewide, show decreases in Medicare expenditures, the rate of hospital admissions for ambulatory care-sensitive conditions, and the rate of unplanned hospital readmissions – all without decreasing clinical quality (CMS June 2014).

Episode-Based Payment Model. The episode-based payment model encourages high-quality, patient-centered, cost-effective care by holding a single provider or entity accountable (Principle Accountable Provider, or PAP) for care across all services in a specific episode. It aligns provider incentives to reinforce this behavior, as well as discourage under-utilization. By creating a common view of the patient journey, it encourages providers to coordinate patient care throughout an episode of care rather than simply focusing on specific visits or procedures.

For SIM, Ohio's multi-payer coalition created an Episode-Based Payment Charter outlining desired levels of payer alignment across four elements of the Ohio episode model: (1) accountability (PAP, cost normalization), (2) payment model (retrospective design, payment incentives, quality measures), (3) performance management (gain sharing, risk adjustment, exclusions), and (4) timing (reporting period, synchronizing performance periods). From October 2013 to May 2014, the multi-payer coalition, with extensive provider input, completed six episode definitions that will be used for performance reporting beginning November 2014.

Linkages between PCMH and episode-based models. PCMH and episode-based payment models each are more powerful in combination. Medical homes provide the foundation for total cost and quality accountability, while episodes create joint accountability for total cost of care across providers by increasing coordination for specific, defined procedures or chronic acute exacerbations. Because population health measures include quality

measures which may be applicable to episodes and total episode costs are accounted for as part of the PCMH total cost of care calculation, PCMH's are incented to work with episode accountable providers to increase quality and manage costs, as well as community-based and public health resources to address social determinants of health. Episodes extend incentives to improve cost and quality to specialists and hospitals responsible for managing specific medical events, defined procedures, or acute exacerbations of chronic conditions. Both models allow a portion of any savings generated be reinvested in infrastructure (e.g., HIT), practice transformation, and meaningful patient education and engagement.

Importantly, the PCMH and episode models leave enough room for variation to stimulate innovation among payers and providers that want to refine the model for competitive advantage. They do not preclude payers and providers from moving faster to more integrated total cost of care models (e.g., ACOs), and actually complement the transformation by aligning incentives and providing actionable performance data. In particular, these models can potentially accelerate improved outcomes through Accountable Care Communities, CMS Bundled Payments for Care Improvement, Medicare Shared Savings Programs, and the Medicare-Medicaid Financial Alignment Program. For providers not yet ready to fully transition to an ACO model, the PCMH and episode models serve as "building blocks" to develop the systems and capabilities necessary to support more integrated care models.

4. REGULATORY PLAN

State regulatory authority resides in multiple agencies, making coordination difficult and often resulting in mixed signals for regulated entities such as health plans and service providers.

The Governor's Office of Health Transformation coordinates regulatory objectives across multiple health and human service agencies, aligning regulatory actions to support policy priorities, accelerate innovation, and improve overall health system performance.

For SIM, OHT is using its relationships with private payers, health plans, and providers to directly accelerate the adoption of PCMH and episode-based payment models. Ohio Medicaid will implement the PCMH and episode models in FFS and require their adoption by the five Medicaid managed care plans (implementation has already begun for the initial set of episodes). In addition, the state will incorporate the SIM models, starting with episode reporting, into the next round of contract agreements with state employee plans.

The state's initial PCMH and episode-based payment models are designed to fit within existing state regulations for Medicaid and private health insurers. For Medicaid, these models build on the Catalyst for Payment Reform (CPR) principles that have already been incorporated into all Medicaid managed care plan contracts. In addition, OHT will continue to engage the Ohio Department of Insurance to identify further opportunities to align regulations with the PCMH and episode-based payment models, including the possibility of a more active state role in the regulation of qualified health plans within Ohio's Federally-Facilitated Marketplace.

During the SIM test, OHT will align regulations as necessary to support the payment models. Ohio's plans for population health, health information technology, and quality metrics each include regulatory actions that complement SIM and support health transformation.

In addition, OHT is developing a comprehensive workforce development and training plan that will support SIM objectives. Ohio has about the national average number of primary care physicians, but more than 1.1 million Ohioans reside in rural or low-income urban areas underserved by these physicians. The shift to a population-based model will increase demand for primary care providers (PCPs), particularly those trained in team-based care. To support these models, Ohio will need to increase access to PCPs, build its workforce in underserved areas, enable all clinicians to practice at the top of their license, increase productivity through technology, and improve the effectiveness of interdisciplinary and community-based teams.

In 2013 OHT adopted a comprehensive plan to align Ohio's health sector workforce programs to support advanced primary care and recruitment and retention of minorities into health professions. The plan has four components: (1) identify needs (increase reporting to the national Minimum Data Set (MDS) for primary care, enhance Ohio's MDS data to identify health profession shortages, and develop an advanced primary care workforce forecasting model), (2) retain talent (target scholarship and loan repayment), (3) reform training (refocus $100 million in Medicaid direct graduate medical education to support health sector workforce priorities and support training in promising models of care, including funding for 50 PCMH Education Pilot sites and 50 Pediatric Education Pilot sites), and (4) align payment (coordinate workforce policy priorities with PCMH and episode-based payment models).

A simple fact makes Ohio's health sector workforce development plan relevant beyond the state's borders: 56 percent of physicians who graduated from public medical school in Ohio currently practice in another state. That means Ohio has an opportunity to recruit some of those physicians to stay, but it also means that whatever Ohio invests to train physicians in

team-based, patient-centered models of care has the potential to export physician preferences for those models to other states and quickly disseminate those innovations nationwide.

5. HEALTH INFORMATION TECHNOLOGY PLAN

Large technology projects routinely fail to deliver on their initial promises. A McKinsey and Oxford University report estimates that 78 percent of large IT projects have cost overruns or fail to deliver promised value. The primary reasons for these failures occur in the initial phases of the projects relating to clarity of project structure or governance. Ohio's recent successes are a dramatic departure from this trend.

The Governor's Office of Health Transformation is coordinating the development of a dynamic health information technology infrastructure that provides the right data to the right people at the right time, connects clinical and population health ecosystems, drives efficiency and transparency, and improves overall health system performance.

Ohio has an impressive array of technical assets prepared to support the SIM initiative (Table 2, p18). Notable examples of Ohio's assets include a modern, service oriented architecture (SOA-based) Medicaid Management Information System; a new integrated eligibility system; an enterprise health and human services (HHS) case management and assessment tool; and an enterprise HHS data warehouse and business intelligence system. The case management tool will be used to coordinate care across agencies and delivery systems including Medicaid, long-term care, and behavioral health. By early 2015, the business

intelligence system will house all Medicaid eligibility and claims data and be the primary tool for reporting on early childhood initiatives, combining education, health and social services data.

In addition to government assets, Ohio's private sector health plans and providers have made significant HIT investments. HealthBridge, for example, a Beacon grant awardee, provides technical support to much of the regional health improvement collaborative in Southwest Ohio. The Ohio Health Information Partnership (The Partnership) coordinates services to over 6,500 primary care providers and is one of the highest performing Regional Extension Centers and HIEs in the nation. (*See the HealthBridge and Partnership letters of support for detail.*) Ohio has the seventh largest number of Medicare and Medicaid providers that have attested to meaningful use (CMS 2014) and more than 67 percent of Ohio's office-based physicians use at least a basic EHR (CDC). HealthBridge and The Partnership have rolled out Stage 2 Meaningful Use services and soon will begin sharing data across their networks.

Ohio's SIM grant application proposes to build on Ohio's existing success and capabilities to implement a dynamic and innovative HIT infrastructure. At the core of this infrastructure is data. Integrating, connecting, and sharing data will allow primary care physicians to better coordinate care, give providers information to improve operational efficiency, and empower patients to participate and make better decisions in their care. As part of the SIM HIT plan, Ohio proposes to connect siloed and disparate health registries to the enterprise HHS data warehouse. For several years, Ohio has been running a pilot program connecting external HIEs to internal state data via a state data gateway. To date this initiative has been focused on sharing Meaningful Use Phase 2 laboratory data. Ohio proposes to use SIM grant funds to expand the scope and functionality of the data gateway. The expanded data

gateway will connect external systems, primarily via HIEs, to the state's enterprise data warehouse and other data sources. An integrated and connected enterprise data warehouse is key to developing payment analytics, measuring and improving population health, and allowing primary care and other providers to improve care. The new case management and assessment tool will connect to the enterprise data warehouse, providing case managers access to claims, clinical and demographic information, and feeding the data warehouse information to enable predictive analytics. Ohio proposes to use its existing Medicaid provider portal to deliver static (i.e. PDF) reports and usable data pertaining to episode payments and PCMH analytics.

Also, it is important to note that all of the SIM payers (Medicaid FFS, Medicaid MCOs, and commercial plans) are already using their data to support SIM goals by developing episode analytics and reports. These activities represent a critical in-kind investment in the SIM process, and provide an early indication of considerable payer support for SIM going forward.

During the SIM test, OHT will convene a Health IT Council to improve on the initial SIM HIT infrastructure and coordinate a broader, statewide HIT/HIE plan. Priorities for improvement include transitioning to dynamic, real-time provider reports; implementing a state-owned episode and analytic tool; identifying innovative uses of data analytics to address public health issues; developing a comprehensive data aggregation strategy across Medicare, Medicaid, and commercial payers to evaluate the impact of state reform efforts and improve transparency through enhanced access to data by all participants in the healthcare ecosystem; clarifying how technical assistance will be provided, including resources to providers ineligible for Meaningful Use incentives. The HIT plan will be refined with CMMI input during pre-implementation and then used to support the state's population health plan and quality measurement plan.

