Legislative Budget and Finance Committee

A JOINT COMMITTEE OF THE PENNSYLVANIA GENERAL ASSEMBLY

Offices: Room 400 Finance Building, 613 North Street, Harrisburg
Mailing Address: P.O. Box 8737, Harrisburg, PA 17105-8737
Tel: (717) 783-1600 • Fax: (717) 787-5487 • Web: http://lbfc.legis.state.pa.us

Pennsylvania eHealth Partnership Authority Evaluation

Conducted Pursuant to Act 2012-121

July 2016

Table of Contents

Table of Contents
(Continued)

Summary, Conclusions, and Recommendations

Act 2012-121 created the PA eHealth Partnership Authority as an independent agency of the Commonwealth and established a non-lapsing special fund in support of the Authority's operation. With the passage of the Act, Pennsylvania became one of 33 states (including neighboring Delaware, Maryland, New York, and West Virginia) that had enacted state legislation to support statewide health information exchange. The goal of Pennsylvania's statewide health information exchange, known as P3N (Pennsylvania Patient and Provider Network), is to allow all health care providers within the state (and eventually between states) to share medical records and other pertinent medical information. The P3N is not the repository for such data, but rather facilitates the exchange of this data through state-certified regional health information organizations.

The Act authorized the creation of the Partnership Authority as of July 2012. The Authority governing board appointed by the Governor and General Assembly held its first meeting in April 2013, about one year after the effective date of the Act, and hired an Executive Director and Deputy Director in April 2014, about two years after passage of the Act. Act 121 also directed the Legislative Budget and Finance Committee to evaluate the management, viability, and performance of the health information exchange and make recommendations as to reauthorization, dissolution, or assumption of the responsibilities by another entity prior to the Authority expiring in July 2017.

We found:

Act 2012-121 reinforced prior public and private efforts, both nationally and in Pennsylvania, to promote and support adoption of health information technology and a statewide electronic health information exchange. Such efforts date as far back as 2004 when major national foundations launched a public-private collaborative to identify and remove barriers to the growth of electronic healthcare connectivity and noted:

> The creation of a nonproprietary "network-of-networks" is essential to support the rapid acceleration of electronic connectivity that will enable the flow of information to support patient care. The network should be based on a "Common Framework" of agreements among participants. The network should use a decentralized, federated architecture that is based on standards, safeguards patient privacy and is built

on incrementally, without the use of a National Health ID or a centralized database of records.[1]

At the same time, the federal government adopted a multi-pronged approach to foster the adoption of health information technology. It included forming a public-private collaborative at the national level; establishing an agency in the federal Department of Health and Human Services (DHHS) to promote broad health information technology development and ensure it enables health system reform; contracting to support development of technical architecture for a National Health Information Network and standards and processes for certification of electronic health records; sponsoring the National Governors Association (NGA) *State Alliance for eHealth* to provide a forum for Governors and other policymakers to work together to identify inter-and intrastate-based health information technology policies and best practices; and federal grant funding for health information technology demonstrations to improve health care in states and through regional health information organizations.

In Pennsylvania:

- In 2004, the Pennsylvania Medical Society, the Hospital and Healthsystem Association of Pennsylvania, and several major health insuring organizations formed the non-profit PA eHealth Initiative (PAeHI) to promote adoption of electronic health records and electronic health care information.
- Geisinger Health System obtained a federal grant to form a regional health information organization to promote sharing of health information among independent organizations.
- Commonwealth officials participated in NGA's alliance to consider the state's role in advancing health information exchange that would ultimately tie into a national system allowing patients and healthcare providers to securely access medical records regionally and throughout the country.
- In 2008, an executive order[2] established the Pennsylvania Health Information Exchange (PHIX) and Governance Structure to provide technical architecture to support statewide use of electronic medical records, electronic prescribing, and interoperable electronic health records to reduce preventable medical errors and improve clinical outcomes.

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[1] The Markle and Robert Wood Johnson Foundations, *Achieving Electronic Connectivity in Healthcare: A Preliminary Roadmap from the Nation's Public and Private Sector Health Care Leaders*, 2004.

[2] Pennsylvania Executive Order 2008-03, which was later replaced by Executive Order 2011-04, creating the Pennsylvania eHealth Collaborative.

In response to the slower than anticipated pace of the adoption of health information technology and health information exchange, Congress included funding in the American Recovery and Reinvestment Act (ARRA) of 2009 to help address the financial and technical barriers that were being identified by health care providers and others. Such federally funded strategies included the:

- *Medicare and Medicaid Electronic Health Record Incentive Programs* to provide financial incentives for certain health professionals and providers to adopt electronic health records (EHRs) and demonstrate their "meaningful use" (e.g., electronically submit summary case information when transitioning or referring a patient to another care setting). For Medicare the program starts with financial incentives but then imposes financial penalties for health care providers that do not adopt and demonstrate "meaningful use" of their EHR systems. In Pennsylvania, according to the Centers for Medicare and Medicaid Services (CMS), as of February 2016, 22,000 unique eligible providers and 172 hospitals received $1.45 billion in Medicare and Medicaid[3] incentive payments, including $353 million for participating Medicaid providers.[4]
- *Health Information Technology Regional Extension Center Program* (REC) to assist with the adoption of electronic medical records in primary care physician practices. Quality Insights of Pennsylvania[5] was designated as the lead partner for Pennsylvania's two extension programs (PA REACH East and PA REACH West), and provided support to about 10,000 Pennsylvania practices.
- *Beacon Community Cooperative Agreement Program* to show how health information technology may be harnessed to improve patient care. The Geisinger Health System was designated as one of 17 national sites.[6]

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[3] Medicare and Medicaid combined accounted for about one-third of those with health insurance coverage in Pennsylvania in 2014, according to the Kaiser Family Foundation.

