COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HUMAN SERVICES

OFFICE OF MEDICAL ASSISTANCE PROGRAMS (OMAP)

HEALTH INFORMATION TECHNOLOGY (HIT)

STATE MEDICAID HEALTH INFORMATION TECHNOLOGY PLAN (SMHP)

pennsylvania

DEPARTMENT OF HUMAN SERVICES

MAY 2016

VERSION CONTROL

Version Number	Update Summary	Date Submitted to CMS	Date Approved by CMS
1	N/A	November 23, 2010	December 28, 2010
2	All sections	October 12, 2011	December 20, 2011
N/A	Sections C and D (volume and EHR certification) June 26, 2012	N/A	N/A
3	Amended to reflect Stage 2 Rule Requirements	November 9, 2012	February 14, 2013
4	Amended to address 2014 CERHT Flexibility Rule	October 20, 2014	November 25, 2014
5	2015 Revision to establish new 5 year plan – All Sections	April 1, 2015	June 10, 2015
5	Amended to address 2015-2017 Modification Rule	January 14, 2016	January 28, 2016
6	2016 Revision to provide annual updates	May 3, 2016	

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Introduction

Pennsylvania's Medical Assistance (MA) Program is administered by the Department of Human Services (the Department). Within the Department, the Office of Medical Assistance Programs (OMAP), along with other agencies, is leading the development of the State Medicaid Health Information Technology Plan (SMHP), and the implementation of the Medical Assistance, Health Information Technology (HIT) initiatives.[1] The SMHP describes the Department's administrative process and vision for the next five years relative to implementing the Medicaid provisions contained in Section 4201 of the American Recovery and Reinvestment Act (ARRA). The SMHP is an evolving document and will be updated as needed to reflect the program's status.

SMHP and Stage 2 Final Rule Update Published September 2012

The Department reviewed the updated Final Rule and assessed programmatic impacts. Through this analysis the Department identified the appropriate mechanisms to implement the required changes. The changes impacted communications, operational processes, and the Medical Assistance Provider Incentive Repository (MAPIR) system. The SMHP has been updated to reflect compliance with the Final Rule update however; many of the changes identified in the Final Rule Update did not alter the Department's general methodology for implementing the EHR incentive program. A summary of the changes and how the Department responded is included in Appendix VIII. The summary identifies: the updated Final Rule requirements, the programmatic areas impacted, the programmatic response, and the implementation timeframe.

SMHP and 2014 CEHRT Flexibility Final Rule Published September 2014

The Department reviewed the 2014 CEHRT Flexibility Final Rule and assessed programmatic impacts and through this analysis, the Department identified a plan to communicate the changes as well as to ensure the rule requirements could be validated. The changes impacted communications, operational processes, and the MAPIR system. A summary of the Department's plan is included in Appendix IX. This summary identifies the updated Final Rule requirements, the programmatic areas impacted, the programmatic response and the implementation timeframe.

SMHP and 2015-2017 Modification Rule Published October 2015

The Department reviewed the 2015-2017 Modification Final Rule to assess programmatic impacts and through this analysis, the Department has identified a plan to communicate the changes as well as to ensure the rule requirements can be validated. The changes will impact communications, operational processes, and the MAPIR system. A summary of the Department's plan is included in Appendix X. This summary identifies the updated Final Rule requirements, the policy considerations, the system/infrastructure, provider outreach, stakeholder engagement and collaboration, provider support, fiscal services, appeals, audits, and reporting. These updates will be implemented throughout 2016.

[1]The term Medical Assistance is used in Pennsylvania for the Medicaid program and will be used interchangeably with Medicaid throughout this document.

Introduction

2016 SMHP Revision

Since the Department submitted its initial SMHP, the utilization of CEHRT has increased significantly in the Commonwealth of PA. Based on the changes in the health IT landscape and the need to set a strategy for Health IT in the next five years, the Department is revising its SMHP that will identify an updated to-be landscape as well as make changes to administer the EHR Incentive Program. This includes aligning with ONC/National Strategy, including consumer engagement, improving the success of providers in meeting MU phases, incorporating MITA principles, and supporting care coordination. The Department met on March 18, 2016 to establish new HIT goals on strategic planning for the next five years.

The Department's Vision for HIT and the Medical Assistance EHR Incentive Program

The Department's vision and strategy for implementing HIT initiatives, including the Medical Assistance EHR Incentive Program, is to position Pennsylvania as a leader among state Medical Assistance programs in the use of electronic health care information to improve the quality and cost-effectiveness of service delivery for Medical Assistance consumers. The Department understands the impact that HIT can have on patient health outcomes and improving efficiency and continuity of care delivery. The Department also recognizes that EHR adoption alone is not sufficient. Providers (hospitals, physicians, and other eligible professionals) must become and remain meaningful users of EHR technology which includes measuring and improving patient outcomes and exchanging health information with the Department, stakeholders, and each other. The Department's Medical Assistance HIT Vision is:

To improve the quality and coordination of care by connecting providers to patient information at the point of care through the meaningful use of EHRs and electronic health information exchange.

The Department's goals include increased quality, better coordination of care, and enhanced awareness of the benefits of the Department's HIT program. The implementation of EHRs and electronic health information exchange (HIE) is a significant challenge, bringing together clinical, operational, regulatory and technical aspects of health care delivery but the Department is committed to addressing this challenge. Implementation of EHR meaningful use, more robust health information exchange as well as other HIT projects such as electronic clinical quality measures, reflects the Department's longstanding goal of improving patient care, quality outcomes, and program effectiveness.

The Department will educate stakeholders about the role of HIT in improving the quality and coordination of health care services delivered to consumers and will actively encourage the adoption of HIT. The Department's goals include:

- **Increased Quality** – Better information obtained via enhanced health information exchange will support better clinical decisions by providers and increase the probability of quality outcomes. Developing electronic reporting of quality measures will improve the efficiency of data collection and allow for a more timely application of rapid cycle quality improvement.

- **Increased Coordination** – Eliminating duplicative services and administrative inefficiency results in better care coordination for consumers and often decreases the overall cost of care while improving outcomes.
- **Increased Awareness** – Education enables providers and consumers to understand the benefits of HIT adoption and the importance of exchanging health information for patients and caregivers.
- **System Redesign** – Data capture and analysis provides opportunities to enhance and improve current quality initiatives for both providers and consumers and allows the Department to assess the effectiveness of existing programs and identify gaps in care. Enhanced HIE will also enable the Department to move towards payment reform and redesign of health care delivery.

As is described throughout this document, the timely exchange of health information is essential to promoting Pennsylvania's HIT goals. Act 121 of 2012 created the Pennsylvania eHealth Partnership Authority (the Authority). This independent agency of the state government is tasked with coordinating public and private efforts to establish and maintain statewide electronic health information exchange (HIE). The Authority continues the work of the Pennsylvania eHealth Collaborative described in Pennsylvania's previous SMHP plan. The Department closely collaborates with the Authority to promote alignment between Department initiatives and strategies and the Authority's efforts.

The Department and the Authority work collaboratively on activities that support Medical Assistance and are focused on ensuring that Pennsylvania's HIE strategies effectively align with meaningful use objectives and the Department's long-term quality vision. In return, the Department helps to support the Authority in obtaining some of the funding necessary to make HIE a reality through CMS IAPDs. The Department also helps guide Authority activities through participation of the Secretary of Human Services who maintains a permanent seat on the Authority's Board of Directors.

In 2014, the Authority developed a three-year strategic and operational plan (available on the Authority's website at www.paehealth.org). The proposed Authority activities described in Section B and C of this SMHP align with that strategic and operational plan.

Pennsylvania is currently without a State HIT Coordinator. If this position is filled the Department will work collaboratively with this person on initiatives that meet the goals of increased quality, care coordination, increased awareness and system redesign which will position Pennsylvania as a leader in HIT and HIE.

EHR Incentive Program Administration

The Department initiated a HIT Executive Committee (the Committee) which is convened by the HIT Coordinator of the Medical Assistance Health Information Technology Initiative (MA HIT Initiative) with executive leadership provided by the Office of Medical Assistance Programs' (OMAP) Deputy Secretary, Chief Of Staff, and Chief Medical Officer. The HIT Executive Committee consists of senior staff from the following OMAP and Office of Administration bureaus:

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- Bureau of Data and Claims Management (BDCM)
- Bureau of Policy, Analysis, and Planning (BPAP)
- Bureau of Fee-for-Service Programs (BFFSP)
- Bureau of Managed Care Operations (BMCO)
- Bureau of Financial Management (BFM)
- Office of Clinical Quality Improvement (OCQI)
- Bureau of Program Integrity (BPI) – Office of Administration

The HIT Executive Committee has been meeting in large and small teams regularly since February 2010 to make sure the project remains focused and in line with Pennsylvania's goals. The Committee worked together to develop the original SMHP and to develop the Medical Assistance Provider Incentive Repository (MAPIR). MAPIR is the state-level information system for the EHR Incentive Program that both tracks and acts as a repository for information related to payment, applications, attestations, oversight functions, and to interface with the Centers for Medicare & Medicaid Services (CMS) Registration and Attestation (R&A) System. The 13 state MAPIR Collaborative will continue to develop the award winning MAPIR system to include meaningful use program changes for Program Year 2016/2017, meaningful use program changes for Stage 3 and other functionality such as an automated audit and appeal National Level Repository (NLR) transaction, and support of enhanced data analytics.

The MA Health Initiative and the MAPIR Operations Team that administers and oversees the EHR Incentive Program will continue to meet to discuss and resolve program issues and report project performance to the HIT Executive Committee.

In addition to the HIT Executive Committee, the Department actively engages and collaborates with other state agencies, CMS, and other partners such as the Regional Extension Centers (RECs). The Department continues to convene the HIT Interagency Steering Committee which brings partners from across Commonwealth agencies together to discuss the Department's HIT strategy, including the Medical Assistance EHR Incentive Program and coordination across programs. Members of the HIT Interagency Steering Committee include all members of the HIT Executive Committee, the Secretary of the Department of Human Services, and representatives from:

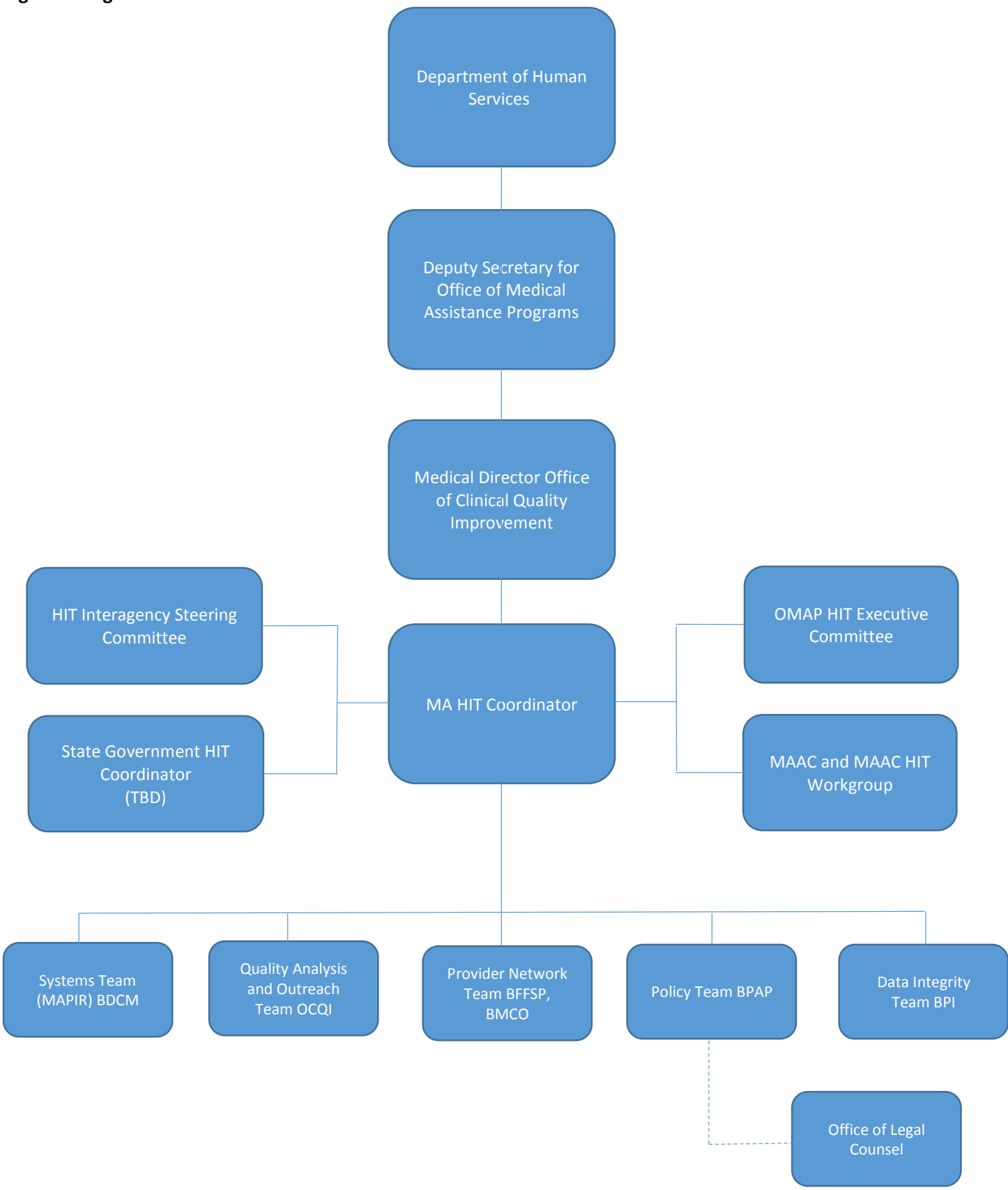
- Department of Human Services Communications Office
- Department of Human Services Office of Legislative Affairs
- Bureau of Information Systems
- Office of Medical Assistance Programs
- Office of Child Development and Early Learning
- Office of Long Term Living
- Office of Mental Health and Substance Abuse Services
- Department of Health
- Department of Corrections
- Department of Aging

- Department of Insurance
- Department of Labor & Industry
- Pennsylvania eHealth Partnership Authority

The Medical Assistance Advisory Committee (MAAC), composed of external stakeholders (providers and consumers), advises the Department on issues of policy development and program administration. It includes various workgroups, including the MAAC HIT workgroup which was formed in July 2009. The MAAC HIT workgroup meets bi-monthly and presents and discusses information about the Department's HIT activities. The MAAC HIT workgroup was consulted on the initial submission of the SMHP and the Department will continue to consult the MAAC HIT workgroup in the development of future versions of the SMHP prior to submitting to CMS. The Department also engages our Consumer Subcommittee on the value of EHR's to MA recipients.

The organizational structure for the HIT Executive Committee, HIT Interagency Steering Committee, and the OMAP teams that support the Medical Assistance EHR Incentive Program design and implementation process, is shown below in Figure 1. 1.

Figure 1. Organizational Structure



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The Bureau of Data and Claims Management (BDCM) is leading the effort to leverage the Commonwealth's work on the MAPIR system across multiple states as part of the MAPIR Collaborative. The MAPIR Collaborative is currently a partnership between the Department and 12 other state Medicaid agencies (Arkansas, Connecticut, Delaware, Florida, Georgia, Indiana, Kansas, Massachusetts, Oregon, Rhode Island, Vermont, and Wisconsin) with the potential to add more states to the Collaborative. This Collaborative coordinates efforts in designing a single EHR incentive payment application that leverages data to and from the state MMIS systems. The MAPIR Collaborative participants also share financial responsibility among all participating states. The Collaborative will continue to coordinate and develop solutions for meaningful use attestation changes such as incorporating the 2015 - 2017 Modification Rule options and Stage 3 meaningful use, operational needs such as additional National Level Repository (NLR) transaction to support audit and appeal reporting and other issues as they are identified.

The MA HIT Initiative and Administering the Medical Assistance EHR Incentive Program

The MA HIT Initiative and MAPIR operation teams lead activities related to the EHR incentive program. The MA HIT Initiative will continue to collaborate with the agencies and offices represented by the HIT Interagency Steering Committee, the State HIT Coordinator (TBD), and multi-state collaborations.

The MA HIT Initiative and MAPIR Operations Coordinators will manage day-to-day operations and coordinate with bureau staff members who are assigned to the Medical Assistance EHR Incentive Program as subject area liaisons. Additionally, the MA HIT Initiative team has program staff to perform the following tasks:

- Provider support in regards to the EHR Incentive Program application process.
- Outreach and communications to educate and update key stakeholders such as professional associations and individual providers on the Medical Assistance EHR Incentive Program.
- Monitor efficiencies of the EHR Incentive Program, while preventing or addressing fraud and abuse through pre- and post-pay audit processes.
- Data analysis to measure performance / quality measurement and effectiveness of the Medical Assistance EHR Incentive Program and pursuance of an EHR Initiative under the purview of the Chief Medical Officer.
- Assist with development, statewide participation, and monitoring interfaces and exchanges between provider EHR systems and the Department for meaningful use data via the Public Health Gateway.
- Facilitate the collection and review clinical trends including standard and ad hoc reports on clinical measures (related to meaningful use and other special projects).

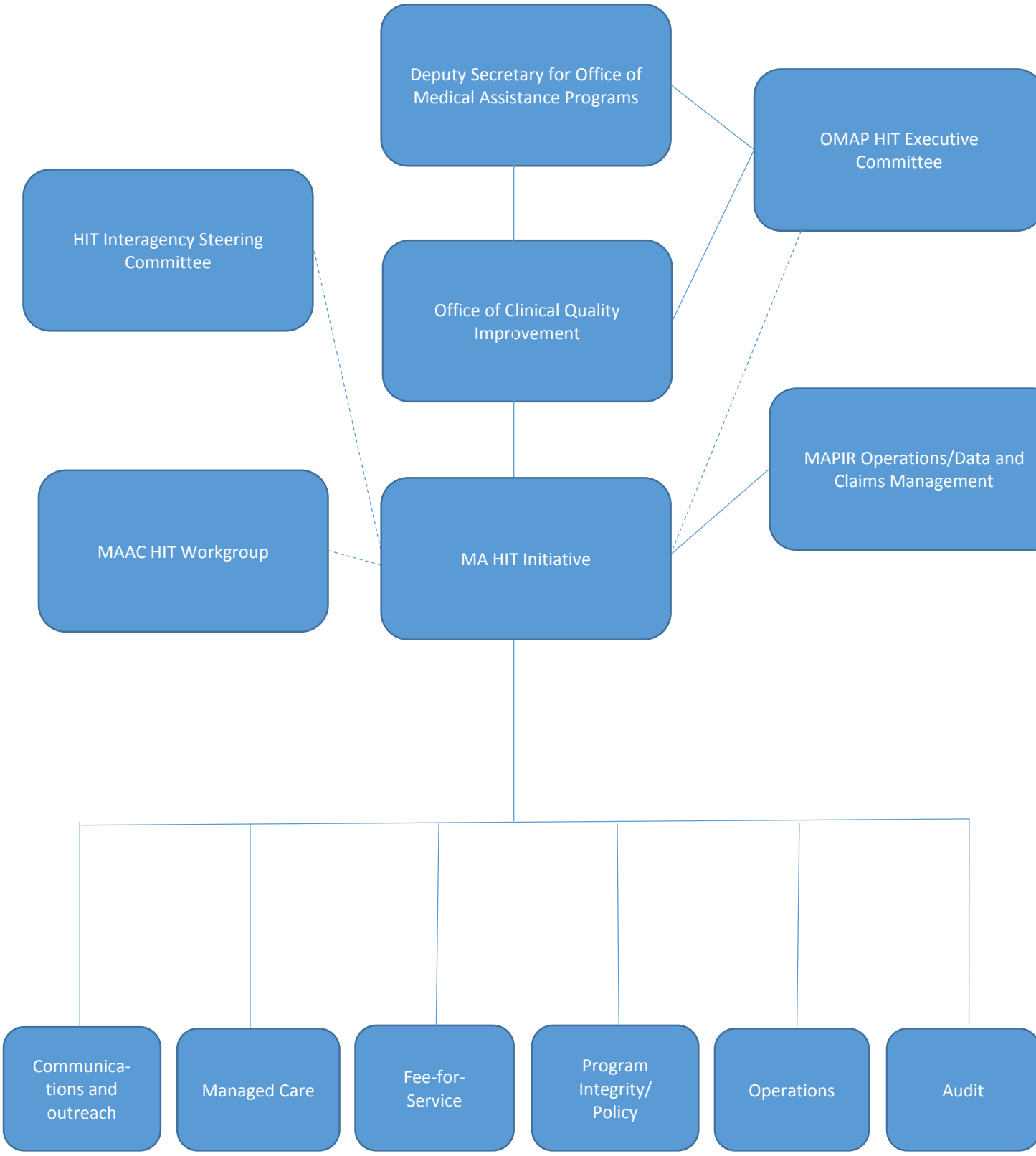
The MA HIT Initiative Coordinator coordinates the review of quality measure reports, requests follow-up analyses, and identifies and addresses clinical issues. The MA HIT Initiative team through the Office of Clinical Quality Improvement (OCQI) leads clinical quality projects and works with the OMAP bureaus to

implement these initiatives. Data is accessed by multiple users simultaneously to facilitate prompt program evaluation and intervention of problem areas. For example, OCQI analyzes the data and identifies trends for further analysis. The Chief Medical Officer then recommends program interventions that could be facilitated by the OMAP bureaus for outreach, e.g., Bureau of Managed Care Organizations (BMCO) as they relate to MCOs or by the Bureau of Fee-For-Service Programs (BFFSP). Conversely, BMCO and BFFSP conduct data analysis or trending for participating MCOs and fee-for-service providers and make data requests to OCQI.

MAPIR Operations is continuing to coordinate with the states involved in the MAPIR Collaborative as they develop and implement the MAPIR system to administer and make EHR incentive payments. Additionally, MAPIR Operations team reviews applications and supports MAPIR system development for all stages of meaningful use attestation collection. The disaster recovery plan for the MAPIR system is included in the MMIS (PROMISe™) recovery plan.

The MA HIT Initiative and MAPIR Operations Coordinators will also work with HIT Liaisons across the Department to resolve issues that affect or require expertise from the other bureaus in the Department. These liaisons will be staffed primarily to support, develop, monitor, and administer varying components of the EHR incentive program and EHR adoption. Figure 2 on the following page illustrates the structure of the program operations.

Figure 2. Program Operations



Introduction

Overview of the SMHP

This SMHP defines the Department's approach to administering the EHR incentive payments and proposes advancement opportunities. For the Commonwealth of Pennsylvania's SMHP, the Department defines its vision and process for implementing, administering and overseeing key aspects of the program and describes the Roadmap that will take the Department from the present ("As-Is") to the Department's future HIT vision ("To-Be").

Section A, the State's "As-Is" HIT Landscape, describes where we are in 2016 and what we have accomplished related to the projections in the 2015 SMHP. Until March 2016, the Commonwealth of Pennsylvania was operating without a complete and finalized state budget for the fiscal year ending June 30, 2016. It must be noted that some of the Department's HIT projects were impacted by the impasse, resulting in slower progress than expected, or the need to postpone efforts until the 2016-2017 fiscal year.

For the 2015 SMHP, the Department reviewed and utilized the results of the 2010 environmental scan and assessment that was conducted as part of the Department's planning efforts. Through continuous surveys, discussions with key provider groups through the Best Practices Focus Group, and through "listening sessions" conducted across the Commonwealth, the Department was able to estimate the current extent of EHR adoption by practitioners and hospitals and their readiness and willingness to participate in the EHR Incentive Program. Surveys continue to be conducted to determine the progression that has occurred since 2010 in regard to EHR adoption. The original baseline survey results were summarized for Section A and the longer narrative moved to Appendix II. Updates to the EHR adoption survey are described in Section A and also in Section E as part of reporting progress on the HIT Roadmap.

Section B, the State's "To-Be" Landscape, describes the Department's vision for health information technology and health information exchange. The Department works closely with the Authority and will continue to collaborate going forward. The Department also discusses plans for the MMIS and Medicaid Information Technology Architecture (MITA) system changes as they relate to administering the incentive program, making payments, and collecting and analyzing the data that will become available once meaningful use is in place, e.g., clinical quality measures.

Section C, the State's Implementation Plan (Activities Necessary to Administer and Oversee the EHR Incentive Payment Program), describes the processes the Department employs to ensure that eligible professionals and hospitals have met federal and state statutory and regulatory requirements for the EHR Incentive Program. As part of the planning process the Department has created a process flow (Appendix III) that follows providers through every stage of the incentive payment program process from educating providers about the program from encouraging them to first apply with CMS and then apply in MAPIR. The process flow also describes how providers are approved for payment and informed that they will receive a payment. Finally, oversight mechanisms and the process for receiving future payments are described along with the process for educating, informing and providing technical

assistance to providers to ensure they remain in the incentive program and continue to be meaningful users.

Section D, the State's Audit Strategy, describes the audit, controls, and oversight strategy for the state's EHR Incentive Program. Many of the controls employed are based on system edits and checks within the MAPIR system. The MAPIR system will allow providers to apply for the EHR Incentive Program and make all required attestations. The system reviews will generate a list of applications pended for further review. MA HIT Initiative and MAPIR Operations will work with BPI and other agencies and offices around the Commonwealth to address fraud, waste, and abuse.

Section E is the State's HIT Roadmap, which describes the strategic plan and tactical steps that the Department took and continues to take to successfully implement the EHR Incentive Program and its related HIT and HIE goals and objectives. This includes the annual benchmarks, which can be measured for programmatic goals related to provider adoption, quality, and the administrative processes. This section describes the measures, benchmarks, and targets that will serve as clearly measurable indicators of progress in achieving overall program goals.

In addition to this introduction and Sections A through E, this document includes a number of appendices. Appendix I includes a glossary of terms and acronyms to help the reader throughout the document; Appendix II describes the baseline landscape assessment conducted in support of the Department's first SMHP submission; Appendix III describes Medical Assistance HIT Initiative electronic resources that describe the EHR Incentive Program for providers and other stakeholders; Appendix IV describes Pennsylvania's Medical Assistance EHR Incentive Program process in a diagram; Appendix V includes an example of the Department's approved hospital incentive payment calculation; Appendix VI includes the Department's Electronic Quality Improvement Projects (EQUIPS) initiative templates; Appendix VII includes letters of support from the Commonwealth's Department of Health, the Pennsylvania eHealth Partnership Authority and PA REACH Regional Extension Center Initiative; Appendix VIII addresses Stage 2 Regulations; Appendix IX addresses the 2014 Certified EHR Flexibility Rule; and Appendix X addresses the 2015-2017 Modification Rule.

Section A: The State's "As-Is" HIT Landscape

This section provides an overview of the Department's existing HIT resources, including the results of Pennsylvania's 2010 environmental scan and assessment and a summary of the results of the EHR surveys. This section includes responses to each of the questions listed in the CMS SMHP Template and listed below in Figure A.1.

Figure A.1: Section A Questions from the CMS State Medicaid HIT Plan (SMHP) Template

Please describe the State's "As-Is" HIT Landscape:
1. What is the current extent of EHR adoption by practitioners and by hospitals? How recent is this data? Does it provide specificity about the types of EHRs in use by the State's providers? Is it specific to just Medicaid or an assessment of overall statewide use of EHRs? Does the SMA have data or estimates on eligible providers broken out by types of provider? Does the SMA have data on EHR adoption by types of provider (e.g. children's hospitals, acute care hospitals, pediatricians, nurse practitioners, etc.)?
2. To what extent does broadband internet access pose a challenge to HIT/E in the State's rural areas? Did the State receive any broadband grants?
3. Does the State have Federally-Qualified Health Center networks that have received or are receiving HIT/EHR funding from the Health Resources Services Administration (HRSA)? Please describe.
4. Does the State have Veterans Administration or Indian Health Service clinical facilities that are operating EHRs? Please describe.
5. What stakeholders are engaged in any existing HIT/E activities and how would the extent of their involvement be characterized?
6. * Does the SMA have HIT/E relationships with other entities? If so, what is the nature (governance, fiscal, geographic scope, etc.) of these activities?
7. Specifically, if there are health information exchange organizations in the State, what is their governance structure and is the SMA involved? ** How extensive is their geographic reach and scope of participation?
8. Please describe the role of the MMIS in the SMA's current HIT/E environment. Has the State coordinated their HIT Plan with their MITA transition plans and if so, briefly describe how.
9. What State activities are currently underway or in the planning phase to facilitate HIE and EHR adoption? What role does the SMA play? Who else is currently involved? For example, how are the regional extension centers (RECs) assisting Medicaid eligible providers to implement EHR systems and achieve meaningful use?
10. Explain the SMA's relationship to the State HIT Coordinator and how the activities planned under the ONC-funded HIE cooperative agreement and the Regional Extension Centers (and Local Extension Centers, if applicable) would help support the administration of the EHR Incentive Program.
11. What other activities does the SMA currently have underway that will likely influence the direction of the EHR Incentive Program over the next five years?
12. Have there been any recent changes (of a significant degree) to State laws or regulations that might affect the implementation of the EHR Incentive Program? Please describe.
13. Are there any HIT/E activities that cross State borders? Is there significant crossing of State lines for accessing health care services by Medicaid beneficiaries? Please describe.
14. What is the current interoperability status of the State Immunization registry and Public Health Surveillance reporting database(s)?

Section A: The State's "As-Is" HIT Landscape

Please describe the State's "As-Is" HIT Landscape:
15. If the State was awarded an HIT-related grant, such as a Transformation Grant or a CHIPRA HIT grant, please include a brief description.

* May be deferred.

** The first part of this question may be deferred but States do need to include a description of their HIE(s)' geographic reach and current level of participation.

Section A: The State's "As-Is" HIT Landscape

Current EHR Adoption by Practitioners and Hospitals (Response to Question #1)

The "As-Is" HIT landscape assessment describes findings from a number of data sources to describe the extent of EHR adoption by practitioners and hospitals. The Department has historically used multiple surveys to collect data. These surveys included: the Pennsylvania Medical Society's survey in 2005, a second targeted survey that the Department sent in the summer of 2010 through a web-based tool, a survey completed by the Authority, a survey completed by the Hospital and Healthsystem Association of Pennsylvania (HAP), additional provider web-based surveys, and a survey within the MAPIR system. The survey conducted in 2010 was designed to provide specificity about the types of EHRs in use in Pennsylvania. The methodology for distributing the survey targeted Medical Assistance practitioners, many from large health systems that were early EHR adopters. An updated Environmental Scan is scheduled to be administered in 2016. The survey administered by HAP focused on hospital adaption and EHR usage and the survey administered by the Authority focused on the Health Information Organization goals and projections.

In addition to the practitioner surveys, the Department also conducted a survey of Federally Qualified Health Centers (FQHCs) because many of the practitioners in FQHCs are eligible for Medical Assistance EHR incentive payments. To assess hospital EHR adoption, the Department reviewed findings from survey data collected by the HAP. These results provide a baseline for EHR adoption before the launch of the EHR Incentive Program. These results are described in more detail in Appendix II as part of the Baseline Landscape Assessment.

The annual Uniform Data System (UDS) reporting required all FQHCs, starting in 2011, to report the status of EHR implementation, functionality and utilization to report clinical UDS data.

Table A.1: FQHC HIT Adoption Status

Year	Total FQHCs Reporting	EHR Available at All Sites for All Providers	EHR Limited to Some Sites or Some Providers	Total FQHCs with EHR Installed	No EHR Installed %	No EHR Installed – number of FQHCs
2011	35	54.3%	20%	74.3%	25.7%	9
2012	40	77.5%	15%	92.5%	7.5%	3
2013	40	85%	12.5%	97.5%	2.5%	1
2014	42	90.5%	7.1%	97.6%	2.4%	1

For 2014, 40 FQHCs answered: Yes, eligible providers are participating in the EHR Incentive Program also known as meaningful use; and 2 FQHCs answered: No. The 2014 UDS data also shows 19 FQHCs exchanging clinical information electronically with other key providers/health care settings such as hospitals, emergency departments or subspecialty clinicians.

Section A: The State's "As-Is" HIT Landscape

The Department also used information on HIT adoption from the 2012 Physician Survey, which is collected as part of licensure renewal by county. The response rate to this survey was nearly 90 percent with over 46,715 surveys returned. While the data is not specific to Medical Assistance, the majority of physicians – over 85 percent – provide direct patient care to Medicaid patients. The 2012 Physician Survey provides the following information on HIT adoption by all physicians across the Commonwealth:

- Do you use IT to obtain information about treatment alternatives or recommended guidelines?
    - 91 percent of respondents answered "yes."
- Do you use IT to generate reminders for you about preventive services?
    - 51 percent of respondents answered "yes."
- Do you use IT to access medical records, patient notes, medication lists or problem lists?
    - 90 percent of respondents answered "yes.
- Do you use IT for clinical data and image exchanges with other physicians?
    - 76 percent of respondents answered "yes."
- Do you use IT for clinical data and image exchanges with hospitals and laboratories?
    - 74 percent of respondents answered "yes."
- Do you use IT to send patient prescriptions to pharmacies?
    - 63 percent of respondents answered "yes."

The data collected as part of the initial SMHP submission served as the baseline by which progress towards EHR adoption in Pennsylvania will be measured. Based on an update in the CMS Final Rule on the definition of an encounter, we understand that our initial baseline is a little low. Due to the nature of the calculations, we were unable to determine an accurate new baseline so we are still using the initial baseline. The Department has set performance improvement targets as part of the HIT Roadmap in Section E. Also, in Section E there is a summary of the number of Pennsylvania MA EHR Incentive program participants and how many have become meaningful users.

Access to Broadband Internet (Response to Question #2)

Access to bandwidth internet is a concern in many parts of Pennsylvania including the middle of the state and the northern tier. There has been significant money and work invested to identify areas of need and offer solutions. The results of the EHR adoption survey conducted in 2010 show that the highest percentage of respondents have DSL connections (over 37 percent), with T-1 and cable as the next highest choices.

In fiscal year 2006-2007, the Pennsylvania Medical Society was awarded a Broadband Outreach and Aggregation Fund (BOAF) grant to begin the first phase of a multi-phase project to assess the broadband connectivity of physicians and other health care community partners. Branded "ConnectTheDocs," these efforts were coordinated with the Pennsylvania Department of Health and the Governor's Office to ensure alignment with broader HIT policies and objectives. The Phase I connectivity assessment

survey identified not only a statewide interest but specific regions of Pennsylvania with an immediate need/desire for broadband procurement.

The Commonwealth was the recipient of three broadband infrastructure grants as part of the Department of Commerce, National Telecommunications and Information Administration (NTIA), American Reinvestment and Recovery Act funding. The Keystone Initiative for Network Based Education and Research received a $99.7 million broadband infrastructure grant (with an additional $29 million applicant-provided match) to create the Pennsylvania Research and Education Network (PennREN). PennREN enhances health care delivery, research, education, workforce development, and public safety by delivering broadband connectivity. The network initially expanded broadband Internet access and directly connected 60 critical community anchor institutions in 39 counties across south and central Pennsylvania. In early 2014, seven additional nodes were added to the original PennREN footprint to reach into even more rural areas of Pennsylvania. Network access points are now in 51 of Pennsylvania's 67 counties with initial connections in more than 70 locations over the 1,800-mile network. In 2015 25 new sites connected to KINBER's PennREN. By the end of 2015, there were 94 total connections to PennREN, which includes the Geisinger and Butler health systems.

The second NTIA grant was to the Executive Office of the Commonwealth of Pennsylvania. This $28.8 million broadband infrastructure grant (with an additional $7.2 million applicant-provided match) will be used to increase broadband Internet connection speeds for community anchor institutions and underserved areas isolated by difficult, mountainous terrain in northern Pennsylvania.

The third NTIA grant was awarded to Zito Media Communications II, LLC in the amount of $6.1 million. With this funding, the Northeastern Ohio and Northwestern Pennsylvania Fiber Ring Project created a 382-mile fiber ring with 10 gigabits of capacity through Northeastern Ohio and the counties of Erie, Crawford, and Mercer in Northwestern Pennsylvania. The project deployed 342 miles of new fiber and 40 miles of leased fiber to directly connect an estimated 60 community anchor institutions, including hospitals, schools, public safety agencies, colleges, and libraries. These projects have been completed and are currently closed.

Based on our review of the current Broadband availability, it appears there are no providers in Pennsylvania who do not have broadband Internet connection speeds.

FQHCs and HRSA Funding (Response to Question #3)

In August 2015 the Health Resources and Services Administration (HRSA) awarded funds to recognize health center quality improvement achievements and invest in ongoing quality improvement activities. Health centers received awards in various clinical quality and quality improvement categories as well as for electronic health record reporting. Electronic health record reporters received funding if they reported UDS clinical quality measure data on the full universe l of their patients using an EHR. In Pennsylvania, 14 FQHCs received this funding recognition. The awards totaled $ 210,000. Since FY 2013 two health center controlled networks, the Health Federation of Philadelphia and the Public Health

Management Corporation received funding to advance the adoption, implementation, and optimization of HIT; to support the meaningful use of certified EHR at participating health centers; and to support quality improvement with optimal use of HIT.

Table A.2: FQHC Grants to Pennsylvania Health Centers as of March 2016

Facility	Location	Amount
Public Health Management Corp.	Philadelphia	$ 1,198,630
Health Federation of Philadelphia	Philadelphia	$ 1,466,667
Total		**$ 2,665,297**

On December 9, 2009, President Obama announced nearly $600 million in American Recovery and Reinvestment Act (ARRA) awards to support major construction and renovation projects at 85 community health centers nationwide and to help networks of health centers adopt EHR and other HIT systems. The awards were expected to not only create new job opportunities in construction and health care but also help provide care for more than half a million additional patients in underserved communities. The following table lists the Pennsylvania facilities receiving funding under this program.

Table A.3: ARRA HIT Grants to Pennsylvania Health Centers as of March 2015

Facility	Location	Amount
Community Integrated Services Network of Pennsylvania	Wormleysburg	$1,400,001
Health Federation of Philadelphia	Philadelphia	$377,169
Total		**$1,777,170**

Veterans Administration (VA) or Indian Health Services (Response to Question #4)

There are no known Indian Health Services clinical facilities currently operating in Pennsylvania. The Department worked with the VA to calculate that there are nine VA Medical Centers (hospitals) and 36 VA Community-Based Outpatient Clinics in Pennsylvania. As with other VA clinics across the country, Pennsylvania Veterans Affairs clinics and hospitals use the Computerized Patient Record System (CPRS) for patient records. A completely paperless patient record, CPRS is the patient record component of the Veterans Health Information Systems and Technology Architecture (VistA).

Electronic patient records are established for every veteran upon entrance into the VA health system. Electronic records are available from 1998 to present. CPRS uses a standard interface so that a VA clinic or hospital in one part of the state can access patient records in another part of the state.

When a patient enters the VA health system from a non-VA provider, their paper records are scanned into an electronic record. The electronic record contains an image of the original, and the information

from the original is transformed into data that can be used by a practitioner within the VA health system.

CPRS records are accessible (can be read) remotely within VA. If a patient is in the system of a particular VA hospital, a provider can access the records via a remote data key and can read the Veteran's record of every place that Veteran was seen within VA. However, only hard-copy or imaged patient records (on CD-ROM) can be provided to non-VA practitioners.

CPRS supports quality improvement through evidence based medicine. Via a process called "Clinical Reminders," a practitioner is notified that a patient is due for routine or chronic evaluations. Clinical decision making is supported through the Healthcare Effectiveness Data and Information Set (HEDIS) measures as well as other performance clinical metrics pertinent to the Veteran population, so a practitioner can perform specified disease related exams, order appropriate tests, screenings, or schedule follow-up appointments.

Stakeholder Engagement in Existing HIT/E Activities (Response to Question #5)

The Department has engaged with numerous stakeholder groups regarding current and proposed HIT and HIE activities including the design and development of the EHR Incentive Program. There is a great deal of interest in the EHR Incentive Program and over the past five years, the Department has fielded numerous questions from providers, consumer advocates, other state agencies, and other stakeholders. The Department maintains a communication strategy with consistent messages and multiple venues for information distribution that help to raise practitioner awareness, participation, and retention in the incentive program and have them continue to be meaningful users. To ensure that all educational materials are accurate and communicate a uniform message, the Department continues to develop provider education and outreach materials in coordination with the other bureaus and offices in the Department; the Authority; CMS; Regional Extension Centers (REC), PA REACH EAST and PA REACH West; ONC, PA Dental Society, PA Medical Society, Rehabilitation and Community Providers Association, HAP, the Best Practices Focus Group and others.

The Department continues to update its website for the EHR Incentive Program with tools and information for providers and other stakeholders. The website offers contact information for e-mailing specific questions and on-going updates via a listserv. The Department has reviewed the materials developed by CMS and placed a link to the CMS materials on its website along with links to other resources. The Department has presented numerous webinars on the EHR Incentive Program which includes information on how to apply through Medical Assistance Provider Incentive Program (MAPIR) using the meaningful use flexibility options for program year 2014, using the new 2015-2017 Modification rule options, how to calculate patient volume, hospital payment calculations, and program monitoring and oversight. Other key areas on the website include: meaningful use, Public Health Registry Information Sheet, Auditing documentation, eHealth Pod Pilot program, and various templates.

Section A: The State's "As-Is" HIT Landscape

The Department works regularly with our MCO partners to ensure their understanding of the HIT program so they can inform their providers about any changes or updates. By ensuring the implementation and use of EHR and electronic exchange of health information, the MCO's will benefit as well with more timely access to clinical information to improve care coordination in addition to quality measurement enhancement in a goal of use of EHR data.

As part of the communications process and strategy, the Department continues to meet with practitioner groups such as the Pennsylvania Medical Society, the Pennsylvania Association of Community Health Centers, the Pennsylvania Chapter of the American Academy of Pediatrics, the Pennsylvania Academy of Family Physicians, Rehabilitation and Community Providers Association, Pennsylvania Association of Community Health Centers, and the Hospital Association of Pennsylvania (HAP). The Department meets with a Best Practices Focus Group on a regular basis. This group includes key provider groups and stakeholders in Pennsylvania. The information gathered from this group is then shared with other providers and hospitals.

Quality Insights/PA REACH continues to collaborate with the Department to identify Medicaid providers in need of help to adopt and meaningfully use EHRs. To date, 1,707 Medicaid providers have signed an agreement with PA REACH. Of that, 1,415 have attested to A/I/U, and 1125 have received Stage 1 Year 1 MU. PA REACH continues to identify ways to assist Medicaid providers in Behavioral Health, Community Health Centers, and long term post-acute care. PA REACH is now testing newly-developed eCQMs for Stage 3 feasibility, validity, and reliability and has offered to extend similar services for the Department as they identify CQMs to be reported from EHRs. In December, 2014, PA REACH agreed to assist any Medicaid providers wishing to participate in a reporting pilot to the Department. PA REACH also assists practices with PCMH recognition, and to date, 103 practices have achieved NCQA recognition with PA REACH assistance. Five PA REACH staff have also received Certified Content Expert (CCE) certification from NCQA. Quality Insights/PA REACH has received a four-year grant from PA DOH to assist practices to use EHRs to improve diabetes, hypertension, and obesity through funding from the CDC's Million Hearts program. They also hold a contract through the City of Philadelphia for another CDC-funded grant to identify pre-diabetes and hypertension.

The Authority has also developed a robust stakeholder community consisting of over 400 individuals that include clinicians, academics, advocates, health information technology professionals, healthcare industry business leaders, and state and local government leaders. The Authority routinely leverages this stakeholder power through committees and workgroups to build consensus approaches to various HIE related challenges. There has been significant collaboration between the Authority, the Department and DHS around furthering the HIE goals. Given that there is significant overlap between the Authority's stakeholder community and the Medicaid community, the Department, and Authority coordinate on stakeholder engagement.