TABLE 2. OHIO HEALTH INFORMATION TECHNOLOGY PLAN ACTIVITIES

STATUS	GOVERNANCE	POLICY	INFRASTRUCTURE
Current Capabilities	• OHT aligns all HHS policy, including IT strategic planning and budgets • HHS Program Office oversees major IT procurements • HHS CIO Council meets weekly to coordinate strategy • Data Governance Team sets enterprise governance/use policies	• Updated Ohio privacy laws to recognize HIPAA as the standard • Created state authority to certify health information exchanges • Enacted operating protocols to simplify/expedite sharing data and other resources among agencies	• New MMIS (2011) • New Integrated Eligibility (2013) • HHS Enterprise Data Warehouse • Public Health Data Gateway connects HIEs to state data • HealthBridge longstanding HIE • CliniSync state-designated entity providing HIE/REC services • 90% of Ohio's hospitals and 87% of the population is covered by an HIE
SIM Test	• HIT Council of state and industry experts to develop and implement Ohio's HIT plan (convene 1/2015)	• Adopt administrative rules for certifying HIEs and data sharing • Expand operating protocols to a wider universe of agencies • Develop a technical assistance plan, including for providers not eligible for Meaningful Use	• New Enterprise Case Management and Assessment Tool • Expand Data Warehouse capability • Expand the Data Gateway to connect HIEs to state HHS data • Use the Data Warehouse to run predictive analytic models

6. STAKEHOLDER ENGAGEMENT PLAN

The challenge engaging stakeholders in health reform is that many see themselves as victims within a system where they have lost control. Health care purchasers, payers, providers and patients tend to blame each other, even as they themselves make decisions that run counter to better health. At the root of this conflict is the financial incentive to provide more care and more expensive care instead of preventing illness and injury before they occur and providing better care with improved health outcomes.

Ohio's approach to stakeholder engagement is grounded in the belief that we all share responsibility in what has gone wrong with the health care system, which means we all have a role in making it better. The purpose of stakeholder engagement is to give voice to diverse views, build trust, and create an environment where constructive disruption in the status quo is understood in the broader context of improving overall population health outcomes.

Since 2011, OHT has engaged thousands of Ohioans in the design, implementation, and ultimate participation in multiple new models of care. Ohio's decision to expand Medicaid, for example, triggered the formation of an unprecedented grass-roots coalition of stakeholders spanning chambers of commerce, faith-based organizations, consumer advocacy groups, local governments, and health care providers and systems. OHT relies on this large, well-organized coalition to quickly share information and seek feedback on emerging policy priorities, like SIM.

In January 2013, prior to but anticipating SIM, Governor Kasich convened an Advisory Council on Payment Innovation comprised of purchasers, plans, providers, consumers, and

researchers to prioritize and coordinate multi-payer health care payment innovation activities statewide. The Advisory Council identified experts to participate on three leadership teams related to SIM design: a multi-payer core team, PCMH design team, and episode design team. The SIM core team (Aetna, Anthem, Buckeye, CareSource, Medical Mutual, Molina, Paramount and United) aligns overall strategy across payers. The CEOs of these plans have committed to the Governor they will help design and implement the episode and PCMH models in Ohio.

The episode and PCMH design teams were convened to review detailed analysis and form recommendations for PCMH and episode-based payment model design. The teams met on a weekly basis over six months and included over 100 participants, including representatives from OHT and the Ohio Departments of Medicaid, Health, Aging, Mental Health and Addiction Services, Administrative Services, Insurance and others; provider organizations representing various geographies and levels of scale and integration (e.g., large health systems, academic medical centers, multi-specialty, independent practice); purchasers representing self-insured employers interested in payment innovation; payer experts identified by the SIM core team; and payment innovation leaders from across the state (e.g., community leaders, local collaboratives, HIE experts, research organizations).

For the SIM test, OHT will continue to rely on the core team and PCMH/episode teams to coordinate implementation, pressure-test approaches, share lessons learned, and inform continuous improvement. However, the specific meeting cadence and membership of these groups will change as needs change. For example, as episodes are launched, provider education and assistance interpreting performance reports will become a priority; and for the PCMH model, the primary stakeholder engagement will shift to local communities as lessons from

CPCI and state decisions are translated through local collaboratives and community stakeholders into community-specific PCMH implementation activities. (*The operational plan contains additional detail about provider engagement during the test phase.*)

In addition, the SIM test creates a clear opportunity to increase support for patient engagement and address social determinants of health. Individual behaviors (e.g., diet, exercise, tobacco use) account for up to 40 percent of all premature deaths (NEJM 2007). Figuring out better ways to educate and engage patients on all aspects of their care is critically important, particularly as it relates to PCMH participation. A portion of SIM testing funds will be used to stimulate innovation in patient engagement (*see the Budget Narrative*) but, even more importantly, a portion of the savings generated by the new payment models will be reinvested in patient engagement (*see the Financial Narrative*).

Throughout the SIM process, Ohio has been fortunate to have three well-established Regional Health Improvement Collaboratives (RHIC) representing employer, payer, provider, and patient interests in the Cincinnati, Cleveland and Columbus regions. These organizations are trusted conveners, data aggregators, and quality improvement resources for the communities they serve. Together, they provide statewide leadership for payment and practice transformation through combined leadership in the Ohio Patient Centered Primary Care Collaborative, involvement in statewide medical associations, joint participation in the Consumer Reports campaign to reduce the use of low value services, and representation on the board of directors for the national RHIC network. The RHICs will be critical partners in rolling out new models of care and providing a direct channel into regional conversations about how best to engage patients, providers, and other stakeholders.

7. QUALITY MEASUREMENT PLAN

The challenge in quality measurement is not a lack of data but an overwhelming abundance, which makes it difficult for decision makers to see what is important within what is available. This is made worse because the system generates data primarily to pay claims, not deliver quality or improve outcomes. Even when quality measures are used as a starting point (e.g., NQF, HEDIS), stakeholder preferences must be balanced to reach a smaller, targeted list of metrics for any given purpose. On a practical level, access to different types of data (e.g., EHR, claims) and varying uses of data fields across organizations create further challenges to consistent quality measurement. As a result, the health care provided often depends most on what is paid, not what is clinically appropriate or even desired by an informed patient.

Ohio is following the National Quality Strategy to focus on fewer but more meaningful core quality measures. The goal is to define, measure, track, and pay for quality in ways that create value for all stakeholders, reduce the reporting burden for providers, bring sharper focus to population health outcomes, and enable value purchasing across all payers.

Since 2011, the State of Ohio has been working with CDC, NQF, AHRQ and other partners to align quality measurement across multiple measure stewards and delivery system layers (e.g., payer, hospital, clinician, and patient). CDC is a particularly important partner as OHT increasingly focuses state resources on achieving better health: being born healthy, staying or getting healthy after an acute episode, preventing and controlling chronic conditions across a

person's lifespan, and influencing the social determinants of health that underlie much of the health disparity in Ohio (see Table 3, p24 for a list of sample measures).

For SIM, OHT has made significant progress aligning quality measures across multiple payers for PCMH and episode-based payment models. During SIM Design, the core team of payers identified quality metrics as an area where standardization would be critical and committed to using a common set of quality metrics for each episode. The first six episodes were designed through a series of clinical advisory group meetings in which clinicians provided input on the selection of a targeted set of quality metrics specific to each episode. For simplicity in the initial rollout of episodes, only metrics that could be measured through claims data were selected. Participating commercial payers and Medicaid plans are working toward a November 2014 release of initial episode performance reports to providers.

In parallel to work on episodes, CPCI in Southwest Ohio has been leading the way in multi-payer alignment on PCMH quality metrics. Already, other PCMH initiatives in the state are working to align their metrics with CPCI, including the state's PCMH Education Pilot sites. As the SIM PCMH working team plans for the next steps of statewide PCMH rollout, the intention is to use CPCI as a foundation for more broadly aligning on PCMH quality metrics. Both the metrics selected and lessons learned from early implementation will inform the statewide strategy.

These initial successes in building cross-payer alignment on episode and PCMH quality metrics are the first steps in working toward a broader vision for cost and quality transparency. During the SIM test, OHT will convene a quality measurement leadership team to coordinate a broader, statewide quality measurement plan. This plan will be refined with CMMI input during

pre-implementation and used to coordinate activities across the state's population health plan, HIT plan, and existing quality measurement activities.

TABLE 3. SAMPLE ALIGNMENT OF MEASURES TO IMPROVE POPULATION HEALTH

	SIM Test Measures		Medicaid Program Measures			Other Sources of Measures			
Population Health Measure	CPCI (PCMH)	Episode	FFS	MCO	MyCare	EHR-Based	Commercial Focus	HPIO Focus	Disparity Focus
National Quality Strategy: Promote Evidence-Based Prevention and Treatment Practices									
Influenza Immunization	X	X				X		X	
Tobacco Use Cessation Intervention	X	X				X			
National Quality Strategy: Care Coordination									
Low Birth Weight		X		X					X
Postpartum Care		X	X	X			X		X
Adolescent Well Care Visit			X	X			X		X
Appropriate Medications for People with Asthma		X	X	X		X	X		
Potentially Preventable Events		X	X	X				X	
Follow-up After Hospital-ization for Mental Illness				X	X			X	
National Quality Strategy: Improving Chronic Care Coordination									
Controlling High Blood Pressure	X			X	X	X	X		X
Heart Failure Admission Rate				X	X				X
Diabetes Care (HbA1c)	X			X	X	X	X		X
National Quality Strategy: Support Person-Centered Care									
Consumer Satisfaction Survey	X			X	X		X	X	

NOTES: Comprehensive Primary Care Initiative (CPCI), fee-for-service (FFS), managed care organization (MCO), electronic health record (EHR), Health Policy Institute of Ohio (HPIO).