[4] Research supported by the U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality found the cost of implementing an electronic medical record system was approximately $164,000 for a single primary care physician and about $234,000 for a practice with five primary care physicians. Such costs include hardware costs, software and maintenance costs, and labor costs associated with implementation. The maximum incentive payment over five years for an eligible professional, such as a primary care physician, in the Medicare Incentive Program is $44,000 for a provider demonstrating meaningful use annually over a five-year period starting in 2011 and 2012. For eligible professionals starting in 2013, the maximum incentive payment that may be received over a four-year period is $39,000, and for those starting in 2014, the maximum incentive payment over a three-year period is $24,000. Such maximum payments may be increase by 10 percent for eligible professionals furnishing more than 50 percent of their services in areas designated as geographic health professional shortage areas.

[5] The CMS designated entity that previously reviewed medical care for inappropriate utilization and investigated complaints from Medicare beneficiaries about providers and currently focuses exclusively on quality improvement and technical assistance.

[6] Specifically, Geisinger received a three-year $16 million grant to extend the previously established Keystone Health Information Exchange and other health IT initiatives in five counties and deliver improvements to patient outcomes for patients with pulmonary disease and congestive heart failure.

- *State Health Information Exchange Cooperative Agreement Program* that made available multi-year, one-time grants to states based on the governor's designation of a "state entity" that established a plan or already had the capacity for health information exchange. In early 2010, DHHS approved Pennsylvania's strategic plan, and awarded the state $17.1 million for the period February 8, 2010, through February 7, 2014.

Pennsylvania's federally approved 2010 State Health Information Exchange Cooperative Agreement plan called for a governance structure initially managed by the Commonwealth's Executive Offices in a highly collaborative effort with stakeholders with long-term governance through a public-private partnership created in state legislation. Such a provision was achieved with enactment of Act 2012-121 in July 2012, though the Commonwealth's Executive Offices and its staff augmentation contractors continued to provide staffing support and perform duties assigned to the newly authorized eHealth Partnership Authority in FY 2012-13 and through much of FY 2013-14.[7] The Act, moreover, legislatively assigned duties to the Partnership Authority mirroring those set forth in its plans for statewide health information exchange that were approved by DHHS's Office of the National Coordinator for Health Information Technology (ONC).

There is no single recommended approach for states to support nationwide implementation of health information exchange, and the State Health Information Exchange Cooperative Agreement Program stressed that states should leverage existing health information infrastructures. About 45 percent of the federal program participants, including Pennsylvania and neighboring West Virginia, elected to receive federal grants funds and have the state itself lead efforts to implement a statewide health information exchange. In Maryland, New Jersey, and New York, the state received the federal funds and designated a not-for-profit organization to lead implementation. In Delaware and Ohio, federal program funds went directly to state-designated nonprofit entities.

About 25 percent of the federal program participants co-located with the federally designated state *Regional Extension Centers* (RECs) that had been charged with helping individual and small physician practices to adopt and meaningfully use electronic health records. Unlike most neighboring states, Pennsylvania, which had two federally designated RECs, did not take such an approach. In Maryland, Ohio, New Jersey, and New York, the non-profit organization designated to lead state health information exchange efforts is co-located with the state's REC.

[7] Following the legislative establishment of the Partnership Authority, DHHS reallocated $8,836,739 of the $17.1 million in federal funds from the Commonwealth's Executive Offices to the PA eHealth Partnership Authority and issued a grant extension allowing such funds to be expended for expenses incurred by the Authority from August 1, 2013, through October 17, 2014. All but $71,160 of such federal funds were expended by the Authority prior to the federal funds lapsing.

Pennsylvania, after considering a centralized technical infrastructure model, such as occurs in Delaware, Maryland, and West Virginia, adopted a light "network-of-networks" approach to provide for statewide exchange. Such an approach reflected the prior existence of health information exchange through several existing regional exchanges and major health systems. It also reflected the existence of strong private sector involvement in provision of health information exchange in the Commonwealth.

Like most states, and as guided by ONC, Pennsylvania helped enable "directed exchange" through the DIRECT Project. DIRECT enables patient protected health information, including laboratory orders and results, patient referrals, and discharge summaries, to be provided from one known health care provider to another over the internet in an encrypted, secure, and reliable manner.[8] By the end of 2013, directed exchange was broadly available statewide in most states, including Pennsylvania. In 35 (including Delaware, Maryland, Ohio, and West Virginia) of the 56 states, territories, and the District of Columbia, the state or non-profit organization responsible for implementing the *State Health Information Exchange Cooperative Agreement* program grant also served as a health information service provider (HISP) for purposes of "directed exchange," or had entered into a contract with such a provider for such services. Pennsylvania elected to facilitate directed exchange by certifying HISPs and offering financial incentives for them to connect providers.

The federal ONC required program participants to establish privacy and security protocols and incorporate the privacy and security provisions of the ARRA, HIPAA[9] Privacy Rule, the HIPAA Security Rule, and Confidentiality of Alcohol and Drug Abuse Patient Records regulations and the DHHS Privacy and Security Framework into their plans and operations for statewide health information exchange.[10] It also provided for two types of consent models for patient participation. Over two-thirds of the program grantees, including Pennsylvania, adopted opt-out

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[8] The DIRECT Project was started by DHHS to respond to the need for a single nationwide standard for exchanging health information electronically across organizations. DIRECT allows for exchange of patient protected data, including "super protected data" that requires patient consent. It, however, does not provide for system search for clinical information about a patient by an authorized provider.

[9] HIPAA refers to the Health Insurance Portability and Accountability Act of 1996, as amended. The HIPAA Privacy Rule established national standards to protect individuals' medical records and other personal health information, and applies to health plans, health care clearinghouses, and providers that conduct certain health care transactions electronically. The Rule requires appropriate safeguards to protect the privacy of personal health information and sets limits and conditions on the uses and disclosures that may be made without patient authorization. The Rule also gives patients the right to examine and maintain a copy of their health records and to request corrections. HIPAA does not supersede or limit other laws that require additional consent to the release of health information or establish greater restrictions or limitations on the release of health information. In Pennsylvania, for example, 35 P.S. §7606 provides for confidentiality of HIV related information, 71 P.S. §1690.108 provides for confidentiality of drug and alcohol abuse records, and 50 P.S. §7111 provides for confidentiality of mental health records. All require patient written consent for disclosure and other additional stringent requirements.