This coordination helps the Department and Authority in leveraging one another's stakeholder efforts, and ensures continuity and consistency in what private sector partners hear from both agencies. It also helps to avoid stakeholder fatigue that could otherwise result from overlapping engagement on very

similar issues. One example of this is the Public Health Gateway. The Public Health Gateway (PHG) is a collaborative effort between the Departments of Health and Human Services as well as the Pennsylvania eHealth Partnership Authority. The PHG is an opportunity for Commonwealth health care providers to submit information to state agencies via the health information exchange (HIE) network. The collaboration addresses not only the technical development of the PHG but also promoting the use of the PHG to various stakeholders

Current Relationships with HIT/E Entities (Response to Question #6)

The Department collaborates with the Authority, the PA REACH East and PA REACH West Regional Extension Centers, FQHCs, and ONC to maintain a real-time understanding of the HIT and HIE initiatives underway in each of these areas and others as they are identified. The Department believes that this collaboration will allow the Department to meet Medical Assistance practitioner needs to demonstrate meaningful use and to achieve the Department's long-term quality vision.

The Department is collaborating with the HealthChoices MCOs, and the Regional Extension Centers to create educational opportunities on EHR adoption, implementation, upgrade, and meaningful use of EHRs and support ongoing distribution of these materials to eligible professionals and hospitals.

Quality Insights, dba PA REACH, worked in collaboration with the Authority and the Department to assist 892 providers to implement DIRECT licenses in late 2012. PA REACH provided onsite assistance to ensure that the implementation was successful. Additionally, PA REACH was funded by the Department through Navigant for a six month pilot to test the exchange of CCDs in between behavioral health and hospital systems. PA REACH was able to assist 2 BH sites to exchange CCDs with two different health systems.

Current HIE Organizations in Pennsylvania (Responsive to Question #7)

The Department is working with the Authority and other HIE organizations in Pennsylvania to support and promote the exchange of health information between medical providers. This exchange will allow more providers in PA to meet the updated meaningful use requirements.

There are at least four operational private-sector health information organizations (HIOs) and at least six operational private-sector health information service providers (HISPs) operating in Pennsylvania. These organizations provide HIE services to healthcare providers, facilities, and payers. The work conducted by the Pennsylvania eHealth Collaborative, and later by the Authority has sought to facilitate complementary public-private cooperation in establishing HIE in the Commonwealth rather than competition between the public and private sectors. It has also served to facilitate collaboration between competing private sector organizations that would not, and for antitrust reasons, could not collaborate without facilitation by a government agency like the Authority.

St Luke's University Health Network was the first HIO to complete the Authority certification and become an operational member of the Pennsylvania Patient and Provider Network (P3N - see also

response to question #9). Up to three additional HIOs are anticipated to complete certification and connection to P3N in early in 2016. These include (in alphabetical order):

- ClinicalConnect HIE (sponsored by University of Pittsburgh Medical Center and other western Pennsylvania hospital systems)
- HealthShare Exchange (HSX) of Southeastern Pennsylvania (sponsored by Independence Blue Cross and a coalition of hospital systems in the Philadelphia area)
- Keystone Health Information Exchange (sponsored in part by Geisinger Health System and also a certified HISP)

More information regarding these HIOs is available on the Authority's website at www.paehealth.org.

At least two additional HIOs have stated intentions to connect to P3N in 2016, but have not yet determined exact schedules. These include Lancaster General Health and Mount Nittany Health Exchange.

The Authority conducts an annual survey of HIOs that examines many aspects including what HIE functions they enable, what types of providers they serve, where they operate geographically, what technical and policy standards they have adopted, and more. Full results of these surveys are available on the Authority's website at http://www.paehealth.org/images/2015_HIO_Survey_Results_FINAL.pdf. Some highlights include:

- Most HIOs have now adopted most vocabulary standards, possibly indicating increased industry maturity, but there remains some variation in adoption of technical standards.
- Participation in HIE by various provider types has increased, most notably by urgent care centers.
- Geographic operation by HIOs in Pennsylvania has become more regionally focused compared with prior survey

Certified HISPs that participate in the HISP certification program in Pennsylvania include Allied HIE, DataMotion, KeyHIE, MRO Corp., Secure Exchange Solutions, and MaxMD. More information regarding these certified HISPs is available on the Authority's website at www.paehealth.org.

Role of MMIS in Current HIT/E Environment (Response to Question #8)

Pennsylvania's current and future MMIS seeks to meet the Service Oriented Architecture (SOA) requirements of MITA and future HIT upgrades. The Department fully complies with standards as required under Title II, subtitle F, sections 261 through 264 of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), Pub. L. 104-191; the Medicaid Enterprise Certification Toolkit; the ASC X12 Version 5010/National Council for Prescription Drug Programs (NCPDP) Version D.0; and the International Classification of Diseases and Related Health Problems, 10th Revision (ICD-10) standards, as required by Federal Register Vol. 74, No. 11 / Friday, January 16, 2009 / Rules and Regulations. As with MMIS and MITA systems and related activities, the Department will adhere to the seven conditions and standards described in the CMS guidance updated May 2011. The Department will purchase MMIS

and MITA systems and upgrades in relation to the Medical Assistance EHR Incentive Program and MAPIR that meet the following conditions and standards:

1. Modularity
2. MITA
3. Industry standards
4. Leverage
5. Business results
6. Reporting
7. Interoperability

MAPIR which resides on MMIS (PROMISe™) has been upgraded to allow provider acknowledgement of eCQM submission through other means. Currently, the Department has the capability to collect eCQMs, but these have not yet been incorporated into the MAPIR System electronically.

Current Pennsylvania Activities to Implement HIE and EHR (Response to Question #9)

The Pennsylvania eHealth Partnership Authority (the Authority) is charged with establishing a statewide health information exchange (the "Pennsylvania Patient & Provider Network, or P3N). The Authority's work in 2015, aided by CMS IAPD funding, focused on bringing more HIOs into P3N and building a Public Health Gateway (PHG) to enable a single point of connection between providers (via their HIOs) and Pennsylvania's public health registries.

In 2014, St. Luke's University Health Network's eVantageHealth, serving the Lehigh Valley and surrounding areas, became the first HIO to join the P3N; and in 2015 ClinicalConnect HIE in western Pennsylvania, HealthShareExchange of Southeastern Pennsylvania, and Keystone Health Information Exchange in central and northeastern Pennsylvania each committed to participate in the P3N. These additional three HIOs are currently engaged in an extensive "onboarding" process, including multi-stage interoperability, privacy, and security testing. Once all four HIOs are "live" in the P3N (expected in 2016), over 70 acute care hospitals—and many physicians and other providers as well—will be connected to the P3N through the HIO with which they participate.

In January, 2016, the Authority published results of its 2015 HIO survey. The following table from the survey report (available at http://www.paehealth.org/images/2015_HIO_Survey_Results_FINAL.pdf) shows the functions HIOs have implemented, or plan to implement. Seven organizations participated in the survey. As noted previously, one is already connected to the P3N and three are in the process of connecting. Two more expect to be connected by the end of 2016. Only one of the responding HIOs, BHIE, is uncertain if it will connect to P3N directly or via another HIO.

Section A: The State's "As-Is" HIT Landscape

Function	BHIE	ClinicalConnect	eVantage	HSX	KeyHIE	LGH	MNHX	2014 Rate	2015 Rate
Active Care Coordination	17+	O	16	16	O	O		100%	86%
Alerts	17+	16		O	O		O	86%	71%
Discharge Summaries	17+	O	O	O	O	O	O	100%	100%
Historical Lists (Medications, allergies, etc...)	16		O	O	O	O	O	86%	86%
Longitudinal Medical Records	16	O	O	O	O	O		86%	86%
Meaningful Use Analysis And Reporting			O	O	O	O		57%	57%
Order/lab results delivery		O	O	O	O	O	O	100%	86%
Patient Portal	16		O		O	O		71%	57%
Provider to Patient Clinical Messaging	17+		O		O	O		86%	57%
Provider to Provider Clinical Messaging	17+		O	O	O	O	17+	86%	86%
Quality/Safety Analysis And Reporting	16		16	16	17+	O		57%	71%
Referral/Consultation Request	17+					O		57%	29%
Referral/Consultation Delivery	17+					O		71%	29%

Legend	
Currently Operational	O
Planned in 2016	16
Planned after 2016	17+

Surveyed HIOs were also asked which types of providers they are currently connecting, and which types they plan to connect in the future. The following table shows their responses:

Participant Type	BHIE	ClinicalConnect	eVantage	HSX	KeyHIE	LGH	MNHX	2014 Rate	2015 Rate
Payers	P	P		C	C	C	P	57%	86%
Hospitals		C	C	C	C	C	C	100%	86%
Ambulatory Surgery Centers		C	C	C	C	P	C	86%	86%
Long-Term/Post-Acute Care Facilities		C	P	C	C	P	P	86%	86%
Mental Health/Substance Abuse Facilities	P	P		C	C	P	P	71%	86%
Outpatient Cancer Treatment Centers		C	P	C	C		C	86%	71%
Urgent Care Centers		C	C	C	C	C		86%	71%
Physical Therapy/Occupational Therapy Practices		C	C	C	P	C	P	86%	86%
Community Clinic/FQHC		P	C	C	C	P	P	100%	86%
Other Ambulatory Practices (includes primary care)		C	C	C	C	C	C	100%	86%
Independent Imaging Centers		P		P	P			71%	43%
Independent Reference Laboratories		P		P	P			71%	43%
Ambulance/EMS services		P		P	C		P	71%	57%
Home Health Agencies		P	P	C	C		P	86%	71%

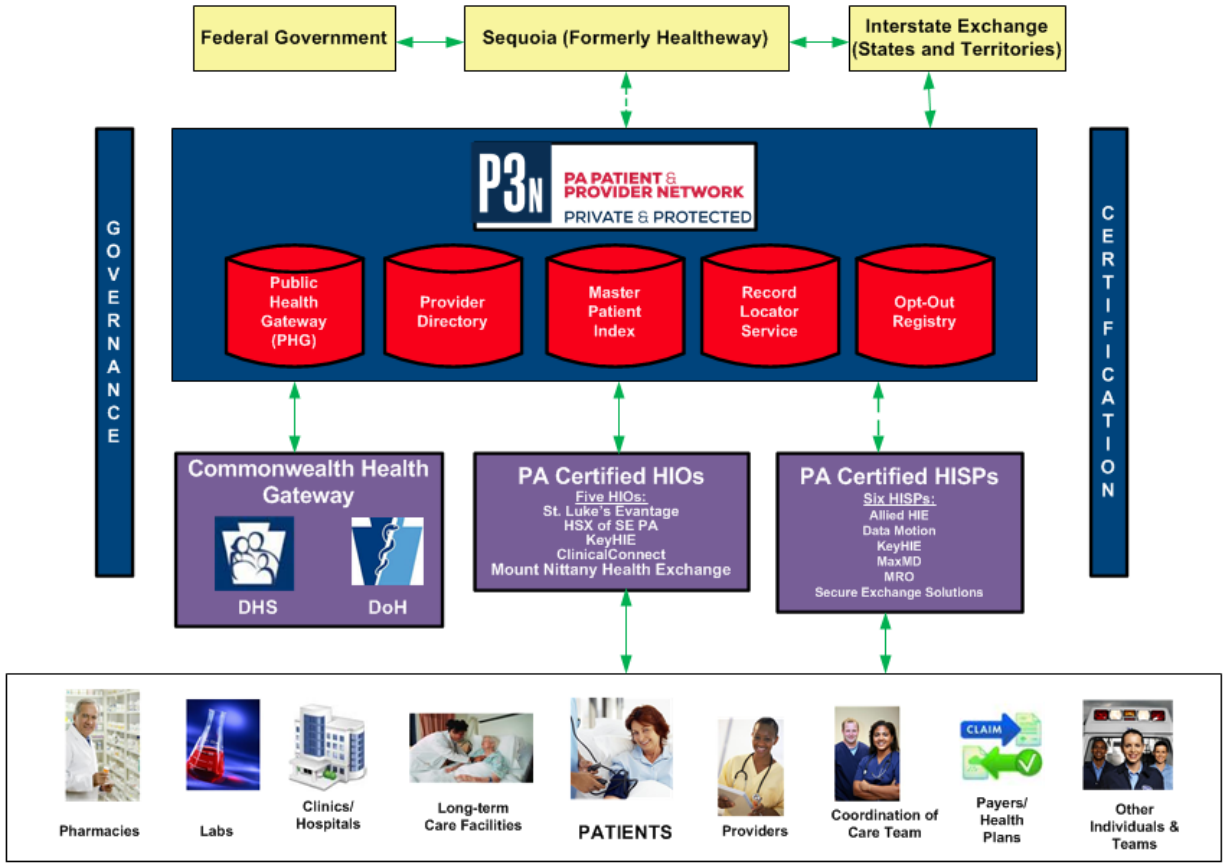
Legend	
Current	C
Planned	P
No Response or Not Planned	

Section A: The State's "As-Is" HIT Landscape

Operational Model for statewide HIE

The following picture illustrates the current operational model for statewide HIE in Pennsylvania:

Figure A.2: Current Operational Model for Statewide HIE



P3N Architecture and Connection to the Trust Community – 3/17/2016

The Authority provides governance (through facilitated consensus building) over HIE. The policy and technical decisions that emerge from the governance processes are incorporated into certification programs for HIOs and HISPs. While Pennsylvania law does not require any organization to acquire Authority certification, such certification is required if an organization wishes to participate in the state-wide network and receive grant funding offered by the Authority from time to time. Part of the certification program includes a set of uniform legal agreements that ensure that any HIO need execute only a single set of agreements with the Authority, and any health care organization need only sign a single set of agreements with a single HIO in order to allow any participant in any certified HIO to perform HIE with any other participant of any certified HIO or to utilize the Public Health Gateway. Version 3 of the certification program and related materials was completed and implemented in July 2015. Policies will continue to be monitored and updated, in cooperation with certified HIOs and other Authority stakeholders, as the environment continues to evolve. Using the v3 framework, the Authority

was successful in acquiring signed participation agreements from three HIOs, including ClinicalConnect Health Information Exchange, HealthShare Exchange of Southeastern Pennsylvania, and Keystone Health Information Exchange. Onboarding of these three HIOs is expected to be completed between the end of 2015 and into early 2016.

An example of Authority governance efforts in the policy arena is the white paper, "Ensuring Privacy and Security of Health Information Exchange in Pennsylvania", developed and published in 2014 in cooperation with the Pennsylvania eHealth initiative (available at http://www.paehi.org/_files/live/Privacy_WhitePaper_2014_FINAL.pdf) An example of a current governance topic that is being facilitated by the Authority covers super-protected data. Pennsylvania is a "HIPAA Plus" state, meaning that there are laws in the Commonwealth more stringent than the national standard, especially with regards to mental health, substance abuse disorder, and HIV/AIDS. The Authority's efforts are not only aimed at determining consensus-based strategies for how these types of information should be addressed in HIE within the Commonwealth, they are also aimed at determining legal or regulatory changes required, or technical solutions, to enable interstate HIE.

In 2015, a group of Authority stakeholders was convened to review various vocabulary code sets in order to create a consensus listing of codes that can be applied to data scrubbing algorithms or other mechanisms to appropriately control the exchange of these protected classes of health care information in accordance with state and federal laws. This initiative is expected to be completed in mid-2016, with additional efforts to follow to develop consensus guidelines on practical application of the code sets.

The Authority operates a thin-layer of technical services to support interoperability between certified HIOs. This includes a master patient index to manage cross-community patient identity, an opt-out registry to record patient choice for HIE in accordance with Act 121, a state-level provider directory, and a record locator service to facilitate clinical document exchange between HIOs. Of note, the Authority's Master Patient Index (MPI) was populated and is updated with information that includes information provided by the Department.

The combination of governance, certification, and interoperability technology is called the Pennsylvania Patient and Provider Network (P3N). Individual HIOs may opt for Authority-mediated clinical document exchange or may simply use the identity management and consent portions of the P3N technology layer. In the latter case the Authority can tell a requesting HIO which other organizations have an association with a given patient since those other organizations will have also registered the patient in the P3N MPI. Such participants then exchange clinical documents directly with one another, again with the P3N providing any documents for HIOs using P3N-mediated exchange. The Authority continues to work with HIOs to evolve and adapt P3N capabilities to meet the diversity of technical capabilities and technical models that exist among Pennsylvania HIOs.

The last piece of the P3N is the Public Health Gateway (PHG). PHG enables a single point of connection from any private-sector P3N participant to registries maintained by the Department and Pennsylvania's Department of Health. This technology was successfully tested in proof-of-technology mode at the end

of 2014. An operational connection to the electronic lab reporting registry Pennsylvania's version of the National Electronic Disease Surveillance System (electronic lab reports) has been established. A cancer registry, immunization registry, syndromic surveillance registry, and eCQM registry were made available in 2015 and are expected to be operational by September 2016.

The P3N has been designed and implemented with particular attention to ensuring that participating providers can leverage it to meet meaningful use objectives.

The Authority was initially funded primarily under ONC's State HIE Cooperative Agreement program with a $17.1M grant. Since the expiration of that program, the Authority has operated primarily using state-appropriated funding. In December, 2014, the Authority's Board approved a sustainability plan that will move the Authority towards funding that aligns with the organization's public-private partnership nature, with a goal of at least half of core operational funding to be provided from fees on participating HIOs by early 2018.

Meanwhile, the Authority also seeks funding through grants and private donations. Such funds are used to accelerate HIE development both by the Authority and via grants from the Authority to the certified HIOs and HISPs. One example is the federal fiscal year 2014-2015 and 2015-2016 IAPD 90/10 grants from CMS via the Department. These grants have been and continue to be used to complete the build-out of PHG and also to offer grants to certified HIOs to support their onboarding to the P3N and the onboarding of EHR Incentive Program participating hospitals, physicians, and long-term/post-acute care providers to the HIOs. Section B of this document describes additional planning for the Department and the Authority to leverage IAPD funding over the next five years.

Even as the Authority seeks to complete HIO certification and onboarding, and complete PHG build-out, it is working with other states, particularly those bordering Pennsylvania, to enable interstate HIE. As noted earlier, a major portion of this effort involves identifying and addressing policy differences between the states, in addition to technical interoperability. This project will focus on the Medicaid population's needs for individuals living in close proximity to the following six states: New York, New Jersey, Delaware, Maryland, Ohio, and West Virginia.

A final major area of concentration for the Authority is patient and provider education regarding HIE, and patients' rights to opt-out under Pennsylvania law.

For additional information on recent Authority activities, please visit the Authority's "General Information and Resources" page which is available on the Authority's website at http://www.paehealth.org/resources

Regional Extension Center (PA REACH) activities

Although Quality Insights, dba PA REACH has enabled 892 providers to implement Direct Messaging, and a directory of DIRECT addresses was made available to providers in mid-2014, many providers voice frustration at not being able to find the addresses for providers or entities to which they commonly refer

patients for care. PA REACH continues to provide the link to the State White Pages, and work with vendors to facilitate DIRECT messaging. PA REACH is working with HSX in SE PA to expand the number of DIRECT licenses, and to encourage the exchange of hospital discharge information that is made available through HSX. They are also working to connect community-based organizations that provide nutritional or self-management support for patients with diabetes and hypertension with PCPs to try to close the referral loop for these encounters. HSX now offers an encounter notification system and a clinical data repository to support robust queries regarding patient medical histories.

PA REACH and the Department have convened meetings with the Authority and independent small and medium practices struggling to exchange information to identify solutions and resources. The Executive Director and Department have also met with Department of Health regarding the barriers to connecting to State registries.

PA REACH invited the Department to participate in a call with ONC and CDC to discuss challenges to meeting the Public Health reporting options for meaningful use in Pennsylvania. Department of Health was invited to attend a second call with CDC to talk through potential solutions for reporting requirements.

The Department's Relationship with State Government HIT Coordinator (Response to Question #10)

The Department collaborates with the Executive Director of the Authority who previously held the State Government HIT Coordinator role as part of the ONC State HIE Cooperative Agreement Program. The Executive Director of the Authority and the Director for PA REACH meet bi-weekly with the Department's HIT Coordinator to discuss any updates to progress with HIE, barriers, and potential collaborative projects. In addition to their regular meeting schedule, the Department and the Authority's Executive Director also meet jointly on a biweekly schedule with the Regional Extension Center and on a monthly basis with the Department of Health, PA Medical Society, Hospital and Healthsystem Association of Pennsylvania (HAP), and Pennsylvania Healthcare Cost Containment Council. These collaborative efforts supplement the extensive stakeholder engagement processes of the Authority's standing committees and the Department's advisory community. A letter of support from the Executive Director of the Authority is provided in Appendix VII of this document.

Currently, there is no individual appointed to the official role of "State Government HIT Coordinator." Rather, the Department's HIT Coordinator and the Authority's Executive Director work together, supported by extensive stakeholder collaboration (as described above) to direct the state's HIT efforts.

Current Department Activities Likely to Influence EHR Incentive Program (Response to Question #11)

The Department has a number of initiatives and activities underway that may influence the EHR Incentive Program. For example, the Department is currently working on issues related to health care reform and Medical Assistance patient eligibility. The Department is also engaged in activities to improve quality and performance. The Commonwealth implemented Medicaid expansion. The plan generated over 600,000 new Medical Assistance Patients into the program. This plan has the potential to increase provider's Medical Assistance patient volume and allow more providers to participate in the

incentive program. The Department is currently examining ways to coordinate the following initiatives with the EHR Incentive Program:

- The Department is working closely with the Department of Health to help providers meet public health meaningful use requirements related to reporting to and interfacing with the immunization registry, cancer reporting registry, syndromic surveillance system, and electronic lab reporting. Additionally, the Department, the Department of Health, and the Authority are collaborating to implement the Public Health Gateway (PHG), which will provide a single point of connection from any private sector P3N participant to the above mentioned registries maintained by Pennsylvania's Department of Health and the clinical quality measure repository maintained by the Department. These efforts are described in more detail in Section C.

- The Department has a pay-for-performance program for the MCOs in HealthChoices, the Department's mandatory managed care program. The Department will evaluate how the EHR clinical quality measures are aligned with the HEDIS quality measures and with the pay-for-performance initiative. The Department's long-term goal is to reduce the number of paper chart audits for the current pay-for-performance and HEDIS measures through the implementation of electronically reported measures, and through the ability to leverage HIE. The Department provides funding to the MCOs for a provider pay-for-performance program. One of the mandatory requirements of the MCOs is that they establish provider incentives to electronically submit quality measures for HEDIS reporting.

- The Department, through the HealthChoices MCOs is participating in various medical home models. A key component of all medical home initiatives is the use of EHRs and health information exchange to make sure that providers have the right information for the right patient at the point of care. A requirement of the current HealthChoices contract is for the MCOs to implement payment reform through value based purchasing contracts with their providers. The use of EHRs and HIE quality and care coordination will improve resulting in successful value based purchasing for all involved.

- The Department provides childhood nutrition and weight management services which reimburse providers for initial and on-going assessments; individual, family, and group weight management counseling; and nutritional counseling. The Department anticipates that the EHR Incentive Program will assist in obtaining high quality body mass index (BMI) data that can be used for healthy weight surveillance activities that track changes in BMI prevalence and for developing quality data driven interventions that can be used to evaluate the impact of child obesity prevention interventions.

- An additional key initiative the Department provides includes services for tobacco cessation. The Department provides reimbursement to providers who provide tobacco cessation counseling services. In addition, all tobacco cessation medications are covered through the FFS or MCO

pharmacy benefits. EHRs and HIT will improve information about both tobacco screening and cessation intervention rates in patients for all practice providers.

- The Community Based Care Management (CBCM) program requires that activities and funding must primarily be focused on reducing preventable admissions, readmissions, non-emergent visits to the emergency department (ED), enhancing behavioral and physical health coordination of services, targeting providers/organizations that serve a large volume of complex Medical Assistance recipients including high-risk pregnant women, and increasing access to pediatric dental preventive and restorative services. The use of EHRs will provide key information that supports continuity of care efforts as well as avoidance of complications and readmissions. The use of HIE will assist in communication between all providers involved in a patient's care. For all patients, especially the medically complex and fragile, the ability for both primary care providers and specialists to communicate effectively will have positive impacts on both health outcomes and quality of life for our Medical Assistance recipients. HSX, the major HIO in Southeastern Pennsylvania has operationalized transition of care information exchange between providers in 2014. The Department participated in an eHealth Pod Pilot program designed to increase meaningful use participation in Behavioral Health providers by supporting their transitions of care requirements.

- The Department has worked with the Authority to develop IAPD requests to support continuing development of HIE in Pennsylvania in order to support the capacity of EHR Incentive Program participants' to meet meaningful use requirements. In federal fiscal year 2015-16, this included over $14 million to continue grants to certified HIOs to assist them in onboarding hospitals and ambulatory providers, as well as new grants to assist in onboarding long-term and post-acute care (LTPAC) providers. It also included over $1.7 million to further enhance PHG and enable interstate exchange. This project will focus on the Medicaid population's needs for individuals living in close proximity to the following six States: New York, New Jersey, Delaware, Maryland, Ohio and West Virginia. As described in Section B of this document, the Department intends to continue to work with the Authority to leverage federal funding to enhance HIE in support of the EHR Incentive Program.

Recent Relevant Changes to State Laws and Regulations (Response to Question #12)

Pennsylvania eHealth Partnership Authority - Passed unanimously, Act 121 of 2012 created the Pennsylvania eHealth Partnership Authority (the Authority). This independent agency of the state government is tasked with coordinating public and private efforts to establish and maintain statewide electronic health information exchange (HIE). The Authority continued the work of the Pennsylvania eHealth Collaborative described in Pennsylvania's previous SMHP plan. The Department closely collaborates with the Authority to promote alignment between Department initiatives and strategies and the Authority's efforts. Act 121 also established that Pennsylvania citizens may opt-out of HIE and requires the Authority to establish and maintain a consent registry and process. The Pennsylvania Legislative Budget and Finance Committee is studying the performance of the Authority and is required

to make recommendations to the General Assembly in summer 2016 on the future of the Authority. In the meantime, Governor Tom Wolf has recommended merging the Authority into the Department of Human Services to further optimize synergies between the Authority and Department goals.

Pennsylvania Drug Monitoring Program (PDMP) - Pennsylvania intends to update and enhance the PDMP by improving prescription monitoring to ensure appropriate drug orders. This program is important for improving quality care initiatives.

PA REACH and the Pennsylvania Department of Health have been awarded a CDC grant for the PDMP. Through this grant, PA REACH will distribute Pennsylvania's Opioid Prescribing Guidelines in 12 counties targeted with the highest deaths from opioid overdoses. PA REACH will collaborate with the Department to identify prescribers in the targeted counties. In future years, PA REACH will provide on-site education regarding the ABC MAP prescribing database.

Provider Enrollment and Screening Requirements - On the federal level, there are new provider enrollment and screening requirements. The Affordable Care Act at federal regulations at 42 CFR 455.410 and 455.450 requires that all participating providers be screened according to their categorical risk level, upon initial enrollment and upon re-enrollment or revalidation of enrollment. This will cause a misalignment with records, delays, and potential appropriate disenrollment of providers or provider locations that correlate to historical HIT incentive and MU records already created and synchronized with the R & A. It is important to note that the Provider Enrollment and Screening Provisions of the Affordable Care Act (ACA) requires all MA providers to be revalidated/re-enrolled and re-screened from a freshly submitted provider enrollment application for each site-of-service (in MA this is known as Service Location) at least every five years. The first deadline for a full revalidation of the MA provider network was due on March 24, 2016 and automatically set for every five years on the anniversary of their submission date. CMS extended this deadline to September 25, 2016.

Prior to this provision, providers were able to voluntarily update their file on their own schedule and only when changes occurred, which was typically not done unless there was a direct impact to the provider therefore we expect many changes to ensue as a result of the first deadline.

Patient Centered Medical Home (PCMH) Council - Act 198 of 2014 directs the Department to form a PCMH Council that will advise the Department on payment and health care delivery reform including payment mechanisms for PCMH activities, expanding the use of telemedicine, and enhanced HIE that ensures better coordination of care.

HIT/E Activities Crossing State Lines (Response to Question #13)

Pennsylvania includes several geographic areas with considerable cross-border health care activity by Medicaid beneficiaries, but there are no HIT/E activities that cross borders. The Department and the Authority have initiated discussions with most bordering states to explore:

- What information can be shared?

- What are the timeframes for sharing information?
- What types of agreements need to be in place to share information?
- What potential challenges exist to these collaborative arrangements?

The Department and the Authority plan to engage non-bordering states once plans for connections with bordering states solidify. The proposed Interstate Connection project will allow providers to share information on Medicaid patients with surrounding states and therefore expand on the HIE activities.

The Department will continue to reach out to its neighboring states to validate encounters and licensure and provider state switches.

Current Interoperability Status of State Immunization Registry and Public Health Surveillance Reporting (Response to Question #14)

There are four different applications being administered through the Commonwealth which serve to collect electronic data related to immunizations and syndromic surveillance. Managed by the Pennsylvania Department of Health, the Pennsylvania Statewide Immunization Information System (PA-SIIS) is a statewide immunization registry that collects vaccination history information. It was developed to achieve complete and timely immunization for all people, particularly in the age group most at-risk, birth through two years of age. Pennsylvania is considering the opportunity to partner with New Jersey, New York, Delaware, Maryland, and West Virginia in the future. The Department is also working on a project with the Pennsylvania Department of Health to implement agreements that formalize the partnership between the agencies to support meaningful use of the immunization registry and Public Health Surveillance Reporting.

The Commonwealth of Pennsylvania uses Health Monitoring System's EpiCenter system to conduct statewide syndromic surveillance. The system currently collects emergency department (ED) visit data from 85% of the EDs in the state. Access to the secure system is limited to Pennsylvania public health officials and hospital epidemiologists.

The Pennsylvania National Electronic Disease Surveillance System (PA-NEDSS) establishes a near real-time, secure communication link between laboratories, hospitals, individual medical practices, and the Pennsylvania Department of Health. Physicians, laboratories, and hospitals that report disease and the public health investigators who investigate disease and outbreaks are the users of PA-NEDSS.

The Pennsylvania Cancer Registry (PCR) is a statewide data system responsible for collecting information on all new cases of cancer diagnosed or treated in Pennsylvania. The PCR has had statewide data collection since 1985. The PCR is part of the National Program of Cancer Registries (NPCR) administered by the Centers for Disease Control and Prevention (CDC). Through this program, the CDC provides funding for states, such as Pennsylvania, to enhance their existing registry to meet national standards for completeness, timeliness and data quality. This registry can be considered another specialized registry for the EHR Incentive program.

Section A: The State's "As-Is" HIT Landscape

The Department, the Department of Health, and the Authority are collaborating to implement PHG, which will provide a single point of connection from any private sector P3N participant to the immunization registry, cancer reporting registry, syndromic surveillance system, and electronic lab reporting registries maintained by Pennsylvania's Department of Health and the clinical quality measure repository maintained by the Department. Initial build-out of the PHG was completed in federal fiscal year 2014-15, in part using IAPD funds. PHG efforts continued under the federal fiscal year 2015-16 IAPD, specifically to enable bi-directional exchange for the immunization registry via PHG and adding additional registries to PHG.

Transformation Grant or a CHIPRA HIT Grant (Response to Question #15)

Pennsylvania was awarded a CHIPRA Quality Demonstration Grant on February 22, 2010. During the five-year life of the grant Pennsylvania received a total of $9,777,361 in funding. Pennsylvania's demonstration was a collaborative effort including the Department, Department of Health, and Insurance Department. In addition to collaboration between various departments and agencies, the Commonwealth also worked with various health systems. The demonstration was divided into the following three categories:

Category A – Testing and reporting on the pediatric core measures of quality: Pennsylvania worked with seven health systems that provide pediatric care to focus on improving the quality of care through the adoption of health information technology. All seven grantees were able to electronically extract and report quality measure data to the Department.

Category B – Promoting the use of HIT in children's health care delivery: Pennsylvania worked to improve the quality and coordination of care for children with special health care needs who are covered by Medical Assistance and the Children's Health Insurance Program (CHIP). This was accomplished by leveraging HIT to maximize the early identification of children with developmental delay, behavioral health issues, and those with complex medical conditions so their care can be closely coordinated with the Primary Care Provider (PCP) medical home, appropriate medical specialists and child serving social agencies.

Category D – Demonstrating the impact of the CMS model format pediatric electronic health record: The Department and its partners worked with St. Christopher's Hospital for Children to collaborate with four other health systems to create a team to implement and evaluate the impact of a model format pediatric EHR template provided by CMS and AHRQ. Large portions of the model format focused on the ability to share data across care systems. Because the Commonwealth did not yet have a Health Information Exchange that was operable across the entire state, the five grantees working on this project were unable to complete some of the format requirements. However, they were able to begin preparing their EHR systems for the eventual use of statewide data exchange mechanisms that will be brought forth by the HIT program.

Section A: The State's "As-Is" HIT Landscape

CHIPRA was able to prepare the grantee health systems for the future of health care being shaped by the HIT program. By the mid-point of the CHIPRA grant every grantee had heard of the meaningful use program but they weren't sure what it meant for their health systems. As they began to alter their EHRs to electronically pull quality data and appropriately format the data for electronic transmission to the Department, the grantees began to understand how CHIPRA was preparing them for the future.

CHIPRA was also a mechanism to prove that a certified EHR wasn't always ready to accomplish complicated tasks presented by the grant. Many certified EHRs required vendor adjustments to capture specific data fields in a discrete manner or to generalize the data capture method so that a variety of systems (clinical, billing, etc.) could share information within a health system.

The Department is at the end of the CHIPRA grant and is confident in saying CHIPRA has brought much knowledge of the HIT program and its requirements to the seven grantee health systems and their associated EHR vendors. In the beginning the Department felt that CHIPRA was driving knowledge of the HIT program, but by the end health systems were very aware of the HIT expectations being placed on them and often the HIT program began pushing the implementation of some CHIPRA requirements.

Within the HIT program, the Department has capitalized on the CHIPRA experience to tailor outreach efforts, identify solutions that will enhance the provider's ability to meet proposed meaningful use criteria and strategies for implementing and encouraging the adoption of EHRs.

Section B: The State's HIT "To-Be" Landscape

This section responds to each of the questions listed in the CMS State Medicaid HIT Plan Template and provides an overview of the Department's "To-Be" landscape as it implements the Medical Assistance EHR Incentive Program and moves towards achieving its HIT and HIE vision.

Figure B.1: Section B Questions from the CMS State Medicaid HIT Plan (SMHP) Template

Please describe the State's "To-Be" HIT Landscape:
1. Looking forward to the next five years, what specific HIT/E goals and objectives does the SMA expect to achieve? Be as specific as possible; e.g., the percentage of eligible providers adopting and meaningfully using certified EHR technology, the extent of access to HIE, etc.
2. *What will the SMA's IT system architecture (potentially including the MMIS) look like in five years to support achieving the SMA's long term goals and objectives? Internet portals? Enterprise Service Bus? Master Patient Index? Record Locater Service?
3. How will Medicaid providers interface with the SMA IT system as it relates to the EHR Incentive Program (registration, reporting of MU data, etc.)?
4. Given what is known about HIE governance structures currently in place, what should be in place by 5 years from now in order to achieve the SMA's HIT/E goals and objectives? While we do not expect the SMA to know the specific organizations will be involved, etc., we would appreciate a discussion of this in the context of what is missing today that would need to be in place five years from now to ensure EHR adoption and meaningful use of EHR technologies.
5. What specific steps is the SMA planning to take in the next 12 months to encourage provider adoption of certified EHR technology?
6. ** If the State has FQHCs with HRSA HIT/EHR funding, how will those resources and experiences be leveraged by the SMA to encourage EHR adoption?
7. ** How will the SMA assess and/or provide technical assistance to Medicaid providers around adoption and meaningful use of certified EHR technology?
8. ** How will the SMA assure that populations with unique needs, such as children, are appropriately addressed by the EHR Incentive Program?
9. If the State included in a description of a HIT-related grant award (or awards) in Section A, to the extent known, how will that grant, or grants, be leveraged for implementing the EHR Incentive Program, e.g. actual grant products, knowledge/lessons learned, stakeholder relationships, governance structures, legal/consent policies and agreements, etc.?
10. Does the SMA anticipate the need for new or State legislation or changes to existing State laws in order to implement the EHR Incentive Program and/or facilitate a successful EHR Incentive Program (e.g. State laws that may restrict the exchange of certain kinds of health information)? Please describe.
11. Please include other issues that the SMA believes need to be addressed, institutions that will need to be present and interoperability arrangements that will need to exist in the next five years to achieve its goals.

* May be deferred if timing of the submission of the SMHP does not accord with when the long-term vision for the Medicaid IT system is decided. It would be helpful to note if plans are known to include any of the listed functionalities/business processes.

** May be deferred.

Section B: The State's HIT "To-Be" Landscape

The Department's HIT Vision (Response to Questions #1 and 4)

This section provides an overview of the Department's vision of how the adoption and meaningful use of HIT and the exchange of health information will be used to support the Department's overarching goal to improve the quality and coordination of care by connecting providers to patient information at the point of care.

On March 17, 2010, the Department's executive leadership met to discuss the initial five-year vision for HIT. Department stakeholders has reconvened a number of times since then to reflect on this vision and identify new strategic goals. The short-term goals have evolved as the program continues, but one thing remains constant: The Department's long term vision is to improve the quality and coordination of care delivered to Medical Assistance consumers. The Department recognizes the significance and value of HIT and HIE to reaching broader care quality and care coordination goals.

The Department's goals identified to guide the next five years are:

- **Increase Quality of MA Services** – Afford providers' access to better, more timely information at the point of service to support clinical decisions, increase quality of patient care, and reduce unnecessary costs.
- **Increase Coordination among DHS Programs and External Stakeholders**– Eliminate duplicative services and administrative inefficiency and align resources to improve care coordination for consumers.
- **Increase Awareness** – Educate providers and consumers on the benefits of being a meaningful user of HIT; eEducate providers on the changes and the benefits of the program, the importance of beginning to participate by March 31, 2017 and to continue their participation in the incentive program.
- **Redesign Systems**– Keep MAPIR and systems infrastructure current to meet evolving program requirements and business needs. Pennsylvania is currently in the process of procuring a new modular MMIS by the year 2020. As a requirement during the re-procurement process, the new modular MMIS system will need to be able to interface with the current MAPIR module. This includes scanning the environment to adopt the data capture and analysis tools necessary to enhance and improve current quality initiatives for both providers and consumers and to meet the CMS updated requirements. Enhanced HIE will also enable the Department to move towards payment reform and redesign of health care delivery.

Reaching these goals is an incremental process, the foundation of which is the adoption, meaningful use and timely exchange of health information. Table E.3 in Section E projects the participation in the MA EHR Incentive program through 2016. Adoption begins with implementing an EHR system then becoming a meaningful user of the EHR technology thus sharing information with the consumer and other providers to improve overall health care to the consumer. The following text provides additional detail on the vision for the To-Be state by highlighting the key infrastructure and programmatic features

necessary to enable the overall vision. Tactical steps and implementation milestones are presented in further detail in Section E: The State's Roadmap.

Increase Quality of MA Services

By providing health information to providers, MCOs and consumers, the Department seeks to identify coverage and quality gaps in a manner that results in efficient and effective care and improved health outcomes for the MA population.

The Department currently uses claims data, MCO's encounters, HEDIS ®, CAHPS® and other quality reporting and cost data to monitor and improve its programs. By collecting electronic clinical quality measures (eCQMs) and housing them in a repository which can be linked to other data, the Department will have a more comprehensive picture of its consumers. The Department will work with PHC4 around sharing the electronic data.

By leveraging EHR and HIE for more rapid collection and sharing of eCQMs, the MCOs and providers will be able to make more informed decisions on care needs. In addition, the data will drive payment reform efforts.

Increase Coordination of Care and Sharing of Data

Pennsylvania's goal is to coordinate care in a manner that leads to more efficient, cost-effective care. Achieving this vision requires alignment across Department bureaus as well as coordination across the Commonwealth's agencies and initiatives.

We expect advancing coordination to entail working closing with the Authority to improve the flow of data between external stakeholders and leveraging the MMIS planning and MITA process to strengthen alignment within the Department. Ultimately, Pennsylvania plans on a bidirectional flow of data; not just providers and physical health and behavioral health MCOs pushing data to the Department, but the Department pushing data out to physical health and behavioral health MCOs and providers such as accountable care organizations (ACOs). The bidirectional flow of data will give providers a more complete view of their patient's care, so that providers can see the full continuum of care. This flow of data to large health systems/ACOs will enable them to manage the health care needs of an attributable population.

Furthermore, Pennsylvania plans to leverage HIT and HIE to better coordinate the care of vulnerable populations including, but not limited to, children in the Commonwealth's child welfare system, children screened for developmental delays; individuals, both disabled and elderly, receiving home and community-based waiver services; individuals with physical health and/or behavioral health and individuals transitioning in and out of the Commonwealth's correctional system.

Increase Awareness

The Department plans to continue its current efforts to educate providers, consumers and other state agencies on the benefits of using EHRs and being meaningful users of HIT.

Section B: The State's HIT "To-Be" Landscape

Redesign Systems

A guiding principle for the Department's MITA strategy, which is to increase awareness, quality, and coordination in public health coverage programs, is well-aligned with the broad HIT "to be" vision identified above. Keeping the Department's MAPIR system and other infrastructures current to meet evolving program requirements and business needs is essential to achieve that strategy. Within the coming five years the Department plans to:

- Enhance data capture and analysis capabilities for providers including ACOs, MCOs and the Department.
- Leverage software that supports robust care management.
- Develop and implement the capability to push/pull health care information such as claims-based data, eCQMs, and care plans across multiple waiver and special needs programs such as long-term living services, physical health and behavioral, community-based waivers, child welfare, and early intervention.

The Department's MMIS System Architecture and EHR Incentive Program System (Response to Questions #2, 3, and 4)

The Department is in the process of re-evaluating and enhancing current Medical Assistance agency service operations in light of the EHR Incentive Program, including an enhancement of the MMIS architecture to support the exchange of health care encounter data. The Department anticipates that many of the current administrative processes will remain intact; for example, provider enrollment, claims processing, etc. The Department leverages the current MMIS financial system to make Medical Assistance provider HIT incentive payments using MAPIR. As a requirement during the re-procurement process, the new modular MMIS system will need to be able to interface with the current MAPIR module. The Department will discuss working with the Authority to expand and make routine submissions from the Department to the P3N MPI and provider directories, and then working with both the Authority and other agencies to identify opportunities to leverage P3N to reduce administrative redundancy in state government.

All MMIS system development related to HIT must be coordinated with federal initiatives, especially in regard to changes associated with TMSIS, ICD-10, the Patient Protection and Affordable Care Act, and the development of the MITA "To-Be" model for Pennsylvania. MITA is transforming the design, operations, and costs associated with running an MMIS. As with MMIS and other MITA systems and related activities, the Department will adhere to the seven conditions and standards described in the Medicaid Program Final Rule: Mechanized Claims Processing and Information Retrieval Systems issued CMS guidance updated December 2015. The Department will purchase MMIS and MITA systems and upgrades in relation to the Medical Assistance EHR Incentive Program and MAPIR that meet the following new standards and conditions:

1. Modularity
2. MITA
3. Industry standards
4. Leverage

5. Business results
6. Reporting
7. Interoperability
8. MAGI-based Functionality
9. Mitigation Strategy
10. Key Personnel
11. Documentation
12. Strategies to Minimize the Cost and Difficulty of Operating on Alternative Hardware or Operating

MITA is transforming the design, operations, and costs associated with running an MMIS.
The Department envisions that in four years HIOs will be used to transport quality measures to allow the Department to analyze the impact of HIT on health outcomes and medical costs for Medical Assistance and other programs. The current MMIS system includes a Provider Portal whereby providers are able to perform such functions as claims entry, claims inquiry, ePrescribing via SureScripts, remittance advice downloads, eligibility inquiries, and updates to certain elements of provider enrollment.