8. MONITORING AND EVALUATION PLAN

Ohio views the SIM Model Test as an opportunity for continuous improvement, to use data throughout the test period to assess progress, identify factors driving the observed results, and refine the models on an ongoing basis to improve long-term success and sustainability. This approach requires a comprehensive evaluation and monitoring plan focused on providing actionable insights to multiple stakeholders. This plan outlines the questions to be addressed and metrics that inform the answers, data sources and processes that different stakeholders will use to measure these factors, and processes to apply results for continuous improvement.

Ohio's SIM Test will address four main questions: (1) Is the program achieving its end outcomes of strengthening population health, improving patient experience, and reducing the per capita cost of care? (2) Before improved population outcomes can be realized, what are the early signals of success? (3) Are implementation processes timely and effective? (4) What balancing measures are needed to address inadvertent negative consequences?

Outcome metrics will include specific population health measures (*see Table 3 for examples*) that will be finalized with input from CMMI in the population health and quality measurement plans. Priority measures will be chosen for transparency across all systems in a publicly accessible online dashboard. Changes in cost of care will also be measured (per capita and overall) for the entire state health expenditure and by population (e.g., Medicaid, Medicare, commercially insured), and for PCMH model and each episode. Indicators of broader health system transformation will also be measured, including patient experience (e.g., surveys

such as CAHPS), quality of care (e.g., episode- and PCMH-specific quality metrics, HEDIS), and provider HIT use (e.g., providers meeting Meaningful Use requirements). Evaluation will include aggregate assessments at state and regional levels with performance analyses for providers participating in the PCMH or episode models to assess the impact of performance over time.

Population level metrics change slowly over decades, beyond the duration of the SIM test. However, early indicators of program effectiveness may be seen in proximate measures, including cost, utilization, unit price, or site of care shifts (e.g., rates of ED visits) and quality (e.g., screening rates, rates of follow-up visits after inpatient stays). Tailored metrics for each episode and for PCMHs will be included in provider reports and monitored in aggregate.

Standard project management tools will be used to monitor adherence to the timeline of the transformation effort. For episodes, these include the number of principal accountable providers (PAPs) in contracts for risk and gain-sharing payments, the percent of PAPs who are reviewing their reports, and the number of PAPs participating in provider engagement activities (i.e., webinars, best-practice sharing sessions). For PCMHs, examples include the number of providers enrolled, the number of patients attributed to PCMHs, and providers' status in meeting milestones set out by the program (anticipated to be similar to those for CPCI, e.g., meeting meaningful use). Qualitative feedback on program effectiveness will also be gathered through PCMH and episodes planning teams (e.g. regional collaboratives, consumer advocates, others) and other forums for stakeholder engagement (e.g., regional meetings, questions received through customer support lines).

Finally, evaluation and monitoring processes will identify unintended consequences of the SIM models and opportunities for refinements throughout the course of the Model Test.

Stakeholder feedback during implementation will be a critical source of this input. In addition, system metrics to identify practice pattern anomalies (i.e., shifts in coding practices) will be defined and regularly monitored. Combined, these system metrics, process metrics, and early indicators of success can highlight opportunities to make the SIM model more effective.

At first, much of the outcomes and early indicator measures will be claims-based and incorporated into provider reports (created by each payer using aligned metrics and formats). Conversion to ICD-10 will provide more granular information for measurement, including the identification of patients with challenges related to social determinants of health and, in the aggregate, this information can be used to show community-level impact. Over time, data sources for evaluation and monitoring will evolve to include EHR data.

Consistency of data and report format will facilitate data aggregation for initiative-wide assessments. The multi-payer coalition also will provide data on enrollment levels and other process metrics. In addition, state databases, such as public health registries and the enterprise data warehouse, will provide data to assess outcomes and indicators for population health incorporating clinical data and social determinants of health. The state also will work with CMS to explore opportunities to use Medicare data in state-wide outcomes assessments. As the state's HIT strategy is further defined and implemented through the SIM process, data sources and evaluation processes will be updated to take advantage of improved data integration and interoperability (e.g. through additional provider clinical/EHR data).

Within the state, evaluation data will be used by providers, individual payers, and the state SIM teams for continuous improvement. Providers will use performance report data (e.g., outcomes, early indicators, relevant process metrics) to understand and improve their own

performance. Individual payers will track their own implementation progress and assess provider performance and impact on beneficiaries for their businesses, but will also be assisted by data sharing and aggregation efforts of the payer coalition, as described above (e.g. sharing enrollment level figures and other process metrics). This includes a deeper focus on how providers perform relative to their peers and how this performance changes over time, relative to historical baselines and benchmarks. Payers also will focus on system metrics and unintended consequences of the models within their own businesses. The SIM core team and the PCMH and episode planning teams will aggregate the payer assessments and incorporate multi-stakeholder feedback to assess the overall effectiveness of SIM implementation. These groups will identify opportunities for improvements and align on model refinements.

The state will contract with an external evaluator to complete statewide assessments. This evaluator will be an independent, credible research group with extensive knowledge of Ohio's situation and of payment innovation, ideally located in state. The evaluator will be chosen based on its capability to work with large data and applied data analytics in order to develop overall, dynamic snapshots of the status of population health, health system transformation, and cost trend patterns. The aggregated data also will provide different cuts of performance, shedding light on the relative impact of SIM by geography and population, particularly those with health disparities. To do this, the evaluator will need to access data from multiple sources, perform advanced analytics, generate sophisticated reports, and act as a trusted, independent resource for payers, providers and consumers.

9. ALIGNMENT WITH STATE AND FEDERAL INNOVATION

The State of Ohio is engaged in multiple federally-supported health care innovation activities, representing a considerable federal investment in Ohio. Like CMMI, Ohio recognized the importance of "air traffic control" across multiple reforms and in 2011 created the Office of Health Transformation (OHT) to align public and private sector health innovation activities in Ohio. For example, Ohio will rely on its experience with CPCI to roll out multi-payer PCMHs statewide, and the multi-payer PCMH and episode models will be designed to complement CMS/CMMI initiatives that target Medicare patients only.

OHT will ensure that SIM funding does not duplicate or supplant current initiatives (*see the Budget Narrative for more detail*) and align SIM objectives consistent with other federal investments and CMMI initiatives in Ohio, including: Comprehensive Primary Care Initiative (276 providers in 75 practices), FQHC Advanced Primary Care Practice Demonstration (20 FQHCs), Bundled Payments for Care Improvement (130 provider sites), Health Care Innovation Awards (six participants), Community Based Care Transitions Program (eight participants covering broad regions of the state), Financial Alignment for Medicare-Medicaid Enrollees (*MyCare Ohio* Demonstration), Advance Payment ACO Model (one participant), Medicare Shared Savings ACO (ten participants); Independence at Home Demonstration (one site), Balancing Incentive Program (Ohio Medicaid commits to spend more on home and community based services than institutions by 2015), Partnership for Patients (statewide) and Strong Start for Mothers and Newborns (statewide).

BUDGET NARRATIVE

1. SUMMARY

Ohio projects that a total investment of $98.6 million is required from State Innovation Model (SIM) collaborative agreement funding to undertake the SIM test over the four-year period 2015-2018 (Table 1, p2). In-kind contributions in personnel and fringe benefits costs will comprise an additional $106.2 million. The Ohio SIM test is forecasted to return savings of up to $12.6 billion across the system over the period 2015-2020.

The Ohio Department of Medicaid (ODM) considers SIM a top priority that will fundamentally change its focus and activities. ODM therefore expects to operate the new payment models (episodes and PCMH) indefinitely beyond the period of the SIM testing grant. Over time, the operating model is expected to shift, as more of the ODM staff's day-to-day activities incorporate elements of operating episodes and PCMH, replacing some activities occurring today. In addition, with an increasing proportion of the Medicaid population in managed care, the direct role of ODM in operating these models may shift over time.

Since 2012, $11.8 million has been dedicated to support the design, implementation and operation of new payment models in Ohio. $3 million of this was federal funding from the SIM Design grant and $8.8 million was state funding (ODM). In addition, $1.3 million in-kind was received from the state, and $800,000 in-kind was received from health plans.

Table 1. Ohio SIM Model Test budget by year and funding source (in millions)

Object class category	2015	2016	2017	2018	TOTAL for 2015-2018
A. Salaries and Wages	$ -	$ -	$ -	$ -	$ -
B. Fringe benefits	$ -	$ -	$ -	$ -	$ -
C. Travel	$ -	$ -	$ -	$ -	$ -
D. Equipment	$ -	$ -	$ -	$ -	$ -
E. Supplies	$ -	$ -	$ -	$ -	$ -
F. Contractual	$ 25.2	$ 26.3	$ 24.7	$ 22.4	$ 98.6
H. Other	$ -	$ -	$ -	$ -	$ -
I. Total direct charges	$ 25.2	$ 26.3	$ 24.7	$ 22.4	$ 98.6
J. Indirect charges	$ -	$ -	$ -	$ -	$ -
SIM GRANT TOTAL	**$ 25.2**	**$ 26.3**	**$ 24.7**	**$ 22.4**	**$ 98.6**
In-kind contributions	$ 26.2	$ 26.4	$ 26.7	$ 27.0	$ 106.2
PROJECT TOTAL	**$ 51.4**	**$ 52.8**	**$ 51.4**	**$ 49.3**	**$ 204.8**

2. BUDGET AND EXPENDITURE PLAN DETAIL

A. Salaries and Wages (Personnel) and B. Fringe Benefits ($0)

SIM funding will not be used for any personnel costs or fringe benefits. The Ohio SIM test is a strategic priority for ODM, and it is anticipated all Medicaid employees will spend some portion of their time working on it. The associated personnel and fringe benefits costs are categorized as an in-kind contribution from the state. Similarly, the Ohio Department of Health and Office of Health Transformation will provide in-kind support by way of salaries and fringe benefits over the period of the SIM test (Table 3, p12).

C. Travel ($0)

SIM funding will not be requested for staff travel costs.