[10] Those subject to the HIPAA Privacy Rule take care to comply as failure to comply can result in civil and criminal penalties and result in exclusion from participation in Medicare.

consent models where data is automatically eligible for statewide exchange unless the patient actively prohibits it. Others, including New York and Ohio, elected to use opt-in consent models.

In most states, including Pennsylvania, provider participation in the state health information exchange is voluntary. Maryland is the only neighboring state with some form of mandate. In Maryland, the Maryland Health Care Commission mandates all acute care hospitals submit demographic data to the non-profit organization responsible for state health information exchange. Such hospitals are also required to send admission, discharge, or transfer (ADT) data in order for the Maryland Health Services Cost Review Commission (HSCRC)[11] to track readmissions across hospitals for its payer rate-setting system.

The Pennsylvania eHealth Partnership Authority has been able to accomplish many of the activities set forth in Act 2012-121. For example, the Partnership Authority:

- *Involved key stakeholders through the establishment of a significant number of advisory groups,* including representatives from regional health information exchange organizations; health information service providers; volunteers with a legal, privacy, or security background; volunteers with a technical background; stakeholders that assist with the development, review, and distribution of community education and outreach activities and materials; payer representatives; and safety net providers.
- *Developed and conducted public information programs to educate and inform consumers and patients,* including conducting consumer surveys, conducting an ad campaign, developing brochures and public service ads, sponsoring a speakers' bureau, holding plenary meetings for stakeholder groups, developing a website with information for patients on health information exchange, and providing tools for providers to help engage and educate consumers.
- *Applied for grants to carry out the purpose of the Act,* and:
  - invested over 40 percent ($7.4 of $17.1 million) of the Commonwealth's *State Health Information Exchange Cooperative Agreement Program* federal funds to directly promote several forms of health information exchange in Pennsylvania at the local and regional level;
  - expended over $7 million as of August 2015 for technical contractors to develop and maintain a statewide health information exchange; [12] and

[11] HSCRC sets rates for all payers, including Medicare and Medicaid. Maryland is the only state in the nation with such a rate setting system.

[12] In May 2013, the Commonwealth entered into a five-year contract for over $9 million with Truven Health Analytics, Inc. to develop and maintain the statewide network of exchange. As of August 2015, Federal State Health Information Cooperative Agreement funds accounted for two-thirds of the $7 million expended as of August 2015, with state funds accounting for the remainder.

  - obtained funds through CMS and the Department of Human Services Office of Medical Assistance Medicaid Health Information Technology Implementation Advanced Planning Document (IAPD), and, thus far, awarded about $5 million in grants to four regional health information exchange organizations to link over 70 hospitals and ambulatory centers to the regional and state health information exchanges and to develop portals to the exchange for post-acute care providers without electronic medical records.

- *Developed a directory of health care provider contact information* that includes providers exchanging protected health information through DIRECT.
- *Established a technical infrastructure for a statewide health information exchange "network of networks" known as P3N* (i.e., the PA Patient and Provider Network), which is available to regional health information exchange organizations that qualify and elect to participate.
- *Protected consumers and participants through the development of certification standards* for health information service providers (HISPs) and regional health information exchange organizations (HIOs) that seek to participate in the statewide health information exchange network (P3N). Such standards have been developed to, for example, ensure participating HIOs are operating on a level playing field with respect to interoperability standards, privacy, and security; provide for a unified legal framework for all participants; and enable interoperability without multiple integrations.
- *Established a registry for persons choosing to opt out of the statewide health information exchange* and posted information at its website for providers and consumers as to how they can participate in the statewide registry.
- *Established a fee schedule* for health care providers, payers, and consumers who voluntarily participate in the statewide health information exchange. In March 2015, following much deliberation by various committees and staff, the Partnership Authority Board adopted a fee schedule for certified regional health exchange organizations that participate in the statewide exchange to become effective July 1, 2015. Subsequently, it delayed implementation of the fee schedule until at least two regional HIOs were fully operational with the statewide exchange, and delayed implementation of a scheduled July 2016 fee increase until July 2017. As discussed below, full participation by more than one regional health organization with the statewide exchange was not anticipated until July 2016.

While there has been major progress in implementing health information technology and health information exchange in Pennsylvania, many challenges remain. In recent years, there has been a considerable increase in the adoption of health information technology by health care providers.

- In 2010, 52 percent of Pennsylvania's non-federal acute care hospitals electronically exchanged health information with outside ambulatory providers or hospitals. By 2014, 87 percent of these hospitals engaged in such exchange.
- In 2010, 44 percent of Pennsylvania office-based physicians had adopted some form of electronic health records (EHR). By 2014, 76 percent had adopted certified EHR systems.[13]
- By 2012, about 90 percent of Pennsylvania's licensed pharmacies were enabled for ePrescribing and of those not ePrescribing, nearly two-thirds planned to do so.

Nonetheless, as of June 2016, only one regional health exchange was fully operational with the statewide exchange at any given point in time. Several regional HIOs that have the potential to cover much of the state, however, are positioned to become fully operational with the state exchange in summer 2016.

Local regional health information exchange organizations advised us they encountered many challenges in working to achieve the desired level of exchange. Given the incremental approach to exchange endorsed at the federal level, for example, local regional health information exchange organizations have had to address the challenges of providers operating with differing electronic medical record and health information technology systems that are not fully interoperable. The Partnership Authority, moreover, has had to adopt its approaches to address different technology adopted by local regional health exchange organizations with their vendors, and evolving standards at the national level.