Part of the MMIS enterprise uses two Enterprise Service Buses in the IT environment. The Commonwealth has standardized two Enterprise Service Buses for the MMIS enterprise: WebMethods for applications that require high-transaction throughput or process large amounts of data, and BizTalk for smaller applications whose workflow requirements and interaction with third party products are better suited to that technology. The Master Provider Index and Master Client Index each use these applications. In the next five years the goal is to make additional applications accessible via internet portals including prior authorization/referral entry and maintenance.

The Department will continue to update the MAPIR system to administer the meaningful use portion of the incentive program. The MAPIR system has the capability to capture AIU and Stage 1, Stage 2, and flexibility meaningful use attestations, 2015-2017 Modification Rule meaningful use attestations will be enhanced for Stage 3 meaningful use attestations. The Department will continue to look to CMS for guidance and will follow CMS's lead as it develops standards for Medicare meaningful use data.

The Department is also exploring the feasibility of integrating the DIRECT Project with MAPIR.

The DIRECT Project (DIRECT) provides specifications for a secure, scalable, standards-based way to establish universal health transport for participants (including providers, laboratories, hospitals, pharmacies and patients) to send encrypted health information directly to known, trusted recipients over the Internet. The Department is utilizing the DIRECT messaging system to collect CQM submissions. The Department will continue to leverage the Authority's certified HISP trust community in DIRECT-related activities.

The Department will, in concert with the Authority, closely monitor activities occurring at the federal level and work with the Authority to develop necessary connections to federal level entities as requirements for such connections come to light, and as capabilities at the federal level mature.

Medical Assistance Provider Incentive Repository (MAPIR)

The Department will lead the continued development of the MAPIR system as part of the MAPIR Collaborative to interface with CMS to exchange information and prevent duplicate payments, determine eligibility for incentive payments, receive and track AIU and Stage 1, 2, and 3 meaningful use attestations, and trigger Medical Assistance incentive payments via the MMIS system ongoing.

HIE and Department Governance (Response to Question #4)

The administrative structure currently in place for the Department's EHR incentive program's planning and development efforts continues to evolve in a manner that will allow the Department to achieve its HIT and HIE goals and objectives. The Department's five-year vision includes the meaningful use of EHRs by all eligible professionals and hospitals with an emphasis on measuring and improving quality of care. The Department has expanded its vision to include Long Term Post-Acute Care facilities and Behavioral Health providers. A large part of this vision relies on Pennsylvania providers' use of HIE. Section E provides more detail on proposed initiatives aimed at increasing HIE meaningful use.

In order to achieve these goals, the Department will continue to pursue the infrastructure (hardware, software), resources (staff and funding), and agreements (legal, data sharing, privacy) necessary to participate in HIE and leverage its functionality as part of the Department's HIT and HIE vision. The Department holds a permanent seat on the Authority's Board of Directors and routinely participates in the Authority's stakeholder committee work.

By following the various HIT initiatives across the Commonwealth, the Department and Authority will be able to capitalize on existing structures to reduce duplication efforts. Collaborating with the RECs, FQHCs, Behavioral Health facilities and ONC will also assist in with this effort. Please see Figure A2 on page27.

The Department's Role in Encouraging HIT Adoption and Ongoing Provider Outreach and Education (Response to Questions #5 and 7)

The Department will continue to work in collaboration with other statewide efforts to further inform Medical Assistance providers about opportunities available to them for HIT adoption via the Medical Assistance HIT incentive program. The Department will work with CMS, ONC, the REC, and MCOs to collaborate and leverage existing resources, e.g., distribute CMS and ONC-approved materials rather than creating new materials.

In order for the Department to reach its goals, it is important to determine the extent of providers' EHR adoption. This can be done with a thorough Environmental Scan. The Department will work with CMS to develop the tools to create an effective environmental scan. The Department is considering utilizing an outside source to implement and analyze the results of this survey and anticipates to have a final report first quarter 2017. Due to the fiscal year 2015-2016 state budget impasse, this project was delayed in getting started so the analysis of the data will be completed in FFY 2017.

Section B: The State's HIT "To-Be" Landscape

The Department's communication goals for fiscal year 2017 will be to inform providers about:

- The Department's HIT Goals and Vision with emphasis on increasing quality through adoption of certified EHR and transforming care through HIT.
- Eligibility criteria:
    - Registering with the R&A
    - Gathering data on Medical Assistance patient volume
    - Unique criteria for various provider types
    - Choosing Medicare or Medical Assistance
- Payment structures (Year 1, Year 2, etc.)
    - Discussion on various strategies regarding meaningful use and incentives for providers to participate in the program by March 31, 2017
    - Share information on adopt, implement or upgrade stages in connection with Year 1
    - Share information on meaningful use, continue to update based on CMS guidance
    - Describe impact of MU on quality of care and increased patient engagement
- Participation in MA EHR Incentive program for the first time must be completed in program year 2016
- The MAPIR system changes and user interface
- Adoption and meaningful use of federally-certified EHRs
- Option of using Alternate meaningful use attestation process at R&A
- Grant programs (in cooperation with the Authority) to incentivize participation in HIE
- Auditing program and requirements
- Requirements and acceptable documentation for the pre- and post-payment auditing process
- Patient engagement in order to reach MU requirements and improve quality of care

The Department will tailor outreach and communication methods based on the nature of the issue and the volume of providers or stakeholders with certain concerns/questions and to maximize participation in the EHR Incentive program. The Department will continue to utilize Quick Tips, website information, updates to provider materials, weekly listserv emails, and in-person and virtual training sessions.

The Department anticipates its provider communications efforts can be coordinated with outreach efforts directed by CMS, the ONC, the Authority and others. The Department also anticipates working closely with the RECs to benefit from lessons they have learned and to work collaboratively with HealthChoices MCOs, ACOs, MAXIMUS (The Department's MCO enrollment broker and others) to further relay their messages to providers and consumers. The Department sees great value in continuing to present a uniform message via many routes to providers to maximize exposure and increase impact. The Department will use information gathered through various EHR and HIT adoption surveys to gauge current HIT adoption among Medical Assistance providers and hospitals eligible for

EHR incentives, and this information along with information from the RECs, the MAAC HIT workgroup and other resources will allow the Department to tailor their outreach strategy.

While the Department expects to conduct in-person outreach sessions to providers with regard to the EHR Incentive Program, it also will continue to provide detailed information on enhancements on its existing HIT website.[2] Currently, the Department provides a direct link and log-in message for providers as they enter the MMIS provider internet portal to direct them to new opportunities. The Department will also continue to work with stakeholders to add content on their provider portals to direct providers to information concerning the incentive program.

The Department will continue to release Medical Assistance Bulletins regarding HIT/E when appropriate to do so. Throughout the years, the Department has published Medical Assistance Bulletins describing Pennsylvania's Medical Assistance EHR incentive program. Topics addressed have included program requirements, eligible provider types, the R&A, program oversight, the application and attestation process, meaningful use, and MU Stage 2. The information in the Medical Assistance Bulletins was supplemented by information on the program's website. This included information regarding:

- Where HIT information is located on website and how to register with the listserv for latest information;
- The Medical Assistance EHR incentive program (per CMS) and the Pennsylvania-specific program requirements (Medical Assistance EHR Incentive Program Resources, Appendix III);
- How to prepare to attest for a Medical Assistance incentive payment;
- The R&A and the providers access to the R&A?
- What is meaningful use and what are the requirements?
- Auditing and what is acceptable documentation for audits;
- The Public Health Registry and contact information; and
- Details on the eHealth pod pilot project.

The Department recognizes that the outreach and education process will need to be continuously reviewed and refined along the way as federal and Commonwealth rules change and also in response to provider comments and questions that are maintained in the Department's inquiry database. The Department will use feedback gathered from providers and also through the Best Practices Focus Group, the PA eHealth Partnership Authority Advisory Board, the Medical Assistance Advisory Committee (MAAC) and the MAAC's HIT workgroup.

In addition to materials that explain the Medical Assistance EHR incentive program, the Department sees the importance of providing educational and technical assistance materials on implementation, upgrade, and meaningful use of EHRs to providers. The Department will work with its partners and the federally-funded National HIT Research Center (AHRQ) and Healthit.gov to gather existing materials that describe model practices and provide background and technical assistance on adoption,

[2]http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm

implementation, upgrade, and meaningful use of EHRs. The Department has leveraged the CMS Innovation Center to provide information on the effective use of Health IT.

Similarly, the Department is working with the Authority to develop materials that encourage adoption of HIE via participation with an Authority-certified HIO. In January 2016, a letter went out to 80 targeted eligible hospitals from the Secretary of the Department of Human Services, encouraging hospitals to reach out to an HIO and participate in the onboarding grant. Several hospitals reached out for more information on this project. The Department and Authority will also leverage feedback received from provider onboarding efforts financed through the onboarding grants discussed earlier in this document to help educate providers on how to prepare for and effectively implement HIE connections with minimal disruption. As success stories emerge from providers who have enabled HIE, the Department will work with the Authority to communicate these stories to the broader provider community. As the initial stage of this effort, the Authority currently provides a "choose your HIO" page on the Authority's website that not only provides a broad range of information about certified HIOs, but offers a provider toolkit and other materials to help providers better understand HIE and their options in connecting.

To encourage the adoption of EHRs, the Department will also be highlighting other opportunities available to Medical Assistance providers through partnerships that the Department has established with other entities to help defray provider costs, e.g., behavioral health and long-term living providers as described below. These partnerships will help reach all Medical Assistance providers, including those who may not meet the eligibility criteria for the incentive payment such as long term care and behavioral health providers. The participation of providers in HIE – whether or not those providers meet the incentive program eligibility criteria – will further assist in meeting the Department's quality goals. Communication will target providers as well as HealthChoices partners in order to increase the use of HIE transport mechanisms within the Commonwealth.

For ongoing outreach and education, the Department will create a variety of resources for identifying provider issues. The Department will utilize the information it collects to develop additional resources as needed. The initial responses from the surveys noted above and information providers enter in MAPIR will provide insight about providers' current stage of HIT adoption. Many of the Department's materials will focus on issues unique to providers pending their HIT adoption status and the time they are entering the program. In addition, the Department uses provider inquiry data (primarily from telephone calls to program staff and emails received in the Department's EHR program support center) to track common issues or concerns that might be best addressed via Medical Assistance Bulletins, website content, listserv communications, webinar sessions, or other direct provider education sessions.

The Department is continuing activities that will leverage existing Department initiatives and help Medical Assistance providers to adopt EHRs and also help to promote HIE. The Department's planned initiatives will help educate providers on how EHRs can be used to gather and report data (in some cases data required by the Department) and hopes that providers will be able to electronically exchange this information with the Department through DIRECT and the PHG. All of these initiatives are in the

planning phases at this time, so we will submit additional details in future SMHP and I-APD submissions when we are ready to move forward.

- In an effort to enhance quality and reporting of Obstetrics and Gynecological services, the Department continues work to auto-populate the Obstetrical Needs Assessment (OBNA) Form. The form will be available for electronic submission via the cloud or a provider and/or patient portal for all appropriate health care team members to access the information. Information will be shared in a bi-directional manner.

- There are four different applications being administered through the Commonwealth which serve to collect electronic data related to immunizations, lab reports, cancer reporting, and public health surveillance. These four applications include the Immunization Registry, Syndromic Surveillance, Electronic Lab Reporting, and the Cancer Registry. Managed by the Pennsylvania Department of Health, the Pennsylvania Statewide Immunization Information System (PA-SIIS) is a statewide immunization registry that collects vaccination history information. It was developed to achieve complete and timely immunization for all people, particularly in the age group most at risk, birth through two years of age. The Department will be utilizing the Public Health Gateway to collect information for these registries through the Health Information Organizations (HIOs). Pennsylvania is considering the opportunity to partner with New Jersey, New York, Delaware, Maryland, and West Virginia in the future to improve Health Information Exchange (HIE). The Department is also working on a project with the Pennsylvania Department of Health to implement agreements that formalize the partnership between the agencies to support meaningful use of the immunization registry and Public Health Surveillance Reporting.

- The Department is currently considering how to provide technical assistance on federally-certified EHR and HIT adoption to behavioral health and long-term care Medical Assistance providers based correspondence released by CMS on Feb. 29, 2016. These providers play a vital role in the overall health care system for Medical Assistance clients. Therefore the Department believes it is critical to engage and assist these providers as other Medical Assistance providers, the Department, and the Commonwealth move towards EHR and HIE adoption. The Department will be utilizing the Public Health Gateway to collect information for these registries through the Health Information Organizations (HIOs) and improving HIE. The Department received a Certified Community Behavioral Health Clinics (CCBHCs) planning grant and is utilizing existing community mental health clinics or Federally Qualified Health Centers (FQHCs) that provide a wide array of treatment services to individuals with serious mental illness (SMI), serious emotional disturbance (SED), and substance use disorder (SUD). The treatment will include evidence-based approaches provided in an environment which supports whole person, integrated care. Areas of need that will be addressed in the planning process include care coordination and the development of care coordination performance measurement, continuous quality improvement processes, and implementing and optimizing HIT infrastructure. This infrastructure is key to successful

implementation of the program. The Department participated in an eHealth Pod Pilot program designed to increase meaningful use participation in Behavior Health providers by supporting their transitions of care requirements.

- Under the federal fiscal year 2015-16 IAPD, the Authority is offering grants to HIOs to connect LTPAC facilities that have certified EHR technology, and provide portal services to LTPAC providers who do not have certified EHR technology. In both cases the LTPAC organizations are required to demonstrate a patient treatment relationship with an EHR Incentive Program participating provider. Finding LTPAC facilities currently utilizing a Certified EHR System has been challenging. Therefore, with the new CMS guidance, the Department will revise this project request for 2017 to allow more LTPAC facilities to participate in HIE.

- Program Year 2016 is the last year an eligible professional (EP) or eligible hospital (EH) can begin participation in the Medicaid EHR Incentive program. The Department created a marketing plan to reach out to EPs who have not yet participated in the EHR Incentive and encourage them to participate in Program Year 2016. Through analysis, it was determined that all of the EHs who would be able to participate in the MA EHR Incentive program have begun participation. In addition to encouraging participation for new EPs the Department is also focusing on moving EPs and EHs to Stage 3 of meaningful use.

Leveraging Related Funding Resources (Response to Questions #6 and 9)

The HITECH Act of the ARRA and other health care reform initiatives have provided numerous opportunities for providers, hospitals, clinics, health systems and all involved in the delivery of health care to benefit from various funding opportunities that either allow for the adoption, implementation or upgrade of EHRs or support quality initiatives where HIT is used in meaningful ways. As the Department plans to further its HIT/HIE goals, it is also considering how these other resources and funding streams can be coordinated to further drive the success of this initiative.

Two specific areas where the Department will be working closely to coordinate funding resources are with FQHCs who have received funding via HRSA and other HIT-related grants the state has been awarded as defined in Section A.

HRSA Funding for FQHCs

The purpose of the HRSA Health Center Controlled Networks (HCCN) funding is to advance the adoption and implementation of Health Information Technology (HIT) and to support quality improvement in health centers. HCCN grants will also support the adoption and meaningful use of electronic health records (EHRs) and technology-enabled quality-improvement strategies in health centers.

Section B: The State's HIT "To-Be" Landscape

Since FY 2013, two Health Center Controlled Networks (HCCNs) -- the Health Federation of Philadelphia and the Public Health Management Corporation -- received HRSA funding to advance the adoption, implementation, and optimization of HIT; to support the meaningful use of certified EHR at participating health centers; and to support quality improvement with optimal use of HIT. The HCCNs also provide technical assistance closely matched to center-identified HIT and QI needs determined through initial and ongoing needs assessment. If awarded FY 2016 HCCN funding, the HCCNs will increase the number of participating health centers in PA and provide continued support to health centers in achieving meaningful use of ONC-certified EHRs, adopting technology-enabled quality improvement strategies, and engaging in HIE to strengthen the quality of care and improve patient health outcomes.

Table B.1: HRSA Health Center Controlled Networks (HCCN) Funding

Facility	Location	Amount
Public Health Management Corp.	Philadelphia	$ 1,198,630
Health Federation of Philadelphia	Philadelphia	$ 1,466,667
Total		**$ 2,665,297**

CHIPRA Funding

As discussed in Section A, Pennsylvania has been awarded a CHIPRA Quality Demonstration grant. The state received a total of $9.8 million over a five-year period. Many of the quality and HIT goals for the CHIPRA grant are consistent with those for the Medical Assistance EHR incentive program. The goals for the CHIPRA quality demonstration grant include extracting quality data, using health information exchange to improve care coordination, and identifying a model pediatric electronic health record format.

Through the CHIPRA initiative, the Department electronically extracted and reported quality measures from the pediatric electronic health record. The Department will assess their impacts on quality and can use the analyses to assist CMS in defining the core measures for pediatric meaningful use.

State Innovation Model (SIM) Plan Funding

In 2013, the Commonwealth received a $1.5 million Model Design Round One award from the Center for Medicare and Medicaid Innovation to develop its State Health Care Innovation Plan. Although Pennsylvania was unsuccessful winning a Round Two award from CMMI, the Department of Health applied for and received another model design award. Work has begun to develop a new plan. It is anticipated that HIT will play an important role in this new plan.

Addressing the Unique Needs of Special Populations (Response to Question #8)

EHR technology can be used to address the unique, complex and special health care needs of Medical Assistance recipients as well as address racial and ethnic health care disparities. These populations may have much to gain from successful EHR and HIE adoption. HIT that adequately captures and exchanges

appropriate medical information in real-time is essential for providing effective and appropriate health care to populations with unique needs. For patients with complex health care needs, this could include exchanging health care information with all providers, social agencies and the patient in order to coordinate and manage complex conditions. Also, to address and reduce racial and ethnic disparities, it is first necessary to identify these disparities so that interventions can be developed and improvements tracked.

As part of this SMHP planning effort, the Department is focusing on the following populations:

- **Those individuals in need of long term care services**, in medical institutional setting or in the community, who can benefit from EHR adoption and meaningful use that will result in better care coordination between long term care providers, those providing acute/primary care services and case managers. There are several initiatives designed to link up long term post-acute care providers and get these providers onboarded into HIE. These initiative began in 2016 and will continue into 2017.
- **Those individuals with behavior health conditions and substance use disorder**, especially for those treated by high-volume behavioral health providers. The Department included implementation and optimization of health information technology in the Certified Community Behavioral Health Clinics (CCBHC) planning grant awarded in early 2016. Additional opportunities to onboard behavioral health providers may be available based on recent correspondence from CMS. A copy of this correspondence can be found here: https://www.medicaid.gov/federal-policy-guidance/downloads/smd16003.pdf.
- **Children placed in out-of-home care through the foster care system**, who may have health conditions requiring ongoing treatment – conditions that may result from trauma or from being placed out of their homes. The goal is to provide these children and youth with better care coordination and higher quality care through the use of HIT and HIE to share information with County Child Welfare Agencies and Early Intervention providers.

Over the past seven years, our HealthChoices MCOs have identified (through HEDIS oversampling of 14 measures) that disparities exist within certain geographic areas for diabetes care, obstetrical care, and hypertension. Many of these geographic areas are served by high-volume health system providers that are eligible for EHR incentive payments. Through the use of EHR extraction in the future, our providers and MCOs will be better able to identify and develop interventions that quickly close the gaps that result in disparate care.

The Department is currently engaged in many efforts to include these populations as part of planning efforts. There are two primary efforts where the Department is proactively engaged in collaborative planning efforts to address these groups. First, the Department continues to engage the HIT Interagency Steering Committee that includes participants from Office of Children, Youth and Families (OCYF), Office of Long Term Living (OLTL), Office of Mental Health and Substance Abuse (OMHSAS) and others. The Department's vision and strategy is to facilitate collaboration between the EHR Medical Assistance incentive and other Offices and Departments to address the needs of populations and

providers not included in the EHR incentive program, e.g., for mental health and substance abuse and long-term care. While the majority of the providers in these settings are not eligible for incentive payments, recent correspondence from CMS will allow the Department to request 90/10 HIT funds for providers not eligible for EHR incentive payments; the Department's vision is to expand the use of EHR and HIE to these providers and populations so that they can also realize the positive impacts on care coordination, clinical outcomes, and increased continuity of care.

The Need for Additional Legislation (Response to Question #10)

The Authority is engaging stakeholders to identify recommendations on how best to address barriers to exchange related to "super-protected data" (mental health, substance use disorder, and HIV/AIDS). Any solutions must effectively balance the continuing imperative to protect privacy and security of patient's information with the benefits patients can reap from HIE. The Department will monitor and participate in these discussions. Should this effort result in recommendations to change Pennsylvania's current "HIPAA Plus" legislation, the Department will work with the Authority to ensure it can endorse such recommendations, and then work with legislators as required on resulting legislative efforts.

The Department will also identify and closely monitor legal, social, and political barriers that may limit the exchange of health care data, e.g., exchanging health care data for minors and patients receiving mental health and substance abuse services, and exchanging information on HIV/AIDS. This includes exchanging information for electronic prescribing purposes, use of the prescription drug monitoring program data, and the Generic Equivalency Law requires that the words "Brand Medically Necessary" be handwritten on a prescription so Medical Assistance ePrescribing will not allow these drugs to be electronically prescribed. The Department will work closely with the Authority to understand these barriers and to pose solutions that will allow for health information exchange for Medical Assistance recipients and for all Pennsylvanians.

Please include other issues the SMA believes need to be addressed, institutions that will need to be present and interoperability arrangements that will need to exist in the next five years to achieve its goals. (Response to Question #11)

As the majority of the PA hospitals will have received four years of payments in Program Year 2015, the Department realizes the participation in the MA EHR Incentive program will decrease as will the incentive payments. The focus in 2016 will be to encourage non-participants to participate in the MA EHR Incentive program prior to the end of program year 2016. A marketing plan has been created to address this issue. The Department will reach out to key stakeholders to assist with reaching the non-participants and will utilize the services of PA Reach to assist in reaching the non-participants.

The Department has been communicating with CMS and other states on ways the MAPIR System can be utilized after the sunset of the EHR Incentive program. There have not been any decisions, but these discussions will continue.

Section B: The State's HIT "To-Be" Landscape

The Department has also been communicating with other Bureaus in DHS to determine how and if the eCQM repository framework can be utilized for other program areas. The process is in place; therefore, new databases can be created to accommodate other program areas with their goals. Discussions around this opportunity will continue through the next five years as well.

Section C: The State's Implementation Plan

This section responds to each of the questions listed in the CMS SMHP Template and provides an overview of the activities the Department will undertake to administer and oversee the Medical Assistance EHR Incentive Payment Program.

Figure C.1: Section C Questions from the CMS SMHP Template

Describe the methods OMAP employs and what activities OMAP will undertake to administer and oversee the Medicaid EHR Incentive Program:
1. How will the SMA verify that providers are not sanctioned, are properly licensed/qualified providers?
2. How will the SMA verify whether EPs are hospital-based or not?
3. How will the SMA verify the overall content of provider attestations?
4. How will the SMA communicate to its providers regarding their eligibility, payments, etc.?
5. What methodology will the SMA use to calculate patient volume?
6. What data sources will the SMA use to verify patient volume for EPs and acute care hospitals?
7. How will the SMA verify that EPs at FQHC/RHCs meet the practices predominately requirement?
8. How will the SMA verify *adopt, implement or upgrade* of certified electronic health record technology by providers?
9. How will the SMA verify *meaningful use* of certified electronic health record technology for providers' second participation years?
10. Will the SMA be proposing any changes to the MU definition as permissible per rule-making? If so, please provide details on the expected benefit to the Medicaid population as well as how the SMA assessed the issue of additional provider reporting and financial burden.
11. How will the SMA verify providers' use of *certified electronic health record technology*?
12. How will the SMA collect providers' meaningful use data, including the reporting of clinical quality measures? Does the State envision different approaches for the short-term and a different approach for the longer-term?
13. * How will this data collection and analysis process align with the collection of other clinical quality measures data, such as CHIPRA?
14. What IT, fiscal and communication systems will be used to implement the EHR Incentive Program?
15. What IT systems changes are needed by the SMA to implement the EHR Incentive Program?
16. What is the SMA's IT timeframe for systems modifications?
17. When does the SMA anticipate being ready to test an interface with the CMS Registration and Attestation System (R&A))?
18. What is the SMA's plan for accepting the registration data for its Medicaid providers from the CMS R&A system (e.g. mainframe to mainframe interface or another means)?
19. What kind of website will the SMA host for Medicaid providers for enrollment, program information, etc.?
20. Does the SMA anticipate modifications to the MMIS and if so, when does the SMA anticipate submitting an MMIS I-APD?
21. What kinds of call centers/help desks and other means will be established to address EP and hospital questions regarding the incentive program?

Section C: The State's Implementation Plan

Describe the methods OMAP employs and what activities OMAP will undertake to administer and oversee the Medicaid EHR Incentive Program:
22. What will the SMA establish as a provider appeal process relative to: a) the incentive payments, b) provider eligibility determinations, and c) demonstration of efforts to adopt, implement or upgrade and meaningful use certified EHR technology?
23. What will be the process to assure that all Federal funding, both for the 100 percent incentive payments, as well as the 90 percent HIT Administrative match, are accounted for separately for the HITECH provisions and not reported in a commingled manner with the enhanced MMIS FFP?
24. What is the SMA's anticipated frequency for making the EHR Incentive payments (e.g. monthly, semi-monthly, etc.)?
25. What will be the process to assure that Medicaid provider payments are paid directly to the provider (or an employer or facility to which the provider has assigned payments) without any deduction or rebate?
26. What will be the process to assure that Medicaid payments go to an entity promoting the adoption of certified EHR technology, as designated by the state and approved by the US DHHS Secretary, are made only if participation in such a payment arrangement is voluntary by the EP and that no more than 5 percent of such payments is retained for costs unrelated to EHR technology adoption?
27. What will be the process to assure that there are fiscal arrangements with providers to disburse incentive payments through Medicaid managed care plans does not exceed 105 percent of the capitation rate per 42 CFR Part 438.6, as well as a methodology for verifying such information?
28. What will be the process to assure that all hospital calculations and EP payment incentives (including tracking EPs' 15% of the net average allowable costs of certified EHR technology) are made consistent with the Statute and regulation?
29.What will be the role of existing SMA contractors in implementing the EHR Incentive Program – such as MMIS, PBM, fiscal agent, managed care contractors, etc.?
30. States should explicitly describe what their assumptions are, and where the path and timing of their plans have dependencies based upon: - The role of CMS (e.g. the development and support of the National Level Repository; provider outreach/help desk support) - The status/availability of certified EHR technology - The role, approved plans and status of the Regional Extension Centers - The role, approved plans and status of the HIE cooperative agreements - State-specific readiness factors

The HIT Executive Committee created a process flow for the Medical Assistance EHR incentive payment process that takes the Department, eligible professionals, hospitals, and the MMIS system from start to finish. Please refer to Appendix III for this process flow. The process flow outlines the Department's process for administering and overseeing the Medical Assistance EHR Incentive Payment Program. In the narrative below, the Department describes each step and indicates which step(s) of the process flow help to respond to each CMS template question. The term "providers" is used to refer to both eligible professionals and eligible hospitals unless otherwise noted.

In this section, as with the other sections, the Department is requesting enhanced 90/10 match for all activities unless otherwise noted. In response to question 23 in section C of the CMS template, the

Department has established a process with its budget office that helps the Department to closely monitor program costs and help to ensure that the EHR incentive program costs are not comingled with enhanced MMIS match. Expenditures and other program information are projected and reported as required on the CMS-37 and CMS-64. This includes the costs associated with the eligibility and payment system described below, the Medical Assistance Provider Incentive Repository (MAPIR).

Please note that some of the process issues are also described further in other sections, e.g., oversight issues are addressed in Section D and program performance measurement is addressed in Section E.

Step 1: The Department conducts education and outreach strategy for providers and stakeholders (Response to Questions #4, 14, 19, 21, 26, and 27)

The Department is responsible for communicating with providers about enrolling in the Medical Assistance incentive program and performs the following:

- Informs providers of the EHR Incentive Program and the requirements for participation including the application process, patient volume, and meaningful use requirements for Stages 1, 2, and 3.
- Coordinates with the Regional Extension Centers (RECs) and other resources to provide technical assistance and information related to EHR adoption, implementation, upgrade, and meaningful use of EHRs.
- Informs providers about how to begin the enrollment process and maintain registration information with the CMS Registration and Attestation System (R&A).
- Informs providers that they will be asked for a National Provider Identifier (NPI) when they register with the R&A and are encouraged to get an NPI if they do not already have one, e.g., providers who practice predominantly in a health center.
- Informs providers that, to participate in the incentive program, they must be participating Medical Assistance providers. (The Department cannot conduct proper oversight, or reclaim overpayments if they are not enrolled.) Since the incentive program includes providers who do not normally enroll in MA, these providers are encouraged to enroll in MA and the Department works directly with enrollment to confirm participation.

In order to communicate this information to providers, the Department has developed communications tools and presentations that educate and inform providers and key stakeholders about the program. The Department released a series of Medical Assistance Bulletins (MABs) to describe Pennsylvania's Medical Assistance EHR Incentive Program; including: program requirements, eligible provider types, the R&A, program monitoring and oversight, the application, and attestation and audit processes. The Department holds webinars to discuss key topics and to provide a walk-thru of the MAPIR system prior to a key release. In addition to the Medical Assistance Bulletins, the Department developed and published Provider Quick Tips, Provider Manuals for both hospitals and professionals, and Remittance Advice banner messages to address such topics as:

- Location of HIT information on the Department's website and how to register with the Department's listserv that the Department uses to make announcements and provide information on a weekly basis;
- Medical Assistance incentive payment process and links– the R&A, getting an NPI, requirements to be a Medical Assistance-enrolled provider, registering with the MMIS Provider Portal, pre- and post-pay review updates and updates as needed;
- How to begin the application process with Pennsylvania Medical Assistance once the provider has successfully registered at the R&A as well as the importance of providing an email address at the R&A and two email addresses in the MAPIR application for communication purposes; and
- Messages and other materials to inform providers of changes to the application and attestation process in the six years of participation including multiple stages of meaningful use attestations, and modification options.

As part of the communications process and strategy, the Department will continue to meet with provider groups both through the MAAC HIT workgroup and individually. These groups include the Pennsylvania Medical Society, the Pennsylvania Association of Community Health Centers, the Pennsylvania Chapter of the American Academy of Pediatrics, the Pennsylvania Academy of Family Physicians, and the Hospital and Health System Association of Pennsylvania.

In addition, Pennsylvania's Regional Extension Center (REC) was approved for federal funds under ARRA in April 2010, and the Department is collaborating with the REC to perform Medical Assistance provider outreach and education activities. For example, the REC held a series of regional meetings to educate providers about the EHR Incentive Program in which the Department and the REC discussed the EHR Incentive Program and how to access the technical support of the REC. As part of the Department's work with the CHIPRA grant program, the REC had also been engaged with CHIPRA grantees to assist when needed with their EHR implementations.

From the inception of the program until the end of 2015, the Department disbursed more than $167,798,713 in incentive payments to 10,942 eligible professionals and $181,496,382 to 428 eligible hospitals totaling $349,295,095. There continues to be a great deal of interest in the EHR Incentive Program and the Department continues to field numerous questions from providers, consumer advocates, other state agencies, and other stakeholders. Many of the questions raised to the Department are a result of misinformation, conflicting information, or a simple lack of information; hence it is important that we continue to work with CMS and ONC to minimize the opportunity for misinformation as well as inconsistent information. The Department believes that a communications plan with consistent messages and multiple venues for information distribution helps to raise provider awareness, understanding, participation, and helps to retain providers in the incentive program and have them continue to be meaningful users. To ensure that all educational materials are accurate and communicate a uniform message, the MA HIT Initiative operations team has developed and will

continue to update and/or approve provider education and outreach materials in coordination with the other bureaus and offices in the Department, the REC, CMS, ONC, and others.

In terms of materials related to adoption and meaningful use of EHRs, the Department will continue to work with its partners such as the RECs and the federally-funded National HIT Research Center to gather existing materials and tools that describe model practices and provide background and provide technical assistance on adoption, implementation, upgrade, and meaningful use of EHRs. Team members from the Department attend Community of Practice calls and review materials available on the CMS Technical Assistance website to keep up-to-date on CMS guidance and to distribute the most recent information to providers and stakeholders.

In addition to the materials and partner entities described above, providers are able to obtain information about the Pennsylvania EHR Incentive program via the Department website, the Pennsylvania's MMIS provider internet portal, and through the Department's EHR support center. The Department developed an EHR support center to allow providers and other stakeholders to pose questions about the Medical Assistance EHR Incentive Program. An inquiry database was designed to track and report information about EHR Incentive Program-related inquiries, e.g., reasons, provider information, and resolution. We have created over 7,000 inquiries since the inception of the database. These inquiries include multiple contacts per inquiry and there are additional inquiries that were responded to but not entered into the database. The information the Department is gathering from provider inquiries e.g., to gain a sense of how many providers will continue to apply for payments, will help with future administration of the EHR incentive program. The Department has also developed survey tools to assess the ease in using MAPIR and provider understanding of the EHR Incentive Program.

In the case of materials for Medical Assistance recipients, the Department is coordinating with CMS and ONC as part of their efforts to educate recipients. The Department participates on the Authority Communications Workgroup which is helping to develop a communications strategy for providers, patients, and payers on the value of HIE and to address privacy and security concerns. The Department also continues to engage the members of the MAAC to review and provide feedback on the materials as they relate to consumers. The Department has created a Best Practices Focus Group that meets regularly to discuss important program topics and then share the information with the other providers and hospitals. The Department has also designed a Provider Experience Day where representatives from key organizations come to the office to test the MAPIR system prior to an important release. This group provides feedback that is then shared with other provider groups and hospitals.

Step 2: Providers enroll in the CMS Registration and Attestation System (R&A) (Response to Questions #1, 16, 17, 18, 19)

Before the provider can apply to participate in the program and receive their first EHR incentive payment, the provider must enroll at the R&A. The goal of the R&A is to ensure that there are no duplicate or improper payments resulting from providers switching among state Medical Assistance EHR

Incentive Programs or between Medical Assistance and Medicare (applies only to eligible professionals; most hospitals can receive both Medical Assistance and Medicare incentive payments). The Department created the **MAPIR** system in collaboration with a number of other state Medicaid agencies to interface with the R&A. There are currently 13 states participating in the MAPIR Collaborative. The R&A collects from providers the types of information listed below:

- NPI: National Provider Identifier where the source system is NPPES (National Plan and Provider Enumeration System)
- CCN: Provider number (for hospitals)
- Payee NPI: National Provider Identifier of the entity receiving payment (EPs)
- Payee TIN: Taxpayer Identification Number that is to be used for payment
- Personal TIN: Personal Taxpayer Identification Number (EPs)
- Program Option: Eligible professional's choice of program to use for incentives. Valid values include Medicare or Medical Assistance. For hospitals, a selection of dually eligible is available.
- State: The selected State for Medical Assistance participation
- Provider Type: Differentiates types of providers as listed in HITECH legislation
- Email address of applicant
- Certified EHR Technology number (optional)

The R&A also interfaces with other sources of provider information including the Medicare Exclusions Database which helps to identify providers who are ineligible due to exclusions or sanctions.

Providers are not required to go back to the R&A in order to receive future payments. However, providers may go back to the R&A and update their information. When providers update their R&A information, MAPIR will receive an updated B6. The updated B6 will be evaluated to ensure the provider is still eligible to participate in the program. In the event the provider cancels their R&A registration MAPIR receives a cancel B6 transaction and the provider may not apply for future incentive payments.

The Department will issue outreach materials to make sure that providers are aware of the process for applying for incentive payments in payment years two and beyond.

Pennsylvania will allow a 90-day grace period or attestation tail, for hospitals and professionals; after the end of the calendar/program year for both eligible hospitals and eligible professionals. The grace period may be expanded due to program requirements. In such cases, the state will supply CMS with reasoning for an extended grace period. Upon approval by CMS, the state will communicate with all providers and change the grace period in MAPIR. For Program Year 2015, CMS approved the Department's request to extend the grace period for dually eligible hospitals to March 31, 2016; eligible professionals to July 31, 2016; and Children's Hospitals to December 31, 2016.

Step 3: The R&A provides information to the Department through MAPIR interfaces about providers who have applied for the incentive program (Response to Questions #14, 18, 20, 29)

Step 3 describes the Pennsylvania Medical Assistance EHR Incentive Program application process. Applicants must register with CMS at the CMS Medicare and Medicaid EHR Incentive Program Registration and Attestation System (also known as the R&A) website (https://ehrincentives.cms.gov/hitech/login.action) to apply for and receive their first EHR incentive payment. For future payments, providers do not need to register at the R&A unless the information that they initially provided at the R&A has changed. When providers change information, it will be sent by CMS to MAPIR via the National Level Repository (NLR). In the event the provider cancels their registration, CMS will again use the NLR to notify the state and MAPIR will change the provider's status to ineligible.

The Department, and in particular the Bureau of Data and Claims Management, designed MAPIR to track and act as a repository for information related to payment, applications, attestations, auditing, appeals, oversight functions, and to interface with CMS' R&A NLR. The MAPIR system is used to process most of the stages of the provider application process including:

- Interface to the R&A
- Provider Applicant Verification
- Provider Applicant Eligibility Determination
- Provider Applicant Attestation
- Provider Application Payee Determination
- Application Submittal Confirmation/Digital Signature
- Payment Determination (including R&A confirmation)
- Payment Generation

The Department designed MAPIR to gather information from existing sources on the provider during the application process in a manner that reduces burden for the applicant. The Pennsylvania Medical Assistance EHR Incentive Program Eligible Professional Provider Manual and Eligible Hospital Provider Manual are resources designed by the Department for providers who wish to learn more about the Pennsylvania Medical Assistance EHR Incentive Program including detailed information and resources on eligibility and attestation criteria, as well as instructions on how to apply for incentive payments. The provider manuals also provide information on how to apply to the program via MAPIR, which is the Department's web-based EHR Incentive Program application system. As the program has evolved, MAPIR has been enhanced to meet the new CMS directed program requirements. MAPIR has been most recently enhanced to accept program years 2015 and 2016 Modification Rule meaningful use objectives for Stage 1 and Stage 2. Previously, 2013 meaningful use measures, 2014 stage 1 and stage 2,

then the Program Year 2014 flexibility updates have been completed. Currently, the 2015-2017 Modification rule and in the near future the Stage 3 updates will be finalized.

The MAPIR application was added to the existing MMIS Enterprise architecture. Providers can access MAPIR through Pennsylvania's secure MMIS provider internet portal, PROMISe™: https://promise.dpw.state.pa.us/portal/. To access MAPIR via the PROMISe™ internet portal, the user must first be an enrolled Medical Assistance provider. To enroll as a Medical Assistance provider, applicants must complete the Medical Assistance enrollment process.

Additionally, once a provider incentive application is approved for payment, payments are generated through the financial system. This allows the Department to leverage current financial transactions, including payment via check or EFT, remittance advice notifying the provider of payment, and 1099 processing. Communication via file transfer protocol (FTP) is performed with the R&A.

In addition to the provider interface, MAPIR has interfaces which Department staff use to review and process provider applications and attestations. For example, Department users are able to attach notes to the MAPIR application, attach documents to provider records, track application and decision status, disseminate provider correspondence via email and generate reports. In addition, providers are able to securely upload supporting documentation to their attestations and have access to current and completed applications in MAPIR.

Each year, additional funding has been used to enhance MAPIR to meet CMS and other regulatory requirements. To date, MAPIR has been enhanced regularly to meet the following: new NLR transaction requirements; meaningful use measure changes in both Program Year 2013, and Program Year 2014; Program Year 2014 Flexibility options; Program Year 2015 and 2016 Modification Rule options; and the annual update to CQMs. Additional funding will be required to maintain the quarterly NLR updates, the NPRM for Program Year 2015, Stage 3 meaningful use objectives, objective changes required for Program Years 2017 and 2018, annual CQM updates and unknown future changes.

The initial costs of developing the business requirements for MAPIR were included in the P-APD and the Department submitted both MMIS and HITECH sections of the I-APD for the MAPIR implementation costs. The MMIS section of the I-APD included Pennsylvania's share of the costs of the "core" MAPIR system that all states in the MAPIR Collaborative use and also Pennsylvania's costs for the "custom" Pennsylvania-specific MAPIR features. Each state in the MAPIR Collaborative splits the total costs of developing the MAPIR core system and applies for 90 percent enhanced match from CMS for their share. The custom interfaces that need to be implemented by each state are also reimbursed at 90 percent federal match. Implementation costs associated with federal fiscal year 2016 system modifications are described in Appendix A of the FFY 2016 HIT I-APD. Implementation costs associated with federal fiscal years 2017 and 2018 to implement the final pieces of the 2015-2017 Modification Rule will be requested June of 2016 via the Core MAPIR I-APD.

Step 4: MAPIR runs edits on information from R&A to determine which providers to contact for the application process (Response to Questions #1, 15, 16, 18)

Not all applications received by CMS via the NLR will meet the incentive program requirements. Those providers that do not meet program requirements are placed on a report and are not allowed immediate access to MAPIR. A MAPIR report is reviewed and the providers are advised the reason they do not have access to MAPIR. Providers that do not meet eligibility requirements will be asked to go back and re-apply at the R&A. For example, providers must be enrolled as Medical Assistance providers without disqualifying sanctions or exclusions in order to qualify for the EHR Incentive Program. Providers who are not enrolled are required to enroll with Medical Assistance prior to accessing MAPIR, (see "Step 3" above). Information on the Department's website (www.PAMAHealthIT.org) instructs providers that they must be enrolled and how to do so. Likewise, enrolled providers that do not meet the eligible provider type (Physician, Dentist, Hospital, etc.) on the MMIS enrollment file cannot access MAPIR and are directed to the Department for assistance.

Upon receiving information from the R&A, MAPIR performs format edits (e.g., Tax ID is numeric and nine digits, CMS Certification Number is six digits, State code is PA, program type is Medical Assistance/Medicaid, duplicate checking) in addition to determining whether the provider is on the MMIS Provider file.

Upon enrollment, provider data is compared to state and federal databases including, but not limited to Pa Department of State and Department of Health license files, the Social Security Administration's (SSA) Death Master File (DMF), Office of Inspector General (OIG) and General Services Administration's (GSA) sanctions through the OIG System of Award Management (SAM) Excluded Parties List System (EPLS) and the MED Exclusions database which includes the OIG List of Excluded Individuals and Entities (LEIE) as well as the monthly thereafter (currently in the process of implementing automated monthly checks) as well as the CMS Provider Enrollment, Chain and Ownership System (PECOS) database. If applicable sanctions are discovered, the provider is not permitted to enroll or would be appropriately dis-enrolled and therefore prevented from completing a MAPIR application or receiving a HIT incentive payment.

If the enrolled provider has a valid logon ID and provider type, MAPIR performs an automated check based on the NPI number associated with the logon ID or any service locations associated with that logon ID to find a match on an R&A record. If a match is found, the provider is verified and can begin the application process, but if no match is found then the provider is placed on a MAPIR report and is contacted as necessary to resolve the reason why the provider cannot access MAPIR.

If a provider does not pass the MAPIR eligibility requirements, then the application is placed on a MAPIR report called the 'Mismatch Report.' The report is reviewed for possible actions as listed below:

- Refers providers back to the R&A for errors on data provided at the R&A, e.g., incorrect Payee Tax-ID;

- Refers non-participating Medical Assistance providers to the Office of Medical Assistance Provider Enrollment for assistance with program enrollment;
- Resolves discrepancies between the provider type entered at the R&A and the provider type stored in the MMIS, e.g., non-HITECH provider type in MMIS as well as NPI/Payee Tax-ID combinations that are not present in the MMIS; and,
- Ensures that providers have valid pay-to and fee assignments on the Pennsylvania Medical Assistance provider file that align with the information from the R&A.