D. Equipment ($0)

Medicaid will not purchase any meaningful amount of equipment for the Ohio SIM Test.

E. Supplies ($0)

SIM funding will not be requested for this component. The cost of supplies and miscellaneous will be covered by vendors as described in the next section (F) below.

F. Consultant, Vendor, and Contract Services ($98.6 million)

SIM funding will be used for contract and vendor services. Costs are projected based on experience from a considerable amount of work to date, including design and implementation of six episodes and development of a PCMH charter, analyzing other state SIM applications, and reviewing vendor bids for similar activities with adjustments for differences in Ohio.

Medicaid will work with several contractors to support the Ohio SIM Test over the four year test period. Each will be selected based on their unique capabilities to meet specific Model Test needs and deliverables. Medicaid already has working relationships with the following vendors who are likely to be among those used: Hewlett Packard, Mercer, McKinsey & Company, and the Public Consulting Group. Medicaid will pursue contracts with vendors through a mix of formal RFPs, interagency agreements, use of existing contract vehicles where applicable, and other mechanisms in line with State of Ohio laws and policies.

Costs for contract and vendor services described below can be grouped into categories specific to the episode model, those specific to the PCMH model, and others applicable to both episode and PCMH models. $38.7 million is required for episode-specific activities, including model design/analytics/delivery, reporting and provider engagement. $25.0 million is required

for PCMH-specific activities, including model design/analytics/delivery, reporting, provider engagement, provider enrollment contracting, and monitoring. $34.9 million is required for other activities that encompass both models, including program management, regulatory filings/activities, MCO contracting, provider support, payment, payer/provider and provider/provider connectivity, system infrastructure, and patient engagement.

Program management ($7.1 million). $7.1 million is required to maintain and refine program governance, conduct overall project management, support CMS/CMMI interactions and requests, consider regulatory changes, support general, payer-centric and employer-centric stakeholder engagement, and help engage with Medicaid MCOs. $2.1 million is anticipated for 2015, $2.0 million for 2016, decreasing to $1.5 million per year for 2017 and 2018. This is expected to be contracted to a consulting firm with experience and expertise in payment innovation, large scale project management, and familiarity with Ohio and its stakeholders.

Episode model design, analytics, delivery ($24.9 million). $11.2 million is required to select episodes, gather clinical input, analyze key choices, define quality metrics, and summarize key elements in *Detailed Business Requirements* documents that will be used by MCOs to launch episodes in a consistent manner. It is expected that design costs per episode would be $400,000 per episode in 2015 and 2016, decreasing to $190,000 per episode in 2017 and 2018. $5.5 million is required to develop and run the episode analytics engine and algorithms, implementation costs are projected to be $125,000 per episode. $4.6 million is required to collect and integrate claims and non-claims data, run the analytics algorithms every quarter, maintain the model and update billing codes, with operating costs projected to be

$20,000 for data collection/integration per quarter and $25,000 per episode per quarter in 2015, $20,000 in 2016, $15,000 in 2017 and $10,000 in 2018. Evaluation and refinement costs are projected to be $600,000 in 2015 and $1 million annually thereafter. This cost category is anticipated to be contracted to healthcare analytics vendor with deep experience in designing episodes in a public multi-stakeholder process. $4.9 million of state funding has already been committed to the design, implementation and reporting of the first six episodes in Ohio.

Episode reporting ($7.4 million). $5.4 million is required to produce quarterly reports for each episode for each accountable provider, with costs expected to be $25,000 per report in 2015, $22,000 in 2016, $19,000 in 2017 and $15,000 in 2018. Report design (refinement) for new episodes, together with program evaluation, are expected to cost $500,000 per year. This cost category is anticipated to be contracted to a healthcare analytics vendor with deep experience in episode reporting.

Episode provider engagement ($6.5 million). $2 million is required to develop the episode provider engagement approach, which will include identifying messages and communication channels, coordinating with key stakeholders, creating both basic episode educational documents and advanced training materials (i.e., tools on how to interpret reports), and models for targeted, direct provider support. $1 million per year for 2015 and 2016 is required to implement the strategy. $2.5 million is needed to conduct operations, $1 million per year in 2016 and 2017, decreasing to $500,000 in 2018. A number of different types of vendors would be considered for these activities including media/communication firms, consulting firms, IT vendors, provider associations, etc.

PCMH model design, analytics, delivery ($8 million). $4 million is required to lead a collaborative, multi-stakeholder process to detail all aspects of the state's PCMH model including attribution logic, requirements for participation, quality metrics, etc. This will include $3 million in 2015 for overall design and $500,000 each in 2016 and 2017 for refinements during regional rollout. $1 million is needed to create the analytics engine/models including total cost of care algorithms; $500,000 in 2015, decreasing to $250,000 in 2016 and 2017. Operating costs for the PCMH model are anticipated to be $1 million annually from 2016 on, covering data collection and integration, together with regular data refreshes and analytics. This cost category is anticipated to be contracted to a healthcare analytics vendor with deep experience in designing PCMH programs and technical models in a multi-payer environment.

PCMH reporting ($3 million). $1 million is required to design PCMH report templates, $500,000 is needed to implement reporting, and $500,000 annually starting in 2016 for operating reporting (local data collection, portal data incorporation, generation of quarterly reports). This cost category is anticipated to be contracted to healthcare analytics vendor with deep experience in designing, developing, and producing PCMH reports.

Provider contracting enrollment ($3.3 million). $250,000 is required to implement provider recruitment and re-contracting in relation to PCMH, and $1 million per year thereafter to manage re-contracting. An administrative vendor is anticipated to provide this service.

PCMH provider engagement ($9 million). $500,000 is required to design PCMH program educational materials and plan the approach to raise awareness prior to program launch, and $2.5 million is to implement this outreach plan in support of regional enrollment

($1 million in 2015, $500,000 each year for 2016-2018). In addition to this general education and awareness, an additional $6 million ($2 million per year from 2016-2018) is required for targeted practice transformation technical assistance for practices that align with the state's highest priorities, for example in underserved communities or where health disparities are significant. (This will further supplement the funds for provider support included in the PCMH payment model that are intended for practice reinvestment.) This cost category is anticipated to be contracted to local and regional vendors with relationships with provider communities and experience designing and implementing PCMH practice transformation strategies.

PCMH monitoring ($1.8 million). Existing Medicaid staff will design the approach to PCMH monitoring. $250,000 is needed to implement the strategy, including auditing provider compliance with PCMH technical requirements and milestones. $500,000 per year is needed for annual operations, including liaising with providers regarding performance, developing performance improvement strategies/plans and managing re-certification/disenrollment from PCMH program. This cost category is anticipated to be contracted to consulting/evaluation vendors that have experience developing PCMH monitoring approaches for other payers.

Patient engagement ($4 million). $4 million will be used to fund promising innovations in patient engagement, encouraging healthy competition and fostering public/private partnerships. $500,000 will be used to design the approach to select, fund and develop such initiatives, $500,000 to implement and $1 million each year in 2016-2018 to operate them. State and local entities will submit proposals for innovations they would like to test through an innovation competition, and the state will run a competitive process to select pilots to fund.

MCO/rate-setting ($2.8 million). $1.4 million is required for design costs, covering ad hoc analyses/support (e.g., actuarial support for PCMH shared savings model, requests from the legislature). A further $1.4 million in operating costs is needed for ongoing incremental actuarial support, to incorporate the impact of episodes and PCMH on MCO rate-setting. An actuarial firm will provide these services.

Provider support – inbound ($1 million). $250,000 is required to educate customer support staff on episode and PCMH models and to develop capabilities to manage issue resolution. $250,000 per year is anticipated for fielding inbound provider inquiries and to continue staff training to reflect changes to episodes and PCMH models, reporting and payments. A consulting firm with experience in setting up provider support functions and delivering training to inbound provider support staff is anticipated to provide this service.

Payment ($3.5 million). $500,000 is required in 2016 to deliver provider support payments (e.g., PMPM fees) for PCMH. An additional $1.5 million per year is needed from 2017 to define a consistent payment approach, develop API to payment systems, create system capability to issue bonuses and "withholds", reconcile payments and update the payment system as needed. This is likely to be Medicaid's MMIS vendor, which manages Medicaid's payment infrastructure and administers current payments.

Payer/provider connectivity ($2.5 million). $500,000 is required to design modifications to the existing provider portal functionality (i.e., to add new reports), $500,000 is needed to implement portal updates, $500,000 per year is needed to load new reports on a quarterly basis, distribute reports to providers, capture, store and transmit clinical data to the analytics

engine, and to analyze and report on provider utilization. These services are anticipated to be provided by an IT vendor.

Provider/provider connectivity and system infrastructure ($10 million). $2 million will be used in 2015 to finalize the HIT strategy and $2 million to expand the state data gateway to an enterprise service. $4 million is budgeted in 2016 and $2 million in 2017 to finalize the implementation of the HIT plan. This will include detailed design in several critical topics that will be determined during the strategy (e.g., all payers claims database, HIE, integrated reporting), connect public health registries to the enterprise HHS data warehouse, and program management. Consulting/IT vendors are anticipated to work with OHT and the HIT Council to design the strategy and implement the specific initiatives.

State evaluator cost ($4 million). $4 million of SIM funding will be applied for state-wide program evaluation, $1 million per year for each year during the period 2015-2018. Vendor(s) that lead evaluation will have experience evaluating episode-based payment and PCMH models in large-scale, multi-stakeholder initiatives.

H. Other ($0)

There are no other costs included in the Ohio SIM Test budget.

I. Total Direct Cost ($98.6 million)

As described above, the total direct cost of the Ohio SIM test is $98.6 million over the four-year period 2015-2018 (Table 2 below).

J. Indirect Costs ($0).

SIM funding will not be requested for indirect costs.