Such challenges are not unique to Pennsylvania. National evaluators[14] have noted that in spite of achievements that have occurred in recent years:

> …The state HIE Cooperative Agreement Program, in general, fell short of its intended goals…As of January 2015, no state had successfully established the infrastructure to support bi-directional interoperability for all health professional practices in the state.

[13] An EHR system is a medical or health record system that is either all or partially electronic, and excludes systems solely for billing. A basic EHR system performs the following computerized functions: patient demographics, problem lists, medications taken by the patient, clinical notes, orders for medication, and viewing of lab reports and radiology images. The Center for Medicare and Medicaid Services (CMS) for its incentive programs requires EHR systems meet requirements as they evolve. ONC's Certified HIT Product List (CHPL) designates systems that may meet CMS's certification requirements.

[14] Robert Wood Johnson Foundation, Mathematica Policy Research, Harvard School of Public Health, and University of Michigan School of Information, *Health Information Technology in the United States 2015: Transitioning to a Post-HITECH World*.

Such challenges, moreover, do not lend themselves to unique state solutions. In April 2016, for example, CMS noted in proposed regulations to implement new value-based payment options for physicians in the Medicare programs:

> At present, evidence on EHR benefits in either improving quality of care or reducing health care cost is mixed. This is not surprising since the adoption of EHR as a fully functioning part of medical practice is still in its infancy.[15]

National evaluators have also noted:

> Technology barriers, including incomplete national standards, inconsistent implementation of available standards and the absence of a demonstrated patient-matching algorithm, remain barriers that cannot be resolved without federal leadership.

They anticipate there will be further progress toward optimizing use of health information technology and exchange. From their perspective:

> Two forces have the potential to break through the current institutional impediments to providing a fluid and meaningful exchange of useful health information data: 1) the growing movement of payment innovation, and 2) the emergence of interoperable software architecture that can make data liquid and fungible.

At the federal level, there are currently a variety of initiatives to remove barriers to interoperability, which is essential for widespread health information exchange. The Secretary of the U.S. Department of Health and Human Services, for example, recently announced that health information technology developers that provide 90 percent of the electronic medical record systems for U.S. hospitals and five of the largest health systems have agreed to implement federally recognized, national interoperability standards, policies, guidance, and practices for electronic

[15] April 2016, Centers for Medicare and Medicaid Services proposed rule for the Medicare Program: Merit-Based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive under the Physician Fee Schedule, and Criteria for Physician-Focused Payment Models.

health information exchange, and adopt best practices related to privacy and security. Nationally, electronic health information exchange[16] is also viewed as essential to implement alternative payment models[17] that base provider payments on quality improvement and performance rather than just service volume.

The PA eHealth Partnership Authority Board is currently without a consumer and hospital representative. One of the two consumer and the hospital seats on the Board, which are appointed by the Governor, have remained vacant since August 2015 and December 2014 respectively. Consumers, in particular, have an important role to play in improving the accuracy of such information. Federal Agency for Healthcare Research and Quality sponsored research involving the Geisinger Health System, for example, found that patients were eager to provide electronic feedback on their medication lists' accuracy before a doctor's visit and they requested changes in 89 percent of the cases where feedback was returned. Patient feedback was useful and accurate, with pharmacists responding positively to the patient's request to change the medication list in 68 percent of the patient requests.

The PA eHealth Partnership Authority Board operates in compliance with Act 121's requirements for its meetings and in an effective and efficient manner. The Authority Board, which for the most part is appointed by the Governor and leadership in the Pennsylvania General Assembly, has been actively engaged in Authority operations. It has met more frequently than required by statute and had more than the required number of members present to establish a meeting quorum.[18] Its members have also complied with Pennsylvania's Public Official and Employees Ethics Act,[19] as amended, filing Statements of Financial Interest.

While not required by Act 2012-121, the Authority Board also adopted policies requiring its members and staff to comply with the Governor's Code of Conduct.[20] The Code, for example, prohibits an appointee from engaging directly or indirectly in business transactions or private arrangements for profit which accrue

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[16] The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA) which provides for the Merit-based Incentive Payment System (MIPS) to replace updates to the Medicare physician fee schedule requires sharing electronic health information with other providers and with patients using a broad range of certified EHR technology and other health IT. Electronic health records and the electronic exchange of health information can occur either directly or through health information exchanges.

[17] Alternative Payment Models (APMs) are new ways to pay health care providers for the care they provide to Medicare beneficiaries. Patient Centered Medical Homes, bundled payment models, and Accountable Care Organizations (ACO) are examples of APMs. The ACO model, for example, is designed to reward providers financially for working together, sharing information, and coordinating care, especially for high-risk and high-cost chronically-ill patients.

[18] The Authority Board complies with Sunshine Act (65 Pa.C.S.A. §701 et seq.) requirements for public meeting notice for all of its meetings specifically following procedures for compliance outlined in Commonwealth Management Directive 250-1, as amended.

[19] 65 Pa.C.S.A. §1101 et seq.

[20] 4 Pa. Code §7.151 et seq.

from or are based upon the position and prohibits appointees from accepting for personal use a gift, gratuity, favor, entertainment, loan, or other thing of monetary value from a person who is seeking to obtain business from a financial relationship with the Commonwealth.

The Authority currently has eight (of 12 approved) filled staff complement positions and has entered into interagency agreements for several key administrative functions and activities to be carried out by certain Commonwealth executive agencies.

- The Office of Administration provides human resources support, and its Office of Information Technology provides the Authority with IT services (other than P3N services) and desktop computers and communication equipment used by Authority staff.
- The Office of the Budget provides budget management, purchasing, payment processing, non-IT continuity of operations planning, facilities, and parking management, etc. on an as needed basis.
- The Office of General Counsel provides legal representation and services as needed.