If eligibility requirements are passed, then the provider proceeds to Step 5. If eligibility requirements are not passed, then the provider will be contacted to explain the reason for the suspension (e.g., provider not enrolled, etc.) and who to contact to discuss corrective action. The Department will work with those whose applications have been suspended to make every effort to resolve inconsistencies and errors before cancelling the application.

If the provider passes the MAPIR eligibility requirements in Step 4, applicants will be able to refer to information on the Department's website about how to access the MAPIR application through the PROMISe™ Provider Portal. Providers who do not pass the eligibility requirements in Step 4 will not be able to access MAPIR. There is educational material and information on how to access MAPIR available on the Department's website (including Quick Tips) and on Pennsylvania's MMIS provider internet portal. The Department's EHR support center responds to inquiries about the EHR Incentive Program and triages inquiries as appropriate, e.g., to the Department's website or to subject matter experts to make sure those questions are answered accurately, consistently, and in a timely manner.

Step 5: Providers submit application in MAPIR system and MAPIR concurrently runs system edits (Response to Questions #1 – 7, 14, 25, and 26)

Providers may obtain information about the application process via the Department's EHR support center, the Department's website, the weekly ListServ messages, webinars, provider experience days, best practices focus groups and other education and outreach materials. The Department has developed accompanying guides for the MAPIR system to walk applicants through the application and attestation process. The accompanying guides explain that eligible professionals must attest to Medicaid patient volume by using the individual methodology or group proxy methodology. The Department verifies that EPs are currently and actively seeing Medical Assistance recipients (or needy individuals if the EP practices predominately in a FQHC or RHC) by reviewing claims history for the EP. MAPIR has the capability to suspend and deny applications based on system logic that has been enhanced to meet eligibility updates. After the application is submitted by the provider, MAPIR accesses PROMISe™ and determines the number of claims or encounters for the volume period the provider entered on their application. In addition, MAPIR runs a program to check for hospital-based place-of-service indicators. This data is then used to validate the providers' eligibility. Providers not meeting volume eligibility are contacted via email to supply additional information. Based on provider-supplied documents a decision is made if the provider has met the applicable program requirements.

The Department also uses the Pennsylvania Medicaid Hospital Cost Reports as a primary data source when evaluating an EH's incentive payments because the reports align with the incentive calculation data elements as well as the required timeframes described in the initial and updated Final Rules.

The Department assists providers with the application process through the use of provider manuals that can be found on the Department's website. These provider manuals include MAPIR screen shots and there are "hover bubbles" within the MAPIR application that a provider can hover over to obtain additional instructions and information during the application process. For example, there are hover bubbles over the patient volume questions to describe the requirement and how to complete this section. Providers also receive notifications while in MAPIR that alert them if they enter invalid values in a field or do not complete a required field.

MAPIR captures the information submitted during the application and attestation process. MAPIR is designed to allow user applicants to save the partially-completed application, exit the system, and return later to complete the form. If a record is suspended in MAPIR, the provider is instructed to contact the MA Health Initiative team for assistance, in order to resume the application process. The eligible professional and eligible hospital provider manuals give a more detailed explanation of the MAPIR application process. The provider manuals can be found here at http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/maprovincentiverepos/index.htm under the MAPIR resources section. Please see Appendix III for additional information.

Step 6: The Department reviews pended provider application and attestation and determines eligibility or addresses reasons for suspension (Response to Question #22)

The MAPIR system includes a series of "hover bubbles" and validation messages to help applicants submit a complete and accurate application. Both hover bubbles and validation messages are configurable and have been updated to meet new program requirements. As applicants move through the various screens, MAPIR displays key information about completing each tab through information pages which display details about what is needed to complete the fields in the tab and guidance on what to include in the response.

Once the provider has completed the application and attestation, MAPIR provides a list of applicants that have completed the MAPIR application and the Department uses this list to begin the pre-payment eligibility determination review process. Applicants can withdraw their applications and attestations through cancelling the application at the R&A or by aborting the application in MAPIR up to the point when the Department sends the applicant's information to the R&A for an EHR incentive payment. MAPIR Operations reviews applications submitted in MAPIR to review volume eligibility, validate that the provider has adopted, implemented, upgraded to or is meaningfully using an EHR system that is a certified product, and hospital incentive amount prior to making incentive payment. If an issue with the application is identified in the pre-payment eligibility process, an inquiry is sent to the MA HIT initiative

staff who notify the designated applicant contact via an email that includes the issue that has been identified and information on how to contact the EHR support center to resolve the issue.

The Department's goal is to review applications, any additional information, and make a decision about the applicant's eligibility, within six weeks of receiving an application. However, the process of working with providers on suspended applications and the high volume periods we experience, it will take longer than six weeks. Department team members communicate with providers by phone and email as necessary to direct applicants to education materials and to resolve any issues.

Initially the Department manually-processed applications, but the application process has been improved. A report of all pending application data elements is downloaded weekly into an Excel spreadsheet. The spreadsheet is designed to review data elements in the application to ensure minimum requirements are met. The Department then reviews each application and reaches out to the provider for more information or to initiate the payment process. A historical database of the application review is maintained.

Once the Department has reviewed the application and gathered additional information, the provider either receives notification that his/her application has been approved and proceeds to step 10, or move to step 7 in the case of a denial. Payments are made one time per approved application.

Step 7: The Department denies provider's application (Response to Question #22)

Once the review is complete, the Department sends email correspondence via MAPIR to providers who do not appear to be eligible for an incentive payment indicating a "finding" of not eligible which describes the reason why the provider does not appear eligible and describes appeal rights. Providers have up to 33 days to file an appeal with the Bureau of Hearings and Appeals. The applicant is directed to send a copy of the appeal to the EHR Incentive Program. The Department informs CMS of the denial and provides a reason code for each denial. Appeals related to this program are processed like all other provider appeal issues.

Providers have the right to appeal certain Department decisions related to the Medical Assistance EHR Incentive Program. Examples of appeal reasons include, but are not limited to, the following:

- Applicant is determined ineligible for the EHR Incentive Program;
- Applicant has received an overpayment for the EHR Incentive Program; or,
- Appeal of incentive payment amount, (e.g., pediatrician or hospital payment).

Step 8: Provider application clears MAPIR system edits and MAPIR generates approval email with program information to provider (Response to Question #4)

MAPIR displays the entire completed application, including confirmation of information entered at the R&A, for confirmation by the applicant prior to the application being submitted.

MAPIR displays instructions for printing the summary information along with Department contact information regarding application inquiries. MAPIR also generates correspondence to the provider indicating that the application is complete and pending final review with the R&A, and the provider is notified of the payment status. Providers have access to all of their applications that have been processed in Pennsylvania's MAPIR system.

Step 9: MAPIR submits a list of providers who pass edits to CMS' R&A for final confirmation (Response to Question #1)

Payments cannot be made until the application is error free and submitted to the R&A for final duplicate and sanction/exclusion verification. Once the Department informs the R&A that a payment is ready to be made and CMS approves the payment, the R&A "locks" the record so that the provider cannot switch programs or states before the payment is issued.

Step 10: The Department sends approval email to provider with program and payment information (Response to Question #4)

MAPIR sends correspondence via email to the provider applicant notifying the provider that the application has been approved, and an EHR incentive payment will be issued to the provider or assignee. The correspondence includes information about the estimated timing of the payments.

Step 11: MMIS issues payment and MAPIR submits payment information to the R&A (Response to Questions #24, 25)

MAPIR issues a remittance advice and makes the incentive payment using a gross adjustment. A unique gross adjustment reason code is generated and payments are processed with the weekly Medical Assistance Financial Cycle. The payment method (paper, electronic funds transfer (EFT)) is driven by the information used for claims payment on the provider enrollment file. A remittance advice provides information on the incentive payment that has been made. Upon completion of the payment cycle, the MMIS returns payment data to MAPIR. MAPIR generates a payment transaction including pay information to the R&A on a weekly basis). The provider applicant/payee (to whom the payment is assigned) combination must be valid in the MMIS in order to make payment.

The Department payment schedules are consistent with program regulations that are discussed in more detail in the provider manuals located at http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm under the MAPIR resources section.

Using the MAPIR system in combination with establishing processes for reviewing applications and attestations and generating reports showing the status of a given application allows the Department to make timely provider incentive payments. The Department anticipates making payments to EPs within 30 days of their application approval date and within five weeks of the application completion date for

hospitals depending on whether or not additional outreach to the hospital, or information from the hospital, is necessary to approve the application.

Step 12: Post-payment oversight and outreach activities (Response to Questions #3, 6 – 8, 26)

As described in the above steps, the MAPIR system reviews eligibility requirements which help the Department conduct payment oversight at the point of application and attestation. Section D describes the Department's proposed post-payment oversight activities in detail, but, in short, the Department's oversight efforts focus on two distinct areas: 1) provider eligibility through pre-payment auditing, 2) post-payment auditing to ensure proper payment, adoption, implementation and upgrade, and meaningful use of certified EHRs.

The Department has identified areas of risk in the eligibility determination process and is using this information to design studies and application and payment reviews that will help to mitigate the risk of making an improper payment. For example, the Department is conducting regular audit studies to review information submitted in attestation forms and from other areas, e.g., validating the use of a certified product, meaningful use information, patient volume, FQHC/RHC predominantly practice attestations, and assignment of payments. The Department understands the programmatic risks of improper payments and will continue to conduct measures and studies to mitigate these risks.

Step 13: Ongoing technical assistance for adoption, implementation, upgrade and meaningful use of EHR (Response to Questions #8, 9)

Given the history of suboptimal EHR implementations across the nation, the Department is aware that having the incentive payments may motivate providers to begin the adoption process, but the incentive payments alone are not sufficient for successful adoption, implementation, upgrade and meaningful use of certified EHRs. Using the same communications strategy as described in Step 1, the Department is considering collaborating with partners and organizations that can provide technical assistance and other resources to educate providers about the EHR Incentive Program and also to provide technical assistance and information on EHR Adoption, Implementation, Upgrade, and meaningful use of certified EHRs.

In addition to reviewing providers who return for additional payments, the Department has generated reports of providers who do not apply for year-two-and-beyond incentive payments and targeted these providers for technical assistance through the REC and other means. Encouraging providers to return for future payments and thus become meaningful users is an important goal for the Department and will be included as a program evaluation metric in Section E. As the MU program has expanded from Stage 1 into Stage 2 and eventually Stage 3, the Department has provided guidance to the providers through webinars, tip sheets, web site updates, ListServ messages and more.

For example, PA REACH has collaborated closely with the Department's OMAP HIT Coordinator for over 5 years to ensure that providers could run reports to verify that they have the 30% volume (20% for pediatricians). Staff is on site with EPs to produce the reports needed for the core and menu reporting

requirements. PA REACH has cooperated with the Department to work with practices to provide any audit documentation, for those identified for audit. Many times, questions and issues arise related to MU. The Department and PA REACH have worked closely together to answer provider questions, address eligibility issues, and work together to resolve issues. The REC has a reciprocal relationship with the Department for dissemination of information. The OMAP HIT Coordinator will include pertinent REC information in the OMAP weekly email, and the REC includes information regarding the Medicaid incentive program in its weekly e-blast to its REC providers. The Executive Director and Director participate in the Best Practices group meetings, and share information gained during those meetings with staff and providers around the state. Going forward, we will continue to work closely with the Department to support new initiatives. The Executive Director also participates with the OMAP HIT Coordinator in a monthly meeting with key stakeholders around the State. The REC applied for and received a no cost extension (NCE) from ONC, and has already asked the Department to identify Behavioral Health sites and PCPs that may be in need of assistance implementing and meaningfully using EHRs through April 2016. The OMAP Coordinator provides regular reports for AIU to the REC to help and identify potential sites for assistance.

Step 14: Notification of meaningful use requirements for Year 2 and beyond (Response to Questions #10 – 12)

There have been significant changes to the program since the inception in 2011. For this reason, a MAPIR Change Management Committee and Workgroup has been formed. The CMC and workgroup consist of other member states of the collaborative. Both groups meet weekly to review proposed and new CMS requirements. Changes to MAPIR are then developed to meet the new requirements. Since inception there have been many changes regarding Stage, Flexibility, CQMs, and MU Requirements.

DHS has created a system and a repository to collect CQMs electronically. The data for the CQMs has been obtained through QRDA I and QRDA III files. The process to collect CQMs through C-CDA files has begun and will continue to progress through program year 2017.

In addition, the Department is working in partnership with the Authority and REC to identify the correct point in the EHR adoption process to start a conversation with the provider regarding HIE. Ultimately, the Department will notify the Authority of providers who reach this milestone. The Authority will then reach out to provide information regarding HIE and offer assistance to the provider in selecting an HIO that aligns with their requirements, preferably an HIO that received onboarding grant money to build an interface to the EHR system being used by this provider. The Authority will also inform both the provider and their selected HIO of any incentive or subsidy programs currently available to help enroll the provider in the HIO.

Step 15: meaningful use payment request or renewal (Response to Questions #9, 11, 12, 13)

The Department allowed eligible professionals to attest to meaningful use after the first program year (2011) and accepted hospital meaningful use attestations if these hospitals are dually eligible for Medical Assistance and Medicare EHR incentive programs and are deemed meaningful users under Medicare by CMS. The program has been continually enhanced since the inception of the program.

Additionally, the updated MAPIR system includes the most recent list of federally-certified EHR systems to ensure that providers continue to acquire and use federally-certified systems. The MAPIR system performs a real-time call-out to ONC to ensure the provider is using a certified EHR system. Then, providers are required to show proof of ownership of a certified EHR system that matches their application prior to payment.

In the first two years of the EHR Incentive Program, the Department anticipated that MAPIR would be sufficient to collect and store the information needed to process eligibility and make payments. The Department anticipated that it would need to build or contract for a new data store in future years as the meaningful use criteria progresses past attestations and requires more sophisticated data fields and storage volume to process clinical quality measures. This is being done currently with the Super Extract report.

The Department is also working closely with the Department of Health and the Authority to help providers meet, via the PHG, public health meaningful use requirements related to reporting to and interfacing with the immunization registry, syndromic surveillance system, cancer registry, and electronic lab reporting. The Departments of Human Services and Health will:

- Assist providers to meet meaningful use requirements;
- Identify and quantify level of support needed to help "onboard" providers to the immunization registry, syndromic surveillance system, cancer and electronic lab reporting;
- Identify providers that have submitted information electronically to the immunization registry, syndromic surveillance system, cancer and electronic lab reporting and;
- Identify and publicize list of EHR systems.

What will be the process to assure that Medicaid provider payments are paid directly to the provider (or an employer or facility to which the provider has assigned payment) without any deduction or rebate? (Response to Questions #23, 25)

When an eligible professional registers at the CMS R&A website, the EP chooses who should receive the payment. When the R&A details are sent to PA, the information is matched against our MMIS (PROMISe™) System. If the EP assigned the payment to another entity, then there needs to be an active fee assignment to that entity in order to proceed with that application.

Payments cannot be made until the application is error-free and the D-16 NLR transaction is submitted to the R&A for final duplicate and sanction/exclusion verification. Once the Department informs the R&A that a payment is ready to be made and CMS approves the payment, the R&A "locks" the record so that the provider cannot switch programs or states before the payment is issued. Beginning Nov. 1, 2015, the Department began requiring meaningful use documentation be uploaded and reviewed prior to payment instead of reviewing this documentation during the post-pay audit.

If at any time during the application process, the Fee Assignment becomes inactive, the application process will automatically stop. The process will not continue again until the Fee Assignment becomes active again.

Pennsylvania's MMIS (PROMISe™) makes the incentive payment using a gross adjustment and issues a remittance advice to the provider or assigned payee. A unique gross adjustment reason code is generated and payments are processed with the weekly Medical Assistance Financial Cycle. The payment method (paper, electronic funds transfer (EFT)) is driven by the information used for claims payment on the provider enrollment file. A remittance advice provides information on the incentive payment that has been made. Upon completion of the payment cycle, the MMIS returns payment data to MAPIR. MAPIR generates a payment transaction including pay information to the R&A on a weekly basis). The provider applicant/payee (to whom the payment is assigned) combination must be valid in the MMIS in order to make payment.

The full payment will show on the remittance advice and will be made. The only time that an EHR incentive payment would be reduced is if the EP has public debts under a collection mandate.

Also, per the guidance from CMS, we follow this guideline in response to the provision requiring that the incentive be paid "without deduction or rebate" allowing us to offset mandatory public debt collection (e.g., wage garnishment and claims overpayments) with the incentive. Per CMS: The requirement that the incentives be passed to providers without deduction or rebate refers to requiring that the state not use the incentive payment to pay for its own program administration or to fund other state priorities. However, where there are public debts under a collection mandate, CMS considers the incentive as paid to the provider, even when part or all of the incentive may offset public debts. States should apply the same process that they use for other payments to providers in order to recoup public debts.

What will be the process to assure that Medicaid payments go to an entity promoting the adoption of certified EHR technology as designated by the state and approved by the US DHHS Secretary, are made only if participation in such a payment arrangement is voluntary by the EP and that no more than 5 percent of such payments is retained for costs unrelated to EHR technology adoption? (Response to Questions #24, 26)

When an eligible professional registers at the CMS R&A website, the EP chooses who should receive the payment. When the R&A details are sent to PA, the information is matched against our MMIS (PROMISe™) System. If the EP assigned the payment to an entity, then there needs to be an active fee assignment to that entity in order to proceed with that application.

The provider, through their EHR incentive program attestation, confirms that he or she is receiving the EHR incentive payment as the payee or assigned the incentive payment voluntarily to the selected payee and that the provider has a contractual relationship that allows the assigned employer or entity to bill for the providers services

Payments cannot be made until the application is error free and submitted to the R&A for final duplicate and sanction/exclusion verification. One of the components of the pre-pay process is to validate the EP

and/or EH is adopting, implementing, upgrading or meaningfully using a Certified EHR System. As part of the pre-pay process, documentation is required to validate that a Certified EHR System is being (or is in the process of being) utilized with the understanding the incentive money is used to off-set costs incurred with this system. The review process does not proceed until the appropriate documentation has been received.

Once the Department informs the R&A that a payment is ready to be made and CMS approves the payment, the R&A "locks" the record so that the provider cannot switch programs or states before the payment is issued.

If at any time during the application process, the Fee Assignment becomes inactive, the application process will automatically stop. The process will not continue again until the Fee Assignment becomes active again.

Pennsylvania's MMIS (PROMISe™) makes the incentive payment using a gross adjustment and issues a remittance advice to the provider or assigned payee. A unique gross adjustment reason code is generated and payments are processed with the weekly Medical Assistance Financial Cycle. The payment method (paper, electronic funds transfer (EFT)) is driven by the information used for claims payment on the provider enrollment file. A remittance advice provides information on the incentive payment that has been made. Upon completion of the payment cycle, the MMIS returns payment data to MAPIR. MAPIR generates a payment transaction including pay information to the R&A on a weekly basis). The provider applicant/payee (to whom the payment is assigned) combination must be valid in the MMIS in order to make payment.

Also, per the guidance from CMS, we follow this guideline in response to the provision requiring no more than 5 percent of such payments is retained for costs unrelated to EHR technology adoption. CMS FAQ: **Q: EHR Incentive Programs: What safeguards are in place to ensure that Medicaid electronic health record (EHR) incentive payments are used for their intended purpose? A:** Like the Medicare EHR incentive program, neither the statute nor the CMS Stage 1 Final Rule dictate how a Medicaid provider must use their EHR incentive payment. The incentives are not a reimbursement and are at the providers' discretion, similar to a bonus payment. For more information about the Medicare and Medicaid EHR Incentive Program, please visit http://www.cms.gov/EHRIncentivePrograms.
Keywords: FAQ9959 (FAQ2711)

What will be the process to assure that there are fiscal arrangements with the providers to disburse incentive payments through Medicaid managed care plans does not exceed 105% of the capitation rate per 42 CFR Part 438.6 as well as a methodology for verifying such information? (Response to Questions #27)

When the final approval is received from CMS, Pennsylvania's MMIS (PROMISe™) makes the incentive payment using a gross adjustment and issues a remittance advice to the provider or assigned payee. A unique gross adjustment reason code is generated and payments are processed with the weekly Medical Assistance Financial Cycle. The payment method (paper, electronic funds transfer (EFT)) is driven by the information used for claims payment on the provider enrollment file. A remittance advice provides information on the incentive payment that has been made. Upon completion of the payment

cycle, the MMIS returns payment data to MAPIR. MAPIR generates a payment transaction including pay information to the R&A on a weekly basis). The provider applicant/payee (to whom the payment is assigned) combination must be valid in the MMIS in order to make payment. The payments are not done through the Medicaid Managed Care Plans therefore we do not have controls in place to make sure the payment does not exceed 105% of the capitation rate.

What will be the process to assure that all hospital calculations and EP payment incentives (including tracking EPs' 15% of the net average allowable costs of certified EHR technology) are made consistent with the Statute and regulation? (Response to Questions #26, 28)

Providers may obtain information about the application process via the Department's EHR support center, the Department website, and other education and outreach materials. The Department has developed accompanying guides for the MAPIR system to walk applicants through the application and attestation process. The accompanying guides explain that eligible professionals must attest to Medicaid patient volume by using the individual methodology or group proxy methodology. The group proxy methodology is only appropriate for Medical Assistance enrolled providers who do not exclusively see only Medicare, Commercial or self-pay patients and therefore are currently and actively seeing Medical Assistance recipients. The Department will verify that EPs are currently and actively seeing Medical Assistance recipients (or needy individuals if the EP practices predominately in a FQHC or RHC) by reviewing claims history for the EP. MAPIR has the capability to suspend and deny applications based on system logic. The Department is utilizing existing Commonwealth data sources to validate information submitted by providers prior to making an incentive payment such as meeting patient volume threshold and hospital-based status. The Department will consider hospital-based EPs eligible for an incentive should they meet the requirements outlined in the updated Final Rule (September 4, 2012). The process for the hospital-based EPs to use for consideration for an incentive is described at http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm. The Department also uses the Pennsylvania Medicaid Hospital Cost Reports as a primary data source when evaluating an EH's incentive payments because the reports align with the incentive calculation data elements as well as the required timeframes described in the initial and updated Final Rules. The Department assists providers with the application process through the use of provider manuals that can be found on the Department's website. These provider manuals include MAPIR screen shots and "hover bubbles" within the MAPIR application that a provider can hover on to obtain additional instructions and information during the application process. For example, there are hover bubbles over the patient volume questions to describe the requirement and how to complete this section. Providers also receive notifications while in MAPIR that alert them if they enter invalid values in a field or do not complete a required field.

Pennsylvania's MMIS (PROMISe™) makes the incentive payment using a gross adjustment and issues a remittance advice to the provider or assigned payee. A unique gross adjustment reason code is generated and payments are processed with the weekly Medical Assistance Financial Cycle. The payment method (paper, electronic funds transfer (EFT)) is driven by the information used for claims payment on the provider enrollment file. A remittance advice provides information on the incentive payment that has been made. Upon completion of the payment cycle, the MMIS returns payment data

to MAPIR. MAPIR generates a payment transaction including pay information to the R&A on a weekly basis). The provider applicant/payee (to whom the payment is assigned) combination must be valid in the MMIS in order to make payment.

The Department payment schedules are consistent with program regulations are discussed in more detail in the provider manuals located at http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm under the MAPIR resources section.

States should explicitly describe what their assumptions are, and where the path and timing of their plans have dependencies based upon: The role of CMS (e.g. the development and support of the National Level Repository; provider outreach/help desk support); The status/availability of certified EHR technology; The role, approved plans and status of the Regional Extension Centers; The role, approved plans and status of the HIE cooperative agreements; State-specific readiness factors (Response to Question #30)

The Department is responsible for projecting the processes/education needed to address assumptions and timing of program updates.

- **Role of CMS:** The Department in conjunction with the 13 state collaborative, utilizes the CMS NLR when determining eligibility, during the entire application process, during the payment process, for post-payment processes and for the adjustment process. Providers are referred to the CMS Help Desk for issues specific to the Medicare EHR Incentive program and the Department will utilize the CMS Help Desk occasionally to assist a provider.
- **Status/Availability of Certified EHR Technology:** Based on the CMS Flexibility Rule, MAPIR was updated in January 2015 to allow providers to utilize the 2011 or 2011/2014 combination certification. After surveying the providers participating in the Medicaid EHR Incentive program, it was clear the 2014 Certified EHR systems were not fully implemented or able to provide the data the providers needed to attest to program year 2014. The Department provided guidelines and tools to the providers to assist them in understanding the flexibility rule and how it might benefit. The Department continues to monitor the provider participation and what Certified System is being utilized.
- **Role of the Regional Extension Center:** The Department continues to have meetings with PA Reach twice a month. PA Reach continues to work with the Medicaid providers and assisting them with meeting meaningful use. The Department also utilizes PA Reach as the liaison when there are questions and/or issues that arise with a provider that PA Reach is working with. The Department refers providers to PA Reach and they in turn encourage providers to participate in the EHR Incentive program.
- **Role/approved plans and status of the HIE cooperative agreements**: The Department works directly with the Authority on a number of HIE projects and a number of projects that are being proposed for the upcoming years. The Authority has received funding through the PA IAPD for Onboarding and Public Health Gateway projects that are being implemented in 2015. These

projects and a number of new projects will continue to build on the relationship and to improve HIE tremendously in Pennsylvania.

- State-specific readiness factors: The Department continues to ensure the state funds and resources needed to support Pennsylvania's EHR Incentive Program and lead the 13 state MAPIR Collaborative is committed in the Commonwealth's budget.

Section D: The State's Audit Strategy

This section responds to each of the questions listed in the CMS State Medicaid HIT Plan Template and provides an overview of OMAP's audit, controls and oversight strategy for the Department's EHR Incentive Program.

Figure D.1: Section D Questions from the CMS State Medicaid HIT Plan (SMHP) Template

What will be the SMA's methods used to avoid making improper payments? (Timing, selection of which audit elements to examine pre- or post-payment, use of proxy payment, sampling, how the SMA will decide to focus audit efforts, etc.)
1. Describe the methods the SMA will employ to identify suspected fraud and abuse, including noting if contractors will be used. Please identify what audit elements will be addressed through pre-payment controls or other methods and which audit elements will be addressed post-payment.
2. How will the SMA track the total dollar amount of overpayments identified by the State as a result of oversight activities conducted during the FFY?
3. Describe the actions the SMA will take when fraud and abuse is detected.
4. Is the SMA planning to leverage existing data sources to verify meaningful use (e.g. HIEs, pharmacy hubs, immunization registries, public health surveillance databases, etc.)? Please describe.
5. Will the state be using sampling as part of audit strategy? If yes, what sampling methodology will be performed?* (i.e. probe sampling; random sampling)
6. **What methods will the SMA use to reduce provider burden and maintain integrity and efficacy of oversight process (e.g. above examples about leveraging existing data sources, piggy-backing on existing audit mechanisms/activities, etc.)?
7. Where are program integrity operations located within the State Medicaid Agency, and how will responsibility for EHR incentive payment oversight be allocated?

Methods for detecting fraud and abuse, and monitoring payments (In response to Questions #1 and 2)

CMS Principles for Auditing and the Department's Review Criteria

CMS provides basic principles for states to follow in their monitoring and auditing program. The keys to structuring concrete oversight operations are:

- Catch the obvious
- Focus on substantial non-compliance
- Employ smart risk-profiling
- Find the balance between cost of oversight and total incentive payment
- Find the balance between hi-tech and hands-on approaches
- Maximize existing/third-party data sources where appropriate

The Department is required to provide information to CMS outlining the processes and methodologies that it will use to ensure that payments are being made to the right provider, for the right reason. The

Section D: The State's Audit Strategy

Department's oversight efforts will focus on two distinct areas: 1.) provider eligibility through pre-payment auditing, and 2) post-payment auditing to ensure proper payment, adoption, implementation and upgrade, and meaningful use of certified EHRs. For each of the two areas, Table D.1 provides examples of criteria that the Department reviews and discusses examples of oversight efforts throughout this section. This has been updated based on the lessons learned from the three audit cycles already completed and in response to correspondence with our federal partners. The Department provides quarterly updates on the audit status through the CMS RO Tool.

Table D.1: Sample Provider Review Criteria by Oversight Area

	Sample Criteria
Provider eligibility through pre-payment auditing	• Provider is licensed, enrolled and participating Medical Assistance provider. • Provider is registered in CMS' Registration & Attestation System (R&A). • Provider is choosing the Medical Assistance Program. • Provider meets hospital-based provider definition or meets criteria to claim hospital-based exclusion (professionals only). • Provider provides a continuous 90-day Medical Assistance encounter period in the previous hospital fiscal year (hospitals) or previous calendar year (professionals) or a 90 day period from the 12 months preceding the attestation date. • Provider meets Medical Assistance patient volume thresholds through comparison to Commonwealth's claims data and cost reports. • Provider follows the Department's Medical Assistance patient volume methodology, e.g., group practice or individual volume calculations • EPs practicing predominantly in FQHCs and RHCs meet relevant patient volume thresholds and rules. • EP is not participating in another state's Medical Assistance EHR incentive program or the Medicare EHR Incentive Program • Provider meets non-sanctioned requirements. • Provider attests to multiple program eligibility requirements including that there was no coercion when assigning payments, if relevant. • Provider attests to adopt, implement, upgrade or meaningful use. • Provider submits Certified EHR System documentation • Provider submits meaningful use documentation

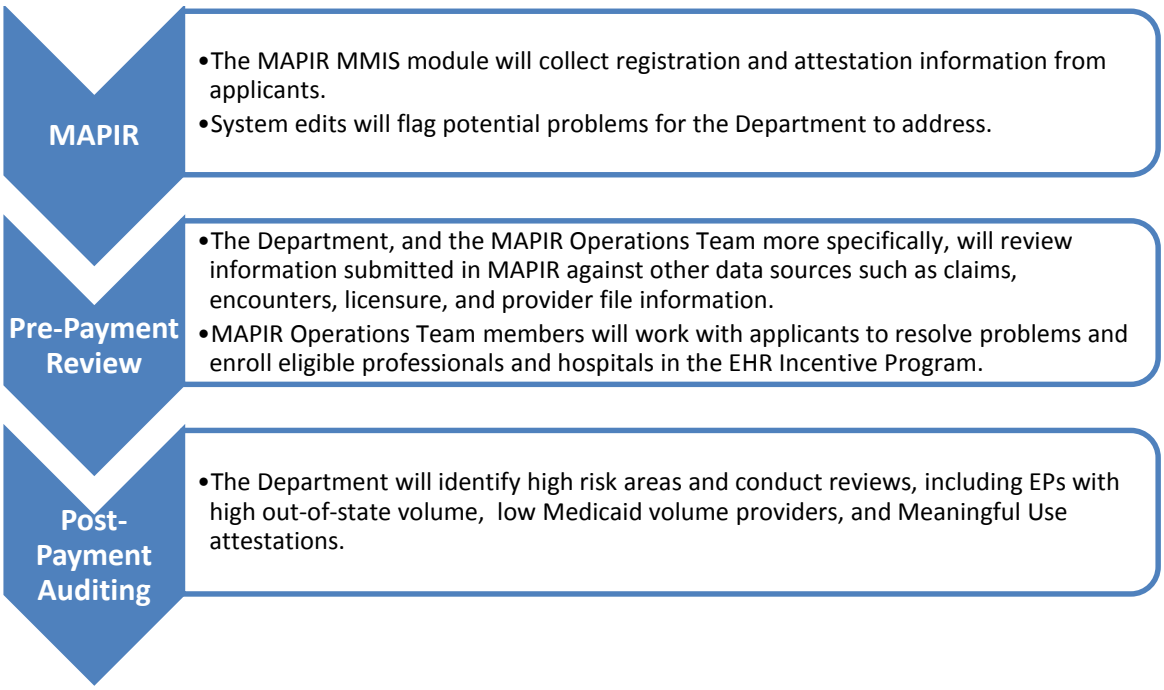
	Examples of High Risk Areas for Review
Post-payment auditing of high risk areas to ensure adoption, implementation and upgrade, and meaningful use of certified EHRs	• Providers with significant out-of-state Medical Assistance patient volume. • Providers with Medical Assistance sanctions from date of payment to at least one year prior. • All providers with Medical Assistance volume slightly above the minimum threshold. • Provider meets requirements for adopt, implement or upgrade, where applicable. • Provider meets the criteria for the appropriate stage of meaningful use, where applicable.

	• Pediatricians must meet the Department's EHR Incentive Program definition of a pediatrician due to their ability to qualify for an incentive payment at a lower patient volume threshold • Dentists; due to limited options for certified EHR systems. • Physician Assistants in a Physician Assistant-led FQHC/RHCs • Meaningful use report outliers • Same data used for patient volume for two consecutive payment years

Overall Strategy

The Department has developed a multi-layered approach to auditing that is summarized in Figure D.2 below and is described in greater detail throughout this section.

Figure D.2: Audit Process



Medical Assistance Provider Incentive Repository (MAPIR) Review Elements

The MA HIT Initiative and MAPIR Operations team is responsible for coordinating provider oversight for Pennsylvania's Medical Assistance EHR Incentive Program. The MAPIR Operations team relies on information submitted through MAPIR that is verified against provider information maintained in the MMIS. Section C describes the MAPIR registration and attestation process. Information such as licensure, patient volumes through claims verification, and provider costs data is reviewed by the Bureaus of Fee-for-Service Programs (BFFSP) and the Bureau for Data and Claims Management. The MAPIR Operations team will review information submitted by providers as they apply in MAPIR.

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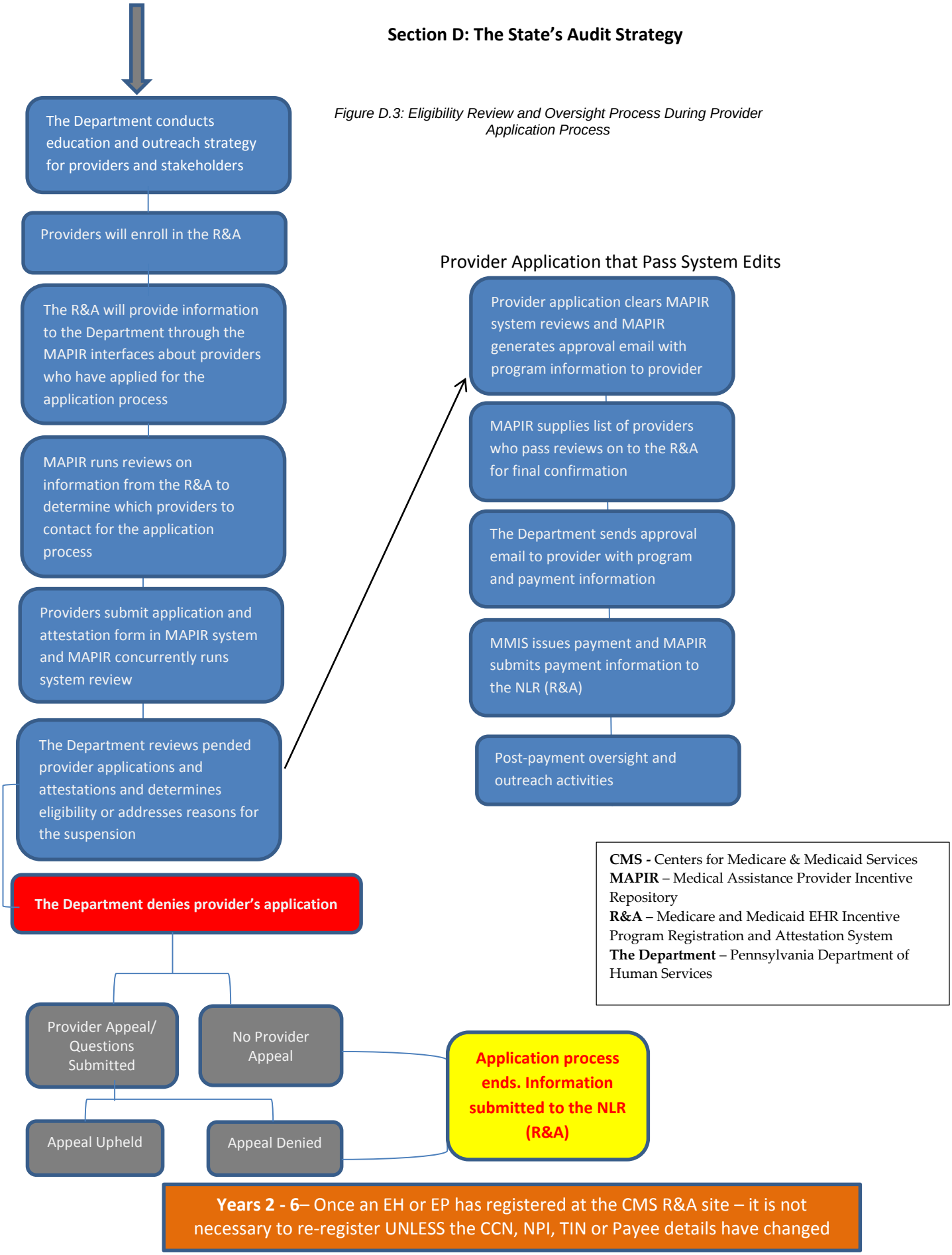
Once the provider completes the R&A registration process, the system serves to provide information to MAPIR. The R&A sends provider registration information to the Department on a daily and weekly basis. MAPIR automatically checks for eligible providers and notifies these providers through an automated "welcome" email. Instances where providers are found to be ineligible by MAPIR's comparison to the MMIS provider file, the HIT support team performs outreach to the provider to identify the issue with the provider and works with them to demonstrate program eligibility to gain access to the EHR Incentive Program MAPIR application.

Provider applications are submitted through MAPIR, which not only serves as a public-facing digital application tool, but as a pre-payment audit instrument for the MA HIT Initiative and MAPIR Operations teams. MAPIR collects all information related to provider payment, applications, attestations and oversight functions, and interfaces with CMS' R&A. The information submitted during the MAPIR application process that is checked by the Department HIT team is described below:

- Patient volume matched to claims and encounters in MMIS
- Hospital-based encounters reviewed
- Hospital-based exclusion documentation reviewed
- Provider type checked against provider file
- All hospital information checked – cost reports, etc.
- Documentation that validates EHR system is certified

The HIT Executive Committee identified the system reviews that MAPIR will use to assess provider applicants as they apply for incentive payments. These reviews provide information at multiple points in the application process and against information submitted to the R&A and will thus help to reduce the need to recoup funds from providers who are not eligible (Section C outlines recoupment process). The steps in the eligibility review and oversight process are described in Figure D.3 below.

Figure D.3: Eligibility Review and Oversight Process During Provider Application Process



*Providers include Eligible Professionals & Eligible Hospitals as defined by the EHR Incentive Program rules.

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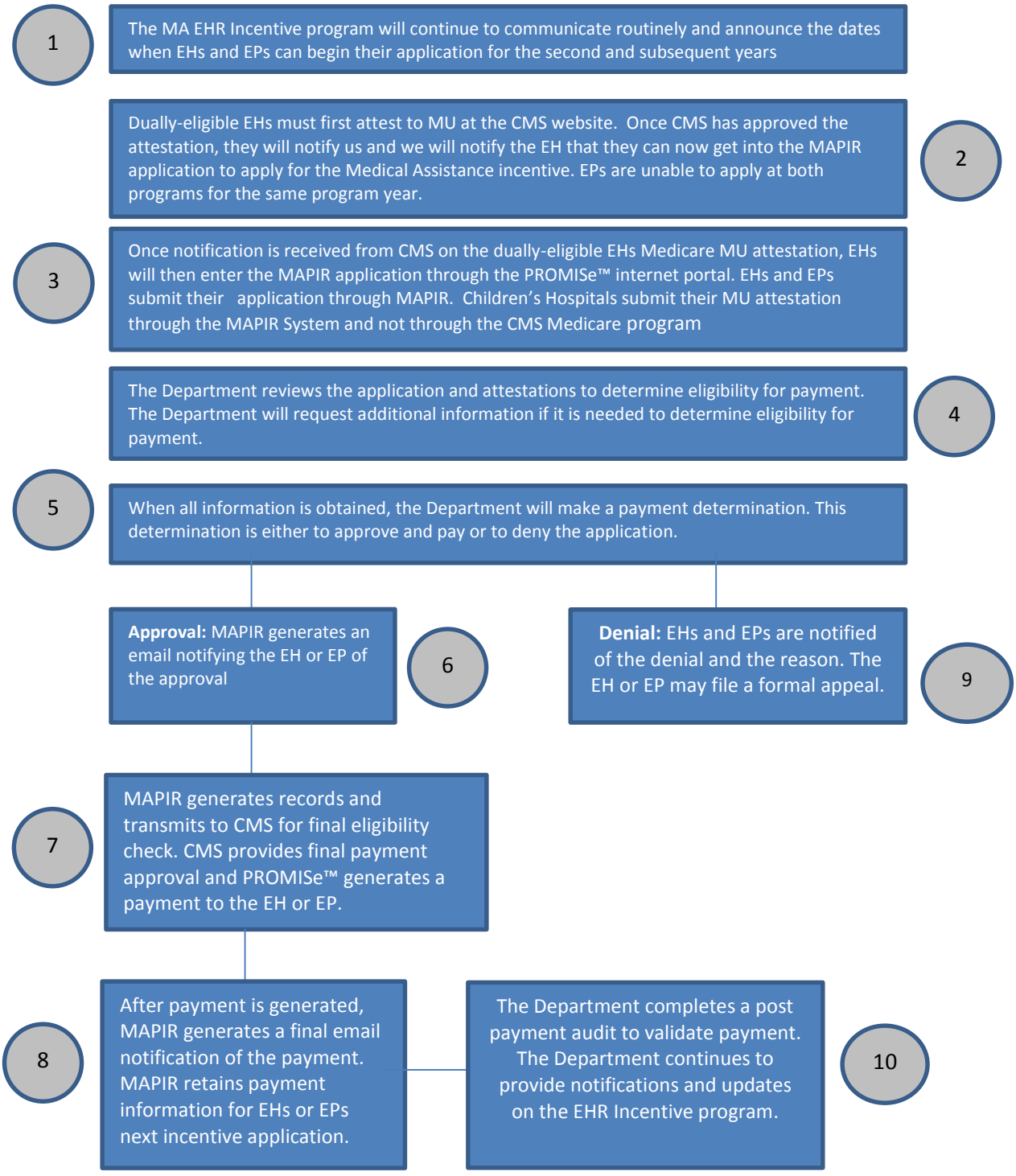


Section D: The State's Audit Strategy

Program Oversight: Organizational Structure (Response to Questions #1, 3 and 7)[3]

MAPIR Operations, under the MA HIT Initiative, is chiefly responsible for implementing both the pre- and post-payment auditing strategy, including identifying overpayments and detecting fraud and abuse in the EHR Incentive Program. By reviewing required data fields on the application prior to payment and by risk profiling providers for the post-payment audit, fraud or abuse is closely monitored and overpayments are recouped and returned within specified timeframes. A contractor located in MAPIR Operations performs the audit with the assistance of additional contractors. This contractor is part of the HIT Executive Committee and participates in daily operations. A BPI Liaison originally developed the auditing strategy in coordination with the HIT Executive Committee. The auditing strategy has been updated as the EHR Incentive Program has progressed and based on lessons learned throughout the life of the program. The Department is also considering contracting for additional assistance with monitoring meaningful use attestations. Regarding auditing of hospitals meaningful use attestations the Department designates CMS to conduct all audits and appeals of eligible hospitals' meaningful use attestations, which binds the Department to the audit and appeal findings. Therefore, the Department will perform any necessary recoupments, which includes returning the funds to CMS, arising from the audits that determine the hospital was not a meaningful EHR user. The results of any adverse CMS audits would be subject to the CMS administrative appeals process and not the state appeals process.