Table 2. Total contract and vendor costs by operating cost category (in millions)

Cost category	2015	2016	2017	2018	Total
Program management	2.1	2.0	1.5	1.5	7.1
Model design, analytics and delivery - episodes	5.0	5.8	7.0	7.2	24.9
Reporting - episodes	1.1	1.6	2.0	2.6	7.4
Episode provider engagement	2.5	2.5	1.0	0.5	6.5
Model design, analytics and delivery - PCMH	3.5	1.8	1.8	1.0	8.0
Reporting - PCMH	1.5	0.5	0.5	0.5	3.0
Provider contracting enrollment	0.3	1.0	1.0	1.0	3.3
PCMH provider engagement	1.5	2.5	2.5	2.5	9.0
PCMH monitoring	0.0	0.8	0.5	0.5	1.8
Patient engagement	1.0	1.0	1.0	1.0	4.0
MCO / rate setting	0.6	0.7	0.8	0.9	2.8
Provider support - inbound	0.3	0.3	0.3	0.3	1.0
Payment		0.5	1.5	1.5	3.5
Payer/provider connectivity	1.0	0.5	0.5	0.5	2.5
Provider/provider connectivity	2.0	2.0	1.0		5.0
System infrastructure	2.0	2.0	1.0		5.0
State evaluator	1.0	1.0	1.0	1.0	4.0
Grand Total	**25.2**	**26.3**	**24.7**	**22.4**	**98.6**

3. OTHER

Other grants, revenues or in-kind services and resources ($106.2 million). In-kind support is anticipated from OHT, ODH and ODM by way of personnel and fringe benefits (Table 3, p12). In addition, commercial payers will also have personnel and fringe benefit costs related to the SIM project and are likely to invest in the following cost categories for their covered populations: model design, analytics, and delivery for episodes and PCMH models (implementation and operation), episode reporting (operation), PCMH reporting

(implementation and operation), re-contracting (design and implementation) and payment (implementation). Potential additional areas of investment are payer/provider connectivity (design, implementation and operation), and provider enrollment and contracting (implementation and operation).

Expected or needed funding from other federal sources ($0). No funding from other federal sources is expected.

Attestation that Innovation Center funding will not supplant any other funding sources. We attest that Innovation Center funding will not supplant any other funding sources.

Table 3. In-Kind Contributions (in millions)

Source	Support	Rationale for inclusion as in-kind support
OHT	**$1.7**	• Will support planning, program management and vendor management for operations, to ensure the success of this initiative. • Six FTEs will be working on the initiative for 80% of their time. Salaries and fringe benefits are subject to administrative claiming. • In kind contribution includes salaries, fringe benefits and travel to/from meetings for the duration of the grant period.
ODH	**$35.3**	• Will contribute program/policy leadership, project management, subject-matter expertise, analytics expertise, working with vendors to support the design, implementation and operation of the multi-payer PCMH and episodes models, including engaging stakeholders to obtain buy-in throughout the duration of the project. • ~294 FTEs will be working on this initiative for 30% of their time. • In kind contribution includes salaries, fringe benefits and travel to/from meetings for the duration of the grant period.
ODM	**$69.3**	• Will contribute program/policy leadership, project management, subject-matter expertise, analytics expertise, working with vendors to support the design, implementation and operation of the multi-payer PCMH and episodes models, including engaging stakeholders to obtain buy-in throughout the duration of the project. • ~550 FTEs will be working on this initiative for 30% of their time. Salaries and fringe benefits are subject to administrative claiming. • In kind contribution includes salaries, fringe benefits and travel to/from meetings for the duration of the grant period.
TOTAL	**$106.2**	

FINANCIAL ANALYSIS

Health Care Spending in Ohio

Health care spending in Ohio is expected to increase from $116 billion in 2015 to $148 billion by 2020 (Table 1, p4). The biggest increases will be seen in Medicare and Medicaid, where per member per month (PMPM) costs are expected to grow from $1,169 to $1,522 for Medicare and from $599 to $701 for Medicaid between 2015 and 2020. Commercial spends also will increase, with PMPMs growing from $733 to $938 between 2015 and 2020.

Drivers of Savings

PCMH and episode-based models drive savings by reducing medical inflation and waste. Growth of medical spend is expected to slow as providers turn to more cost-effective treatment options. Waste is reduced as the number of unnecessary redundant treatments declines once providers are held responsible for the costs they incur or influence and primary care physicians have greater oversight of their patients' overall health and costs.

For PCMHs, studies show cost reductions in the range of 0.5-15%. For this analysis, the range was narrowed to 3-10% where the majority of case studies fall (the certified scenario uses 3%). These include federal, state, and private payer case studies and take into account savings reported by Horizon BCBS of NJ, CareFirst, Community Care of NC, and others. Many studies show savings in hospital costs from reduced ED visits, readmissions, and length of stay. Savings also are captured from the efficient use of diagnostic imaging and labs, use of more efficient services and facilities, and reduced pharmacy costs. Higher use of evidence-based care standards drives further savings through improvements in population health and prevention.

For episodes, studies show savings between 3-29%. For this analysis, the range was narrowed to 5-12% (the certified scenario uses 5%). These savings were captured due to improved appropriateness of care (Health Affairs, 2008), reduced pharmacy and imaging costs, and a reduction in hospital admissions, readmissions, and average length of stay, for which one study reported a 16% decrease after one year of implementation (AHRQ 2012).

Savings Scenarios for Financial Analysis

While studies have shown high potential savings from both models, there have been fewer assessments of how effectively such programs scale in statewide, multi-payer initiatives, which is precisely the question to understand in this SIM test. Thus, our model considers two cases. The aspirational case assumes savings levels realized in other successful episode and PCMH programs can be replicated at scale in Ohio. The conservative (certified) case considers the results if such savings levels are not fully realizable when the models are applied at such a broad scale. The major differences between the savings assumptions in these cases follows:

	Savings Assumption	Conservative	Aspirational
Episodes	% of baseline spend reduced from waste	5%	9%
	time to ramp to waste reduction savings	7 years	4 years
	% by which cost inflation growth is reduced	0.5%	1%

	Savings Assumptions	Conservative	Aspirational
PCMH	% of baseline spend reduced from waste	3%	7.5%
	time to ramp to waste reduction savings	7 years	4 years
	% by which cost inflation growth is reduced	1%	1.5%

Scaling Up the Model

The PCMH model will be brought to scale in Cincinnati and at least one other major market in 2016, another market in 2017, and the rest of the state by 2018. In each region, 40% of eligible providers in urban markets and 10% in rural markets are estimated to enroll in PCMHs in the first year, ramping to 100% of providers enrolled by year four in urban markets and by year five in rural markets. Accounting for this lag, an estimated 84% of Medicare, 80% of Medicaid, and 59% of commercial (total medical spend) will be covered by PCMHs by 2020.

Ohio will introduce six episodes (covering 2% of total medical spend) in November 2014 for reporting, but will not accrue savings until 2016, when gain/risk sharing incentives will go into effect. Payments will go into effect for seven new episodes in 2017 and 2018 each, totaling 20 episodes by 2018. Payments begin for 15 new episodes in 2019 and 2020, reaching a total of 50 episodes by 2020, covering approximately 50% of targeted medical spend.

Across both PCMH and episodes, 100% payer participation will be required in Medicaid and (we are requesting) Medicare. Private payers participating in SIM cover 80% of the commercial market today, and we assume 70% participation of the commercial/other market in the model. The spend coverage assumption is lower to adjust for other care in the baseline spend (e.g., VA, TriCare) and that some ASO accounts may not be included.

Reinvesting in Patient and Provider Support Payments

A portion of gross savings will be shared with providers as reinvestments back into the health system. For PCMH, these include gain-sharing with providers who create savings and provider support payments. Gain-sharing payments incent providers to choose cost-effective treatment plans, reducing spend across the system. Provider support payments (i.e., PMPM fees) fund new activities that practices take on as PCMHs to provide holistic care for their patient panels, such as care coordination and enhanced patient engagement. A portion will also go to practice transformation, to change business processes and practice patterns to function as a PCMH. While payment model details will be confirmed in the pre-implementation phase, about 30% of PCMH total savings are assumed to be shared back with providers, and provider support payments will be approximately 1.05% of medical spend.

Episodes will include risk and gain-sharing, with commendable providers sharing in up to 50% of episode savings. Thresholds defining risk or gain-sharing levels will initially be set to be budget neutral and remain fixed for some period of time. As performance across providers improves over time, more providers will collect gain-sharing payments than will pay risk-sharing, accounting for an estimated 25% of total episode savings. For this analysis, Medicaid reinvestments were calculated based on the above logic, and the total percentage savings were used as a guide for the amount of provider reinvestment for other payer segments. Reinvestment of about 32% of gross savings by 2018, and 23% of savings by 2020 is anticipated.

Returns on Investment

For an investment of $98.6 million of SIM test funds, the return in savings to the federal government (Medicare and Medicaid) is projected to be $1.07 billion over the performance period (2015-2018) and $2.48 billion annualized post-performance (2019-2020). Under the most conservative (certified) model, the return is projected to be $171 million over the performance period (2015-2018) and $755 million annualized post-performance (2019-2020). Table 1 (p4) outlines the savings scenarios that equate to these returns.

Actuarial Certification of Financial Analysis

I, Michael E. Nordstrom, ASA, MAAA, am a qualified actuary, a member of the American Academy of Actuaries, and an employee of Mercer Government Human Services Consulting. Mercer certifies that the aggregate six year CY2015 – CY2020 Gross Savings of 0.933 percent, and the resulting Net Savings percent after delivery system reinvestments, across all eligible programs and populations, is within a range of reasonable results. Mercer provided Baseline Spend amounts for Commercial/Other and Medicare. The Ohio Department of Medicaid provided Baseline Spend amounts for Medicaid. All other amounts, assumptions, factors, figures, percentages, savings estimates, and the financial analysis savings model itself, were provided by McKinsey. Mercer reviewed the non-Mercer provided material, including the savings model, for reasonableness, but we did not audit the material or the savings model. Should there be significant errors or omissions within the material or the savings model, results could vary significantly from those certified and displayed. Program (Medicaid, Medicare, Commercial/Other), populations eligible within programs, payer, provider and patient participation and adoption, assumed ramp-up, and savings factors themselves, are some of the elements of the analysis subject to variability. Thus certified savings could be higher or lower than assumed. Any estimate or projection may not be used or relied upon by any other party or for any other purpose than for which it was issued by Mercer. Mercer is not responsible for the consequences of any unauthorized use.