Based on detailed strategic and operational plans that have governed its work, the Authority has continually monitored and prioritized plan tasks and assessed risk associated with their completion status. Based on such assessments, during the FY 2015-16 state fiscal year in particular, the Authority has assigned and reassigned staff to assure most critical task completion to move forward the development and implementation of an HIPAA compliant statewide exchange.

As of late 2015, the Partnership Authority Board also had in place a well-developed policy and procedures manual to guide activities of its staff, board, stakeholders, and their interface with relevant Commonwealth agencies. As a result of its interagency agreements, the Partnership Authority's administrative policies and procedures rely on the Commonwealth's procurement codes, use systems and follow processes established by the Governor's Budget Office and Comptroller, and follow Commonwealth IT policies relevant to the Board. About half of the Partnership Authority's policies and procedures are based on or related to the Nationwide Privacy and Security Framework published by ONC to develop a standardized policy framework for statewide health information exchange. The agency's policies and procedures are continually reviewed and refined. Some policies and procedures, for example, were recently refined based on the Authority's completion of a HIPAA Risk Self-Assessment.

The Partnership Authority's revenues and expenditures have significantly declined since it began operation in FY 2013-14, but it is unlikely that private fees

would be sufficient to sustain its operations. In FY 2013-14, the Partnership Authority had approximately $14 million in available revenues, which declined to about $3.7 million by FY 2015-16. The revenue decline was largely due to the one-time federal funding available through the *State Health Information Exchange Cooperative Agreement* program that ended in October 2014. Expenditures have also declined, going from about $10 million in FY 2013-14 to an estimated $3.8 million in FY 2015-16.[21]

The Partnership Authority, with a budget of approximately $4 million in FY 2015-16 (including a $1.5 million General Fund state appropriation), anticipates $500,000 in annual HIO fee revenue by July 2017, if all regional health information organizations are fully operational with the state exchange. Early financial sustainability planning suggested about one-third of the Authority's budget requirements would come from participant fees. Such early planning, however, was based on other state health information exchange models. In such models, the non-profit state exchange organization markets health information exchange services (e.g., DIRECT or operates a registry that can report quality measures to the Center for Medicare and Medicaid Service for the Physician Quality Reporting System Program) and, therefore, may compete with commercial vendors. Pennsylvania's Partnership Authority, however, was created to build on existing local exchange networks and health information service providers and not compete or supplant them.

In June 2016, the Pennsylvania General Assembly passed legislation implementing the Governor's budget proposal to eliminate the Partnership Authority as an independent agency and create the Pennsylvania eHealth Partnership Program within the Department of Human Services (DHS). In an effort to improve operations and save an estimated $1 million in General Fund monies, the Governor's Budget Office proposed relocating the eHealth Partnership Authority into the Department of Human Services. To that end, the DHS proposed FY 2016-17 budget includes approximately $4 million in federal and state funds for Authority existing personnel complement and operations, including the statewide health information exchange network contract.[22] The legislation[23] provides for a Partnership Advisory Board consisting of membership in part similar to the current Authority governing board with the addition of the Secretary of the Department of Insurance and a representative of home care and hospice organizations. It also continues to provide for a special non-lapsing fund, and the programmatic duties and activities assigned to the Authority.

[21] This amount does not include certain federal funds received by DHS to promote health information exchange in the Medicaid program which may be administered by the Authority to promote Medicaid providers joining regional health information exchanges and reporting public health registry data to the state.
[22] About 45 percent of such funds are federal and the remainder state funds.
[23] House Bill 1062, P.N. 3638, was signed by the Governor on July 8, 2016, and became Act 2016-76.

In addition to transferring administrative powers and responsibilities, including responsibilities for current contracts, from an independent agency to an executive branch agency, it allows DHS to promulgate regulations, as necessary, to implement the Partnership Program. It also terminates the existing appointments to the board and calls for the Secretary of DHS and leaders of the General Assembly to appoint members to a newly formed Pennsylvania eHealth Partnership Advisory Board within 90 days.

The continuation of a program such as the Partnership at this point is reasonable in view of the considerable private and public investment in health information exchange, the progress that has occurred so far in Pennsylvania and nationwide, and the federal initiatives that are occurring to help address several of the key challenges on the way to achieving statewide and national health information exchange. To date none of Pennsylvania's existing non-profit entities with expertise in health information technology and exchange have expressed interest in taking on the responsibilities of the Partnership Authority. At this point, therefore, the transfer of the Partnership's responsibilities to the DHS is reasonable.

Such a transfer is also reasonable in light of DHS's interest and support for statewide health information exchange and its ability to take on the administrative work performed through interagency agreements with other state agencies. In recent years, the Department has closely coordinated with the Authority as it recognizes that electronic health information exchange is essential if it is to achieve its goal of increasing coordination of care and service quality for those served through its programs. Given its responsibility for implementing the state's technology improvement program in the Medicaid program, moreover, it has staff with expertise in contracting for health information technology and can serve as a valuable asset to the work of the Partnership.

In January 2016, the consensus of the Partnership Authority Board called for the reestablishment of the Authority as an independent agency for a three-to-five-year period, with its reauthorization to be considered at that time. More recently, the Chairman of the Authority Board endorsed legislation proposing to transfer the duties and responsibilities of the Authority to DHS. Board members with whom we spoke also concurred with the transfer if such a transfer assures stability and continuity for the work of the Partnership Authority.

At this point, however, it is unclear nationally, and in Pennsylvania, what role statewide health information exchange will have in light of federal initiatives to promote interoperability across electronic health records, the exact form(s) of electronic health information exchange that will be required of providers to implement federal payment reform initiatives, and the changes in health information technology that are underway. It is also unclear if the considerable involvement of health

care providers and those with expertise in health information technology and regional health information exchange will continue with the elimination of the existing Authority Board and its transformation to an advisory board within the Department.