During the pre-payment audit, providers work with MA Health Initiative Operations on a one-on-one basis when necessary to make sure attestations and payments are correct. During the post-payment audit, providers are placed into risk review categories (as discussed in figure D.2). Overpayments are either recouped in accordance to federal timeline standards or during the reconciliation process at the beginning of the subsequent program year. In the case where abuse is identified after the payment is processed, MA HIT Initiative and MAPIR Operations will refer the issue to the Department's Office of Administration, Bureau of Program Integrity (BPI). Note: Abuse is characterized as an unintentional mistake, while fraud consists of an event that was knowingly and willingly incorrect, and that was purposely executed to obtain a benefit.

Once the Department has reviewed the application and any additional information it has gathered on the audit elements, or has been obtained from the provider that was deemed necessary to complete its review determination, the Department will notify the provider via email correspondence that their application has been denied for those who do not appear to be eligible for the EHR Incentive Program.

If a provider does not respond to the preliminary findings correspondence, or if the provider is found ineligible, then the Department will send a final determination correspondence which will include information about the appeal process. The Department will also inform CMS of the denial and provide a reason code for each denial, and inform BPI of all final denials. The Department's goal is to review applications, any additional information, and make a decision about applicant's eligibility within six weeks of receiving an application. During peak periods when the volume of applications is higher, it may

[3] Once Section C: Administration is complete, compare these responses to information provided in Section C and cross-reference as appropriate.

be longer than six weeks. Providers must respond to requests for additional information in a timely manner and we request that initially responses are submitted within 30 days. However, the process of working with providers on suspended applications may take longer and failure to respond in a reasonable time period may result in applications exceeding the six week processing period.

Providers will have the right to appeal certain Department decisions related to the Medical Assistance EHR Incentive Program. Examples of appeal reasons include, but are not limited to, the following:

- Applicant is determined ineligible for the EHR Incentive Program due to sanctions;
- Applicant volume of Medical Assistance encounters does not meet the minimum threshold for an incentive payment;
- Amount of incentive payment (e.g., pediatrician payment); and,
- Applicant does not agree with audit findings that resulted in a recoupment.

Appeals related to this program will be processed like all other provider appeal issues. Providers should submit appeals to the Department's Bureau of Hearings and Appeals.

For providers passing all of the application and attestation steps, MAPIR will generate a preliminary approval. The preliminary approval will trigger MAPIR to send information to the R&A System to verify that providers are still eligible for payment, e.g., provider has not (since date of submission of Pennsylvania application) received a payment from another state or in the case of EPs from Medicare and that the provider has not had a sanction or exclusion levied against him/her. Only after all these steps are passed will an incentive payment be made.

Once the incentive payments are made, the MA HIT Initiative and MAPIR Operations teams will work with BPI to provide program oversight as discussed above.

Collecting Overpayments

MAPIR is used to store and track records of incentive payments for all participating providers. Once an overpayment is identified, MAPIR will be used to determine the amount of payments that have been made and which must be returned by providers. When overpayments are identified, the Department initiates the payment recoupment process and communicates with CMS on repayments. The Department will request that providers submit recoupment payments by check; if a provider fails to submit a payment by check within 90 calendar days of the notice to return the EHR incentive payment, the Department will generate an accounts receivable to offset payment of future claims to recoup the EHR Incentive Program overpayments. Federal law requires the Department to return overpayments within 365 days of identification.

The Department has a system in place for tracking recoupment of overpayments from providers. MAPIR will allow for tracking and reporting overpayments specific to EHR provider incentive payments. Tracking, collecting, and returning overpayments are measures that will be monitored on an ongoing

basis as described in Section E, the Roadmap that describes benchmarks and program measures. The Department has developed a weekly report in MAPIR that will be reviewed to determine the status of recoupment of overpayments.

After the recoupment process, fraud cases are forwarded to the Department's Office of Administration, Bureau of Program Integrity (BPI). BPI is comprised primarily of health care professionals responsible for identifying and deterring fraud, abuses, and other non-compliance with MA policy. They refer cases to the appropriate enforcement agency to ensure that the provider is reviewed for their actions in all programs associated with the Medical Assistance program.

The HIT Initiative has one staff person solely dedicated to the EHR Incentive Program audit strategy. The Auditing Lead is assigned to work with MA HIT Initiative on program integrity studies and to address issues that arise for the EHR incentive payment program.

The appeals process described in Section C for the EHR Incentive Program will be used in any instances when a provider wishes to appeal a finding of an improper payment.

Methods for Avoiding Improper Payments (Response to Questions #1, 4 and 5)

The Department will implement multiple mechanisms, studies and processes as part of its program oversight approach to avoid making improper payments and identify and recoup any overpayments. Below are the Department's planned approaches.

Application Review Process / Office of Inspector General Audit Elements

The Department currently uses existing federal and state data sources as part of its ongoing Medical Assistance oversight activities. As described above, MAPIR Operations utilizes the MAPIR system to determine provider eligibility, and capture attestation information including EHR status (adopt, implement, upgrade), and make payments. Information submitted by providers that is reviewed during the application process includes:

- CMS registration
- Confirmation that the hospital or professional is choosing Pennsylvania's Medical Assistance EHR Incentive Program
- Provider type eligibility including hospital-based providers
- Sanction issues
- Attestation time periods are within required parameters
- Patient volume
- Licensure verification
- Valid EHR Certification number

- Hospital Cost data

The Department's Bureau of Data and Claims Management (BDCM), in conjunction with the multi-state collaborative, has programmed extensive system checks and edits to enhance the Department's oversight capability. These edits will flag potential errors or issues in a provider's MAPIR application, e.g., when new R&A data is interfaced with MAPIR data and MAPIR identifies inconsistencies or changes in provider selection of state or from Medical Assistance to Medicare. Having MAPIR enables the Department to operationalize many of these checks as part of our review process which helps to identify potential concerns in real-time rather than relying on retrospective review of the Department's enrollment and payment records. The MAPIR Operations team verification process is further described in an internal operations manual.

See Table D.2 for the EHR Incentive Program Requirements and the Pennsylvania review process in the context of the findings of the Office of the Inspector General report on Medical Assistance EHR Incentive Programs.[4] All elements are reviewed in part prior to payment. However, the Department will also continue its review of application information as part of the post-payment audit.

[4] U.S. Department of Health and Human Services Office of Inspector General, Office of Evaluations and Inspections, "Early Review of States' Planned Medicaid Electronic Health Record Incentive Program Oversight, OEI-05-10-00080," July 15, 2011.

Table D.2: EHR Incentive Program Requirements and the Pennsylvania Review Process

EHR Incentive Program Requirements Analyzed	
Requirement	**Review Protocol**
Practitioners must be one of the permissible practitioner types	Providers who are not a permissible provider type (physician, pediatrician, dentist, CRNP, midwife, or physician assistant in a so led FQHC/RHC) cannot access the MAPIR application to apply for the EHR Incentive Program.
Practitioners and hospitals must be licensed to practice in the State	Each provider's license is checked prior to initial Medical Assistance enrollment to ensure that he or she has a valid license to practice. There is an automated process in place to check in-state EP licenses on a monthly basis against our license file to ensure that these providers continue to be actively licensed. If they are not actively licensed then they are not enrolled in the Medical Assistance program and not eligible for an EHR Incentive Program. In addition, hospitals are reviewed during the Medical Assistance enrollment process to verify that the hospital is actively licensed. This check is automated. If a provider is not MA enrolled they cannot receive an incentive payment.
Practitioners and hospitals must not be excluded, sanctioned, or otherwise deemed ineligible to receive payments from the State	If a provider is not MA enrolled they cannot receive an incentive payment. Prior to enrolling any provider, we perform system checks to ensure that they have not been precluded in addition to checking state-specific preclusions. Any existing providers found to be precluded are not able to start or complete the process. We are looking for ways to further automate these processes.
Practitioners must have at least a 30% Medical Assistance patient volume (or 20% for pediatricians) if they are not practicing predominantly in an FQHC or RHC	Medical Assistance claims history is used to validate the Medical Assistance encounter (EP) reported by the provider on an incentive application. When the reported volume cannot be reasonably verified the application is pended for additional review. The provider is contacted and asked to supply documentation to support the reported volumes.
Practitioners must have at least a 30% needy individual patient volume if they are practicing predominantly in an FQHC or RHC	We have requested that each FQHC / RHC provide supporting information for their needy encounters that includes signed attestation by CEO / Executive Director. We allow documentation from the billing system and data submitted to HRSA to support patient volume attestations.
Hospitals must have at least 10% Medical Assistance patient volume (acute care hospital only) and Calculating Hospital EHR Incentive Payments Over Four Years	We have taken the strongest possible defense regarding validation of data towards threshold criteria as well as payment methodology. Cost report data is vetted by the in-house accountants. Information is verified with each facility to maintain integrity in cost reporting. Multiple data sources (Medical Assistance data, Medicare cost report data, claims, and PHC4 information) are reviewed, but a higher weight is given to internal cost reporting.

EHR Incentive Program Requirements Analyzed	
Requirement	**Review Protocol**
	Hospitals with Medical Assistance patient volume greater than 10 percent are approved for payment. To determine that the volume threshold is met claims and encounter are reviewed prior to payment.
Practitioners must not be hospital-based	Medical Assistance claims history is used to verify if a provider is hospital-based. Providers who are found to have over 90% of their submitted claims with an Inpatient or Emergency place of service (POS 21 or 23) are flagged for additional review. The provider is contacted and asked to supply additional information which shows the provider performs less than 90% of his or hers service in an Inpatient or Emergency Room setting.
If practitioner is a PA, he or she must practice in a PA-led FQHC or RHC	Physician assistants applying for the incentive payment will be required to provide supporting documentation to validate the so-led criteria prior to being able to enroll with Medical Assistance and therefore prior to applying to EHR Incentive Program.
Practitioners and hospitals must adopt, implement, upgrade or meaningful use a certified EHR technology	Each provider must obtain a valid CMS EHR Certification Number through the ONC. During the application process each provider must enter a valid EHR Certification Number in MAPIR. MAPIR performs a real time verification of the EHR Certification Number through the ONC. Providers who enter an invalid EHR Certification Number are not allowed to submit an application. Providers are required to provide supporting documentation such as bill of sales or copies of contracts to prove their adoption, implementation, upgrade or meaningful use of a Certified EHR System. Information supplied by the provider is uploaded into MAPIR and attached to the provider's application. Additionally, the MAPIR application provides the capability for the provider to indicate service location(s) where they are utilizing EHR technology.
Payment re-assignment	Eligible professionals are unable to complete MAPIR application if there is an invalid payee assignment as outlined in the Final Rule. The applicant must also attest that the re-assignment was made voluntarily.
Must have an average length of stay of 25 days or less (acute care hospital only)	Each hospital attests to this standard within application and will be part of post payment review that all hospitals will undergo.

Section D: The State's Audit Strategy

Risk Profiling and Post-Payment Sampling

The Department is manually sorting by provider type, adoption, implementation, upgrade, or meaningful use, patient volume, and other information fields submitted in MAPIR, so that the Department can prioritize reviews and identify post-payment high risk categories. The Department is working towards downloading all MAPIR data into a data warehouse that can automatically generate reports from the submitted application data. The Department has developed a review process/workflow that identifies elements that will be verified post-application and post-payment.

Risk profiling begins with identification of application type and the methodology used to identify Medical Assistance patient volume. Applications are reviewed by category: 1) eligible professional individual patient volume methodology, 2) eligible professional group patient volume methodology, and 3) eligible hospitals. The Department found that conducting different risk profiling for hospitals and professionals is more efficient for deterring fraud and abuse and enforcing the requirements in the Final Rule than performing audits on a broad-based sample from all applications.

Performing post-payment audits on high-risk categories or populations allows for the Department to narrow its focus on areas that may need more attention (e.g. minimum threshold requirements submitted). These high risk categories are identified in the "Post-payment auditing to ensure adoption, implementation and upgrade, and meaningful use of certified EHRs" section of figure D.1. Each of these high risk categories is accompanied with functioning audit parts – the elements within these categories that are reviewed. Audit element examples can be seen below, along with further information provided in the provider manual located at http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm.

- Adoption, implementation, upgrade, and meaningful use: Acceptable documentation including receipts and leases
- Group provider information and all NPIs associated with applications and payments (group patient volume methodology only)
- Volume matches payment according to threshold requirements and provider type
- Hospital-based (eligible professionals only)
- Verification of pediatric training –pediatricians must meet Pennsylvania's definition through proof of training and/or board certification

In the case of auditing and validating out-of-state Medical Assistance patient volume, the Department conducts targeted reviews on providers with high out-of-state volume. In conjunction with CMS, the Department is participating in conversations at the "Medicaid HITECH TA Portal," more specifically, with multiple states that are part of the "Auditing Community of Practice." Participation in this multi-state collaborative ensures proper auditing practice alignment and allows for sharing of emerging best practices to be presented. Additionally, the Department did have initial conversations with New Jersey,

Delaware, Maryland and Ohio about developing agreements to review out-of-state information although this is currently not being done and the providers are responsible for validating their volume.

Audits and provider incentive payments: The MA HIT Initiative audits providers to verify they are meeting adopt, implement, upgrade and meaningful use of certified EHRs. Verifying attestation data in the first year is particularly important as providers are receiving their largest payments in the first program year. Provider incentive payments are stored and tracked in MAPIR. Through MAPIR's interface with the R&A, the MA HIT Initiative team is able to determine if new information exists (following receipt from the R&A) that indicates a payment should or should not be made in future program years, (e.g., provider switches to Medicare or switches to another state's Medical Assistance EHR Incentive Program). At the end of each audit, the Department's audit report serves as a cumulative report to Department executives and CMS.

Meaningful Use – CMS guidance: The MA HIT Initiative's meaningful use portion of the Program will take direction from CMS. The Department will follow the backbone of auditing methods that are provided in addition to the PA audit strategy approved by CMS.

The Department implemented a three-tiered audit approach. The first tier consists of "red flagging" applications for instances such as data outliers and intelligent analytics. Data trending and benchmark analysis assist with this. The Department is performing this type of process in the beginning of the pre-payment audit for review for things such as volume thresholds, sanctions, hospital-based and AIU. This practice assists with performing this similar audit for meaningful use. The second tier consists of secondary data sources. The Department is currently leveraging existing claims data and cost reports during the pre-payment and post-payment audit, and the experience assists with performing this type of process for meaningful use. The third tier consists of various risk categories identified as potential indicators of poor business practices or the need to additional technical assistance. This approach results in direct contact with the provider. The Department has established and continues to improve outreach functions within its existing pre-payment and post-payment audit processes.

The past-practices and lessons learned from these areas will assist with meeting meaningful use audit standards. Based on the most recent guidance from CMS, the Department captures meaningful use information from providers as follows:

- Request an explanation of how the certified EHR technology is being used in a meaningful manner (e.g., e-prescribing);
- Request an explanation of the how the certified EHR technology is electronically exchanging health information to improve the quality of care;
- Request the organization to attest to the clinical quality measures prescribed by CMS;
- Request proof of passing CMS Core Set Objectives;
- Request proof of completing CMS Menu Set Objectives.

When a provider has not met the criteria, the Department will refer the provider for technical assistance and will require a corrective action plan to address non-compliance to either rectify the situation or to recoup the incentive funds. The Department will instruct all EPs and EHs (including CAHs) to keep documentation supporting their demonstration of meaningful use for six years.

Reviews for Additional Incentive Payments

Providers are not required to participate in the program in consecutive years, so the renewal process is designed to track when the provider requests a second or subsequent incentive payment. The review process will be reviewed in MAPIR and will incorporate reviews of:

- Continued provider eligibility, e.g., continued participation as a Pennsylvania Medical Assistance provider, check for sanctions, licensure
- Variance in patient volume calculations
- Updated information at the R&A
- Meaningful use criteria
- New provider information, (e.g., provider's practice closure or move)

Reduce provider burden and maintain integrity and efficacy of oversight process (In response to Question #6)

Use of Other Department Information Systems to Enhance Program Oversight Capabilities

In addition to MAPIR, the Department will use other sources of data to monitor the program and verify information submitted by providers in the application process and in future years as providers request additional incentive payments.

- **Claims Data Systems**: Data from the MMIS, the DHS Data Warehouse and the Fraud and Abuse Detection System will supplement information gathered through MAPIR. For example, in-state Medical Assistance patient volume numerators are checked against claims data.
- **Health Information Organizations (HIOs)**: Through the HIE model the Authority is facilitating, the Department will have access to other data that will help with ongoing oversight and monitoring of meaningful use. The Department anticipates expanding its relationship with the Authority and the capabilities of the PHG to using the data collected from HIEs to monitor future components of meaningful use and to help gather the clinical data required under meaningful use.
- **Other Agency Registries:** The Department is collaborating with appropriate contacts of other agencies to assess monitoring capabilities specifically as it relates to meaningful use measures. Appropriate agreements will be drafted to create inter-agency working relationships.
- **Exclusion and Debarment Databases**: The Department will regularly review Commonwealth and federal systems not included in the R&A, such as the State's MediCheck list, the National

Provider Data Base (NPDB) and the Office of the Inspector General's (OIG's) List of Excluded Individuals/Entities (LEIE).

Continued Education and Technical Assistance Before and During the Application Process

The Department has developed and made available resources to providers to educate them about the application process. The Department developed a comprehensive communications strategy that identifies events, communication channels, materials, content, and audiences. The Department released a series of Medical Assistance Bulletins (MABs) to describe EHR Incentive Program; including: program requirements, eligible provider types, the R&A, program monitoring and oversight, the application, and attestation, audit processes and meaningful use stages. In addition to the Medical Assistance Bulletins, the Department developed and published Provider Quick Tips, provider manuals for both hospitals and professionals, and Remittance Advice banner messages. These resources are available at http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm and announced to professional associations as well as through the program's listserv. Please see Appendix III for additional resources.

Evolving Audit Strategy

The Department will continue to evolve its auditing strategy. Lessons learned as the Department continues to conduct post-payment auditing reviews have made it necessary to modify existing audit practices and create new high risk categories with audit elements. Additionally, as providers become more familiar with state and Federal auditing processes, both strategies will need to evolve to make sure that the protocols are still effectively identifying fraud, abuse, and overpayments. Based on the challenges we encountered with trying to obtain accurate meaningful use documentation, we have begun requesting meaningful use documentation be uploaded and reviewed prior to payment.

The Department has implemented a programmatic audit to evaluate the effectiveness, and efficiency of the Medical Assistance EHR Incentive Program. The programmatic audit confirms that program processes are being followed, that the information obtained is satisfactory, and defines adjustments to program processes which may be needed.

The Department hopes to maintain and strengthen an efficient EHR Incentive Program auditing and oversight strategy by using the audit protocols discussed in this document and will continuously look for new methods to enforce program regulations and to assist providers with program compliance.

Section E: The State's Roadmap

This section provides an overview of the Department's HIT Roadmap for achieving its' HIT and HIE vision. The following section includes responses to each of the questions listed in the CMSSMHP as described in Figure E.1 below.

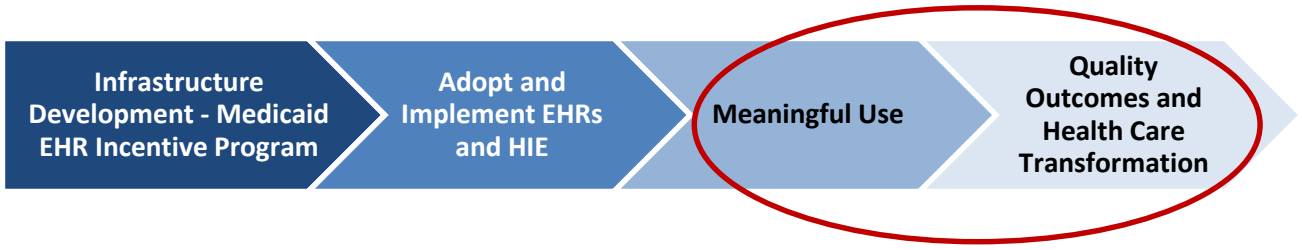
Figure E.1: Section E Questions from the CMS State Medicaid HIT Plan (SMHP) Template

Please describe the SMA's HIT Roadmap:
1. Provide CMS with a graphical as well as narrative pathway that clearly shows where the SMA is starting from (As-Is) today, where it expects to be five years from now (To-Be), and how it plans to get there.
2. What are the SMA's expectations re provider EHR technology adoption over time? Annual benchmarks by provider type?
3. Describe the annual benchmarks for each of the SMA's goals that will serve as clearly measurable indicators of progress along this scenario.
4. Discuss annual benchmarks for audit and oversight activities.

Medical Assistance Agency Five-Year Roadmap (Response to Question #1)

The Department's Roadmap discusses strategies for moving beyond the current state of HIT adoption and meaningful use to achieving a critical mass of providers who have adopted EHRs and who are exchanging data via an HIO so as to improve the quality and coordination of care for Medical Assistance recipients. The Department recognizes that the Roadmap must be flexible in order to respond to the ever-changing health care landscape, help providers to continue to participate in the incentive program, help providers achieve meaningful use, and foster long-term involvement and information exchange. As first predicted in the 2010 SMHP, the Department's HIT / HIE overall Roadmap extends beyond a five-year discussion. As represented in Figure E.2 below, over time the Department's strategy has progressed through phases. Based on the Department's current projections of HIT adoption and meaningful use rates (described in Section A), the Department anticipates that the revised five-year roadmap will be heavily focused on promoting the meaningful use of HIT/HIE, coordinating with stakeholders to effectively leverage available clinical data to improve health care outcomes, and continuing to evolve infrastructure to meet continually changing program and business needs.

Figure E.2: Phases of the Department's HIT Strategy



Section E: The State's Roadmap

As Figure E.2 illustrates from left to right, the Department's initial efforts were focused on developing infrastructure both internal to the Department and with providers through the EHR Incentive Program. The Department then worked with providers through resources such as the REC, to help move providers into adoption and implementation and make progress towards meaningful use. The Department used the data submitted by providers to evaluate clinical practices and performance and supply feedback to providers to help them continue to evolve in their use of HIT so as to gain the maximum benefit of HIT and the EHR Incentive Program. The first three phases were essential steps towards achieving the Department's long-term goal of improving the value (quality and cost) of health care services. The Department continues to evolve its strategy to advance the third and fourth phases on the Roadmap.

Annual benchmarks for each of the SMA's goals that will serve as clearly measurable indicators of progress along this scenario (Response to Question #3)

The Department continues to evolve its strategy to advance the third and fourth phases on the Roadmap. With the revised HIT goals in mind, the Department identified the following strategies and milestones to move beyond simply promoting HIT adoption and use and progress toward larger quality improvement goals.

Table E.1. 2015-2020 HIT Goals, Strategies and Milestones

• Goal	• Strategy	• Short-term Milestones	• Long-term Milestones
• Increase Quality of MA Services	• Integrate with payment reform effort • Better leverage MCO contract to support meaningful use • Leverage EHR and HIE, so that providers can push quality metrics (HEDIS, eCQM, the core set of children's and adult health care quality measures, etc.) to the Department to allow for the quick and efficient measurement of quality • Push same metrics to MCOs, reducing the need for the large number of chart reviews, to identify care gaps and intervene to speed up the QI cycle. • While there is some overlap of eCQM/ meaningful use metrics with Medicaid the core set of children's and adult health care quality measures the Department plans to explore	• Develop a plan that maps eCQM/C-CDAs to HEDIS measures used by the Department with payment reform and then pilot a limited set of measures with specific providers to determine the effectiveness and accuracy of this collection method • After reviewing leading practices in other states for leveraging MCO contracts to support meaningful use and after extensive discussions with the MCOs, the next iteration of the MCO contract will be updated in a manner that best implements this strategy.	• Use eCQMs to supplant current HEDIS collection and reporting process • Implement process that leverages EHR and HIE to allow for the push by providers (and MCOs) of all quality metrics (HEDIS, eCQM, the core set of children's and adult health care quality measures, etc.) • State will push eCQMs/C-CDA to PHC4. • OB needs assessment form will be collected electronically and shared

• Goal	• Strategy	• Short-term Milestones	• Long-term Milestones
	more overlap with these other quality measure sets. However, initially Pennsylvania will focus on a smaller subset of eCQMs (14) to pilot collection process with early adopters, even if redundant with CPT codes, to measure outcomes, not process. • Department plans to collect C-CDA documents from providers who are currently unable to submit eCQM/QRDA1 files • Department will work to push eCQMs through the Public Health Gateway to the PHC4 to support independent analysis and public reporting of regional health care quality. • Push same eCQM/ QRDA1 information to HealthChoices MCOs to facilitate more efficient HEDIS data collection. • Automate the process of collecting data from the MCO OB needs assessment form, which allows plans to report on other OB care metrics, with a plan to extract this information from the EHR and push the data to the MCOs. • The Department provides funds for MCO provider Pay for Performance programs. In future, the plan is to incent providers to push even more quality data (eCQMs) to OMAP and MCOs. • Collect CCDA files to obtain data for CQM measures and other program measurements	• Pilot for early adopters focused on a smaller set of eCQMs. • Pilot submission of C-CDA collection. • Automate MCO OB needs assessment form in manner that extracts information from the EHR and pushes this data to the MCOs.	between the Department, MCOs and providers. • Incentivize providers and MCOs to collect and report quality data electronically.
• Increase Coordination of Care and Sharing of Data	• The Department's goal is to coordinate care in a manner that leads to more efficient, cost-effective care that helps MCOs, ACO/Health systems, and providers assist patients in navigating the health care delivery system.	• Implement more robust use of HIE (including appropriate care plan sharing) between OMAP/OLTL/OMHSAS, MCOs, medical providers and HCBS for	• Implement bi-directional flow of quality data from and to providers, health systems/ACOs, and managed care plans.

Section E: The State's Roadmap

• Goal	• Strategy	• Short-term Milestones	• Long-term Milestones
	• Ensure that data is shared with BH providers involved with the CCBHC to facilitate successful care coordination and measurement of outcomes. • Continue to align with Authority priorities. • Strengthen coordination with MMIS planning and align with MITA process. • The Department plans on a bidirectional flow of data; not just providers and MCOs pushing data to the Department, but the Department pushing data out to MCOs and providers including health systems and ACOs. • Develop a provider/patient portal so both can see quality care gaps. • The Department plans to push out appropriate claims and quality information so that providers can see the full continuum of care provided to their patients. • The Department plans to implement more robust data sharing across multiple offices for foster care children, especially those in out-of-home care, including more intensive care management data (physical health, behavioral health, trauma care, etc.). This information will be pushed to single county authorities managing children's social needs and to the MCOs managing their health care. An automated method for identifying care gaps will create better health and social outcomes. • Ensure that children screened by medical and other providers for developmental delays and autism have appropriate referral and follow-up by OCDEL and their early intervention	members of the CHC, especially where behavioral health issues are involved. • Continue to collaborate with the Authority to onboard EPs and hospitals with HIOs and connect HIOs to P3N. and the Public Health Gateway. Continue to refine policies on protected health information. • Implement more robust use of HIE between the Department, MCO, and providers for children in the child welfare system. • Implement more robust use of HIE (including appropriate care plan sharing) between the Department/OCDEL/OMHSAS, MCOs, medical providers and early intervention providers for children referred and evaluated for developmental delay and autism. • Align MMIS/MITA planning to implement more robust electronic enrollment and electronic utilization management/prior authorization processes. • Continue to develop and test the Public Health Gateway in order to use it for currently defined unidirectional information flow and add bidirectional use cases described in the strategy column.	• Implement client portal. • Implement appropriate health information exchange of claims data, quality data and care plans for HCBS/Community HealthChoices (CHC) , Child Welfare and Early Intervention to appropriate providers. • Incorporate use of HIE in care planning for individuals entering and leaving correctional facilities operated by counties and the state. • Efficiently streamline electronic enrollment and utilization management processes. • Develop HIE that facilitates provider ability to move towards payment and health delivery reform (ACOs, PCMH, and episode of care payments).

Section E: The State's Roadmap

• Goal	• Strategy	• Short-term Milestones	• Long-term Milestones
	providers. Appropriate electronic sharing of medical data and care plans will ensure that the loop is closed between medical providers, parents and the early intervention providers. • In the area of long term care, especially home and community based waiver programs, an electronic data record will be developed and utilized to share care plans, Medicaid and Medicare claims data and eCQMs/C-CDAs for better care coordination between the Community HealthChoices (CHC) provider, HCBW agency, provider team, and case managers. • Use of appropriate health information exchange to better manage the health care for individuals transitioning between the state and county corrections system and Medicaid to improve long term health outcomes, lower recidivism and more efficiently manage care for this population.	• Continue internal DHS multi-office planning to implement HIE strategies that better coordinate information flow across program offices and their respective providers.	
• Increase Awareness	• Educate providers and consumers on the benefits of being meaningful users of HIT. • Increase patient engagement.	• Review current consumer and provider educational efforts and determine how best to modify the information or communication modes/methods to improve understanding of the benefits of HIT meaningful use. • Working with consumer, provider, advocacy and other experts in the field of patient engagement, develop the requirements for a patient portal that actively engages consumers.	• Develop and implement a patient portal with strict security access rules that allows patients to view their electronic health information in a manner that engages their attention. This may include allowing links to web-based information about managing health conditions for favorable health outcomes.

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• Goal	• Strategy	• Short-term Milestones	• Long-term Milestones
		• Consider utilizing PA REACH to promote provider participation prior to the end of program year 2016.	• Enhance the portal to include access to other MA data (Explanation of Benefits , demographics, etc.) to allow individuals to actively engage.
• Redesign Systems	• Guiding principle for the Department coming out of the MITA SS-A is to increase awareness, quality and coordination in public health coverage programs. • Keep systems infrastructure current to evolving program requirement and business needs. • Enhance data capture and analysis capabilities. • Meet or exceed system readiness for latest CMS guidance. • The Department has Intensive Medical Care Management Unit that utilizes care management software. Part of the plan within system redesign is to further leverage software to do care management possibly across multiple Office programs. This will help Pennsylvania to improve the level of MITA Maturity and assure program accountability across multiple waivers. • Develop and implement the capability to push/pull care plans, eCQMs and claims data to MCOs, single county authorities, and providers such as health systems/ ACOs.	• Complete a feasibility study to determine if implementing popHealth tool (or a similar tool) would further progress towards MA HIT goals • Implement the automated collection of CQM (eCQM) • Implement data analytics tool • Implement changes to comply with the 2015-2017 Modification Rule and Stage 3 • Continue to support file transfers with the National Level Repository	• Incorporate CQM and MU data into MMIS • Implement a more effective business intelligence strategy to make the MA HIT data accessible and meaningful to both MA and MA partners (OCDEL, counties, etc.) • Based upon the outcome of the PopHealth feasibility, implement that (or a similar tool) that best meets PA MA HIT goals. • Leverage HIE to facilitate payment and health delivery reform.

Section E: The State's Roadmap

Advancing HIE

The following presents the five-year roadmap for specific HIE-related activities to be undertaken by the Authority in collaboration with the Department, other Pennsylvania government agencies, certified HIOs and HISPs, and other Authority stakeholders:

- **On Boarding –** The Authority plans to continue to promote ever-widening exchange of health information within PA by continuing to support and supplement (using continued IAPD funding) onboarding of EHR Incentive Program participating providers to HIOs and onboard HIOs to the P3N. These programs do not only require HIOs to build technical connections, but require that HIOs assist providers in integrating HIE into their workflows and provide training and "go-live" support. Both HIOs and providers accepting onboarding funds are required to provide lessons-learned to the Authority and the Department. These lessons will be aggregated and made available to encourage ongoing improvement in the onboarding and HIE adoption process. These additional steps increase the probability that the funds spent on onboarding will help to generate continuing use of HIE and thus increase the probability that HIE will help to transform health care delivery and yield cost savings and quality improvement.

  The Department in conjunction with the Authority plans to request IAPD ongoing funding to support the onboarding program initiated in 2017. Given that HIE can only reach its full potential with participation by providers across the entire health care delivery spectrum, the Authority also intends to continue to seek sources of funding, possibly including IAPD funding, to support similar onboarding programs for other Medicaid providers, starting with LTPAC facilities (requested and received in the 2015-16 IAPD) and home health agencies. Additional opportunities to onboard behavioral health providers may be available based on recent correspondence from CMS. https://www.medicaid.gov/federal-policy-guidance/downloads/smd16003.pdf. It was determined after working with the LTPAC facilities, that most of the facilities are not utilizing certified EHR systems which prevents them from participating in the MA EHR Incentive Program and also prevents them from participating in the LTPAC onboarding grant opportunity. Based on the recent guidance from CMS, these LTPAC facilities now do not have to participate in the MA EHR Incentive Program to be considered for the onboarding grant opportunity so we will be updating the language and moving this project into the 2016-2017 IAPD funding request.

  For the foreseeable future, there will be some providers who are not able to adopt EHR technology that can be fully integrated with HIE. The Department and Authority feel that it would be a mistake to leave these providers entirely out of the opportunities provided by the HIOs. Most of the Pennsylvania HIOs currently provide some means for such providers to request information from their networks, usually via an internet-based portal. The Authority will encourage HIOs to further extend these capabilities to include rudimentary abilities for non-EHR enabled providers to contribute information to HIE, and to develop portals that are tailored to supporting the workflow needs of particular provider segments to enhance usability and encourage adoption. For example, in the 2015-16 IAPD, the Authority received funds to offer a

grant to HIOs to implement portals specific to LTPAC providers. The Authority is continuing to work on this project and will request funding in the 2016-2017 IAPD funding request to continue to work on this project.

Assuming the availability of funds, the Department and Authority intend to continue to support onboarding incentive programs. The Department will work with the Authority to identify specific annual target goals for percentages of particular provider types to be onboarded over the coming five years.

- **Public Health Gateway** – Year one of the initial SMHP planning period included making the connections to DHS and DOH bi-directional to permit providers to access these valuable resources. In order to take advantage of the re-usable framework being built in the initial Public Health Gateway (PHG) implementation, PHG will be also be enhanced to facilitate the collection of additional DHS and DOH public health data, such as birth and death registries data submissions.

- In year two of the SMHP planning period, the Department will work with the Authority to introduce PHG enhancements that should provide health care providers more streamlined health information reporting capabilities, improved care coordination, and reduced administrative costs, and will allow PHG connected state agencies to support broader health improvement objectives. To that end, additional state (and sometimes local government) agencies, consuming, utilizing and/or providing health care related information will be added to PHG in future years. The order in which agencies are added will be developed through conversation with the various agencies, but the five-year plan should incorporate the following:
    - Department of Corrections (DOC) to support transitions and coordination of care,
    - Department of Aging to support care coordination and administrative functions,
    - Department's Child Welfare Services,
    - OCDEL to support care coordination and administrative functions,
    - Department of Education (PDE) and/or county-level school system to enable P3N access by school nurses for both care and administrative purposes (i.e. immunization verification),
    - Department of Military and Veterans Affairs (DMVA) to support transitions and coordination of care

  The eCQM repository is going to expand to begin accepting C-CDA files. These files will be analyzed and the data to report on the CQMs will be analyzed and compiled and placed into a repository that will be designed similar to the QRDA I and III repositories.

Additional possibilities, again with timeframes uncertain, include offering feedback on eCQM-derived reports back to providers, and leveraging PHG to streamline Department of State (DOS) processes related to provider credentialing. Note that in all cases, the work associated with expanding PHG includes not only technical work, but also legal analysis and agreements, policy work, operations and workflow, and communications. Where appropriate, the Department will seek IAPD funding to support PHG-related efforts.

For each enhancement to PHG, the Department will work with the Authority and the involved agency or agencies to develop specific adoption and utilization targets, and/or cost savings or quality improvement goals, and then measure progress against those targets and goals. Where linkages currently exist to some degree between public and private sector organizations, the Department and the Authority will work with the involved agency to develop and implement a roadmap to transition one-to-one connections to use of the PHG.

The Authority plans to begin promoting Medicaid provider utilization of the PHG which allows providers to submit data through an Authority certified HIO to state agencies' registries. The Department, in conjunction with the Authority, plans to request IAPD funding to support the PHG Utilization program which is planned to begin in the second year of the SMHP, using IAPD funds in 2017.

- **Master Patient Index (MPI) Consolidation** – The Department along with the Authority and Department of Health propose also plans to work with other state agencies to identify and document the various patient identity-management efforts to determine possible actions to streamline or even consolidate these efforts to increase efficiency and reduce taxpayer costs.

  The Authority maintains a MPI to manage patient identity across participating HIOs and agencies. The MPI was seeded with information from the DHSPA Medicaid Master Client Index and the DOH Immunizations Registry Patient Demographics. The Department maintains a Medicaid Master Client Index (MCI) with demographics information related to patients receiving Medicaid services in PA. There may also be other instances of patient demographics data housed in other systems within the Department. The Department of Health also has one or more instances of patient demographics data stored within its internal systems. In year two of the SMHP period, the Department will work with the Authority and the Department of Health to catalogue where patient demographics data is housed within each of the agencies, and how that data is being used. The goal of this effort will be to complete a detailed plan to implement a combined patient demographics facility (Consolidated MPI) to be used by the three agencies as a common source of truth for patient demographics data in PA.

  Analysis and planning will be completed in year 2 of the SMHP with implementation for this possible state government-wide patient identity management consolidation occurring in SMHP years three to five.

MPI consolidation may include the capability to link patients, providers, and care coordination organizations such as patient centered medical homes (PCMHs) and Accountable Care Organizations (ACOs) or other emerging models, to show care delivery and payment relationships. Providers who are connected to the HIOs which are connected to P3N, could utilize this index to assist in generating alerts related to clinically relevant events. Initially, this functionality would be piloted with the PA Medicaid MCOs, along with at least one HIO and ACO. A plan may be developed, based on lessons learned from the pilot exercise, to expand this functionality to all P3N users and eventually all PA operating care coordination organizations in subsequent years.

- **Provider Directory Enhancements –** The P3N Provider Directory is currently updated monthly from the National Plan and Provider Enumeration System (NPPES), the PA Department of State (DOS), and the PA Department of Health. The P3N Provider Directory will be enhanced to create a clearer reconciliation and stronger correlation between these data sources. This will provide for more accurate, complete and timely provider related data in the P3N Provider Directory, making it a comprehensive source of truth for health care providers in PA. This effort is likely to be completed in 2018. No provider directory enhancements have been identified for later SMHP years.

- **Interstate Connections** – Health care is not constrained by state borders. The Department and the Authority's strategic plans includes efforts to establish an interstate HIE, starting with the six states bordering Pennsylvania, and then progressing to other states with substantial shared patient populations. The Authority previously conducted an analysis to better understand technical HIE models and services, and legal and policy aspects and variances in these other states, which resulted in a roadmap for pairwise interstate connection (PA-DE; PA-NJ; PA-NY, etc.).

  DHS is requesting funds for the implementation of two interstate health information exchange connections this year. According to the Pennsylvania State Data Center, a substantial portion of the Medicaid population lives in counties bordering other states. The Department has determined that providing for interstate health information exchange is an essential component to effective patient care and coordination across health care providers in multiple states including New York, New Jersey, Delaware, Maryland, Ohio, and West Virginia. This year's project will focus on implementing connections with two of these four states: Delaware, Maryland, Ohio, or West Virginia.

  The Department will work with the Authority to encourage emphasis on those cross-border connections that have the largest impact on Medicaid populations. The Department will also reach out to its sister departments in these other states, in order to encourage similar working relationships between those departments and their individual state-level HIE efforts as the Department has with the Authority.

- **Case Reporting** – The Department of Health will establish the ability for Case Reports of reportable conditions to be submitted to the Pennsylvania's version of the National Electronic Disease Surveillance System (PA-NEDSS). This will allow the DOH to support the stage 3 Public Health Measure for Case Reporting. Currently case report data from clinicians must be manually entered into PA-NEDSS. This project will have three major components:
    1. Enable PA-NEDSS to receive and consume Case Reports;
    2. Create a service for EPs, EHsEP, EH and CAHs to send case reports to PA-NEDSS; and
    3. Enable functionality to allow EPs, EHsEP, EH and CAHs to submit data to PA-NEDSS via the Public Health Gateway.

  Public Health Gateway Provider Practice Onboarding Grants – The Authority's plan is to provide technical assistance to Medicaid providers in the form of grants to help offset the initial upfront onboarding costs associated with enabling PHG reporting capability with the provider's EHR system through a HIO. Onboarding to the Public Health Gateway will allow providers to submit data for clinical quality measures, the Immunization Registry, Syndromic Surveillance, the Cancer Registry and Lab Reporting electronically through the HIO. This will allow providers to meet the Public Health Objective and electronically submit CQMs to participate in the MA EHR Incentive program.

OMAP's Expectations for Provider EHR Adoption Over Time and Annual Benchmarks (Response to Question #2)

Aside from the EHR adoption goals, the Department's goals for the Pennsylvania EHR Incentive Program were initially structured around the three critical paths: 1) provider participation, 2) infrastructure development, and 3) meaningful use. The Department described its goals and strategies in 2010; Table E.2 below presents some results from the last five years.

Table E.2: The Department's Goals and Strategies for the EHR Incentive Program

Goal	Strategy	2010-2015 Results
Increase provider participation in the EHR incentive program	The Department will employ an outreach and education strategy	**Program Yr.** / **# of Payments** 2011 — 2,576 2012 — 2,978 2013 — 3,180 2014 — 2,239 2015 — 184 *It is important to note that at the time these numbers were reported, there were still over 300 2014 applications to be finalized and MAPIR was not yet updated to accept 2015 applications using the new rule. • 11,157 Payments have been made • 4,922 EPs have received more than one payment.

Section E: The State's Roadmap

<table>
<tr><th>Goal</th><th>Strategy</th><th>2010-2015 Results</th></tr>
<tr><td>Retain majority of enrolled providers in future years, in particular, retain providers between adoption, implementation, upgrade and meaningful use</td><td>The Department will employ an outreach and education strategy</td><td>• 2,797 EPs who received an AIU payment returned for at least one MU payment</td></tr>
<tr><td>Provide resources to support increased adoption stage rating for all Medical Assistance providers</td><td>The Department will employ an outreach and education strategy and collaborate with the Regional Extension Centers</td><td>• Weekly updates sent to over 1,225 subscribers
• Website updated with MAPIR provider manuals, FAQs and other resources
• Here is a summary of our 2012-2015 activities
<table>
<tr><td>Webinars</td><td>13</td></tr>
<tr><td>Presentations</td><td>37</td></tr>
<tr><td>Best Practices Focus Group</td><td>26</td></tr>
<tr><td>Provider Focus Group</td><td>3</td></tr>
<tr><td>HIT Stakeholder Group</td><td>20</td></tr>
<tr><td>ListServ Messages</td><td>232</td></tr>
<tr><td>Surveys</td><td>6</td></tr>
</table></td></tr>
<tr><td>Track usage of HIE services through the Authority and increase the percentage of providers exchanging data to support the Department's overarching HIE goals</td><td>The Department will collaborate with the Authority, specifically on incentive programs to onboard providers to the P3N</td><td>• Currently there are four HIOs in Pennsylvania that are actively onboarding hospitals, ambulatory care facilities and other provider types.</td></tr>
<tr><td>Measure and improve provider satisfaction with the EHR incentive program including satisfaction with the application process and with the assistance provided by the Department</td><td>Develop provider satisfaction surveys, e.g., screens at the end of MAPIR application with satisfaction questions</td><td>• 968/1,435 respondents indicated in post-MAPIR survey that MAPIR application was not difficult
• 2,299/7,154 respondents indicated in post-MAPIR survey that they completed application in 30 minutes or less.</td></tr>
</table>

Section E: The State's Roadmap

Goal	Strategy	2010-2015 Results
Increase number of providers who meet meaningful use at various stages	Develop interventions to help increase number of providers meeting meaningful use e.g., collaborate with the RECs. The Department is also considering requiring providers who participate in health home/medical home to meet meaningful use criteria	As of February 29, 2016, there has been $170,980,540 paid to 11,157 EPs and $181,883,661 paid to 431 EHs. Of these payments, 5,989 of EPs received payments for AIU and 3,109 unique EPs received payments for MU.
Improve provider performance on clinical quality measures and objectives	Develop metrics and tracking mechanisms for meaningful use reporting and develop interventions to improve results of clinical quality measures and objectives	The Department has aggregated initial submission of eCQMs (QRDA 1 and QRDA 3 level) and identified which eCQMs are most likely to be reported by providers. Aggregated results have been collated to see which measures offer an opportunity across the program for the most improvement.