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TABLE 1: Ohio SIM Test Financial Analysis

Impact by Payer Category	Conservative (Certified) Scenario						Aspirational (Evidence-Based) Scenario					
	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020	CY2015	CY2016	CY2017	CY2018	CY2019	CY2020
Baseline Spend ($ in millions)												
Commercial	61,232	63,520	65,893	68,354	70,907	73,555	61,232	63,520	65,893	68,354	70,907	73,555
Medicare	28,909	30,932	33,097	35,414	37,893	40,546	28,909	30,932	33,097	35,414	37,893	40,546
Medicaid	26,027	27,159	28,603	30,190	31,815	33,528	26,027	27,159	28,603	30,190	31,815	33,528
Total Baseline	116,167	121,612	127,593	133,959	140,616	147,629	116,167	121,612	127,593	133,959	140,616	147,629
Gross Savings ($ in millions)												
Commercial	0	54	164	401	863	1561	0	134	434	1,038	2,261	4,010
Medicare	0	51	139	325	693	1267	0	107	332	793	1,749	3,162
Medicaid	0	19	59	147	323	595	0	47	156	382	848	1,530
Total Gross Savings	0	124	362	872	1879	3423	0	288	921	2,213	4,858	8,701
Delivery System Reinvestments ($ in millions)												
Commercial	0	60	131	266	410	590	0	65	151	335	574	910
Medicare	0	57	111	216	329	479	0	52	116	256	444	717
Medicaid	0	21	47	97	153	225	0	23	55	123	216	347
Total Reinvestment	0	139	289	580	892	1294	0	139	322	715	1,234	1,974
Net Savings ($ in millions)												
Commercial	0	(6)	33	134	453	971	0	69	282	703	1,686	3,100
Medicare	0	(6)	28	109	364	788	0	55	216	537	1,305	2,445
Medicaid	0	(2)	12	49	169	370	0	24	102	259	633	1,183
Total Net Savings	0	(14)	73	292	987	2,129	0	149	600	1,498	3,624	6,728
Return on Investment Ratio = Net Savings / $98.6 million SIM test grant												
Commercial	1.6				7.2		10.7				24.3	
Medicare	1.3				5.8		8.2				19.0	
Medicaid	0.6				2.7		3.9				9.2	
Total ROI	3.6				15.8		22.8				52.5	

OPERATIONAL PLAN

Overall scale-up approach

Ohio's goal is to transform the state's health care system by rapidly scaling the use of PCMH and episode-based models and developing the cross-cutting infrastructure to support implementation and sustain operations. By the end of the Model Test, Ohio will have launched 50 episodes of care and implemented PCMHs statewide. Each episode will be implemented statewide, with the number scaling over time. Reports for the first six will be delivered to providers in November 2014. An additional 20 episodes will be designed and implemented by the end of 2016, and 50 by the end of 2018. PCMH will expand geographically, starting with scale-up from CPCI in Cincinnati and in at least one other major market by 2016, adding another major market by 2017, and reaching statewide coverage by 2018.

Overview of operating model

Activities to reach scale fall into four main categories: design, implementation, operation, and evaluation/refinement. Design includes specifying the details of each payment model and its associated activities to enable implementation. Implementation includes the set of one-time activities needed to launch a model. Operations are the ongoing activities to maintain the models. Evaluation allows for continuous improvement, both to update models that have already been launched and to improve designs for later phases (*Tables 2 and 3 below include milestones for measuring progress in SIM test implementation*).

Episodes – activities and detailed timeline

Activities prior to start of SIM Model Test. After submitting the State Health Innovation Plan, Ohio and its SIM partners began defining an initial set of episodes. Asthma, chronic obstructive pulmonary disease (COPD), acute and non-acute percutaneous coronary intervention (PCI), perinatal, and total joint replacement (TJR) were the first episodes chosen, based on meaningful spend across payer populations, clear sources of value, a diverse mix of accountable providers, and existing definitions to use as a baseline to reduce time to launch.

The design of these episodes follows the levels of alignment set out in the OHT Multi-Payer Episode Charter. The base episode definitions, including elements to "standardize" as defined in the charter (e.g., principal accountable provider, quality metrics) and "align in principle" (e.g., claims to include, episode time frames) were developed through Clinical Advisory Groups (CAGs). These included a diverse set of clinical leaders from across the state (e.g., large health systems, individual practitioners, payers). Over 100 clinicians participated in 4 working sessions for each episode to review prototype definitions and detailed claims-based analyses, and to provide extensive clinical input into the definitions. Each payer then customized the base definitions (e.g., risk adjustment, specific exclusions).

During this time, prototype performance reports were designed and tested with providers on the episode working team. Payers are now investing to develop the production algorithms and infrastructure to run episode analytics, generate performance reports, and share reports with providers. The first reports will be launched in November 2014.

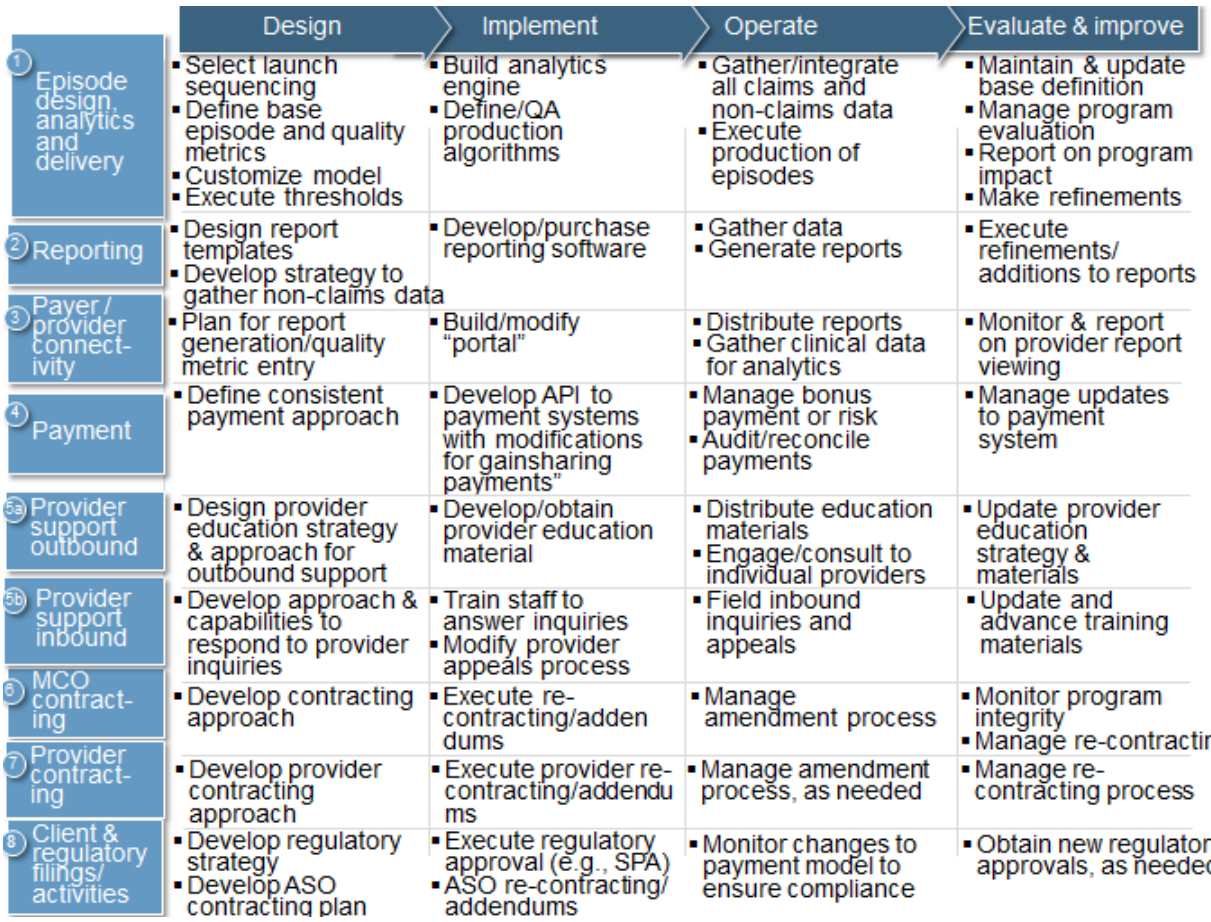
2015: Model Test pre-implementation period. In 2015, Ohio will continue to design and implement new episodes and operate the ones already launched. Seven new episodes will be defined and implemented (following similar processes as for the first six) to launch reports in early 2016. For the initial six episodes, most of 2015 will be a reporting-only period for Medicaid, without risk or gain-sharing tied to providers' performance. This time will be used to test the model, build provider awareness, and undertake an analytics-driven process to set risk/gain-sharing payment thresholds. Mechanisms will be developed to implement changes to the payment system for these episodes to enable risk and gain-sharing and Medicaid State Plan Amendment (SPA) approval will be sought to make episode payments. In 2015, the state will also invest heavily in stakeholder engagement, focusing on educating providers on episodes in general (including providers who are not Principle Accountable Providers (PAPs) but are impacted by episodes) and helping PAPs understand how to interpret and act on their performance reports. Plans will work with providers to amend contracts to support episode-based payments (some may tie financial incentives to episodes sooner than Medicaid), and Medicaid will incorporate the impact of episodes into its MCO contracting.