Recommendations

1. ***The proposed Partnership Advisory Board should be formed by the Secretary of the Department of Human Services and the leaders in the General Assembly.*** The successful completion of the activities assigned to the Partnership has relied on the active involvement of key stakeholders and board members. Delay in reconstituting the Board, such as occurred following the passage of Act 121, risks the loss of the momentum that has been achieved on the path toward health information exchange.

2. ***The hospital and consumer vacancies on the Board, whether governing or advisory, should be filled.*** Both seats bring an essential perspective to health information exchange and such perspectives should not be absent from the Board's deliberations.

3. ***The Pennsylvania General Assembly in addition to its required annual report on the operations of the Board may wish to require the Partnership program be evaluated in three to five years.*** The General Assembly may wish to provide for such an evaluation in light of the changes that are occurring in health information technology and health information exchange, the implementation of federal payment reform initiatives, and to assess the effect of the transfer of the Authority and the staff complement to DHS.

I. Introduction

Act 2012-121 created the PA eHealth Partnership Authority and directed the Legislative Budget and Finance Committee to evaluate the management, viability, and performance of the health information exchange one year prior to the Authority expiring in July 2017. The report is to include recommendations as to reauthorization, dissolution of the Authority, or assumption of the Authority's responsibilities and assets by another entity. (Appendix A provides the relevant section of the Act.).

Study Scope and Objectives

Specifically, the study focuses on the Authority's operation as an independent state agency from its inception in 2012 until June 2016[1] and sought to:

- Identify the role of Pennsylvania's eHealth Partnership Authority in promoting public health and safety and evaluate the extent to which it has fulfilled its role and objectives.
- Identify and evaluate other opportunities, if any, which may be available to accomplish the Partnership Authority's public health and safety role.
- Identify approaches taken in other states to provide for a state health information exchange and the extent to which such approaches are similar or differ from Pennsylvania's approach, and consider the advantages and disadvantages of the varying approaches.
- Identify how the Pennsylvania eHealth Partnership Authority is administered and managed and determine if there are opportunities for greater efficiencies.
- Assess the continued financial viability of Pennsylvania's eHealth Partnership Authority in view of current and anticipated federal, state, and private funds availability and additional steps required to provide for its continued financial viability.

To identify the role of Pennsylvania's eHealth Partnership Authority in promoting public health and safety and evaluate the extent to which it has fulfilled its role and objectives, we reviewed national studies and reports and national legislation recommending the implementation of health information exchange in view of its potential to improve quality and efficiency in health care. We also identified public and private sector recommended strategies to promote development and implementation of such exchange, how such strategies have been implemented in Pennsylvania, and the role of Pennsylvania's eHealth Partnership Authority in implementing such national and state strategies.

[1] On July 8, 2016, the Governor signed Act 2016-76 eliminating the Authority and creating a Pennsylvania eHealth Partnership Program in the Department of Human Services.

To place Pennsylvania's accomplishment in context, we reviewed national evaluations of state health information exchanges, their accomplishments and progress, challenges encountered, and lessons learned to date. In addition, we reviewed national evaluations of regional health information exchange implementation, including case studies involving Pennsylvania. We also reviewed Pennsylvania's strategic and operation plans for the development of statewide health information exchange and the Authority's annual and quarterly reports, and we spoke with members of the Partnership Authority's Board and state agencies, including the Pennsylvania Patient Safety Authority.

We attempted to identify relevant outcome research concerning the effects of health information exchange on patient care. As national and statewide health information exchanges are still in developmental stages, limited data are available at this time to assess their positive or negative effect on patient care, and the results to date are mixed. Our report, however, analyzes process measures, such as Pennsylvania health care providers' adoption of electronic health records, to assess Pennsylvania's recent progress in implementing health information exchange.

To identify and evaluate other opportunities, if any, which may be available to accomplish the Partnership Authority's public health and safety role, we spoke with those involved in promoting health information exchange in Pennsylvania both currently and prior to the creation of the Authority. We also reviewed federal and state initiatives to promote health information exchange in the Medicare and Medicaid programs and approaches taken in other states.

To identify approaches taken in other states to provide for a statewide health information exchange, and the extent to which such approaches are similar or differ from Pennsylvania's approach, and to consider the advantages and disadvantages of the varying approaches, we reviewed the federal Department of Health and Human Services' Office of the National Coordinator for Health Information Technology (ONC) guidelines to states concerning development of state health information exchanges and national evaluations of such exchange models and approaches. We also reviewed the state health information exchange plans for Pennsylvania's surrounding states, their relevant laws and proposed state regulations, and spoke with representatives from several states.

To identify how the Pennsylvania eHealth Partnership Authority is currently administered and managed and determine if there are opportunities for greater efficiencies, we reviewed the Authority's strategic and operational plans and annual and quarterly reports, past and current organization and staffing, current policies and procedures, interagency service agreements, and compliance with relevant commonwealth policies and procedures. We also met with key staff and spoke with Partnership Authority Board members.

To assess the continued financial viability of Pennsylvania's eHealth Partnership Authority in view of current and anticipated federal, state, and private funds availability and additional steps required to provide for continued financial viability, we reviewed Authority budget requests and expenditure data. We also met with and spoke with Authority fiscal staff and reviewed Commonwealth financial and accounting data and the Authority's financial statements prepared by an independent accounting firm.

Act 2012-121 directed the Partnership Authority to develop, establish, and maintain a health information exchange, which the Act defined as:

> A Statewide interoperable system … that electronically moves and exchanges health information between approved participating health care providers or health information organizations in a manner that ensures the secure exchange of health information to provide care to patients.[2]

As technology is involved in the accomplishment of such tasks, Appendix B provides a glossary of certain terms to assist the reader to better understand certain parts of the report. The Authority, for example is charged to develop an interoperable system, and Pennsylvania regional health information exchanges use differing technical methods of sharing documents across such exchanges. While the discussion in the report notes such differences, more details about network differences and their implications can be found within the report Glossary.