The Department is continuing to refine this roadmap to customize the approach to infrastructure development to address the unique needs and challenges facing providers. As discussed in Section A, professionals and hospitals are at varying levels of EHR adoption and familiarity with HIT. The Department does not fully understand the functionality of the systems that providers are using and anticipates that functionality may change significantly when providers move towards using upgraded versions of federally-certified EHR systems. The Department will continue to collect information on the levels of EHR and HIE adoption, including information on system functionality and progress towards achieving meaningful use of certified EHRs.

Critical to this long-term pathway is defining provider requirements and expectations for achieving Stage 3 of meaningful use. Moving providers who currently have not adopted HIT to meaningful use will likely be tied to the provider's perception of sustainability and ability to meet meaningful use criteria. The Department's strategy will engage providers in the EHR Incentive Program and help them evolve in their participation over time. Efforts to clear these hurdles and involve providers in HIT adoption include but are not limited to:

- **Outreach-** As previously noted in Section C, the Department has many provider outreach efforts planned to maximize Medical Assistance provider HIT adoption and sustained participation in the EHR Incentive Program. The Department is using the data that is collected through multiple provider surveys and through outreach to provider associations and other stakeholders. This information will be used to shape the Department's EHR Incentive Program and align outreach and oversight functions in relation to these baseline measures. Over time, the Department also plans to use the MAPIR system and the provider statistics captured during the application

process to further assess and statistically monitor provider adoption levels and ongoing outreach and technical assistance needs. The MAPIR system will also provide valuable statistics regarding suspended applications. This information will help the Department target outreach efforts.

The Department will analyze and modify the program based on the key issues or challenges for successful enrollment and will regularly outreach to providers to improve success in the program. In all outreach efforts, the Department's emphasis will be to make sure that providers understand that the Department's ultimate goal is to improve quality of care. The EHR Incentive Program is driven by the need to develop the necessary infrastructure to support a more sophisticated means of exchanging data on medical services to save and improve lives and contain costs.

- **Collaboration-** The Department will continue to work in collaboration with other HIT and HIE initiatives to maximize the existing resources and to ensure an accurate and consistent message regarding the Medical Assistance incentive program is delivered to providers. As previously mentioned, to move providers who currently operate without HIT to adopt and participate, these providers will have to recognize the clinical value, cost effectiveness and sustainability of HIT. Participation in the incentive program will certainly be seen as a means to offset costs. However, if providers are uncertain of their ability to meet meaningful use criteria, they will initially require guidance on which solution will best serve them in meeting the incentive program requirements. The Department will collaborate with Regional Extension Centers, the Authority, medical societies, associations, and others to help disseminate research and model practices on benefits and functionality to promote long-term sustainability. The Department recognizes the importance of engaging consumers and will continue to engage consumers as part of the MAAC.

- **Innovations-** the Department will also work with providers to identify innovative solutions to HIT adoption and how to most effectively adopt and use HIT and meet program requirements and meaningful use. Future provider surveys, provider outreach, and further refinement of the current HIT adoption levels will assist the Department in developing solutions that maximize meaningful use of HIT for all Medical Assistance providers (those in the incentive program and those who are not).

  As providers move from the AIU stage to the MU stage, the Department will be working closely with ONC, and the Authority to provide innovative solutions that support providers' ability to meet these criteria. The Department will be closely monitoring the Final Rules for meaningful use Stage 2 and Stage 3 and working with the Authority and the Department's internal data sources to further evaluate clinical and administrative operational plan as it relates to sustaining providers through the life of the Pennsylvania EHR Incentive Program. Given that the meaningful use (MU) criteria is subject to change, the Department will continue to evaluate this process and modify data collection and analyses tools as necessary.

Helping providers maximize the benefits of this program and sustain their involvement is critical to the long-term success of the model. The Department is also looking for ways to leverage the experiences of "MUVers." MUVers, as defined by the Office of the National Coordinator, are meaningful use Vanguard providers, or providers who are already meeting the requirements of meaningful use and demonstrating that they can improve outcomes and quality of care through the use of EHRs and HIE. MUVers are identified by the Regional Extension Centers (RECs) and so far the RECs have identified over 800 MUVers. The Department will work with the REC to identify and leverage lessons learned from MUVers in Pennsylvania. MUVers are expected to:

- Build momentum for meaningful use
- Identify challenges to meeting meaningful use
- Assist with the development of tools
- Highlight model practices
- Help to pilot and test meaningful use requirements

As the Department works with providers moving them through the meaningful use stages, the Department will begin to move towards outcomes and evaluation. The Department will begin to assess quality improvements using the meaningful use data, evaluate changes in utilization and service patterns in relation to HIT stages and begin utilizing more advanced features of the Authority.

At the inception of the program in 2011, the Department determined that there were potentially 4,600 eligible professionals who could participate in the MA EHR Incentive Program based on being able to meet the 30% MA patient volume requirement. Since then the Program has reached and exceeded that goal. This is due to several changes. First, the 2012 Final Rule updated the definition of an encounter to include patients eligible for MA and not just paid encounters. Second, the Program has also seen an increase of new providers who have just started their medical career and are participating in the incentive program through their practice. As of February 29, 2016, there have been 6,301 unique eligible professionals and 142 out of the 159 Pennsylvania eligible hospitals that have participated in the Pennsylvania MA EHR Incentive program

In projecting for the next five years, the Department anticipates that participation will increase due to the Medicaid Expansion program which may allow new providers and hospitals to meet the 30% patient volume requirement (10% for hospitals except children's hospitals.) There are two important components of the Final Rule that need to be considered. First, neither EPs nor EHs are able to begin participation in the MA EHR Incentive Program after Program Year 2016, so the Department does not expect any new participants after that time period. Second, EPs are no longer allowed to switch between the Medicare and Medicaid EHR Incentive programs, so the Department will not see an increase of providers switching between programs.

In regards to the meaningful use part of the program, we are currently in the grace period for program year 2015 applications and will begin to see an increase of applications beginning May 2, 2016 due to the release of MAPIR that will include the new Objectives from the 2015-2017 Modification Rule. We anticipate that this will increase until the end of our grace period which is July 31, 2016 for EPs. Furthermore, we understand the challenges with certain provider types in being able to participate in the EHR Incentive program. These provider types include dentists and behavioral health providers. We are working directly with these groups but currently these are more challenging and preventing us from attaining a higher percentage of MU participation.

Based on the above summary, Tables E.2 and E.3 below provide information on the Department's future adoption and meaningful use goals through the next five years. As we will not be accepting Program Year 2015 applications utilizing the Modification Rule until May 2, 2016, we kept Program Year 2015 in this analysis. Also, our projections show that all of the hospitals we have anticipated would be able to participate in the MA EHR Incentive Program, have begun participation so we do not anticipate an increase in this number.

Table E.3: EHR Adoption Rate Goals for Medical Assistance Providers, 2015-2019
NOTE: As of 2/29/16 we had 6,301 Unique Providers attest to AIU and 142 Unique Hospitals attest to the MA EHR Incentive program

	2015	2016	2017	2018	2019
EP	**6,325**	**6,641**	**n/a**	**n/a**	**n/a**
EH	**142**	**142**	**n/a**	**n/a**	**n/a**

Table E.4: EHR Meaningful Use Rate Goals for Medical Assistance Providers, 2015-2019
NOTE: As of 3/16/15 there were 3,109 unique EPs who have received MU payments and the potential target is 6,063 (see chart above). Below is the % toward the goal of 6,641 that we would like to reach.

	2015	2016	2017	2018	2019
EP	**60% (3,985)**	**70% (4,649)**	**80% (5,313)**	**90% (5,977)**	**95% (6,309)**

In addition to increasing participation in the program, we are also preparing goals in anticipating the participation in Health Information Exchange and utilizing a Health Information Organization to share information. Although we do not have an exact measure currently of how many providers are participating with an HIO, we know it is low. Our goal for the next five years is to have 100% participation with the EHs who are participating in the MA EHR Incentive program and 80% participation with the EPs. We understand that the costs may be prohibitive to some of the EPs so that will limit the participation. We are also planning on working with the Authority to be able to allow those EPs to participate in the exchange of data through a HIO.

Annual Benchmarks for Audit and Oversight Activities (Response to Question #4)

As Sections C and D describe, the MAPIR system is being designed to facilitate monitoring and oversight during application, attestation, post-payment, and during the renewal process. As described in Section

D, both eligible professionals and eligible hospitals will be reviewed, but hospitals' payments will be reviewed more closely before issuing their payments since the payment amounts are much larger. Some examples of annual benchmarks that will be captured through MAPIR and other oversight activities include:

- Number of reviews conducted by the Department. EHR incentive payment reviews will be incorporated into other reviews;
- 100 percent of overpayments recouped within one year for the categories described in Section D;
- Number of technical assistance referrals made and resolved; and,
- Special studies and findings, e.g., patient volume reviews, assignment of payments consensual.

These findings will be reported in the CMS audit database.

Appendix I: Glossary of Terms and Acronyms

Appendix I: Glossary of Terms and Acronyms

The matrix below provides a glossary of terms and acronyms that are frequently used in discussions about the Department of Human Services' HIT initiative.

Term	Acronym	Definition
CMS Registration and Attestation System (R&A)	R&A	• A repository that will be available to states to help avoid duplication of payments to providers participating in the EHR Provider Incentive Program • Information the repository is proposed to store includes provider registration information, meaningful use attestations and incentive payment information
Community Health Choices	CHC	• The Medical Assistance managed care plan for Pennsylvanians qualifying for Long Term Supports and Services. CHC is expected to be implemented in 2017 or 2018.
Consumer Assessment of Healthcare Providers and Systems	CAHPS®	• A multi-year initiative of the Agency for Healthcare Research and Quality (AHRQ) to develop surveys of patients' experiences with care and to support use of the survey results for public reporting and quality improvement • The surveys focus on matters that patients themselves say are important to them and for which patients are the best and/or only source of information • Examples of domains covered by CAHPS® surveys include access, doctor-patient communication, communication with nurses and office staff, and customer service • Are an integral part of CMS' efforts to improve health care in the U.S. • Some CAHPS surveys are used in CMS Value-Based Purchasing (Pay for Performance) initiatives
Electronic Health Information Exchange	HIE	• The sharing of clinical and administrative data across the boundaries of health care institutions and providers • The mobilization of health care information electronically across organizations within a region, community or hospital system

Appendix I: Glossary of Terms and Acronyms

Term	Acronym	Definition
		• Provides capability to electronically move clinical information among disparate health care information systems while maintaining the meaning of the information being exchanged • Goal is to facilitate access to and retrieval of clinical data to provide safer, more timely, efficient, effective, equitable patient-centered care
Electronic Health Record	EHR	• A subset of information from multiple provider organizations where a patient has had encounters • An aggregate electronic record of health-related information for an individual that is created and gathered cumulatively across multiple health care organizations, and is managed and consulted by licensed clinicians and staff involved in the individual's health and care • Connected by a Health Information Exchange (HIE) • Can be established only if the EMRs of multiple provider organizations have evolved to a level that can create and support a robust exchange of information • Provides interactive patient access and ability for the patient to append information
Electronic Medical Record	EMR	• The legal record created in hospitals and ambulatory environments that is the source of data for an electronic health record (EHR) • A record of clinical services for patient encounters in a single provider organization; does not include encounter information from other provider organizations • Created, gathered, managed and consulted by licensed clinicians and staff from a single provider organization who are involved in the individual's health and care • Owned by the provider organization • May allow patient access to some results information through a portal, but is not interactive
Health Information Organization	HIO	• A private sector organization that enables HIE for providers, patients, and/or payers • Standard terminology adopted in Pennsylvania to distinguish the action of HIE from the organizations that enable HIE.

Appendix I: Glossary of Terms and Acronyms

Term	Acronym	Definition
		• The Authority maintains a certification program for HIOs. Certification is free and voluntary, but required for participation in the P3N and in Department/Authority administered HIE-related grant and incentive programs.
Health Information Service Provider	HISP	• An organization that provides DIRECT services for providers, patients, and/or payers. • The Authority maintains a certification program for HISPs. Certification is free and voluntary, but required for participation in Department/Authority administered DIRECT-related grant and incentive programs.
Health Information Technology	HIT	• Allows comprehensive management of medical information and its secure exchange between health care consumers and providers • Application of information processing involving both computer hardware and software that deals with the storage, retrieval, sharing, and use of health care information, data and knowledge for communication and decision-making
Healthcare Effectiveness Data and Information Set	HEDIS®	• A widely used set of performance measures in the managed care industry, developed and maintained by the National Committee for Quality Assurance (NCQA) • Provides consumers with the means to compare health plan performance, either to other plans, or to national or regional benchmarks • Submission of HEDIS data is required for health plans seeking NCQA accreditation, and for health maintenance organizations (HMOs) providing services to Medicare Advantage participants
Medical Assistance Provider Incentive Repository	MAPIR	• The state-level information system for the EHR Incentive Program that both tracks and acts as a repository for information related to payment, applications, attestations, oversight functions, and interfaces with the CMS Registration and Attestation (R&A) System. • Developed by a 13 state collaborative.
Pennsylvania eHealth Partnership Authority	the Authority	• Independent state agency created by Act 121 of 2012 to coordinate HIE development efforts across the Commonwealth, build and maintain the ability for patients to opt-out of HIE, and educate providers and the public about HIE. The Authority is governed by a public-private Board of Directors which includes a permanent seat for the Secretary of Human Services.

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Term	Acronym	Definition
Pennsylvania Patient and Provider Network	P3N	• The combination of governance, legal, and technical services offered by the Authority to establish state-wide interoperability amongst HIOs and HISPs. • Includes the PHG. • HIOs pay fees in order to participate in P3N.
Personal Health Record	PHR	• Electronic, cumulative record of health-related information for an individual in a private, secure and confidential manner • Drawn from multiple sources • Created, gathered, and managed by the individual • Integrity of the data and control of access are the responsibility of the individual
Public Health Gateway	PHG	• A part of P3N that enables single-pathway communication between the public and private sectors in Pennsylvania. • As of 2015 includes submissions from providers to the Department's eCQM repository, and to the Department of Health's Immunization, Cancer, Electronic Lab Reporting, and Syndromic Surveillance registries.
CMS Documentation Requirements for Provider Incentive Program[5,6]		
Planning Advanced Planning Document	PAPD	A plan of action, and any necessary update documents, that requests FFP and approval to accomplish the planning necessary for a State agency to determine the need for and plan the acquisition of HIT equipment or services or both and to acquire information necessary to prepare a HIT implementation advanced planning document (IAPD) or request for proposal to implement the State Medicaid HIT Plan (SMHP)

[5]To receive FFP for administering an EHR provider incentive program, a state must develop a HIT PAPD, an SMHP and a HIT IAPD to describe its process to implement and oversee the EHR incentive program. They will help states to construct an HIT roadmap to develop the systems necessary to support providers in their adoption and Meaningful Use of certified EHR technology.

[6]The APD process allows states to update their APD when they anticipate changes in scope, cost, schedule, etc. States may add tasks to the contract which they identified after the HIT PAPD was written and as they worked on tasks included in the original submission. This is a complex initiative that will most likely result in an ''as needed'' and ''annual'' update to the original scope of work.

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Term	Acronym	Definition
State Medicaid Health Information Technology Plan	SMHP	• Document that describes a state's current and future HIT activities in support of the Medicaid EHR incentive program • Purpose is to identify the ''As-Is'' state and ''To-Be'' (target) state of a state's Medicaid business enterprise and to align business areas and processes in the user community • Development of an SMHP provides states an opportunity to analyze and plan for how EHR technology, over time, can be used to enhance quality and health care outcomes and reduce overall health care costs
Implementation Advanced Planning Document	IAPD	• A plan of action, and any necessary update documents, that requests FFP and approval to acquire and implement the proposed SMHP services or equipment or both

Appendix I: Glossary of Terms and Acronyms

Other		
Children's Health Insurance Program Reauthorization Act	CHIPRA	• Provides grant funding for demonstration programs • Pennsylvania awarded grant funds for initiative to link geographically diverse health systems across the Commonwealth with a common pediatric EHR and pediatric survey tool with the goal to better meet needs of children with critical medical needs, to target resources provided in the child serving system and to ensure children are properly screened and referred to providers offering them the appropriate care
Health Information Technology for Economic and Clinical Health Act	HITECH	• Act that provides for funding opportunities to advance health information technology
Electronic Quality Improvement Project	EQUIP	• Project developed and designed in collaboration with providers to assist in the improvement of services to consumers while allowing the providers to demonstrate meaningful use
Medicaid Information Technology Architecture	MITA	Both a framework and an initiative: • National framework to support improved systems development and health care management for the Medicaid enterprise • Initiative to establish national guidelines for technologies and processes that enable improved program administration for the Medicaid enterprise, and which includes an architecture framework, models, processes and planning guidelines for enabling State Medicaid enterprises to meet common objectives with the framework while supporting unique local needs
Regional Extension Centers	REC	• Entities that have received grants funds to offer technical assistance, guidance, and information to support and accelerate health care providers' efforts to become meaningful users of EHRs • Originally designed to ensure primary care clinicians who need help are provided with an array of on-the-ground support to meaningfully use EHRs • Entities will provide training and support services to assist doctors and other providers in the adoption and meaningful use of EHR systems • Part of the Health Information Technology Extension Program authorized through the HITECH Act

Appendix II: Baseline Landscape Assessment

Surveys of Practitioners – 2005 and 2010

In June and July of 2005, the Pennsylvania Medical Society and Quality Insights of Pennsylvania surveyed over 2,800 Pennsylvania medical practices to assess current and prospective use of EHR systems in the Commonwealth. Results of the survey found that only 14 percent of the medical practices (below the national average of 17 percent in 2005) had implemented EHR systems; 12 percent of respondents were in the process of implementing a system. The survey segmented responses by primary care, surgical specialist and medical specialist and found that surgical specialists were the most likely to have a current EHR system in place. Based on results of the survey, the estimated growth rate of EHR systems ranged from 0.25 percent to 0.75 percent of practices per month. Survey respondents cited costs of EHR as the key barrier to implementation. However practices with EHRs reported positive rating on their ability to serve patients more effectively and safely.

The Department surveyed practitioners in August and September 2010 to gauge the current extent of EHR adoption among Medical Assistance practitioners and targeted the survey practitioners potentially eligible for Medical Assistance EHR incentive payments. The survey was conducted via web-based tool. The link to the survey was sent to practitioners through the following contacts:

Pennsylvania Chapter American Academy of Pediatricians

HealthChoices Managed Care Organizations to distribute to providers

Gold Star providers through the Unison Health Plan – high volume Medical Assistance providers

Access Plus providers (primary care case management providers)

Conducting the survey through a web-based tool allowed for quick turnaround with surveyed practitioners. The survey was targeted to high volume Medical Assistance practitioners; many affiliated with large institutions or participate with HealthChoices MCOs, in the group referred to as "PA-surveyed Medical Assistance practitioners." Many of these practices have started to implement an EHR but have not attained full functionality and who may be affiliated with health systems that have already invested in HIT infrastructure and are therefore further along.

The web-based survey tool and use of provider associations will also allow the Department to repeat the survey easily in the future. However, the Department recognizes that there is response bias in that respondents who are comfortable responding over the internet may be more likely to be comfortable with EHR systems and therefore may be more likely to be EHR adopters. There is also response bias in that many of the responses represented early adopters such as the Geisinger Health System. The survey findings describe the potential response bias which will be addressed by repeating this methodology in future years to have comparable results with which to compare the current results. The Department is planning to conduct more targeted surveys or focus groups for practitioners who are not comfortable with responding via a web-based survey in the future.

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According to survey results, 267 respondents started the survey and 131 respondents successfully completed the survey. The Department anticipates that office managers or other representatives would complete on behalf of the practitioners in their offices and asked questions to determine the number of practitioners each survey represented. The survey responses represent 2,294 practitioners as described in Table II.1 below.

Table II.1: Practitioner Breakdown

Practitioner Type	Count	Percent of Total
Pediatrician*	594	26%
Primary Care Physicians	420	18%
Specialists	1,124	29%
Other – Eligible	12	1%
Other – Non-Eligible	144	6%
Total	2,294	

* Of the 594 Pediatricians, 38 were identified as Pediatric Specialists

Table II.2 provides a breakdown of the physical location of the practitioner.

Table II.2: Practitioner Location

Location	Count	Percent of Responses (Rounded)
Rural	1,098	48%
Urban	1,196	52%
Total	2,294	

According to survey results, 60 percent of the respondents in the PA-surveyed Medical Assistance practitioner group indicated that they currently use an EHR software package within their practice/clinic. The largest percentage of respondents began their system implementations in 2009. Also, these figures do not describe the level of implementation. The 60 percent adoption rate is believed to be a sampling bias that overrepresented adoption in Pennsylvania for the reasons described above; web-based survey that was targeted to high-volume Medical Assistance practitioners with many of the responses coming from large health system practitioners and other groups that are likely to be early EHR adopters.

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Table II.3 below provides a break-out of the period for when practitioners plan to participate in the PA Medical Assistance HIT incentive program. More than half of the responses indicated that they plan to participate in the PA Medical Assistance HIT incentive program beginning in 2011 or 2012.

Table II.3: Anticipated Date of Initial Participation

Electronic Health Records	Count	Percent
2011	62	47%
2012	10	8%
2013	5	4%
2014	1	<1%
2015	0	0%
2016	0	0%
Unanswered	53	40%
Total	131	

Table II.4 below provides a break-out of the EHR functionality used by practitioners. Many of the responses indicate the use of clinical documentation and medical history and problem list functionality. Almost half of respondents indicated that their systems have the necessary functionality for clinical documentation, documenting medical history and problem lists, electronic prescribing and physician order entry.

Table II.4: EHR Functionality Used by Practitioners

Function	Count	Percent of Responses (Rounded)*
Clinical Documentation	72	55%
Medical History	69	53%
Problem Lists	68	52%
Electronic Prescribing	61	47%
Physician Order Entry	61	47%
Reporting (Quality Measures)	46	35%
Decision Support	34	26%
Discharge Planning	28	21%
Exchange with Other Systems	25	19%
Total	464	

* Based on 131 respondents who completed the survey

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Table II.5 below provides a break-out of the usage of computerized systems. The table includes the percentage of respondents who indicated that they had the functionality below and used the functionality. For example, almost all respondents who have patient problem lists, patient allergy lists, patient medications, and clinical notes or care plans, use this functionality.

Table II.5: Usage of Computerized Systems By Percent (Rounded)

Electronic Health Records	Yes	No	Unsure	Do Not Use	Use Some of the Time	Use Most or All the Time	Not Applicable
Patient problem lists	99%	1%	0%	1%	7%	92%	0%
Patient allergy lists	100%	0%	0%	1%	1%	97%	0%
Patient medication lists	97%	3%	0%	3%	3%	95%	0%
Viewing Lab results?	84%	12%	4%	4%	18%	70%	8%
Viewing Imaging results	63%	36%	1%	17%	15%	47%	21%
Clinical notes or care plans?	93%	6%	1%	3%	6%	89%	3%
Care gap reminders for guideline-based interventions and/or screening tests?	58%	30%	12%	13%	22%	44%	21%
Public health reporting?	12%	57%	31%	45%	5%	11%	40%

Table II.6 below provides a break-out of the systems that are connected to the EHR. Labs and pharmacies have the highest rate of connectivity.

Table II.6: EHR Connections

Connections	Count	Percent of Responses* (Rounded)
Lab(s)	46	35%
Pharmacy	42	32%
Hospital(s)	29	22%
Other clinic(s)	22	17%
Digital Radiology	17	13%
Emergency Department(s)	14	11%
HP/PROMISe™	1	1%
Total	171	

* Based on 131 respondents who completed the survey

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Table II.7 provides an overview of electronic health information exchange (HIE) practitioner participation rates. The low percentage of participation in HIE highlights the goals of meaningful use to improve quality, safety, efficiency, and reduce health disparities by using computerized physician order entry, e-prescribing, and maintaining an active medication list and up-to-date problem list of current and active diagnoses.

Table II.7: Health Information Exchange Participation

	Yes	No
Participates in HIE	5%	95%
Practice currently provides health information electronically to patients	22%	78%
If currently does not provide electronic health information, plans to provide electronic health information to patients in the future	74%	26%

Successful implementation of an EHR system requires funding, adequate staffing, training, and leadership. The Department estimates that there are approximately between 4,500 and 4,600 eligible Medical Assistance practitioners. The MA HIT Initiative is well positioned to encourage provider adoption, implementation, upgrading, and meaningful use.

Survey of Federally Qualified Health Centers

PACHC has not conducted an EHR implementation survey since 2010. As mentioned before, FQHCs report the status of EHR implementation, functionality and utilization of EHRs to report clinical quality measures in the Uniform Data System report. That report does not go to the level of reporting the number and/or type of practitioner utilizing an EHR.

The UDS does ask if providers at the health center are meaningful users of HIT.

As part of the annual Uniform Data System (UDS) reporting required of all FQHCs, starting in 2011, FQHCs reported the status of EHR implementation, functionality and utilization to report clinical UDS data.

Year	Total FQHCs Reporting	EHR Available at All Sites for All Providers	EHR Limited to Some Sites or Some Providers	Total FQHCs with EHR Installed	No EHR Installed %	No EHR Installed – number of FQHCs
2011	35	54.3%	20%	74.3%	25.7%	9
2012	40	77.5%	15%	92.5%	7.5%	3
2013	40	85%	12.5%	97.5%	2.5%	1

For 2013, 36 FQHCs answered: Yes. Providers are receiving meaningful use incentive payments from CMS due to their use of health center's EHR system; and 4 FQHCs answered: Not yet, but providers at my health center plan to apply to receive meaningful use incentive payments from CMS in the coming year.

In April 2010, the Department sent a survey inquiring about EHR implementation status to every health center in Pennsylvania. The Department received responses from all but one health center.[7]

According to survey results, 44 percent of health center practitioners in Pennsylvania have either fully implemented or are in the process of implementing an EHR system.[8] A larger percentage (26 percent) responded that they were in the process of implementing EHR rather than having a fully implemented EHR (18 percent).

Tables II.8 and II.9 below provide detail total number of practitioner types at health centers that have either fully implemented or are in the process of implementing EHR. The category "Practitioner" refers to physicians and specialists, the category "Mid" refers to mid-levels providers such as midwives and certified registered nurse practitioners, and "Dentists" is dentists only.

Table II.8: Health Centers with EHR Fully Implemented

Health Center	FT Practitioner	PT Practitioner	FT Mid	PT Mid	FT Dentist	PT Dentist	Total
East Liberty	22	0	1	1	1	1	26
Esperanza	14	0	2	1	2	0	19
Family Practice and Counseling	0	1	17	3	7	0	28
Keystone Rural Health Center	35	4	10	0	5	0	54
Mathilda Theiss	3	0	0	0	0	0	3
Public Health Management	2	0	17	0	0	0	19
Spectrum	8	5	0	2	0	0	15

[7]Types of health centers include FQHCs, FQHC Look-Alikes, Hospital-Based RHCs, Independent, Not-For-Profit RHCs, and Independent, For-Profit RHCs

[8]Practitioner types include Full-Time Physicians (9a), Part-Time Physicians (9b), Full-Time Midwives (10a), Part-Time Midwives (10b), Full-Time Dentists (11a) and Part-Time Dentists (11b).

Squirrel Hill	3	2	1	0	0	0	6
Washington Phys. Services	3	0	1	0	0	0	4
Totals	90	12	49	7	15	1	174
Percent with full EHR Implementation	17.96%	11.21%	27.07%	31.82%	12.40%	7.69%	18.41%

Table II.9: Health Center with EHR Implementation in Process

Health Center	FT Practitioner	PT Practitioner	FT Mid	PT Mid	FT Dentist	PT Dentist	Total
Centerville	22	6	3	0	2	2	35
Chespenn	11	2	1	0	3	0	17
Delaware Valley	21	0	2	1	7	0	31
Hamilton	13	1	3	0	4	1	22
NEPA	2	0	4	0	0	0	6
North Penn Comprehensive	10	0	3	0	0	0	13
Northside Christian	6	0	3	0	0	1	10
Primary Health Network	43	27	17	0	10	2	99
Conneaut Valley	7	1	4	1	0	0	13
Totals	135	37	40	2	26	6	246
Percent "In Process" of implementing	26.95%	34.58%	22.10%	9.09%	21.49%	46.15%	26.03%
Total - "Fully Implemented" or "In Process"	225	49	89	9	41	7	420
Percentage "Fully Implemented" or "In Process"	44.91%	45.79%	49.17%	40.91%	33.88%	53.85%	44.44%

Table II.10 below provides a break-out of the practitioner types by type of center for those health centers that responded to the Department's survey. Of the 945 practitioners represented by health centers responding to the survey, a majority of practitioners work in either a -FQHC (755) or a FQHC look-alike (139) and the majority of practitioners were classified as full-time physicians (501).

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Table II.10: Number of Practitioners by Type of Health Center

Type of Health Center	FT Phys (9a)	PT Phys (9b)	FT Mid (10a)	PT Mid (10b)	FT Dent (11a)	PT Dent (11b)	Total
FQHC	379	82	159	21	102	12	755
FQHC Look-Alike	103	9	10	0	17	0	139
Hospital-Based RHC	13	16	9	1	1	1	41
Independent Not-For-Profit Rural Health Center	3	0	2	0	1	0	6
Independent For-Profit Rural Health Center	3	0	1	0	0	0	4
Total	501	107	181	22	121	13	945

Department Surveys

Beginning in 2011, the Department created and released a number of surveys focusing on meaningful use, Stage 2, eCQMs, the Flexibility Rule and MAPIR. Below are the responses to a few of the key questions from these surveys.

This question captured the reason why eligible providers or eligible hospitals were compelled to implement an Electronic Health Record.

Table II. 11: Reasons to Implement an Electronic Health Record (EHR)

Reasons to Implement (EHR)	Count	Percent of Total
EHR Incentive Program	59	74.68%
Health Information	21	26.58%
Medical Home Accreditation	11	13.92%
Ease of Use	2	27.85%
Other –	25	31.65%
Total	**79**	

**Other being the second highest this was an open ended question. Providers are looking forward to embracing the change in technology enhancements in the health care industry. This implementation will allow more accuracy on patient records and increase the quality and access to care which two of the three main issues are in our health care system today

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Table II.12 2011 Knowledge Base of the Health Information Exchange (HIE)

Health Information Exchange (HIE)	Count	Percent of Total
No Knowledge of (HIE)	9	11.39%
Heard of (HIE)	38	48.10%
Know of (HIE)	32	40.51%
Total	79	

The eCQM Reporting survey from July 2014, had 85 respondents started the survey and 85 respondents successfully completed the survey. The Department anticipates that office managers or other representatives would complete this MAPIR Follow-Up Survey. This survey was automatically sent to all providers after an application was completed in the MAPIR system. The survey responses represent 85 practitioners as described in the tables below.

Table II. 13 Familiarity with the electronic clinical quality measures (eCQM) reporting

Health Information Exchange (HIE)	Count	Percent of Total
Knowledgeable of (eCQM)	66	77.65%
Not Knowledgeable of (eCQM)	19	22.35%
Total	85	

Table II. 14 Manual vs. Electronic Submission of CQM Preferences

Manual vs. Electronic Submission	Count	Percent of Total
Manual	3	5.56%
Electronic Submission	43	79.63%
Undecided	8	14.81%
Total	54	

*** 31 people have skipped this question

Table II. 15 Concerns About (eCQM)

Concerns about (eCQM)	Count	Percent of Total
Cost	15	29.41%
Lack of Staff/Resources	30	58.82%
Security	13	25.49%
Technical Inability	22	43.14%
None	11	21.57%
Total	51	

*** 7 people have skipped this question

Survey of Hospitals

In 2009, the American Hospital Association (AHA) distributed surveys to Pennsylvania hospitals to assess the level of HIT adoption throughout the state. The surveys were sent out in May 2009 and collected data through August. Overall there was a 72 percent response rate from Pennsylvania hospitals and a 73 percent response rate from all Pennsylvania general acute care (GAC) hospitals. The significant response from the survey gives more weight to the trends and responses. The results from the survey are as follows:

General Acute Care Hospitals - Of the GAC hospitals surveyed, 63 percent have at least begun to implement an -EHR- system, and 49 percent of the hospitals have an almost basic EHR system or better.

All Pennsylvania Hospitals - As of August 2009, 85 percent of Pennsylvania hospitals have patient demographics implemented in their electronic clinical documentation. Nursing notes and Medication lists exist in electronic form in 38 percent and 54 percent of Pennsylvania hospitals, respectively. However, 31 percent of hospitals are considering implementing physician notes but do not have the resources to add them to the electronic documentation.

Within the Pennsylvania hospitals, 54 percent do not share patient level clinical data through an HIE. Forty-six percent of hospitals share clinical data with ambulatory practitioners outside their hospital health system compared to 9 percent of hospitals who share their data with other hospitals outside their health system.

In 2010, the AHA sent out another HIT survey to all Pennsylvania hospitals and had a 73 percent response rate. The results from the survey are as follows:

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Of the nine priority practitioners surveyed, 89 percent have partially or fully implemented an EHR system.[9]

Eighty-eight percent of the practitioners are exchanging clinical information with in-system hospitals and ambulatory practitioners, but 44 percent do not have an HIE framework in place. Subsequently, only 22 percent actively participate in HIE, and only 11 percent share more than clinical data with hospitals and ambulatory practitioners outside their health system.

In 2002, the Children's Hospital of Pittsburgh of UPMC implemented a Children's EHR, which has been successful in providing instantaneous access to the child's full record, managing quality by enabling Children's to mine discrete data — not scanned forms — for trends and patterns in patient care and caregiver behaviors and improving the diagnosis and treatment of pediatric disease through analysis of the collected data. Children's achievement in EHR adoption has been recognized by the Healthcare Information and Management Systems Society (HIMSS) as a facility that has achieved Stage 7 adoption, which only 0.7 percent of the surveyed facilities were able to achieve by 2009. Children's EHR has achieved the following operational efficiencies:

Practitioners place more than 94 percent of all orders directly into the electronic record, reducing the potential for human error by eliminating handwritten and verbal orders.

Eliminates time-consuming processes such as the search for paper records, and the faxing and/or delivery of paper records between nursing units and departments.

Eliminates the need to ask for the same information from the patient or parent.

Mobile, wireless computers allows nurses, physicians to spend less time charting at the nurse's station and more time at the patient's bedside.

Gives caregivers real-time access to critical patient information, such as the types of care and medications that a patient received.

Gives caregivers immediate access to lab and radiology reports as well as online access to medication formularies and medical references so that caregivers have this potentially lifesaving information before making a decision.

Provides information needed for regulatory and compliance standards.

Allows pediatric interns, residents and fellows to train with state-of-the-art technology.

[9] The nine priority providers identified for this survey are: Hospital of the University of Pennsylvania, Lancaster General Health, Lehigh Valley Hospital, Pinnacle Health System, Robert Packer Hospital, Thomas Jefferson University Hospital, University of Pittsburgh Medical Center/Presbyterian, Wellspan Health/York Hospital, and Williamsport Hospital and Medical Center

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The entire EHR is securely available at the bedside and from anywhere in the world.

In addition, four facilities within the UPMC Health System (Magee-Women's Hospital, UPMC Presbyterian, UPMC - St. Margaret and UPMC Mercy) as well as Doylestown Hospital and St. Clair Memorial Hospital have been recognized by HIMSS to have achieved Stage 6 adoption, or achieved EMR capabilities which include physician documentation, full clinical decisions support systems and a full complement of Picture Archive and Communication Systems (PACS) to provide medical images to physicians via an intranet and displaces all film-based images.

In 2014, the American Hospital Association released their Health IT Survey. The completed surveys were submitted to the AHA in late-2014 and early-2015 (Survey Closed March 6, 2015). There were 109 responses that represent 69 percent of the 159 Pennsylvania GAC hospitals. The respondents are representative of all PA GAC hospitals based on size, region, and system affiliation (i.e., stand-alone vs. part of a multi-hospital system). Below are some of the relevant results from this survey.

1. Does your hospital currently have a computerized system which allows for:

(Fully implemented means it has completely replaced paper record for the function.) **Number out of 109 Responses**	**(1) Fully Implemented Across ALL Units**	**(2) Fully Implemented in at least one Unit**	**(3) Beginning to Implement in at least one Unit**	**(4) Have Resources to Implement in the next year**	**(5) Do Not have Resources but Considering Implementing**	**(6) Not in Place and Not Considering Implementing**
Electronic Clinical documentation						
Patient demographics	**107**	**2**	**0**	**0**	**0**	**0**
Physician notes	**54**	**35**	**4**	**9**	**7**	**0**
Nursing notes	**90**	**15**	**2**	**2**	**0**	**0**
Problem lists	**93**	**14**	**0**	**1**	**1**	**0**
Medication lists	**102**	**6**	**0**	**0**	**0**	**0**
Discharge summaries	**90**	**11**	**1**	**5**	**2**	**0**
Advanced directives (e.g. DNR)	**97**	**8**	**2**	**0**	**0**	**2**

Appendix II: Baseline Landscape Assessment

Results Viewing						
Laboratory reports	**108**	**1**	**0**	**0**	**0**	**0**
Radiology reports	**108**	**1**	**0**	**0**	**0**	**0**
Radiology images	**102**	**2**	**2**	**2**	**0**	**0**
Diagnostic test results (e.g. EKG report, Echo report)	**101**	**5**	**2**	**1**	**0**	**0**
Diagnostic test images (e.g. EKG tracing)	**95**	**6**	**2**	**5**	**0**	**0**
Consultant reports	**86**	**11**	**2**	**7**	**3**	**0**
Computerized Provider Order Entry (Provider (e.g., MD, APN, NP) directly enters own orders that are transmitted *electronically*)						
Laboratory tests	**98**	**8**	**2**	**0**	**1**	**0**
Radiology tests	**100**	**6**	**2**	**0**	**1**	**0**
Medications	**99**	**8**	**2**	**0**	**0**	**0**
Consultation requests	**96**	**7**	**2**	**0**	**4**	**0**
Nursing orders	**99**	**6**	**2**	**1**	**1**	**0**
Decision Support						
Clinical guidelines (e.g. Beta blockers post-MI, ASA in CAD)	**89**	**10**	**5**	**1**	**3**	**0**
Clinical reminders (e.g. pneumovax)	**89**	**11**	**2**	**1**	**4**	**0**
Drug allergy alerts	**105**	**2**	**0**	**1**	**0**	**0**
Drug-drug interaction alerts	**104**	**3**	**0**	**1**	**0**	**0**
Drug-lab interaction alerts	**82**	**12**	**0**	**8**	**3**	**2**
Drug dosing support (e.g. renal dose guidance)	**85**	**8**	**3**	**9**	**1**	**1**
Bar Coding or Radio Frequency Identification (RFID) for Closed-loop Medication Tracking						

Appendix II: Baseline Landscape Assessment

Medication administration	**81**	**20**	**2**	**3**	**2**	**0**
Patient verification	**82**	**21**	**2**	**2**	**1**	**0**
Caregiver verification	**69**	**15**	**3**	**6**	**4**	**10**
Pharmacy verification	**70**	**18**	**2**	**5**	**3**	**7**
Other Functionalities						
Bar coding or Radio Frequency (RFID) for supply chain management	**48**	**16**	**3**	**6**	**20**	**13**
Telehealth	**24**	**37**	**12**	**11**	**11**	**13**
Ability to connect mobile devices (tablet, smart phone, etc.) to EHR	**69**	**14**	**9**	**4**	**6**	**5**

2. Does your hospital currently have a computerized system which allows for:

Electronic Clinical Documentation	**Yes**	**No**	**Do Not Know**
Record gender/sex and date of birth	**108**	**0**	**0**
Record race and ethnicity	**108**	**0**	**0**
Record time and preliminary cause of death when applicable	**103**	**2**	**2**
Record preferred language for communication with providers of care	**107**	**0**	**1**
Record vital signs (height, weight, blood pressure, BMI, growth charts)	**108**	**0**	**0**
Record smoking status using standard format	**108**	**0**	**0**
Record and maintain medication allergy lists	**108**	**0**	**0**
Record patient family health history as structured data	**101**	**6**	**1**

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Incorporate as structured data lab results for more than 40 percent of patients admitted to inpatient or emergency departments	108	0	0
Population Health Management	**Yes**	**No**	**Do Not Know**
Generate lists of patients by condition	106	1	1
Identify and provide patient-specific education resources	103	2	2
Medication Management	**Yes**	**No**	**Do Not Know**
Compare a patient's inpatient and preadmission medication lists	104	3	1
Provide an updated medication list at time of discharge	108	0	0
Check inpatient prescriptions against an internal formulary	101	4	3
Automatically track medications with an electronic medication administration record (eMAR)	105	2	1
Prescribe (eRx) discharge medication orders electronically	80	27	1

Number out of 109 Responses

	Yes	No	Do Not Know
Care Summary Documents			
Generate summary of care record for relevant transitions of care using Clinical Document Architecture (CCDA) format.	105	2	1
Include care teams and plan of care in summary of care record	101	3	5
Send summary of care records to an unaffiliated organization using a different certified EHR vendor	93	14	2
Automated Quality Reporting			
Automatically generate hospital-specific Meaningful Use quality measures by extracting data from an EHR without additional manual processes	92	16	1
Automatically generate Medicare Inpatient Quality Reporting program measures for a full Medicare inpatient update	64	29	15

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Automatically generate physician-specific Meaningful Use quality measures calculated directly from the EHR without additional manual processes	87	18	3

Public Health Reporting	**Yes**	**No**	**Do Not Know**
Submit electronic data to immunization registries/information systems on an ongoing basis per Meaningful Use standards	104	5	0
Submit electronic data on reportable lab results to public health agencies on an ongoing basis per Meaningful Use standards	90	15	3
Submit electronic syndromic surveillance data to public health agencies on an ongoing basis per Meaningful Use standards	97	7	5

Other Functionalities	**Yes**	**No**	**Do Not Know**
Implement at least 5 Clinical Decision Support interventions related to 4 or more clinical quality measures	103	2	4
Conduct or review a security risk analysis and implement security updates as necessary	102	3	3

3. Are patients treated in your hospital able to do the following:

	Yes	**No**	**Do Not Know**
View their health/medical information online	101	7	0
Download information from their health/medical record	91	16	1
Electronically transmit (send) transmission of care/referral summaries to a third party	80	24	4
Request an amendment to change/update their health/medical record	71	34	3
Request refills for prescriptions online	47	57	2
Schedule appointments online	46	58	3
Pay bills online	82	21	4
Submit patient-generated data (e.g., blood glucose, weight)	45	59	3

Secure messaging with providers	70	35	2

Health Information Exchange Functionalities

4. Which of the following patient data does your hospital electronically exchange/share with one or more of the provider types listed below? (Check *all* that apply)

	With Hospitals Inside of Your System	With Hospitals Outside of Your System	With Ambulatory Providers Inside of Your System	With Ambulatory Providers Outside of Your System	Do Not Know
Patient demographics	82	61	96	78	2
Laboratory results	107	80	61	98	0
Medication history	80	52	86	67	5
Radiology reports	78	54	99	82	1
Clinical/Summary care record in any format	79	66	94	76	3

This next section asks further detail about sending and/or receiving summary care records.