2016: Model Test year 1 of implementation. In 2016, Ohio payers will continue to operate episodes 1-6, producing quarterly performance reports and paying out risk / gain sharing after a year-long performance period closes. Reporting will launch for episodes 7-13, starting with a reporting-only period and phasing in risk/gain sharing 6-12 months later. In addition, Ohio payers will design and implement episodes 14-20. Ongoing operations will include production and distribution of quarterly reports, stakeholder engagement including targeted outreach to support providers in how to understand and act on their reports, continued provider and MCO contracting, and additional regulatory approval activities. Episode refinements will be identified and implemented based on stakeholder feedback and insights from evaluation and monitoring activities.

2017: Model Test year 2 of implementation. In 2017, Ohio payers will operate and evaluate episodes 1-20 and design and implement episodes 21-35. This assumes the pace of scale-up for episode design accelerates due to increased experience with the process, ability to adopt existing episode definitions, and selection of some families of related episodes.

2018: Model Test year 3 of implementation. By 2018, episode 1-35 will be in operation and episodes 36-50 will be designed and implemented. Figure 1 lays out the full set of activities required for episode scale-up.

Figure 1. Episode Operating Model



PCMH – activities and detailed timeline

Activities prior to start of SIM Model Test. During Model Design, the SIM core team and PCMH working team laid out a vision and overall design for a statewide PCMH model, including building alignment around the Multi-Payer PCMH Charter to specify areas of design for multi-payment standardization. In parallel, Southwest Ohio is participating in CPCI, and multiple other PCMH pilots are occurring in the state.

2015: Model Test pre-implementation period. In 2015, OHT will convene the SIM core team and PCMH planning team to define the statewide PCMH approach in detail and plan for implementation. These groups will specify the model elements on which payers agree to a standard approach: technical requirements, milestones to qualify as a PCMH, and quality metrics. For relevant state populations (Medicaid, state employees), attribution and empanelment logic, report design, and payment model details will also be defined. The SIM teams will use CPCI definitions as a baseline and suggest modifications as needed. In particular, changes may reflect adaptations to make the PCMH model accessible to primary care practice types with different baseline capabilities in care coordination and population health

management. PCMH model details will be refined by running extensive claims-based analytics to test the impact of proposed definitions (particularly for attribution and payment).

PCMH planning team recommendations also will inform the sequencing of regions for scale-up. The model will first be scaled in Cincinnati (to build on CPCI) and at least one other major market (Columbus or Cleveland) and expand from there. The planning team, along with regional health improvement collaboratives (RHICs), will provide insights into market readiness based on their connections to the local communities and inform this scale-up sequencing.

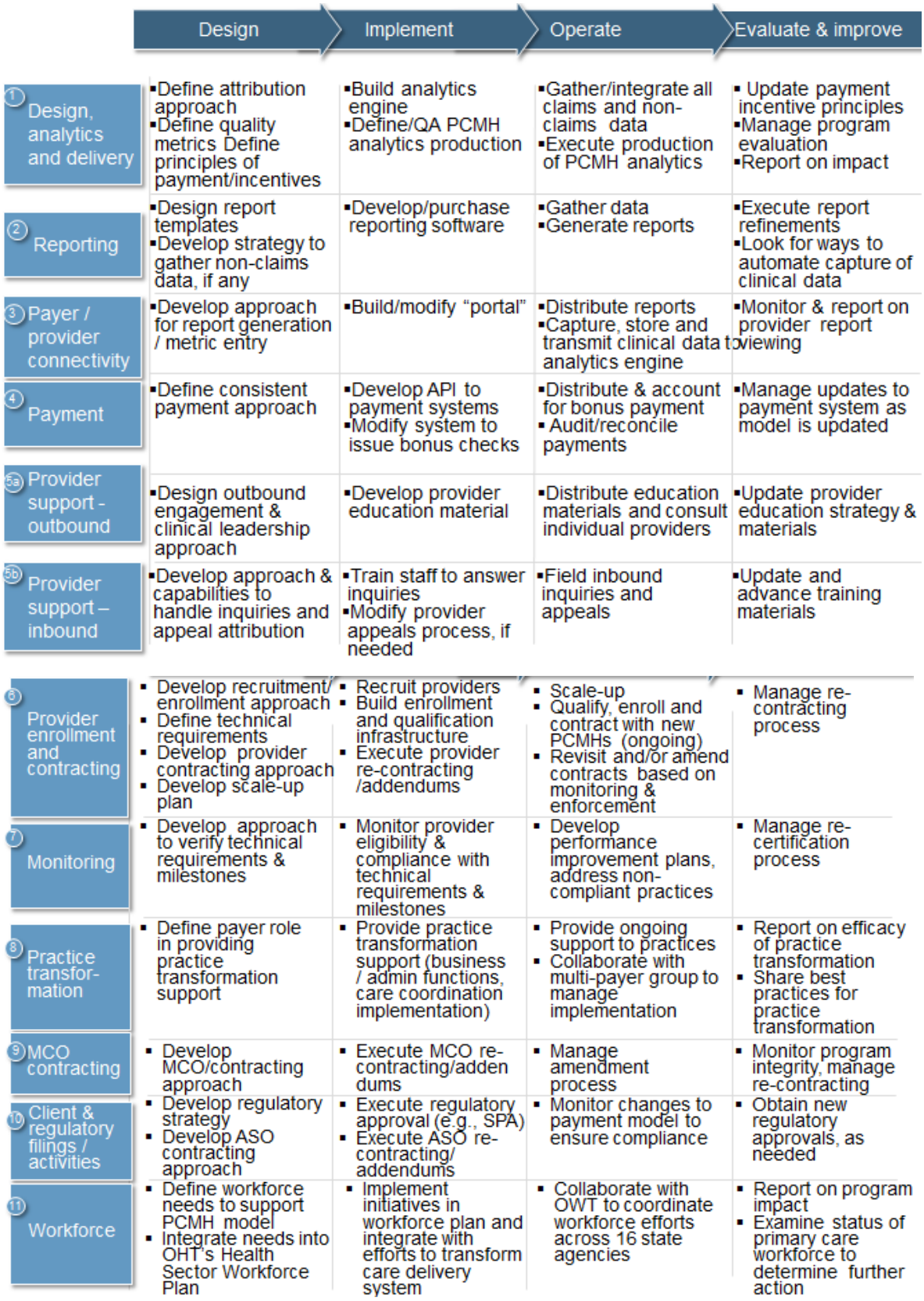
As model design details are confirmed, PCMH implementation processes will be decided. This includes vendor selection for provider enrollment, patient attribution, data collection, performance reporting, and practice transformation support. The SIM core team, with input from the PCMH planning team, will determine which of these would benefit from being shared functions across payers (as in CPCI) or conducted independently. Figure 2 shows the full set of activities required for PCMH scale-up. Provider engagement materials, to raise awareness of the PCMH model and educate providers on how to enroll, will also be developed.

2016: Model Test year 1 of implementation. In 2016, the statewide PCMH model will begin operations in Cincinnati and at least one other market. This will start with provider enrollment, including any review of eligibility to participate, sharing initial empanelment and attribution data, and any contracting requirements with commercial and Medicaid managed care plans. During the year, providers will be expected to meet milestones (similar to CPCI) and will receive quarterly performance reports, and payment incentives as defined in the pre-implementation phase. The payment model support is anticipated to include funding for new PCMH activities not covered in the current FFS billing system (e.g., care coordination) and initial investments to support practice transformation. In addition, the state will provide technical assistance for practice transformation for targeted practices (e.g., in underserved areas, with high health disparities). The state also will submit its PCMH shared savings SPA for approval. OHT will continue to convene the PCMH planning team and work with RHICs to understand the on-the-ground impact and identify opportunities for improvement. Refinements will be incorporated into the PCMH model in existing markets and for later rollout.

2017: Model Test year 2 of implementation. In 2017, the PCMH model will continue operating in the initial markets and launch operations in another major market. In 2017, a major focus will be on provider support, to enable providers to act on opportunities identified in performance data, and on continuous improvement, to refine reports, requirements, and types of provider support provided. In addition, considerations to roll out PCMH in the rest of the state will be assessed (e.g., more adaptions for rural areas) to launch in 2018.

***2018: Model Test year 3 of implementation*.** By 2018, the PCMH model will be operational statewide, across all elements identified in Figure 2. Model refinements will continue based on stakeholder feedback and the evaluation and measurement plan.

Figure 2. PCMH Operating Model



Pre-implementation planning and other initiative-wide activities

During the pre-implementation year, Ohio will also work with CMS to ensure that the state's related plans – population health, HIT, quality measurement, and workforce - are fully aligned with CMS goals and expectations. Through OHT's governance model, Ohio will expand its success in HIT during the SIM Test phase.

OHT will convene the Ohio HIT Council consisting of leaders from state government, commercial payers, healthcare providers and HIE organizations. The HIT Council will meet regularly to develop and implement a broad, actionable HIT plan. This will include a roadmap that builds on existing capabilities and develops new capabilities to support a robust statewide HIT environment that measures outcomes and enables innovative service delivery as envisioned in the SIM Test. OHT will coordinate the HIT Council's work to ensure consistency with relevant state (State CIO and HHS CIO Council) and federal (CMS, ONC, etc.) initiatives. To strengthen its HIT governance role, OHT recently appointed a new State HIT Coordinator who reports to the OHT Director and State CIO. The new State HIT Coordinator will help drive consistency and coordination among all of the federally funded HIT initiatives in Ohio. OHT and the State CIO will coordinate all state HIT spending in the next state budget.