Acknowledgements

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Important Note

This report was developed by Legislative Budget and Finance Committee staff. The release of this report should not be construed as indicating that the Committee members endorse all the report's findings and recommendations.

Any questions or comments regarding the contents of this report should be directed to Philip R. Durgin, Executive Director, Legislative Budget and Finance Committee, P.O. Box 8737, Harrisburg, Pennsylvania 17105-8737.

[2] Act 2012-121, §102.

II. Findings

A. Pennsylvania, Like Most States, Has Been Actively Involved in Supporting the Use of Information Technology to Improve Health Care Practices, in Particular Through Initiatives to Promote eHealth Information Exchange

For some time now, the public and private sectors have played important roles in promoting use of information technology to improve health care. As early as 2002, a major foundation launched a public-private collaborative to identify and remove barriers to the growth of electronic healthcare connectivity. The collaborative issued a report in 2004[1] noting:

> The creation of a nonproprietary "network-of-networks" is essential to support the rapid acceleration of electronic connectivity that will enable the flow of information to support patient care. The network should be based on a "Common Framework" of agreements among participants. The network should use a decentralized, federated architecture that is based on standards, safeguards patient privacy and is built incrementally, without the use of a National Health ID or a centralized database of records.

The Pennsylvania eHealth Partnership Authority is the Commonwealth's most recent effort to support health information technology and electronic health information exchange with its potential to improve health care. As discussed below, the Authority's efforts closely mirror the national vision set forth in 2004.

Early Federal and State Efforts to Promote Health Information Technology and Health Record Exchange

In 2004, the President of the United States in the State of the Union Address outlined the ambitious goal of ensuring most Americans have electronic health records by 2014. Based on the proposed plan, electronic health records would ensure complete health care information be available for most Americans at the time and place of care, no matter where it originates. To accomplish this, electronic health records would need to be designed to share information privately and securely among and between health care providers when authorized by a patient, whose participation in electronic health record exchange would be voluntary.

[1] The Markle and Robert Wood Johnson Foundations, *Achieving Electronic Connectivity in Healthcare: a Preliminary Roadmap from the Nation's Public and Private Sector Healthcare Leaders*, 2004.

To foster the adoption of health information technology, the President proposed a multi-pronged approach. The approach called for adopting health information standards, such as standards for electronic prescriptions; increased federal funding for demonstration projects on health care information technology; and using the federal government, as one of the largest buyers of health care through the Medicare and Medicaid and other programs, to leverage use of health information technology. Subsequently at the federal level,

- A public-private collaborative and Federal Advisory Committee was formed.
- The Office of the National Coordinator for Health Information Technology (ONC) was established in the U.S. Department of Health and Human Services (DHHS) to promote broad health information technology development and ensure that it is enabling health system reform.
- Contracts were awarded to:
  - the National Standards Institute to convene a Health Information Technology Standards Panel (HITSP),
  - the Certification Commission for Health Information Technology (CCHIT) to develop criteria and evaluation processes for certifying electronic health records,
  - a consortia of four health care and health information technology (HIT) organizations to develop prototype technical architecture for a National Health Information Network, and
  - identify security and privacy variations and barriers in business and state laws and best practices to address them.
- The *State Alliance for eHealth* was formed by the National Governors Association (NGA) to provide a forum through which governors, elected officials, and other policymakers could work together to identify interstate- and intrastate-based health information technology policies and best practices.
- The Agency for Healthcare Research and Quality (AHRQ) in DHHS sponsored health information technology demonstrations to identify and support data sharing and interoperability activities to improve health care in several states (including neighboring Delaware), and through regional health information organizations.

Early on, private and public sectors in the Commonwealth also engaged in activities to promote health information technology and health information exchange. In Pennsylvania, following the President's announced 2004 plan:

- The Pennsylvania Medical Society, the Hospital and Healthsystem Association of Pennsylvania, and major health insuring organizations formed

the non-profit PA eHealth Initiative (PAeHI) to promote adoption of electronic health records and electronic health care information exchange in Pennsylvania. To accomplish its goals, the initiative worked with providers, insurers, government, and consumers to inform them about the benefits of electronic medical records and interconnection of all stakeholders; address legal and policy issues which could impede health information exchange; enable secure and confidential access to health information; and enable patient access and control of their health information. Members from the Department of Health and the then Department of Public Welfare (now the Department of Human Services) were invited to participate with the PAeHI board.

- Regional health information exchange activities started up in several areas of the Commonwealth, and the Geisinger Health System received a federal AHRQ grant to form a regional health information organization to promote sharing of health information among independent organizations.
- The Governor's Office, which had been working with PAeHI and participating in *NGA's State Alliance for eHealth*, began to consider the state's role in advancing health information exchange that would ultimately tie into a national system allowing patients and healthcare providers to securely access medical records regionally and throughout the country.

By 2007, the Commonwealth Fund, reporting on eHealth activities across the country,[2] noted Pennsylvania was one of 30 states with significant health information exchange activities[3] and one of seven states promoting ePrescribing. By early 2008, the Pennsylvania eHealth Initiative published *Building a Sustainable Model for Health Information Exchange in Pennsylvania.* In the report, it recommended:

> Empowerment of a neutral organization with statewide collaborative capacity to bring the diverse array of potential providers and consumers of HIE services to the table to establish common standards for HIE-related value-added services.

It further recommended establishing "core" standards related to HIE implementation using the collaborative mechanism.

Following PAeHI's 2008 report, the Governor issued an executive order[4] establishing a Pennsylvania Health Information Exchange (PHIX) and Governance Structure to provide technical architecture to support statewide use of electronic medical records, electronic prescribing, and interoperable electronic health records

[2] The Commonwealth Fund, *State E-Health Activities in 2007: Findings from a State Survey, February 2007.*
[3] Such activities included planning, monitoring, and development and implementation of health information exchange.
[4] Pennsylvania Executive Order 2008-03.

to reduce preventable medical errors and improve clinical outcomes. The executive order recognized PAeHI as an advisory organization to PHIX to provide research, analysis, and recommendations. (For additional information on Executive Order 2008-03 and the governance structure it provided, along with subsequent executive orders, see Chapter III.)