5. When a patient transitions to another care setting or organization outside your hospital system, how does your hospital routinely send and/or receive a summary of care record? Check *all* that apply.

	Send	Receive	Do not know
Mail or fax	95	85	0
eFax using EHR	62	34	6
Secure messaging using EHR (via DIRECT or other secure protocol)	75	51	2
Provider portal (i.e., post to portal or download from portal)	61	35	5
Via health information exchange organization or other third party	53	41	9

Appendix II: Baseline Landscape Assessment

When a patient transitions to or from another care setting or organization, does your hospital routinely electronically send and/or receive (NOT eFax) a summary of care record in a structured format (e.g. CCDA) with the following providers? Check *all* that apply (across a row)

	Send	Receive	Do not know
Other Hospitals outside your system	**50**	**27**	**16**
Ambulatory Care Providers outside your system	**65**	**26**	**9**
Long-term Care Providers (inside or outside your system)	**50**	**16**	**14**
Behavioral Health Providers (inside or outside your system)	**32**	**15**	**23**

This next section asks other questions related to electronically sending or receiving data.

Does your EHR integrate any type of clinical information received electronically (not eFax) from providers or sources outside your hospital system/organization without the need for manual entry? *This could be done using software to convert scanned documents into indexed, discrete data that can be integrated into EHR.*

☐ Yes, routinely **20** ☐ Yes, but not routinely **31** ☐ No **55** ☐ Do not know **3** ☐ NA **0**

If yes, does your EHR integrate the information contained in summary of care records received electronically (not eFax) without the need for manual entry? *This could be done using software to convert scanned documents into indexed, discrete data that can be integrated into EHR.*

☐ Yes, routinely **13** ☐ Yes, but not routinely **28** ☐ No **9** ☐ Do not know **1** ☐ NA **0**

9a. Do providers at your hospital routinely have necessary clinical information available electronically from outside providers or sources when treating a patient that was seen by another health care provider/setting?

☐ Yes **29 (27%)** ☐ No **71** ☐ Do not know **8**

9b. Do providers at your hospital query electronically for patients' health information (e.g. medications, outside encounters) from sources outside of your organization or hospital system?

☐ Yes **48 (44%)** ☐ No **41** ☐ No, don't have capability **14** ☐ Do not know **4**

10a. When a patient visits your Emergency Department (ED), do you routinely provide electronic notification to the patient's primary care physician?

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☐ Yes **69 (63%)** ☐ No **34** ☐ Do Not Know **4** ☐ Do Not Have ED **0**

10b. If yes, are electronic notifications provided to primary care physicians below? (Check *all* that apply)

☐ Inside System **68 (98.6%)** ☐ Outside System **36 (52%)** ☐ Do Not Know **0**

11. Please indicate your level of participation in a state, regional, and/or local health information exchange (HIE) or health information organization (HIO).

60 (55.0%) HIE/HIO is operational in my area and we are participating and actively exchanging data in at least one HIE/RHIO

24 (22.0%) HIE/HIO is operational in my area but we are not participating

20 (18.3%) HIE/HIO is not operational in my area

3 (2.8%) Do not know

12. Which of the following issues has your hospital experienced when trying to electronically (not eFax) send, receive or find (query) patient health information to/from other care settings or organizations?

(Check *all* that apply)

8 (7.3%) We lack the capability to electronically send patient health information to outside providers or other sources

16 (14.7%) We lack the capability to electronically receive patient health information from outside providers or other sources

55 (50.5%) Providers we would like to electronically send patient health information to do not have an EHR or other electronic system with capability to receive the information

62 (56.9%) Providers we would like to electronically send patient health information to have an EHR; however, it often lacks the capability to receive the information

37 (33.9%) Many recipients of our electronic care summaries (e.g. CCDA) report that the information is not useful

40 (36.7%) Cumbersome workflow to send (not eFax) the information from our EHR system

25 (22.9) Difficult to match or identify the correct patient between systems

48 (44.0%) Difficult to locate the address of the provider to send the information (e.g. lack of provider directory)

31 (28.4%) We have to pay additional costs to send/receive data with care settings/organizations outside our system

3 (2.8%) We don't typically share our patient data with care settings/organizations outside our system

EHR System and IT Vendors

13. Does your IT Department currently support an infrastructure for two factor authentication (e.g. tokens or biometrics)?

☐ Yes **59 (54.1%)** ☐ No **48** ☐ Do not know **2**

14. Do you possess an EHR system that has been certified as meeting federal requirements for the hospital objectives of Meaningful Use?

☐ Yes **106 (97.2%)** ☐ No **2** ☐ Do not know **1**

15. On the whole, how would you describe your EMR/EHR system?

☐ **27 (24.8%)** A mix of products from different vendors

☐ **80 (73.4%)** Primarily one vendor

☐ **2** Self-developed

16a. Which vendor below provides your primary inpatient EMR/EHR system? (Please check only one)

"Primary" is defined as the system that is used for the largest number of patients or the system in which you have made the single largest investment. Please answer based on vendor name rather than product.

☐ **7** Allscripts/Eclipsys ☐ **3** CPSI ☐ **11** (10.1) Cerner ☐ **19** (17.4%) NextGen

☐ **23** (21.1%) Epic ☐ **2** GE ☐ **24** (22.0%) HMS ☐ **1** Healthland

☐ **1** McKesson ☐ **4** Meditech ☐ **0** QuadraMed ☐ **2** Vitera/Greenway

☐ **9** (8.3%) Siemens ☐ **1** Self-developed

☐ **2** eClinical Works

☐ **0** Would prefer not to disclose

16b. Do you use the same primary inpatient EHR/EMR system vendor (noted above) for your primary outpatient

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EMR/EHR system? *"Primary" is defined as the system that is used for the largest number of patients or the system in which you have made the single largest investment. Please answer based on vendor name rather than product.*

☐ 45 (41.3%) Yes ☐ 61 No ☐ 0 Do not Know ☐ 4 NA

17. Which vendor(s) below does your hospital directly use to electronically exchange patient health information?

☐ 49 The same system as our primary inpatient EMR/EHR system (noted above)

☐ 0 MedFX ☐ 0 Intersystems ☐ 0 Harris ☐ 26 Surescripts

☐ 7 Medicity ☐ 1 Truven Analytics ☐ 11 Mirth ☐ 13 Relay Health

☐ 9 Orion Health ☐ 3 Alare ☐ 2 Care Evolution ☐ 1 Optom/Axolotl

☐ 1 IBM ☐ Covinst ☐ 0 Sandlot ☐ 1 ICA

☐ 0 Browsersoft ☐ 4 Microsoft ☐ 2 Certify Data Systems

☐ 6 Do not exchange patient health information electronically

☐ 1 Would prefer not to disclose

☐ 34 Other (please specify) (see below)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		76	69.7	69.7	69.7
	Caradigm	1	.9	.9	70.6
	Clinical Connect	1	.9	.9	71.6
	Clinical Connect HIE	4	3.7	3.7	75.2
	DrFirst, Secure Exchange Solutions	1	.9	.9	76.1
	HSX	1	.9	.9	77.1
	Iatric	2	1.8	1.8	78.9
	Infor	2	1.8	1.8	80.7

	KeyHIE	1	.9	.9	81.7
	MedAllies	2	1.8	1.8	83.5
	MedAllies, KeyHIE	1	.9	.9	84.4
	Medhost	1	.9	.9	85.3
	Meditech LSS/MPM	1	.9	.9	86.2
	Mobile MD	3	2.8	2.8	89.0
	MobileMD	1	.9	.9	89.9
	OpenLink	2	1.8	1.8	91.7
	OpenLink, eGate	1	.9	.9	92.7
	Par8o	1	.9	.9	93.6
	PAR8O	1	.9	.9	94.5
	Secure Exchange Solutions	5	4.6	4.6	99.1
	Siemens MobileMD	1	.9	.9	100.0
	Total	109	100.0	100.0	

18. What changes, if any, are you planning for your primary inpatient EMR/EHR system within the next 18 months?

(Check *all* that apply)

☐ **2 (1.8%) Initial deployment**

☐ **38 (34.9%) Major change in vendor**

☐ **2 (1.8%) Change from enterprise architecture to best-of-breed**

☐ **13 (11.9) Change from best-of-breed to enterprise architecture**

☐ **39 (35.8%) Significant additional functionalities**

☐ **10 (9.2%) Do not know**

☐ **32 (29.4%) No major changes planned**

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19. What is (are, or would be) the primary challenge(s) in implementing an EMR/EHR system that meets the federal requirements for Meaningful Use? (Please check all that apply)

☐ **64 (58.7%) Upfront capital costs/lack of access to capital to install systems**

☐ **72 (66.1%) Ongoing cost of maintaining and upgrading systems**

☐ **57 (52.3%) Obtaining physician cooperation**

☐ **24 (22.0%) Obtaining other staff cooperation**

☐ **35 (32.1%) Concerns about security or liability for privacy breaches**

☐ **26 (23.9%) Uncertainty about certification requirements**

☐ **41 (37.6) Limited vendor capacity**

☐ **46 (42.2%) Lack of adequate IT personnel in hospital to support implementation/maintenance**

☐ **65 (59.6%) Challenge/complexity of meeting all Meaningful Use criteria within implementation timeframe**

☐ **9 (8.3%) Other (specify) (SEE BELOW)**

Other MU Challenge

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		101	92.7	92.7	92.7
	Adverse effects on revenue if Meaningful Use is not met; i.e. penalties	2	1.8	1.8	94.5
	Already at Stage 2	1	.9	.9	95.4
	Changes that occur during the reporting period with poor communication	1	.9	.9	96.3

	Enterprise system which affects multiple hospitals	1	.9	.9	97.2
	Meeting current - changes related to stage 3 are unknown	1	.9	.9	98.2
	Patient cooperation for patient engagement	1	.9	.9	99.1
	Vendor code not stable with upgrades	1	.9	.9	100.0
	Total	109	100.0	100.0	

20. Please indicate whether you have used electronic clinical data from the EHR or other electronic system in your hospital to: (Please check all that apply)

☐ **76 (69.7%) Create a dashboard with measures of organizational performance**

☐ **70 (64.2%) Create a dashboard with measures of unit-level performance**

☐ **75 (68.8%) Create individual provider performance profiles**

☐ **52 (47.7%) Create an approach for clinicians to query the data**

☐ **60 (55.0%) Assess adherence to clinical practice guidelines**

☐ **51 (46.8%) Identify care gaps for specific patient populations**

☐ **67 (61.5%) Generate reports to inform strategic planning**

☐ **82 (75.2%) Support a continuous quality improvement process**

☐ **83 (76.1%) Monitor patient safety (e.g., adverse drug events)**

☐ **55 (50.5%) Identify high risk patients for follow-up care using algorithm or other tools**

☐ **6 (5.5%) None of the above**

HIO Surveys

Since 2011, the Pennsylvania eHealth Partnership Authority has conducted surveys on health information organizations (HIOs) operating in Pennsylvania. The surveys provide both the Authority and stakeholders (including the HIOs themselves) with an understanding of the HIE environment that aids in planning. In 2015, seven organizations responded to the survey, including five who participated in the previous years' surveys. Four of the responding HIOs are already connected, or in the final stages of connection to the P3N, with two more anticipating connection in 2016. Full survey results are available on the Authority's website at . Highlights of the survey findings are as follows:

- Two HIOs are implementing centralized data models, with all others adopting hybrid models with some information centralized and some federated. There is little overlap in technology vendors employed by the HIOs.
- Rates of adoption for particular HIE functions remained consistent with previous surveys for many functions, i.e. 100% for discharge summaries; 86% for historical lists, longitudinal medical records, order/lab results delivery, provider-to-provider clinical messaging, and active care coordination. Rates decreased from prior surveys for several other functions, i.e. alerts (71%), patient portals (57%), provider-to-patient clinical messaging (57%), referral/consultation request and delivery (29%).
- A trend was recognized in previous surveys towards enabling both push and query for most eHIE functions. This trend continued in the 2015 results.
- In 2015 there has been a definite increase in adoption for vocabulary standards (i.e. LOINC, SNOWMED CT, OID, ICD-9, ICD-10, RxNorm, NPPES). Adoptions of most structure standards remained consistent with previous results, but were already at 100% for HL7, CCD, and C-CDA. The only decreases in adoption for structure standards were for C-62 and HPD.
- All or nearly all HIOs offer or plan to offer services to most participant types, including payers, hospitals, various types of ambulatory practices, ambulatory surgery centers, long-term/post-acute care facilities, mental health/substance abuse facilities, outpatient cancer treatment centers, urgent care centers, and home health agencies. Rates were lower only for independent imaging centers, independent reference laboratories, and ambulance/EMS services. In nearly all cases these rates were consistent with the previous year's survey.
- Geographic coverage by HIOs has shifted to a much more regional focus compared with previous surveys. There is little county-to-county overlap in coverage areas. Despite this, there is current participation in all but 12 counties, and planned coverage in all counties.

HIE Functions Adoption

Regarding HIE functions adoption, the survey asked the HIOs which functions have been implemented or planned to be implemented. The results show that operational adoption of the majority of HIE functions

and capabilities have increased among respondents from 2013 to 2014. The Authority notes that most organizations are consistent in their intentions in comparison to the previous year, or are anticipating to expand functionality. Moreover, several functions are planned for universal adoption including active care coordination, master patient index, order/lab results delivery, and role-based access control.

Participating Providers

Participating Providers		
Participant Type	2013	2014
Payers	82%	57%
Hospitals	100%	100%
Ambulatory Surgery Centers	55%	86%
Long Term/Post-Acute Care	73%	86%
Mental Health/Substance Abuse	64%	71%
Outpatient Cancer Treatment	73%	86%
Urgent Care Centers	64%	86%
Physical/Occupational Therapy	82%	86%
Community Clinic/FQHC	82%	100%
Other Ambulatory Practices*	100%	100%
Independent Imaging Centers	55%	71%
Independent Reference Labs	64%	71%
Ambulance/EMS Services	64%	71%
Home Health	73%	86%

HIOs were asked about the types of providers being connected and which types were being planned for future connections. From the table above, participation from providers has increased in all categories except for payers. The organizations also planned to expand the types of providers in their networks.

Active Participation Rates		
Participant Type	2013	2014
Payers	1	4

Hospitals	44	83
Ambulatory Surgery Centers	2	2
Long Term/Post-Acute Care	83	65
Mental Health/Substance Abuse	8	6
Outpatient Cancer Treatment	7	1
Urgent Care Centers	1	0
Physical/Occupational Therapy	1	2
Community Clinic/FQHC	2	6
Other Ambulatory Practices		417
Independent Imaging Centers	1	0
Independent Reference Labs	0	0
Ambulance/EMS Services	2	1
Home Health	28	29

In addition to the information on the status of current and future connections, HIOs provided the total number of active providers signed up to participate. The survey notes that, due to the smaller sample size of HIOs participating in the survey, the participation rates collected show a decline for most provider types. Despite fewer HIOs participating in the survey, a few of the providers still show increases in rates, (e.g. hospitals), which have increased their active participation significantly from 2013.

Summary of Landscape Assessment Findings

As described in the findings above, hospitals and practitioners are all at varying rates of EHR adoption. The Department attempted in its original survey to gauge the level of adoption with respect to functionality but there is still a need for more information about functionality and progress towards meeting meaningful use. Table II.11 presents a summary of the adoption results which will serve as baseline measures going forward. This table highlights some of the differences in EHR adoption across the survey instruments for physicians and other practitioners. The physician adoption survey conducted by PMS in 2005 shows the lowest adoption rate but 5 years is a very long time for EHR adoption. Health centers show a significant number of responses indicating adoption.

Table II.11: Percent of Providers Who Have Adopted or Will Adopt EHR Systems

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Year	Physician Adoption	Health Center Adoption Rate	PA-Surveyed Medical Assistance Practitioners	Acute Care Hospital Adoption Rate
Baseline (year)	26% (2005)	44% (2009)	60% (2010)	63% (2009)

To provide context for the EHR statistics above, the Department provides national adoption rates in Table II.12 below. Several industry publications identify noted progress in the adoption rate over the last few years. As meaningful use standards are being developed for the HITECH Act, much depends on how the EHR system is measured and defined. Adoption rates vary based on whether the provider is implementing a fully functional system or a more basic level of service. For example, only 4.4 percent of the respondents reported using a fully functional system.

Table II.12: National Estimates of EHR Adoption Rates

Source	Practitioners	Adoption Rate
Ambulatory Practitioners		
2008 Harvard Medical School study[10]	Office-based physicians	17% using EHRs
CDC's 2009 National Ambulatory Medical Care Survey (preliminary results)[11]	U.S. physicians	~20.5% of U.S. physicians reported having basic EHR systems 6.3% reported having a fully functional system.
National Ambulatory Care Survey for 2008[12]	Overall ambulatory practitioners	Overall >38% in 2008 Preliminarily 44% in 2009
Hospitals		

[10] DesRoches CM, et al "Electronic health records in ambulatory care -- a national survey of physicians" *New England Journal of Medicine* 2008; 359: 50-60 Published online June 18, 2008.
[11] Chun-Ju Hsiao, et al. Electronic Medical Record/Electronic Health Record Use by Office-based Physicians: United States, 2008 and Preliminary 2009. Electronic Medical Record/Electronic Health Record Use by Office-based Physicians: United States, 2008 and Preliminary 2009
[12] *Ibid*.

American Hospital Association[13]	All acute care hospitals	8.7% in 2008 using basic or comprehensive electronic records 11.9% in 2009

The practitioner survey conducted in August and September 2010 indicated queried practitioners to discuss various questions regarding their internet connectivity. Table II.13 provides a breakdown of the type of internet access that is available to the practitioner.

Table II.13: Internet Access Availability

Access Type	Count	Percent of Responses* (Rounded)
Dial Up	0	0%
DSL	45	34%
Cable	23	18%
Satellite	2	2%
T-1	30	23%
Fiber optic	9	7%
Other	12	9%
Total	**121**	

* Based on 131 respondents who completed the survey

Table II.14 provides a breakdown of the type of internet access that is used to collect and exchange health information.

Table II.14: Internet Access Used to Collect and Exchange Health Information

Access Type	Count	Percent of Responses* (Rounded)
Dial Up	0	0%
DSL	45	34%
Cable	24	18%
Satellite	0	0%

[13] American Hospital Association and New England Journal of Medicine, June 18, 2008.

T-1	26	20%
Fiber optic	10	8%
FiOS	0	0%
Other	10	8%
Total	**115**	

**** Based on 131 respondents who completed the survey***

According to survey results, 16 percent of the respondents indicated that they plan to upgrade from DSL, Dial Up or a lower speed connection. Of these practitioners, 94 percent plan to upgrade within two years. Forty-four percent of respondents indicated that they do not need additional high speed internet access. Over 33 percent of the practitioners indicated that the cost of high speed internet access is an issue.

Adoption Baseline Update 2014

The health information technology adoption and utilization data presented below are based upon measures publically reported by the US Department of Health and Human Services Office of the National Coordinator within the Health IT Dashboard.

Providers

Measure	PA	National	Last Updated
Provider Population Estimates			
Total Number of Health Care Providers	34,777	716,592	2012
Number of Primary Care Providers	13,565	302,357	2012
Adoption of Basic EHRs among Office-based Providers			
Overall Physician Practices	42%	48%	2013
Primary Care Providers	40%	53%	2013
Rural Providers	19%	46%	2013
Small Practices	35%	41%	2013

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Health Information Exchange: Office-based Physicians			
Percent of office-based physicians with capability to send orders for lab tests electronically	48%	53%	2013
Percent of office-based physicians with computerized capability to view lab results	79%	77%	2013
Percent of office-based physicians with EHR/EMR that can automatically graph a specific patient's lab results over time	48%	47%	2013
Patient Engagement: Office-based Physicians			
Percent of office-based physicians with capability to exchange secure messages with patients	44%	49%	2013
Percent of office-based physicians with capability to provide patients with clinical summaries for each visit	68%	68%	2013

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Hospitals

Measure	PA	National	Last Updated
Adoption of Basic EHRs			
Overall Hospital	53%	59%	2013
Rural Hospital	53%	53%	2013
Small Hospital	46%	53%	2013
Health Information Exchange: Capability to electronically share laboratory results			
with any provider outside their health system	65%	57%	2013
with hospitals outside their health system	34%	34%	2013
with ambulatory providers outside their health system	63%	52%	2013
Health Information Exchange: Providing patients with an E-Copy of their health information			
Copy of their EHR within 3 business days of the request	83%	87%	2013
Copy of their discharge instructions upon request	86%	79%	2013
Health Information Exchange: Capability to exchange clinical care summaries with outside providers			
with any provider outside their health system	51%	42%	2013
with hospitals outside their health system	27%	29%	2013
with ambulatory providers outside their health system	48%	37%	2013

Appendix III: Medical Assistance HIT Initiative Electronic Resources

There are a number of resources available to assist providers with the Pennsylvania Medical Assistance EHR Incentive Program application process. These resources can be found at: http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm. For example, there are webinars describing various aspects of the application and attestation process, and frequently asked questions. Also on the website is a patient volume calculator, meaningful use information, Frequently Asked Questions and an interactive map. These resources are described in more detail below.

Pennsylvania EHR Incentive Program Provider Manuals

The Pennsylvania Medical Assistance EHR Incentive Program Eligible Professional Provider Manual and the Eligible Hospital Provider Manual are resources for health care professionals who wish to learn more about the Pennsylvania Medical Assistance EHR Incentive Program including detailed information and resources on eligibility and attestation criteria, as well as instructions on how to apply for incentive payments. The Provider Manuals also provide information on how to apply to the program via the Medical Assistance Provider Incentive Repository (MAPIR), the Department's web-based EHR Incentive Program application system.

The best way for a new user to orient themselves to the EHR Incentive Program requirements and processes is to read through each section of the Provider Manual in its entirety, prior to starting the application process.

In addition to the provider manuals, there are also screen shots of all the pages in the MAPIR application for Stage 1 and Stage 2 applications. These will show the provider exactly what they will see when they complete the MAPIR application. These are updated whenever there is a major change in the MAPIR application.

In the event this provider manual does not answer your questions or you are unable to navigate MAPIR or complete the registration and application process, you should contact the Department by email at: RA-mahealthit@state.pa.us.

MAPIR Eligible Professional Provider Manual:
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/manual/p_011449.pdf

MAPIR Eligible Professional 2014 Stage 1 Application Screen Shots:
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/c_087644.pdf

MAPIR Eligible Professional 2014 Stage 2 Application Screen Shots:
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/c_087645.pdf

Appendix III: Medical Assistance HIT Initiative Electronic Resources

MAPIR Eligible Hospital Provider Manual:
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/manual/p_011450.pdf

MAPIR Eligible Hospital 2014 Stage 2 Application Screen Shots:
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/c_111843.pdf

MA HIT Webinar Series:

- *Overview of Electronic Health Record (EHR) Incentive Program (January 26, 2011):* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_004130.pdf
- *Calculating Patient Volume Webinar (February 15, 2011):* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_004130.pdf
- *Attestations, Monitoring, and Documentation (March 22, 2011):* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_010932.pdf
- P*ennsylvania MAHITI Frequently Asked Questions Webinar (April 26, 2011):* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_011465.pdf
- *Meaningful Use Year 2:* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_011824.pdf
- *Champions Webinar:* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_011890.pdf
- *Meaningful Use Q&A Webinar:* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_012082.pdf
- *HIE Webinar* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/p_013218.pdf
- *Stage 2 Final Rule Webinar* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_014622.pdf
- *Stage 2 Part 2 Final Rule Webinar* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_022216.pdf
- *Meaningful Use FAQs and Best Practices* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/presentation/p_031826.pdf
- *MA EHR Incentive Program Auditing Webinar* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/p_035643.pdf
- *Lessons Learned, Meaningful Use and Stage 2 Updates* http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/c_081246.pdf

Pennsylvania DPW MAHITI Frequently Asked Questions (FAQs):
http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/mahitfaqs/index.htm

Eligible Professional Volume Calculator:
This calculator will assist eligible professionals in estimating their Medical Assistance patient volume percentage.

Appendix III: Medical Assistance HIT Initiative Electronic Resources

http://www.dhs.state.pa.us/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/maprovincentiverepos/eligibleprofessionalvolumecalculator/index.htm

Eligible Hospital Volume Calculator:
This calculator will assist eligible hospitals in estimating their Medical Assistance patient volume percentage.
http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/maprovincentiverepos/eligibleprofessionalvolumecalculator/index.htm

Eligible Hospital Payment Calculator:
This calculator will assist eligible hospitals in estimating what their incentive payment might be.
http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/maprovincentiverepos/eligiblehospitalpaymentcalculator/index.htm

Medical Assistance Provider Incentive Repository (MAPIR) Resources
http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/maprovincentiverepos/index.htm

Medical Assistance Bulletins
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_006036.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_006041.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_006069.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_006068.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_005812.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_005813.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/d_005950.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/p_035883.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/p_033882.pdf

http://www.dhs.state.pa.us/cs/groups/webcontent/documents/bulletin_admin/p_033883.pdf

Quick Tips:
http://www.dhs.state.pa.us/cs/groups/webcontent/documents/communication/p_011495.pdf

Appendix III: Medical Assistance HIT Initiative Electronic Resources

Meaningful Use Information – There is an entire section that includes documents, tip sheets, charts and links pertaining to meaningful use. This is a good resource for providers trying to attest to meaningful use.

http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/meaningfuluse/index.htm

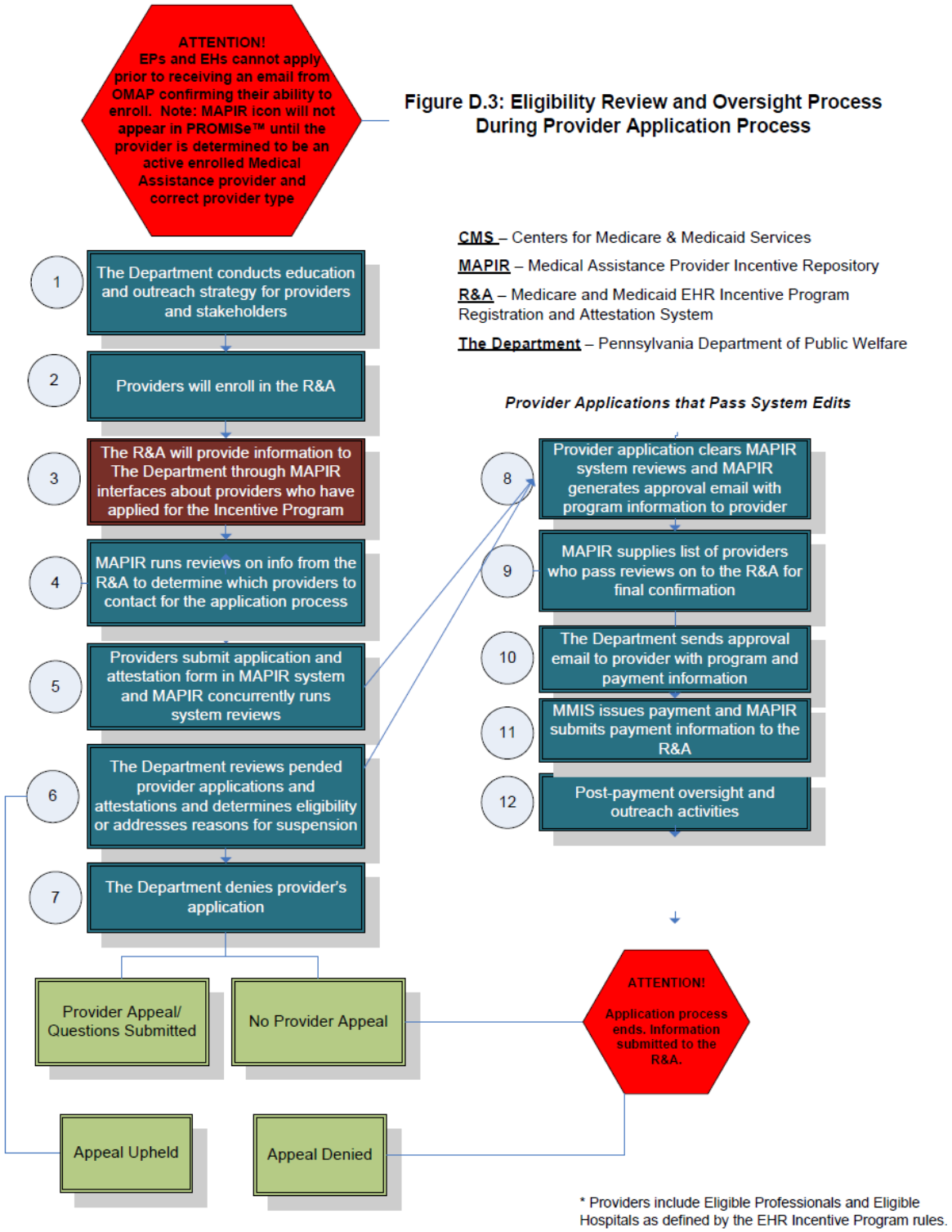
Frequently Asked Questions – The Department has compiled and continues to update the Frequently Asked Questions on HIT website. These FAQs includes questions that the providers are asking and need to be shares with other providers. There is also a link to the CMS FAQ database as it is more comprehensive list. Here's a link to the FAQ page:
http://www.dhs.state.pa.us/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/mahitfaqs/index.htm

Interactive Map – On the main page of the HIT website is an interactive map that will display the payments made for the Medical Assistance EHR Incentive program. This data can be displayed per provider type, per location, per attestation type (AIU or MU), etc. This has been extremely beneficial in providing information to those seeking it. This map is located at:
http://www.dhs.state.pa.us/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/index.htm

Appendix IV: Medical Assistance EHR Incentive Program Process

The figure below describes the overall application, registration, attestation, and monitoring process for the Medical Assistance EHR Incentive Program.

Year One Process Flow



Appendix V: Hospital Incentive Payment Calculation Example

The following tables outline the payment calculation process that will take place based on the required information provided by a hospital. Note: The hospital calculation is completed in the first payment year and calculates the payment for all four payment years. The hospital calculation is re-validated before each payment year. Hospitals update cost data if necessary during payment years two through four.

Hospitals can also estimate their payments using the hospital payment calculator available on the Department's website:

http://www.dhs.pa.gov/provider/healthcaremedicalassistance/medicalassistancehealthinformationtechnologyinitiative/maprovincentiverepos/eligiblehospitalpaymentcalculator/index.htm

Fiscal Year	Total Discharges	Total # IP MCD Bed Days	Total IP Days	Total Charges - All Discharges	Total Charity Care - All Discharges
9/30/2009	115,000	47,469	189,985	$1,188,756,696	$56,452,000
9/30/2008	112,000				
9/30/2007	116,000				
9/30/2006	111,000				

Step 1: Enter the end date of the last full facility fiscal year ending prior to the current program year the hospital is applying for.

Hospital Fiscal Year	
9/30/2009	Entered Fiscal year
9/30/2008	Entered minus 1 – calculated
9/30/2007	Entered minus 2 – calculated
9/30/2006	Entered minus 3 – calculated

Calculation 1: The previous three hospital fiscal years will be filled in.

Appendix V: Hospital Incentive Payment Calculation Example

Step 2: Fill in the overall facility discharges to cover each of these time periods.

Hospital Fiscal Year	Total Discharges
9/30/2009	115,000
9/30/2008	112,000
9/30/2007	116,000
9/30/2006	111,000

Calculation 2a: These figures will be used to determine the facility growth rate year over year:

Hospital Fiscal Year	Total Discharges	Yearly Growth Rate
9/30/2009	115,000	2.7%
9/30/2008	112,000	-3.4%
9/30/2007	116,000	4.5%*
9/30/2006	111,000	

*4.5% is the difference from FY 2006 to FY 2007

Calculation 2b: The average of the yearly growth rate is the overall facility growth rate:

	Yearly Growth Rate
	2.7%
	-3.4%
	4.5%
AVERAGE	1.2%

**Please note that a negative growth rate will also be applied to the facility*

Step 3: Apply growth rate to the base number of discharges. Pennsylvania will be paying over four years.

Reporting Year	Reported Discharges	Growth Rate	Calculated Discharges
Base Year	115,000		115,000
Year 2		1.2%	116,432
Year 3		1.2%	117,881
Year 4		1.2%	119,349

**116,432 is 1.24% times the self-reported 115,000 discharges*

Appendix V: Hospital Incentive Payment Calculation Example

Calculation 3: As noted above, the initial discharge amount was increased by 1.2% each year.

Step 4: Determine eligible discharges. Only discharges between 1,149 and 23,000 are to be used in the equation.

Reporting Year	Reported Discharges	Growth Rate	Calculated Discharges	Eligible Discharges
Base Year	115,000		115,000	21,851
Year 2		1.2%	116,380	21,851
Year 3		1.2%	117,777	21,851
Year 4		1.2%	119,190	21,851

**21,851 is the discharges between 1,149 and 23,000*

Calculation 4: Any volume below 1,149 is not included and any volume over 23,000 is also not included.

Step 5: Multiply the eligible discharges by $200

Reporting Year	Reported Discharges	Growth Rate	Calculated Discharges	Eligible Discharges	Eligible Discharge Payment
Base Year	115,000		115,000	21,851	$4,370,200
Year 2		1.2%	116,380	21,851	$4,370,200
Year 3		1.2%	117,777	21,851	$4,370,200
Year 4		1.2%	119,190	21,851	$4,370,200

Step 6: Add the base year amount per payment year: $2,000,000

Reporting Year	Reported Discharges	Growth Rate	Calculated Discharges	Eligible Discharges	Eligible Discharge Payment + Base Amount ($2,000,000)
Base Year	115,000		115,000	21,851	$6,370,200
Year 2		1.2%	116,380	21,851	$6,370,200
Year 3		1.2%	117,777	21,851	$6,370,200
Year 4		1.2%	119,190	21,851	$6,370,200

Appendix V: Hospital Incentive Payment Calculation Example

Calculation 6: Add the base amount of $2,000,000 to each payment year.

Step 7: Use Eligible Discharge Payment and Medicaid Transition Factor to create Overall EHR Amount

Reporting Year	Eligible Discharge Payment	Medicaid Transition Factor **	Overall EHR Amount
Base Year	$ 6,370,200	1	$6,370,200
Year 2	$ 6,370,200	0.75	$4,777,650
Year 3	$ 6,370,200	0.5	$3,185,100
Year 4	$ 6,370,200	0.25	$1,592,550

**As defined by Federal Regulations*

Calculation 7: Multiply the Eligible Discharge Payment by the Medicaid Transition Factor per payment year.

Step 8: Input the remaining self-reported information

Total # IP MCD Bed Days	Total IP Days	Total Charges - All Discharges	Total Charity Care - All Discharges
47,469	189,985	$ 1,188,756,696	$ 56,452,000

Calculation 8: N/A - self-reported data entry step.

Step 9: Calculate the Medicaid Share. This is used to weight Medicaid's impact on total bed days. It is considered a better metric than discharges since Medicaid patients generally have a higher illness burden.

Calculation 9a: Calculate the Non-Charity Care ratio by subtracting charity care from total charges and dividing by total charges

Reporting Year	Total Charges - All Discharges	Total Charity Care - All Discharges	Non-Charity Care Ratio
Base Year	$ 1,188,756,696	$ 56,452,000	95.3%
Year 2	$ 1,188,756,696	$ 56,452,000	95.3%
Year 3	$ 1,188,756,696	$ 56,452,000	95.3%
Year 4	$ 1,188,756,696	$ 56,452,000	95.3%

Appendix V: Hospital Incentive Payment Calculation Example

Calculation 9b: Calculate the Medicaid Bed Days share ratio:

Reporting Year	Total # IP MCD Bed Days	Total IP Days	Medicaid Bed Days Ratio
Base Year	47,469	189,985	25.0%
Year 2	47,469	189,985	25.0%
Year 3	47,469	189,985	25.0%
Year 4	47,469	189,985	25.0%

Calculation 9c: Divide the Medicaid Bed Days ratio by the Non-Charity Care Ratio:

Reporting Year	Non-Charity Care Ratio	Medicaid Bed Days Ratio	Medicaid Share
Base Year	95.3%	25.0%	26.2%
Year 2	95.3%	25.0%	26.2%
Year 3	95.3%	25.0%	26.2%
Year 4	95.3%	25.0%	26.2%

Step 10: Multiply the Overall EHR Amount by the Medicaid Share:

Calculation 10: Multiply the Overall EHR Amount by the Medicaid Share:

Reporting Year	Overall EHR Amount	Medicaid Share	MCD Aggregate EHR Incentive
Base Year	$ 6,370,200	26.2%	$1,670,988.67
Year 2	$ 4,777,650	26.2%	$1,253,241.50
Year 3	$ 3,185,100	26.2%	$835,494.33
Year 4	$ 1,592,550	26.2%	$417,747.17

Calculation 10b: Sum the MCD Aggregate EHR Incentive:

MCD Aggregate EHR Incentive
$1,670,988.67
$1,253,241.50

Appendix V: Hospital Incentive Payment Calculation Example

MCD Aggregate EHR Incentive
$835,494.33
$417,747.17
$4,177,471.67*

**This represents the total amount that the facility is eligible to receive based upon self-reported information.*

Step 11: Apply distribution schedule for total MCD Aggregate EHR Amount over the 4 year period (Pennsylvania specific):

Reporting Year	Payment Percentage	Payment per Year
Base Year	50%	$2,088,735.84
Year 2	30%	$1,253,241.50
Year 3	10%	$417,747.17
Year 4	10%	$417,747.17

Appendix VI: Electronic Quality Improvement Projects (EQUIPS) Templates

Pennsylvania Department of Human Services **DRAFT BEHAVIORAL HEALTH EQUIP** Link to Quality/Meaningful Use*	
I. ASSESSMENT	
a. Clinical Information: Lists: Problem/Medication/Allergy also Medication Reconciliation from Menu	MU: EP Core Measure; Set
Demographics	MU: EP Core
Vital Signs	MU: EP Core
b. Weight : BMI/ BMI percentile Core Clinical Quality measure	MU: Core measure; Proposed Adult measure
c. Depression: Screening and Follow up Plan	Proposed Adult
Anti-depressant Medication Management	MU: Additional Clinical Quality; Proposed Adult
d. Alcohol misuse: Screening, Brief Intervention, Referral for treatment. (SBIRT)	Proposed Adult measure
e. Developmental Screening in the first 3 years of life	CHIPRA
f. Follow up care for children prescribed ADHD medications	CHIPRA
g. Bipolar I Disorder 2 : Annual assessment of weight or BMI, glycemic control and lipids	Proposed Adult measure
h. Bipolar 1 Disorder C: Proportion of patients with bipolar I Disorder treated with mood stabilizer medications during the course of bipolar I disorder treatment	Proposed Adult measure
i. Schizophrenia 2: Annual assessment of weight/BMI, glycemic control, lipids	Proposed Adult measure
j. Schizophrenia B: Proportion of schizophrenia patients with long-term utilization of antipsychotic medications	Proposed Adult measure
k. Schizophrenia C: Proportion of selected schizophrenia Patients with antipsychotic polypharmacy utilization	Proposed Adult measure
l. Smoking (13 and older); also Core Clinical Quality Measure (18 and older); also Additional quality measure: Smoking/tobacco use cessation	(3) MU: Core Measure

Pennsylvania Department of Human Services **DRAFT BEHAVIORAL HEALTH EQUIP** Link to Quality/Meaningful Use*	
	Proposed Adult measure

Pennsylvania Department of Human Services **DRAFT BEHAVIORAL HEALTH EQUIP** Link to Quality/Meaningful Use*	

m. Influenza Immunization for Patients ≥ 50 years Quality measure	MU: Alternate Clinical Quality Proposed Adult measure
n. Pneumonia Vaccination Status for Older Adults Quality measure	MU: Alternate Clinical
o. Dental: Preventative Treatment services	P4P (2-21 years)
p. Annual monitoring for patients on persistent medications measure	Proposed Adult
q. Labs	MU: Menu set measure
r. Ambulatory Care: ED Visits measure	P4P (optional measure) Proposed Adult
s. Mental Health Utilization measure	Proposed Adult
II. CLINICAL DECISION SUPPORT	
a. Provider links to current treatment guidelines (Evidenced-based guidelines)	MU: Core Implement one clinical decision support rule relevant to specialty or high clinical priority along with the ability to track.
III. COORDINATION OF CARE	
a. Clinical summaries for each office visit	MU Core measure
b. Exchange key clinical information	MU Core measure
c. Medication reconciliation	MU Menu set measure
d. Provide patients with electronic copy of health info	MU Core measure
e. Follow up after hospitalization for mental illness CHIPRA	Proposed Adult measure;

Pennsylvania Department of Human Services **DRAFT BEHAVIORAL HEALTH EQUIP** Link to Quality/Meaningful Use*	
f. Link to DOH/Philadelphia DOH Immunization Registries	MU
g. Submit syndromic surveillance data to public health agencies	MU Menu set
h. E-prescribing	MU
IV. ENGAGE PATIENT/FAMILIES	
a. Text messages/ pop-up reminders	MU Menu set measure
b. Access to EHR	MU Menu set
c. Patient centered care plan	
d. Education/self-management	MU Menu set
e. CAHPS Survey	Proposed Adult measure
V. TRANSITION OF CARE	
a. Summary of Care Record	MU Menu set
b. Medication reconciliation	MU Menu set

Pennsylvania Department of Human Services **DRAFT CHRONIC CARE EQUIP** Link to Quality/Meaningful Use*		
J.	**ASSESSMENT**	
t.	Clinical Information: Lists: Problem/Medication/Allergy also Medication Reconciliation from Menu	MU: EP Core Measure; Set
	Demographics	MU: EP Core
	Vital Signs	MU: EP Core
u.	Weight : BMI/ BMI percentile Core Clinical Quality measure	MU: Core measure; Proposed Adult measure
v.	Hypertension: BP management Core Clinical Quality measure	MU: Core measure; Proposed Adult measure P4P Optional measure
w.	Diabetes: HbA1c testing measure	Proposed Adult; P4P
	HbA1c Control (<8)	MU: Additional Clinical Quality; P4P Optional measure
	HbA1c Poor Control	MU: Additional Clinical Quality

Pennsylvania Department of Human Services **DRAFT CHRONIC CARE EQUIP** Link to Quality/Meaningful Use*	
Lipid	MU: Additional Clinical Quality; P4P Optional; Proposed Adult measure
Eye Exam/Foot Exam/Urine Screen	MU: Additional Clinical Quality
Retinopathy: Presence/Absence/Level of Severity	MU: Additional Clinical Quality
BP Management	MU: Additional Clinical Quality
x. Coronary Artery Disease : Drug therapy for lowering LDL	MU: Additional Clinical Quality; Proposed Adult; P4P Optional
Beta Blocker Therapy for patients with prior MI	MU: Additional Clinical Quality; Proposed Adult
Oral Antiplatelet Therapy	MU: Additional Clinical Quality
y. Congestive Heart Failure: ACE/ARB Therapy	MU: Additional Clinical Quality
Warfarin Therapy for Patients with AFib	MU: Additional Clinical Quality
z. Ischemic Vascular Disease: Complete Lipid Profile/LDL-C rates	Proposed Adult measure; MU Additional Quality measure
BP Management	MU: Additional Quality
Use of Aspirin or another antithrombotic	MU: Additional Quality
aa. Depression: Screening and follow up plan	Proposed Adult
Anti-depressant Medication Management	MU: Additional Quality; Proposed Adult
bb. Asthma: Assessment	Proposed Adult measure
Treatment	MU: 2 Additional quality measures: Assessment and Asthma Pharmacologic Therapy
Action Plans	
cc. Smoking	(3) MU: Core Measure (13 and older); also Core Clinical Quality Measure (18 and older); also Additional quality measure:

Pennsylvania Department of Human Services **DRAFT CHRONIC CARE EQUIP** Link to Quality/Meaningful Use*	
	Smoking/tobacco use cessation Proposed Adult measure
dd. Influenza Immunization for Patients ≥ 50 years Quality	MU: Alternate Clinical Proposed Adult measure
ee. Pneumonia Vaccination Status for Older Adults Quality measure	MU: Alternate Clinical
ff. Dental: Preventative Treatment services	P4P (2-21 yrs.)
gg. Labs	MU: Menu set measure
hh. Ambulatory Care: ED Visits	P4P (optional measure) Proposed Adult measure
ii. Annual Monitoring for Patients on Persistent Medications measure	Proposed Adult
II. CLINICAL DECISION SUPPORT	
b. Provider links to current treatment guidelines one clinical decision support rule relevant to (Evidenced-based guidelines) high clinical priority along with the ability to	MU: Core Implement specialty or track.
III. COORDINATION OF CARE	
i. Clinical summaries for each office visit	MU Core measure
j. Exchange key clinical information	MU Core measure
k. Medication reconciliation	MU Menu set measure
l. Provide patients with electronic copy of health info	MU Core measure
m. Follow up after hospitalization for mental illness	Proposed Adult measure
n. Diabetic Retinopathy: Communication with the Physician measure Managing Ongoing Diabetes Care	MU: Additional Quality
o. Annual number of asthma patients 2-20 with one or more asthma related emergency room visits	
p. Link to DOH/Philadelphia DOH Immunization Registries	MU

Pennsylvania Department of Human Services **DRAFT CHRONIC CARE EQUIP** Link to Quality/Meaningful Use*	
q. Submit syndromic surveillance data to public health agencies	MU Menu set
r. E-prescribing	MU
IV. ENGAGE PATIENT/FAMILIES	
f. Text messages/ pop-up reminders	MU Menu set measure
g. Access to EHR	MU Menu set
h. Patient centered care plan	
i. Education/self-management	MU Menu set
j. CAHPS Survey	Proposed Adult measure
V. TRANSITION OF CARE	
a. Summary of Care Record	MU Menu set
b. Medication reconciliation	MU Menu set

Pennsylvania Department of Human Services **DRAFT OBSTETRICS CARE AND DELIVERY EQUIP** Link to Quality/Meaningful Use*	
K. ASSESSMENT	
jj. Clinical Information: Lists: Problem/Medication/Allergy also Medication Reconciliation from Menu Set	MU: EP Core Measure;
Demographics	MU: EP Core
Vital Signs	MU: EP Core
kk. Submit common OBNA form electronically by trimester and payment	Future EHR incentive
Postpartum	
ll. Timeliness of Prenatal Care	CHIPRA; P4P
mm. Post-Partum Care	CHIPRA;
Proposed Adult Measure; P4P	
nn. Frequency of ongoing Prenatal Care	CHIPRA; P4P
oo. Prenatal Care: Screening for Human Immunodeficiency Virus (HIV)	MU: Additional Measure
pp. Prenatal Care: Anti-D Immune Globulin	MU: Additional Measure
qq. Percent of live births weighing less than 2500 grams	CHIPRA
rr. Cesarean rate for nulliparous singleton vertex	CHIPRA
ss. Appropriate Use of Antenatal Steroids	Proposed Adult Measure
tt. Depression Screening	Proposed Adult Measure;
uu. Smoking and Tobacco Use Cessation also Core Clinical Quality also Additional Quality Measure	MU: Core Measure (13 and older); Quality Measure; Proposed Adult Measure
vv. Chlamydia Screening measure	CHIPRA; MU Additional
ww. Labs measure	MU: Menu set
II. CLINICAL DECISION SUPPORT	
c. Provider links to current treatment guidelines one clinical decision support rule relevant to	MU: Core Implement

Pennsylvania Department of Human Services **DRAFT OBSTETRICS CARE AND DELIVERY EQUIP** Link to Quality/Meaningful Use*	
(ACOG) clinical priority along with the ability to track.	specialty or high
III. COORDINATION OF CARE	
s. Clinical summaries for each office visit	MU Core measure
t. Exchange key clinical information	MU Core measure
u. Medication reconciliation	MU Menu set measure
v. Provide patients with electronic copy of health info	MU Core measure
w. Follow up after hospitalization for mental illness	Proposed Adult;
x. Anti-depression medication management Proposed Adult Measure	MU: Additional ;
y. E-prescribing	MU Core
IV. ENGAGE PATIENT/FAMILIES	
k. Text messages/ pop-up reminders	MU Menu set measure
l. Access to EHR	MU Menu set
m. Patient centered care plan	
n. Education/self-management	MU Menu set
o. CAHPS Adult Survey	Proposed Adult Measures
V. TRANSITION OF CARE	
a. Summary of Care Record	MU Menu set
b. Medication reconciliation	MU Menu set

Pennsylvania Department of Human Services **DRAFT PEDIATRIC EQUIP** Link to Quality/Meaningful Use*	
L. ASSESSMENT	
xx. Clinical Information: Lists: Problem/Medication/Allergy also Medication Reconciliation from Menu Set	MU: EP Core Measure;
Demographics	MU: EP Core
Vital Signs	MU: EP Core
yy. Weight : BMI/ BMI percentile clinical quality measure	CHIPRA; MU: Alternate
zz. Immunization : Childhood ; Adolescent clinical quality measure	CHIPRA; MU: Alternate
aaa. Well-Child Visits /Adolescent Well care	CHIPRA; P4P
bbb. Asthma: Assessment visits	CHIPRA: ER
Treatment measures: Assessment and Asthma Pharmacologic Therapy	MU: 2 Additional quality
Action Plans	
ccc. Smoking (13 and older); also Core Clinical Quality Measure (18 and older); also Additional quality measure: Smoking/tobacco use cessation	(3) MU: Core Measure
ddd. Developmental screen	CHIPRA
eee. Dental: Preventative	(2) CHIPRA; P4P
Treatment services	
fff. Pharyngitis	MU Additional clinical quality measure
ggg. Labs	MU: Menu set measure
hhh. Ambulatory Care: ED Visits (optional measure)	CHIPRA; P4P
II. CLINICAL DECISION SUPPORT	
d. Provider links to current treatment guidelines one clinical decision support rule relevant to	MU: Core Implement

Pennsylvania Department of Human Services **DRAFT PEDIATRIC EQUIP** Link to Quality/Meaningful Use*	
(AAP, Bright Futures, validated screening tools, clinical priority along with the ability to track. Evidenced-based guidelines)	specialty or high
III. COORDINATION OF CARE	
z. Clinical summaries for each office visit	MU Core measure
aa. Exchange key clinical information	MU Core measure
bb. Medication reconciliation	MU Menu set measure
cc. Provide patients with electronic copy of health info	MU Core measure
dd. Follow up after hospitalization for mental illness	CHIPRA
ee. Follow up for children prescribed ADHD medications	CHIPRA
ff. Child/Adolescent access to primary care practitioners	CHIPRA
gg. Annual number of asthma patients 2-20 with one or more asthma related emergency room visits	CHIPRA
hh. Link to DOH/Philadelphia DOH Immunization Registries	MU
ii. E-prescribing	MU
IV. ENGAGE PATIENT/FAMILIES	
p. Text messages/ pop-up reminders	MU Menu set measure
q. Access to EHR	MU Menu set
r. Patient centered care plan	
s. Education/self-management	MU Menu set
t. CAHPS Survey	CHIPRA
V. TRANSITION OF CARE	
a. Summary of Care Record	MU Menu set
b. Medication reconciliation	MU Menu set

Appendix VII – Letters of Support

3001 Chesterfield Place
Charleston, West Virginia 25304
Phone 304.346.9864
Toll Free 1.800.642.8686
Fax 304.346.9863
www.wvmi.org

March 13, 2015

Fran McCullough
Centers for Medicare and Medicaid Services
The Public Ledger Building, Suite 216
150 S. Independence Mall West
Philadelphia, PA 19106

Jason McNamara
Technical Director for Health IT
Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244

Dear Mr. McCullough and Mr. McNamara:

It is my pleasure to write this letter to express my support for Pennsylvania's State Medicaid Health IT Plan. Pennsylvania's HIT efforts positions our beneficiaries, providers, and the entire state to achieve the triple aim of better health, lower costs, and better population health status. Our Medicaid Health IT Plan reflects this commitment as we continue to seek innovative IT strategies to improve our Medicaid program.

Pennsylvania's vision involves ongoing efforts to not only increase HIT adoption and meaningful use but also the exchange of timely health information to improve quality of care, provider performance, and program administration. We believe that aligning the use of HIT and HIE is critical to maximizing value and realizing better health outcomes for our beneficiaries.

As both the Quality Innovation Network-Quality Improvement Organization (QIN-QIO) and the Regional Extension Center (REC), PA REACH, for Pennsylvania I look forward to working with the Centers for Medicare and Medicaid Services to achieve our Commonwealth's strategic vision.

Sincerely,

John C. Wiesendanger
Chief Executive Officer

Appendix VII: Letters of Support

March 20, 2015

Fran McCullough
Centers for Medicare and Medicaid Services
The Public Ledger Building, Suite 216
150 S. Independence Mall West
Philadelphia, PA 19106

Jason McNamara
Technical Director for Health IT
Centers for Medicare & Medicaid Services
7500 Security Boulevard
Baltimore, MD 21244

Dear Mr. McCullough and Mr. McNamara:

My name is Alix Goss, and I serve as Executive Director of the Pennsylvania eHealth Partnership Authority (Authority) and fulfilled Pennsylvania's State Health IT Coordinator role under the commonwealth's health information exchange cooperative agreement with the Office of National Coordinator (ONC). I am writing to express my support for Pennsylvania's State Medicaid Health IT Plan.

Pennsylvania's Act 121 of 2012 established the Authority to advance health information exchange in Pennsylvania. As part of this effort we have extensively engaged stakeholders to provide input and to help develop strategies and detailed recommendations that can best serve Pennsylvanians in establishing a connected health care system. The Department of Human Services, and especially their Medicaid unit, has and is participating with us and is an important strategic partner in this effort. Pennsylvania's health IT efforts position our beneficiaries, providers, and the entire state to achieve the triple aim of better health, lower costs, and better population health status. Our Medicaid Health IT Plan reflects this commitment as we continue to seek innovative IT strategies to build on existing investments to improve our Medicaid program.

We work very closely with Medicaid to align and effectively leverage our respective programmatic areas. To ensure collaboration, we meet routinely to assess our progress and discuss strategies that would be of mutual benefit. We also meet monthly with the Pennsylvania Medical Society, the Hospital and Healthsystem Association of Pennsylvania, the Pennsylvania Department of Health and the PA REACH (PA's Regional Extension Center) to identify issues and opportunities that we can collectively work on

Fran McCullough and Jason McNamara

to advance health IT and health information exchange. Additionally, I meet monthly with Medicaid leadership and on a biweekly basis the Medicaid Health IT Coordinator and the Authority coordinate with PA REACH (Pennsylvania's regional extension center designated by ONC).

Pennsylvania's vision involves ongoing efforts to not only increase health IT adoption and meaningful use, but also the exchange of timely health information to improve quality of care, provider performance and reporting, and program administration. We believe that aligning the use of health IT and HIE is critical to maximizing value and realizing better health outcomes for our beneficiaries.

I look forward to working with the Centers for Medicare and Medicaid Services to achieve our commonwealth's strategic vision. I encourage your favorable consideration of Pennsylvania's Medicaid Health IT Plan. If I can be of any further assistance, please do not hesitate to let me know. You can reach me at algoss@pa.gov or (717) 346-1115.

Sincerely,

Alix Goss
Executive Director
Pennsylvania eHealth Partnership Authority
Room 402A, Finance Building
613 North Street
Harrisburg, PA 17120

pennsylvania
OFFICE OF ADMINISTRATION
INFORMATION TECHNOLOGY

September 20, 2011

Fran McCullogh
Centers for Medicare and Medicaid Services
The Public Ledger Building, Suite 216
150 S. Independence Mall West
Philadelphia, PA 19106

Jessica Kahn
Technical Director for Health IT
Centers for Medicare and Medicaid Services
7500 Security Boulevard, Mail Stop S3-13-15
Baltimore, MD 21244

Dear Ms. McCullogh and Ms. Kahn:

My name is Robert Torres and I currently serve as Pennsylvania's Health IT Coordinator. I write this letter in support of our state's Medicaid Health IT Plan. On July 27, 2011, Governor Corbett issued executive order 2011-04 establishing the Pennsylvania eHealth Collaborative to re-launch our efforts to advance health information exchange in Pennsylvania. As part of this effort, we have engaged over 100 stakeholders to provide input and to help develop recommendations that can best serve Pennsylvanians. Medicaid is participating with us and is an important partner in this effort.

We work very closely with Medicaid to align and effectively leverage our respective efforts. To ensure our collaboration, we meet routinely to assess our progress and discuss strategies that would be of mutual benefit. We also meet monthly with the Pennsylvania Medical Society, the Hospital and Healthsystem Association of Pennsylvania, the Pennsylvania Department of Health and the Regional Extension Center to identify issues and opportunities that we can collectively work on to advance health information technology and health information exchange.

I encourage your favorable consideration of Pennsylvania's Medicaid Health IT Plan. If I can be of any further assistance, please do not hesitate to let me know.

Sincerely,

Robert Torres
Pennsylvania Health IT Coordinator

pennsylvania
DEPARTMENT OF HEALTH

October 11, 2011

Fran McCullogh
Centers for Medicare and Medicaid Services
The Public Ledger Building, Suite 216
150 S. Independence Mall West
Philadelphia, Pennsylvania 19106

Jessica Kahn
Technical Director for Health IT
Centers for Medicare and Medicaid Services
7500 Security Boulevard, Mail Stop S3-13-15
Baltimore, Maryland 21244

Dear Ms. McCullogh and Ms. Kahn:

As the Executive Deputy Secretary of Pennsylvania's Department of Health (DOH), I am writing to offer full support to the Pennsylvania Department of Public Welfare, Office of Medical Assistance Program's (OMAP) collaborative efforts to advance the adoption and implementation of Electronic Health Records (EHRs) for eligible providers and hospitals in Pennsylvania.

The DOH works very closely with OMAP in areas of chronic disease, maternal health, and pediatric health. DOH operates several surveillance and public health reporting systems such as chronic and infectious disease reporting, lab surveillance, lead screening, metabolic disease screening, sickle cell surveillance, smoking cessation quit line, and the state wide immunization registry. These electronic systems are integral to public disease surveillance reporting and additionally are essential to Stage One Meaningful Use requirements for Medicaid and Medicare EHR incentive programs. We have worked very closely with OMAP to help high volume Medicaid providers in Pennsylvania get linked to many of these surveillance systems.

We fully support OMAP's submitted State Medicaid Health Information Technology Plan and look forward to ongoing collaboration with OMAP to advance the use of health information technology and exchange that will improve the lives of Pennsylvanians.

Sincerely,

Michael Wolf, Executive Deputy Secretary
Department of Health

Appendix VIII - Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes						State Checklist			
Subject	Change	Applicable CFR Rule	Affected Providers EP	Affected Providers EH	Effective Date	Target Date	Implementation Status	Activity	SMHP Location (if applicable)
Patient Volume	**Practicing Predominately Calculations**: Allow EPs to use a six-month period within the prior calendar year or preceding 12 month period from the date of attestation for the definition of practicing predominantly (more than 50% of the encounters). States have some flexibility, but all approaches need approved by CMS.	§495.302	X		1/1/13	1/1/13	Completed	**Communications:** – Updated EP provider manual to reflect new standard - Presented new standard in Listserv emails, webinars and FAQs (all available on program website) -Conducted two webinars discussing new requirement. - Added to posted tip sheet on website: http://www.dhs.state.pa.us/cs/groups/webcontent/documents/document/p_014610.pdf	Introduction (Page 4) acknowledges changes as a result of the Final Rule/final rule update. Section C (Pages 49-65) refers providers to program website and on-line manuals for how specific changes are implemented. Section D (Pages 66 – 81) discusses the general requirements of the program as it relates scope of the program's audit plan. The specific methodology is separately from SMHP.
						1/1/13	Completed	Operations: Program maintains operation manual and has been documenting process changes in the manual. - Updated process to validate post pay practice predominately standard now being 12 months preceding attestation, including changing outreach emails to clarify the timeframe that validation materials for practicing predominately must pertain.	
						4/1/13	Completed	MAPIR: Walkthrough of MAPIR changes with CMS presented 11/15/12 - Updating information within MAPIR to reflect the new standard for practice predominately (e.g. hover bubbles)	
	Medicaid Enrolled Encounters: Numerator to include service	§495.306	X	X	10/1/12 –EHs	1/1/13	Completed	**Communications:** – Updated EP provider manual to reflect new standard for allowable encounters	Introduction (Pg.4) acknowledges changes as a result of the Final Rule update.

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes						State Checklist			
	rendered on any one day to a Medicaid-enrolled individual, *regardless* of payment liability. Includes zero-pay claims and encounters with patients in Title XXI-funded Medicaid expansions, but not separate CHIP programs (see below).				1/1/13 – EPs			- Presented new standard in Listserv emails, webinars and FAQs (all available on program website) - Updated provider volume template and website calculator to address allowable encounter standard - Conducted two webinars discussing new requirements. - Posted tip sheet to website. http://dhs.pa.gov/cs/groups/webcontent/documents/document/p_014610.pdf	Section C (Pages 49-65) refers providers to program website and on-line manuals for how specific changes are implemented. Section D (Pages 66 – 81) discusses the general requirements of the program as it relates scope of the program's audit plan. The specific audit methodology is described in a separate document from the SMHP.
						1/1/13	Completed	**Operations:** Program maintains operation manual and has been documenting process changes in the manual. - Updated process to validate pre and post pay encounter standard. This includes updating reports to include allowable encounters as opposed to paid only. - Outreach emails were be updated to refer to new standard.	
						4/1/13	Completed	**MAPIR** -Walkthrough of MAPIR changes with CMS presented on: 11/15/12. Information screens and hover bubbles within MAPIR will present updated encounter requirements.	
	CHIP Encounters: Provider patient volume includes CHIP encounters in numerator *if part of Title XIX expansion or part of Title XXI expansion* (still	§495.306	X	X	10/1/12 –EHs 1/1/13 – EPs	1/1/13	Completed	Communications: – Updated EP provider manual to reinforce that CHIP is still only allowed for EPs that practice predominately at FQHC / RHC (due to Pennsylvania's CHIP being a standalone program) - Reinforced requirement in Listserv emails, webinars and FAQs (all available on program website: http://www.dhs.pa.gov/provider/healthcaremedicalassi	Introduction (Pg.4) acknowledges changes as a result of the Final Rule/ final rule update. Section C (Pages 49-65) refers providers to program website and on-line manuals for how specific changes are implemented.

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes					State Checklist			
cannot include CHIP stand-alone Title XXI encounters).							stance/medicalassistancehealthinformationtechnologyinitiative/index.htm) - Conducted two webinars discussing new requirements. - Posted tip sheet to website. http://dhs.pa.gov/cs/groups/webcontent/documents/document/p_014610.pdf	Section D (Pages 66 – 81) discusses the general requirements of the program as it relates scope of the program's audit plan. The specific audit methodology is described in a separate document from the SMHP.
					1/1/13	Completed	Operations: Program maintains operation manual and has been documenting process changes in the manual. Process will remain largely unchanged since capacity exists to identify inclusion of CHIP for non FQHC / RHC EPs.	
					4/1/13	Completed	**MAPIR:** Walkthrough of MAPIR changes with CMS presented on 11/15/12. Pennsylvania will reinforce CHIP not being allowable for non FQHC / RHC providers within MAPIR at appropriate points.	
Panel Methodology: Change the period during which an encounter with a patient must take place from 12 months to 24 months to account for new clinical guidelines from the U.S. Preventive Health Services Task Force that allow greater spacing between some wellness visits.	§495.306	X	X	10/1/12 –EHs 1/1/13 – EPs	N/A	N/A	In Pennsylvania the panel method is not an option for providers to use and there are currently no plans to implement the method. Reasons for not offering at this time include lack of consistency for how panels are assigned which creates inability to define an auditable data source. Providers have not requested panel be an option. Based on participation of providers and review of volume attestations the Department believes lack of panel method as an option is not creating a participation barrier.	If Pennsylvania would begin to use the panel method an SMHP amendment would be submitted
					N/A	N/A		
					N/A	N/A		
Provider, Panel and Needy Individual Patient Volume: Allow the provider to have their patient volume reporting period to be any	§495.306	X	X	10/1/12 –EHs 1/1/13 – EPs	1/1/13	Completed	**Communications:** - Conducted two webinars discussing new requirements. - Presented new standard in Listserv emails, webinars and FAQs (all available on program website)	Introduction (Pg.4) acknowledges changes as a result of the Final Rule update. Section C (Pages 49-65) refers providers to program website and

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes									
		consecutive 90 day period within the prior calendar year or preceding 12 month period from the date of the attestation. States have some flexibility, but all approaches need approved by CMS.						- Posted tip sheet to website. http://dhs.pa.gov/cs/groups/webcontent/documents/document/p_014610.pdf	on-line manuals for how specific changes are implemented. Section D (Pages 66 – 81) discusses the general requirements of the program as it relates scope of the program's audit plan. The specific audit methodology is described in a separate document from the SMHP.
						1/1/13	Completed	**Operations:** Program maintains operation manual and has been documenting process changes in the manual. Updates to process will include determining if 90 days selected by EP / EH provides program enough claim data (due to claim lags) for pre-pay validation purposes.	
						4/1/13	Completed	**MAPIR:** Walkthrough of MAPIR changes with CMS presented on 11/15/12	
Exemption from Hospital Based Exclusion for EPs		**Hospital Based Exclusion:** EPs who can demonstrate that the EP funds the acquisition, implementation, and maintenance of Certified EHR Technology, including supporting hardware and any interfaces necessary to meet meaningful use without reimbursement from an eligible hospital or CAH; and uses such Certified EHR Technology in the inpatient or emergency department of a hospital (instead of the hospital's CEHRT) are now eligible for EHR Incentive Payments.	§495.5	X		1/1/13	1/1/13	Completed	**Communications:** - Webinar discussed change. - Process is outlined in EP provider manual, FAQs and listservs	Section C- Pre-pay (Pages 49-65) Section D – Post pay (Pages 66 – 81)
							1/1/13	Completed	**Operations:** Program operations manual will include how professionals will notify program that wish to claim exclusion through MAPIR and program support center. The process will also identify standards professionals must use to validate exclusion claim.	
							1/1/12	Completed	**MAPIR:** Updated information splash screens to explain to providers requirements	

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes							State Checklist			
Hospital Changes		**Children's Hospital Eligibility**: Revised definition of a children's hospital to also include any separately certified hospital, either freestanding or hospital within hospital that predominately treats individuals under 21 years of age; and does not have a CMS certification number (CCN) because they do not serve any Medicare beneficiaries but has been provided an alternative number by CMS for purposes of enrollment in the Medicaid EHR Incentive Program.	§495.302		X	10/1/12	10/1/12	Completed	**Communications:** - Presented in webinars - Conducted outreach to specific hospitals that were identified as meeting the new definition once listing is made available	Section C – (Pages 49-65)
							TBD		**Operations:** - Process may need updated to allow additional hospitals into MAPIR but the review of their application is not distinct from how other hospitals are reviewed. Manual process already established	
								Completed	**MAPIR:** Determined the CCN range for newly eligible hospitals to update system capacity to allow hospitals access.	
		Hospital Calculation Change: Hospitals that begin participation in 2013 and later can now use the most recent continuous 12 month period for which data are available prior to the payment year. Hospitals that began participation in the program prior to the Stage 2 Rule will not have to adjust previous calculations. Previously Medicaid eligible hospitals	§495.310		X	10/1/12	1/1/13	Completed	**Communications** – Presented new requirement and that data was aligned with auditable data source (e.g. Pennsylvania Cost Reports) Reinforced through Provider Manual, ListServ and FAQs	Section C – (Pages 49-65)
							1/1/13	Completed	**Operations** – Program updating process documentation to verify dates used for cost data in application are allowable and from an auditable source.	
							10/1/12	Completed	**MAPIR –** Information within system communicates new requirements and EHs could enter dates allowable by new requirement	

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes						State Checklist			
		calculated the base year using a 12 month period ending in the Federal fiscal year before the hospital's fiscal year that serves as the first payment year.							
		Hospitals Switching States: Allow a hospital to switch states from where they receive EHR incentive payments provided that both states work together to determine the remaining payments due to the hospital based on the aggregate incentive amount and incentive amounts already paid. The hospital will then assume the second state's payment cycle, less the money paid from the first state. States should consult with CMS before addressing this specific scenario.	§495.310		X	10/1/12	10/1/12	Completed	**Communications:** Addressed this through ad-hoc outreach once situation identified.	
							1/1/13	Completed	**Operations**: Capacity exists to identify switch. Process will document that program will contact CMS to resolve issue with other state.	
							10/1/12	Completed	**MAPIR**: System is used to identify switch and prevent hospital from completing application until able to communicate with other state.	
		Dual Eligible Hospital Audits and Appeals: States can have CMS conduct the MU audit and appeals for EHs provided that they: (1) designate CMS to	§495.370		X	10/1/12	10/1/12	Completed	**Communications**: Amended SMHP language and will reinforce through EH provider manual as well as listerv communications, webinars and FAQs	Section D (Pages 66 – 81)
							10/1/12	Completed	**Operations** – Does not change operations because this confirms existing operational plan	

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes							State Checklist			
		conduct all audits and appeals of eligible hospitals' meaningful use attestations; (2) be bound by the audit and appeal findings; (3) perform any necessary recoupments arising from the audits; and (4) be liable for any FFP granted the state to pay eligible hospitals that, upon audit (and any subsequent appeal) are determined not to have been meaningful EHR users. Results of any adverse CMS audits (for states that have made the election) would be subject to the CMS administrative appeals process and not the state appeals process.					1/1/13	Complete	**MAPIR** – Reinforced how EHs will be audited and can appeal at appropriate points within MAPIR.	
Stage 1 MU Measures	**Core**	**CPOE Entered by CMAs:** The revised interpretation allows a credentialed medical assistant (CMA) to be considered a "licensed health care professional" for purpose of computerized provider order entry (CPOE). The CMA must still adhere to	§495.6	X	X	1/1/13 - EHs 4/1/13 – EPs	1/1/13 1/1/13 4/1/13	Completed Completed Completed	**Communications** – Presented new requirements in two webinars and posted tip sheet outlining changes to website. Reinforced who can do CPOE through FAQs, provider manuals and Listserv **Operations** – Capacity developed to capture measure requirements and review process to that information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS scheduled for 11/15/12	Introduction (Pg.4) references changes from updated rule.

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes						State Checklist			
		State, local and professional guidelines re order entry. Their credentialing would have to be obtained from an organization other than the employing organization."							
		CPOE *Alternate* Measure: More than 30% of the medication orders created by the provider during the EHR period are recorded using CPOE.							
		Generate & Transmit eRX/*New Exclusion* - If no pharmacy within organization & no pharmacy within 10 miles who accept electronic submissions**.**	§495.6	X		4/1/13	1/1/13 1/1/13 4/1/13	Completed Completed Completed	**Communications** – Presented new requirements in two webinars and posted tip sheet outlining changes to website. Reinforcing exclusion through FAQs, provider manuals and Listserv **Operations** – Capacity developed to captured measure requirements and review process to that information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS held on 11/15/12	Section C (Pages 49-65) refers providers to Provider Manuals that are updated about specific requirements.
		Vital Signs *Alternate* Measure: Also allow alternate measure for Vital: More than50 percent of all unique patients seen by the provider during the EHR reporting period	§495.6	X	X	1/1/13 - EHs 4/1/13 – EPs	1/1/13 1/1/13	Completed Completed	**Communications** – Presented new requirements in two webinars and posted tip sheet outlining changes to website. Reinforced new requirement and exclusion through FAQs, provider manuals and Listserv **Operations** – Capacity developed to captured measure requirements and review process to that
			§495.6	X	X	1/1/13 - EHs			

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes						State Checklist			
		have blood pressure **(for patients age 3 and over only)** and height and weight **(for all ages)** recorded as structured data. **Vital Signs/*New Exclusion*** Any provider who (1) Sees no patients 3 years or older is excluded from recording blood pressure; (2) Believes that all three vital signs of height, weight, and blood pressure have no relevance to their scope of practice is excluded from recording them; (3) Believes that height and weight are relevant to their scope of practice, but blood pressure is not, is excluded from recording blood pressure; (4) Believes that blood pressure is relevant to their scope of practice, but height and weight are not, is excluded from recording height and weight.				4/1/13 – EPs	4/1/13	Completed	information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS held on 11/15/12	Section D references changes as result of updated rule but specific plan submitted independently to CMS.
		Clinical Information: Electronic transmission of key	§495.6	X	X	1/1/13 - EHs	1/1/13	Completed	**Communications** – Presented new requirements in two webinars and posted tip sheet outlining changes	

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes						State Checklist			
		clinical information: *Remove requirement*				4/1/13 – EPs	1/1/13 4/1/13	Completed Completed	to website. Reinforcing that requirement is removed through FAQs, provider manuals and Listserv **Operations** – Capacity developed to captured measure requirements and review process to that information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS held on 11/15/12	
		Report CQMs: *No longer a Core Measure*, now part of MU definition	*n/a*	X	X	1/1/13 - EHs 4/1/13 – EPs	1/1/13 1/1/13 4/1/13	Completed Completed Completed	**Communications** – Presented new requirements in two webinars and posted tip sheet outlining changes to website. Reinforcing that CQM is no longer a standalone measure but still necessary to be a meaningful user through FAQs, provider manuals and Listserv **Operations** – Capacity developed to captured measure requirements and review process to that information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS held on 11/15/12	
		Exchange Key Clinical Info Electronically: *Remove requirement*	*n/a*	X	X	1/1/13 - EHs 4/1/13 – EPs	1/1/13 1/1/13 4/1/13	Completed Completed Completed	**Communications** – Presented new requirements in two webinars and posted tip sheet outlining changes to website. Reinforcing that requirement is removed through FAQs, provider manuals and Listserv **Operations** – Capacity developed to captured measure requirements and review process to that information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS held on 11/15/12	

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes								State Checklist			
	Menu	**Immunizations:**	Add "according to applicable law and practice"	§495.6	X	**X**	1/1/13 - EHs 4/1/13 – EPs	1/1/13	Completed	**Communications** – Presented new language in webinars and posted tip sheet outlining changes to website. Reinforcing in who can do CPOE through FAQs, provider manuals and Listserv **Operations** – Capacity developed to captured measure requirements and review process to that information. Internal education of new requirement on-going. **MAPIR** – System walkthrough with CMS held on 11/15/12	
		Reportable Labs:		§495.6		X	1/1/13	1/1/13	Completed		
		Syndromic Surveillance:		§495.6	X	**X**	1/1/13 - EHs 4/1/13 – EPs	4/1/13	Completed		
IAPD		State must submit HIT updates *12 months from date of last CMS approved HIT IAPD*		§495.342				11/9/12	Completed	Updated SMHP language to reinforce point	
SMHP		State should submit an update to their SMHP to notify CMS of the sections being updating and the changes being made. Does not need to be full SMHP update, but rather an						11/9/12	Completed	This document will be added as an appendix to SMHP.	

Appendix VIII: Stage 2 Regulations - 2013 State Medicaid Changes Checklist

Stage 2 Regulation Changes							State Checklist			
		amendment to the last submission.								
State Audit Strategies		States with approved audit strategies should update them to included changes to accommodate the previous Stage 1 and the 2013 Stage 1 changes.					4/30/15	In-progress	Program's audit strategy reviewed and will be updated. Need to consider MAPIR system updates when revising audit strategy.	

Appendix IX - 2014 Certified Electronic Health Record Flexibility Rule

Pennsylvania State Medicaid Health IT Plan Addendum for 2014 Certified Electronic Health Record Flexibility Rule

The Pennsylvania Department of Human Services' (the Department) Office of Medical Assistance Programs through the Medical Assistance Health Information Technology Initiative complies with federal regulations and guidance from the Centers for Medicare & Medicaid Services (CMS) to administer and oversee Pennsylvania's Medical Assistance Electronic Health Record Incentive Program. This State Medicaid Health Information Technology Plan Addendum provides CMS with an overview of the Department's plan to address the new requirements for Program Year 2014.

On September 4, 2014, CMS published a Final Rule, *Medicare and Medicaid Programs; Modifications to Medicare and Medicaid Electronic Health Record (EHR) Incentive Program for 2014 and Other Changes to the EHR Incentive Program; and Health Information Technology: Revisions to Certified EHR Technology Definition and EHR Clarification Changes Related to Standards* to the Federal Register, or the 2014 CEHRT Flexibility Rule.

The Department completed a comprehensive analysis of the Final Rule to identify information, policy, process and technology impacts to the Pennsylvania Medicaid EHR Incentive Program. The following table contains a summary of the areas impacted as well as the plan to address the impacts for Program Year 2014.

SMA Policy Changes	
Policy Considerations	• Developed policies and guidance on supporting documentation that relates to the Flexibility Rule (e.g. what is acceptable reasons that providers were unable to fully implement 2014 Edition CEHRT) • Reviewed and updated the pre-payment verification documentation requirements that will be needed from providers at time of attestation to support their ability to utilize flexibility options • Determined the documentation providers will need to provide to prove they their delay in implementation of 2014 Edition CEHRT availability is attributable to issues related to software development, certification, implementation, testing, or release of the product by the EHR vendor. • Developed internal processing documentation for use by staff in applying changes necessary for the Flexibility Rule
Provider Registration and Attestation	

Systems / infrastructure	• Reviewed and updated eligibility verification checklists by identifying what was submitted if provider claimed flexibility option and to ensure adoption Implementation or upgrade (AIU) attestations use 2014 Certified Electronic Health Record Technology (CEHRT)
	• Worked with MAPIR Collaborative members, internal program staff, and external vendor, HP, to design core systems changes including any screen changes required to determine the CEHRT verification process in the state Registration and Attestation system, MAPIR, to allow for attestations using the MU Flexibility Rule
	• Worked with internal program staff and external vendor, HP, to update custom related state Registration and Attestation requirements and web portals changes to allow for attestations using the MU Flexibility Rule.
	• Determine CEHRT verification process – included as part of MAPIR system update and verification checklists
	• Per the MAPIR Collaborative Statement of Work, planned adequate time to beta test the core system changes to MAPIR and finalize all changes related to the Flexibility Rule in preparation of implementation in Pennsylvania's production environment
	• Determined that the attestation tail period needs to be extended due to the MAPIR system implementation date for Flexibility Rule as well as to adequately communicate with provider community about the changes
	  ○ Received approval (email dated Oct. 17, 2015) for attestation tail extensions for eligible hospitals through March 31, 2015 and for eligible professionals through June 30, 2015
	  ○ The extension of the attestation tails will be announced via listserv message to provider community as well as on program website.

Outreach, Collaboration, Support	
Provider Outreach	• Program has reviewed requirements with provider focus group as well as shared CMS resources with provider community • Additional webinars will address program requirements as well as how system has changed to accommodate Flexibility rule requirements • Coordinating outreach with Regional Extension Centers and stakeholder groups such as the Hospital and Healthsystem Association of PA, The Pennsylvania Medical Society, PA Association of Community Health Centers and others

Provider Support	• Developed FAQs and talking points for SMA staff and vendors that field phone/email questions from providers regarding Flexibility Rule content, timing, and process issues • Utilizing existing tracking mechanism for inquiries to identify patterns in knowledge gaps and update/design additional communications to address gaps
Medicaid EHR Incentive Program Payment Administration	
Fiscal Services	• Payment procedures will remain unchanged due to the Flexibility rule. If payments need to be recouped then they will follow same process. Reason for recoupment will be included in correspondence with provider and if related to flexibility rule then the appropriate section of rule will be referenced
Appeals	• Providers will follow existing appeal process.
Audit & Program Integrity	
Audits	• Updated post-payment audit procedures to incorporate requirements in the Flexibility Rule by updating checklist to review documentation that is necessary to validate provider's attestation that delay in 2014 Edition CEHRT is attributable to the issues related to software development, certification, implementation, testing, or release of the product by the EHR vendor which affected their 2014 CEHRT availability and resulted in the inability or a provider to fully implement 2014 Edition CEHRT. • Evaluating if audit risk profile(s) need to be updated to reflect Flexibility Rule requirements. Need to see what providers are supplying and what they are attesting to for 2014.
State-Based Performance Measures	
Reporting	• Will utilize MAPIR data to track attestation as well as Health IT inquiry database to capture eligible professionals / eligible hospitals that have delayed implementing 2014 Edition CEHRT attributable to issues related to software development, certification, implementation, testing, or release of the product by the EHR vendor.

Appendix X – 2015-2017 Modification Rule

Pennsylvania State Medicaid Health IT Plan Addendum for 2015-2017 Modification Rule	
The Pennsylvania Department of Human Services (the Department) Office of Medical Assistance Programs through the Medical Assistance Health Information Technology Initiative complies with federal regulations and guidance from the Centers for Medicare & Medicaid Services (CMS) to administer and oversee Pennsylvania's Medical Assistance Electronic Health Record Incentive Program. This State Medicaid Health Information Technology Plan Addendum provides CMS with an overview of the Department's plan to address the new requirements for Program Year 2015. On October 16, 2015, CMS published a Final Rule, *Medicare and Medicaid Programs; Electronic Health Record Incentive Program-Stage 3 and Modifications to Meaningful Use in 2015-2017* to the Federal Register, or the 2015-2017 Modification Rule. The Department completed a comprehensive analysis of the Final Rule to identify information, policy, process and technology impacts to Pennsylvania's Medical Assistance Electronic Health Record Incentive Program. The following table contains a summary of the areas impacted as well as the plan to address the impacts for Program Year 2015.	
SMA Policy Changes	
Policy Considerations	• Developed policies and guidance on supporting documentation that relates to the 2015-2017 Modification Rule. • Conducted internal review and requirements for pre-payment validation documentation required for the 2015-2017 Modification Rule objectives and measures. • Developed internal processing and procedures documentation for use by staff in applying changes necessary for the 2015-2017 Modification Rule.
Provider Registration and Attestation	
Systems / infrastructure	• Reviewed eligibility verification checklists to ensure adoption, implementation, or upgrade (AIU) attestations as well as meaningful use attestations use 2014 Certified Electronic Health Record Technology (CEHRT). • The Medical Assistance Provider Incentive Repository, MAPIR, also completes a real-time web callout to the ONC Certified Health IT Product List to verify a valid CEHRT per attestation per Program Year. • Submitted Core MAPIR system 2015-2017 Modification Rule screen changes and conducted a Collaborative walkthrough with CMS on Dec 16, 2015. The Multi-

	state MAPIR Collaborative received CMS feedback on Dec 21, 2015 and presented clarifications to CMS on Dec 23, 2015. Received approval of the Core MAPIR system and screen changes on Dec 28, 2015. • Worked with internal program staff and external vendor, HPE, to update custom MAPIR related state level Registration and Attestation requirements to allow for attestations using the 2015-2017 Modification Rule. • Per the MAPIR thirteen state Collaborative Statement of Work, planned adequate time to beta test the core system changes to MAPIR and finalize all changes related to the 2015-2017 Modification Rule in preparation of implementation in Pennsylvania's production environment. • Determined that the attestation tail period needs to be extended due to the MAPIR system implementation date for 2015-2017 Modification Rule as well as to adequately communicate with provider community about the changes. o Due to the volume of core MAPIR systems changes needed to support the 2015-2017 Modification Rule, Pennsylvania's instance of MAPIR is scheduled to be upgraded with Program Year 2015 and 2016 systems changes end of April, early May 2016 for eligible professionals and late September 2016 for Medicaid Only/Children's Hospitals. Pennsylvania requested approval for attestation tail extensions for Program Year 2015 dually eligible hospitals through Mar 31, 2016 (or 30 days after the CMS tail period closes should that change from Feb 29, 2016 – There are no Core MAPIR systems changes needed to process dually eligible hospital applications), Program Year 2015 eligible professional applications of July 31st, 2016, and December 31st, 2016 for Program Year 2015 Medicaid Only/ Children's hospitals. Pennsylvania is not requesting extended tail periods for Program Year 2016 attestations. o CMS approved the tail extension request on December 28, 2015. The extension of the attestation tails will be announced via listserv message to provider community as well as on Pennsylvania's EHR program website, on the MAPIR application dashboard, and directly to the five Children's Hospitals.
Outreach, Collaboration, Support	
Provider Outreach	• Pennsylvania's EHR Incentive Program has reviewed requirements with provider focus group as well as shared CMS resources with the provider community. The PA team has developed charts, tip sheets, presentations and materials for the website to be shared with the providers. • Initial 2015-2017 Modification Rule webinar was held Nov 18, 2015 with Pennsylvania's provider community. Additional webinars will address program requirements as well as how the MAPIR system has changed to accommodate the 2015-2017 Modification Rule requirements.

	• Coordinating outreach with Regional Extension Centers and stakeholder groups such as the Hospital and Healthsystem Association of PA, The Pennsylvania Medical Society, PA Association of Community Health Centers and others. • A MAPIR system Provider Experience Day will be held in April 2016 to work with a focused group of providers with 2015-2017 Modification Rule system changes in the MAPIR Test environment to receive feedback from providers to improve program procedures and communications about the 2015-2017 Modification Rule.
Stakeholder Engagement and Collaboration	• Conducting a meeting in January 2016 with the Best Practices Focus Group to discuss the 2015-2017 Modification Rule and the impact on the EHR Incentive program. The Best Practices group includes key stakeholders such as the Hospital and Healthsystem Association of PA, The Pennsylvania Medical Society, PA Association of Community Health Centers, HealthSystems in PA, key providers and others. • Continue to share information in the HIT ListServ message that reaches over 1,240 subscribers weekly. • Continue to share information with the key stakeholders so they can include it in their newsletters, reports and on their websites. • Continue to speak at regional and statewide functions on the status of the EHR Incentive program and 2015-2017 Modification Rule updates. • Generated reports to determine those who have participated in the EHR Incentive Program for AIU but not MU. Continue to contact these providers to encourage further participation and offer assistance.
Provider Support	• Developed FAQs and talking points for SMA staff and vendors that field phone/email questions from providers regarding 2015-2017 Modification Rule content, timing, and process issues • Utilizing existing tracking mechanism for inquiries to identify patterns in knowledge gaps and update/design additional communications to address gaps • Developed a Tip Sheet specific to the 2015-2017 Modification Rule Public Health Objective to be used as a guide for internal staff and providers.
Medicaid EHR Incentive Program Payment Administration	
Fiscal Services	• Payment procedures will remain unchanged due to the 2015-2017 Modification Rule. If payments need to be recouped then they will follow current process. Reason for recoupment will be included in correspondence with the provider and if related to 2015-2017 Modification Rule then the appropriate section of rule will be referenced
Appeals	• Providers will follow existing appeal process.

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Audit & Program Integrity	
Audits	• Updated post-payment audit procedures to incorporate requirements in the 2015-2017 Modification Rule by updating checklist to review documentation that is necessary to validate provider's attestation to the new/revised MU objectives. • Evaluating if audit risk profile(s) need to be updated to reflect 2015-2017 Modification Rule requirements. Pennsylvania's EHR Incentive Program needs to more fully understand what providers are able to supply as supporting documentation and what they are attesting to for Program Year 2015. Any CMS issued guidance on acceptable supporting documentation related to the 2015-2017 Modification Rule will be incorporated into Pennsylvania's audit procedures.
State-Based Performance Measures	
Reporting	• Pennsylvania's EHR Incentive Program will utilize MAPIR data to track attestation as well as Health IT inquiry database to capture eligible professionals / eligible hospitals that have submitted Program Year 2015 applications utilizing the 2015-2017 Modification Rule objectives and measures.