The state will also lead efforts for broader stakeholder awareness and engagement. In addition to provider engagement (described above) and the continued convening of payers, additional state activities will include development of materials and outreach planning for employers, facilitating the inclusion of ASO business in the SIM models, and raising awareness of the initiatives and educating individuals on ways to participate in their care. In particular, the state will run consumer engagement innovation competitions in which ideas to test new consumer engagement approaches (e.g., to enhance person-centered care, improve transparency) will be selected from local organizations' submissions and funded for pilots.

State Leadership, Governance and Key Personnel

Governor Kasich has made strengthening health care in Ohio one of his top priorities and created Office of Health Transformation (OHT) in 2011 to pursue three aims: modernizing Medicaid, streamlining Health and Human Services, and improving Ohio's overall health system performance. As part of the third initiative, the Governor issued an Executive Order to "engage private sector partners to set clear expectations for better health, better care and lower costs through improvement". The energy behind these initiatives produced widespread momentum among the government, consumer advocates, payers, physicians, hospitals, communities and other stakeholders, and provided a strong basis for collaboration through SIM.

SIM state leadership is organized through the SIM Steering Committee, including leaders of OHT, the Ohio Department of Medicaid (ODM) and the Ohio Department of Health (ODH). OHT will continue to lead Ohio's SIM initiative, providing overall oversight on behalf of the Governor. OHT convenes state agencies and multi-stakeholder teams, provides coordination

across related state health initiatives, and sets healthcare regulatory and budgetary priorities for the Governor's office. ODM is responsible for the development, implementation and operation of the Medicaid episode and PCMH models (both for FFS and managed care plans). This role is critical both to move this population into value-based models and to catalyze similar efforts in the private sector as the state leads by example. ODM will receive and administer the SIM Model Test funding. ODH connects the SIM efforts to other public health strategies and leads many of the state's ongoing PCMH efforts.

Key personnel from these offices and agencies are listed below. The SIM initiative is a top priority for OHT, and the team dedicates about 80 percent of its time to this effort. A core group within ODM has been deeply involved in the overall SIM strategy and the definition and implementation of episodes to date. As the episode and PCMH models are engrained in Medicaid's operating model, it is anticipated that the work of all Medicaid employees will include components of SIM, with 30 percent of time, on average dedicated to this initiative.

Table 1. Key State Personnel

OHT	Greg Moody	Director
OHT	Aaron Crooks	Director of Government Affairs
OHT	Monica Juenger	Director of Stakeholder Relations
OHT	Rex Plouck	Portfolio Manager
OHT	Rick Tully	Policy Manager
OHT	Theresa Hatton	Office Manager
ODM	John McCarthy	Director
ODM	Mary Applegate	Medical Director
ODM	Patrick Beatty	Deputy Director, Chief of Policy
ODM	Robyn Colby	Innovation Development and Payment Reform
ODM	Jennifer Demory	Chief of Staff
ODM	Roger Fouts	Chief Operating Officer
ODM	Michelle Horn	Chief Financial Officer
ODH	Lance Himes	Interim Director
ODH	Andy Wapner	Chief Medical Officer
ODH	Heather Reed	Bureau Chief, PCMH
ODH	Amy Bashforth	PCMH Administrator
ODH	Melissa Bacon	Chief Policy Advisor

In addition, the Department of Administrative Services is represented on the SIM core team, providing connections for the extension of SIM models to state employee plans and to statewide data and IT initiatives. The Departments of Mental Health and Aging and the Bureau of Workers Compensation also participate on the PCMH and Episode planning teams.

Private Sector Leadership

As described in the project narrative, the state's private sector partners play critical leadership roles in SIM through participation in the Governor's Advisory Council, the multi-payer SIM core team, and the SIM episodes and PCMH planning teams. These stakeholders are committing substantial time and resources to participate in the SIM process. In particular, the participating payers (both commercial and managed Medicaid) are investing in the technology and other infrastructure to implement and operate the SIM models.

Sustainability beyond the Model Test

Ohio is committed to health care delivery system transformation in which value-based care is standard. This vision extends beyond the activities and timeframe of the SIM test. Although most of the significant efforts and investment to develop and implement the new payment models and supporting systems will occur during the SIM test period, beyond this activities to keep the models running will be built into standard operations for the participating payers, providers, employers, and other stakeholders. For example, value-based payments will become a standard part of contract negotiations. In addition, relationships will be developed at the local and regional level (e.g., between PCMHs and the broader medical neighborhood) to support and reinforce these models. The state will continue its role to lead by example and as a multi-stakeholder convener, adapting as the initiative evolves. Funding beyond the SIM test will focus on operations, and will come from a portion of the cost of care savings.

Assumptions made, implementation risks and mitigation strategies

Ohio has created momentum for health care delivery system transformation, building on stakeholder engagement from the SIM Design process to begin implementing the SIM models. A critical risk that could stall this momentum is delayed funding, which would impede investments needed to fully implement the SIM strategy. In case of delays, timelines for scale-up would need to be adjusted. Ohio's Model Test proposal also assumes Medicare participation, at least in reporting for PCMH and ideally with full participation. Given the state demographics, Medicare participation is critical to reach the targeted coverage in value-based models. Moreover, Medicare participation increases the portion of a provider's panel included, providing more meaningful incentives and the scale to successfully transform. Successful implementation will also rely on continued support from payers and providers. The state will continue and reinforce stakeholder engagement, providing opportunities for dialogue and feedback in the spirit of continuous improvement.

Ohio, led by OHT, has a track record of successfully implementing ambitious initiatives requiring interactions across state agencies and non-governmental stakeholders. For example, Ohio was the only SIM Round 1 Design Grant state not to require an extension to complete the SHIP. Ohio is ready to test payment innovation statewide and looking forward to implementing the SIM Round 2 test beginning in January 2015.

Table 2. Scale-up across episode and PCMH models

	2015	2016	2017	2018
Episodes				
% Hospitals who are PAPs in an episode	90%	90%	90%	90%
% Specialists who are PAPs in an episode	16%	39%	77%	88%
% Beneficiaries who are in an episode	0%	11%	23%	34%
PCMH				
% Eligible providers who enroll in PCMH	N/A	32%	45%	53%
% Beneficiaries in a PCMH	N/A	14%	28%	53%

Table 3. Quarterly milestones across all SIM test activities

	Episodes	PCMH	Other
Q1 2015	Episodes 1-6: reports delivered (ongoing); call center/ provider support teams trained Episodes 7-13: episodes selected	Market rollout sequence defined; CPCI elements to keep/ modify identified	HIT, quality, population health planning kicked off; Employer outreach materials developed
Q2 2015	Episodes 1-6: payment thresholds defined; provider education Episodes 7-13: clinical advisory groups convened	"Standardize" elements (multi-payer) and Medicaid elements needed for enrollment defined	Employer outreach initiatives launched (ongoing); Consumer awareness materials developed
Q3 2015	Episodes 1-6: SPAs submitted Episodes 7-13: definition completed	Medicaid payment model(s) defined Vendor options for implementation identified	Consumer awareness initiatives launched (ongoing)
Q4 2015	Episodes 1-6: providers engaged on performance expectations Episodes 7-13: algorithms implemented	Implementation vendors selected; 1st markets: local provider outreach completed; call center/ provider support teams trained	HIT, quality, population health plans finalized with CMS
Q1 2016	Episodes 1-6: performance period launched Episodes 7-13: reports delivered (ongoing) Episodes 14-20: episodes selected	1st markets: providers enrolled; attribution reports delivered; practice transformation begins (ongoing)	Overall assessment of year 1 completed
Q2 2016	Episodes 7-13: payment thresholds defined; provider education Episodes 14-20: clinical advisory groups convened	1st markets: Practice data collected; performance reports delivered (ongoing)	

Table 2 (continued). Quarterly milestones across all SIM test activities

	Episodes	PCMH	Other
Q3 2016	Episodes 7-13: SPAs submitted Episodes 14-20: definition completed	1st markets: PCMH monitoring begins; SPA for shared savings submitted	
Q4 2016	Episodes 7-13: providers engaged on performance expectations Episodes 14-20: algorithms / reports implemented	2nd market: Design revisions determined; local provider outreach completed;	
Q1 2017	Episodes 1-6: risk/gain-sharing payment capability in place Episodes 7-13: performance period launched (if not sooner) Episodes 14-20: reports delivered (ongoing) Episodes 21-35: episodes selected	1st markets: Gain-sharing payment capability in place 2nd market: providers enrolled; attribution reports delivered; practice transformation begins (ongoing)	Overall assessment of year 2 completed
Q2 2017	Episodes 1-6: 2016 risk/gain-sharing payments made Episodes 14-20: payment thresholds defined; provider education	1st markets: Gain-sharing payments made 2nd market: Practice data collected; performance reports delivered (ongoing)	
Q3 2017	Episodes 14-20: SPAs submitted Episodes 21-35: definition completed	2nd markets: PCMH monitoring begins	
Q4 2017	Episodes 14-20: providers engaged on performance expectations Episodes 21-35: algorithms implemented	3rd market: Design revisions determined; local provider outreach completed	
Q1 2018	Episodes 14-20: performance period launched (if not sooner) Episodes 21-35: reports delivered (ongoing) Episodes 36-50: episodes selected	3rd market: providers enrolled; attribution reports delivered; practice transformation begins (ongoing)	Overall assessment of year 3 completed
Q2 2018	Episodes 1-14: 2017 risk/gain-sharing payments made Episodes 21-35: payment thresholds defined; provider education	1st and 2nd markets: Gain-sharing payments made 3rd market: Practice data collected; performance reports delivered (ongoing)	
Q3 2018	Episodes 21-35: SPAs submitted Episodes 36-50: definition completed	3rd market: PCMH monitoring begins	Post-Model Test operating model refined
Q4 2018	Episodes 21-35: providers engaged on performance expectations Episodes 36-50: algorithms implemented	4th market: Design revisions determined; local provider outreach completed	