Federal and State Efforts to Promote Health Information Exchange Since 2009

Despite such early federal and state activities, adoption of health information technology and health information exchange was slower than had been anticipated in early 2000. In response to the slow pace, Congress included the Health Information Technology for Economic and Clinical Health Act (HITECH) as part of the American Recovery and Reinvestment Act (ARRA) of 2009. HITECH offered several different strategies to address the financial and technological barriers that were being identified by healthcare providers and others. Such strategies included:[5]

- The *Beacon Community Cooperative Agreement Program*, a national demonstration to show how health information technology may be harnessed to improve patient care.
- The *Health Information Technology Extension Program*, a national initiative to assist with the adoption of electronic medical records in primary care physician practices.
- The *State Health Information Exchange Cooperative Agreement Program*, which made available multi-year, one-time grant funds to states based on the governor's designation of a "state entity" that established a plan or already had the capacity for health information exchange. This federal grant program allowed states flexibility to select their approach to program leadership and organizational structure and policy and technical structures, but emphasized the importance of leveraging existing health information exchange infrastructure within the state. (Finding B provides information on the varying approaches states took to implement the program.)

Medicare and Medicaid Electronic Health Record Incentive Program. HITECH separately authorized the Centers for Medicare and Medicaid Services (CMS) to spend up to $27 billion over a ten-year period to provide financial incentives to certain health professionals and providers to adopt electronic health records (EHRs) and demonstrate their "meaningful use." Under the Medicare and Medicaid Electronic Health Record Incentive Programs, certain providers can

[5] Other programs included the HIT Workforce Development Program and the Strategic HIT Advanced Research Projects (SHARP) Program.

receive financial incentives to help address the initial barrier of the financial investment required to adopt EHRs. Medicare's Incentive Program starts out by providing financial incentives but then, unlike Medicaid, imposes financial penalties for health care providers that do not adopt and demonstrate "meaningful use" of their EHR record systems, such as through electronically submitting summary of care information when transitioning or referring a patient to another care setting. (Additional information on the Medicare and Medicaid Electronic Health Record Incentive Programs and its many requirements for "meaningful use" can be found in Appendix C. Finding C provides information on the amount of the incentive payments received by Pennsylvania providers through Medicare's and Medicaid's programs.[6])

At the national level, following enactment of HITECH and CMS's proposal to require Medicare and Medicaid providers demonstrate "meaningful use" of electronic health record systems they adopt, the DIRECT Project was launched with the support of the federal Department of Health and Human Services.[7] DIRECT enables patient protected health information to be provided from one known health care provider to another through secure email messaging.[8] With DIRECT, providers can exchange laboratory orders and results, patient referrals, and discharge summaries over the internet in an encrypted, secure, and reliable manner.

In response to such federal activities and initiatives, in Pennsylvania, several activities occurred to further the momentum to adopt health information technology and provide for electronic health information exchange. In particular:

- The Geisinger Health System was designated as one of the nation's 17 *Beacon Community Initiatives*.[9]
- Quality Insights of Pennsylvania, the CMS designated entity that previously reviewed medical care for inappropriate utilization and investigated complaints from Medicare beneficiaries about providers, was designated at the lead partner for Pennsylvania's two *Health Information Technology Extension Programs* (PA REACH East and PA REACH West).

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[6] Medicare and Medicaid combined account for about one-third of those with health care coverage in Pennsylvania in 2014, according to the Kaiser Family Foundation.

[7] The DIRECT Project was started by the Department of Health and Human Services' Office of the National Coordinator for Health Information Technology based on direction provided by the National Health Information Network Workgroup of the federal HIT Policy Committee—one of three federal advisory committees created in 2009 through ARRA. It came about to respond to the need for a single nationwide standard for exchanging health information electronically across organizations.

[8] DIRECT coexists with other health information exchange services based on existing Nationwide Health Information Network standards and services. In part, the DIRECT messaging protocol was implemented as electronic health records (EHRs) and existing health information exchange organizations (HIO) exchanged information in a variety of ways. Some used standards related, but not identical to those used in the National Health Information Network Exchange. Others relied on other mechanisms to securely exchange information within an HIO.

[9] Geisinger's three-year $16 million grant was designed to extend the Keystone Health Information Exchange and other health IT initiatives in five counties and deliver improvements to patient outcomes for patients with pulmonary diseases and congestive heart failure.

- In anticipation of the implementation of HITECH's *State Health Information Cooperative Agreement Program*, the Governor's Office, in late 2009, drafted a plan and invited public comment on the Commonwealth's initial proposed strategic plan to increase use of health information exchange to improve the quality, safety, and efficiency of health care. In early 2010, the Governor's Office submitted the *Commonwealth's 2010 Strategic Plan* for Pennsylvania's Health Information Exchange to DHHS. The *2010 Strategic Plan* called for:
  - A governance structure to be initially managed by the Commonwealth's Executive Offices in a highly collaborative effort with stakeholders with long-term governance through a public/private partnership created through state legislation.
  - An incremental approach to implementation of a statewide exchange building upon existing health care organizations capable of supporting HIE.
  - A statewide exchange infrastructure required to meet federal and state standards for data security and integrity and policies and procedures to ensure protection of protected patient health information.
  - Patients signing HIPAA[10] consent forms having their health information included in the statewide exchange for HIPAA-approved purposes unless they affirmatively opt out, with the exception of super-protected information (e.g., HIV/AIDS status, mental health, and substance abuse treatment, etc.) where patient consent would be required to include such patient information in the statewide exchange based on existing federal and state laws and policies.

The Strategic and Operation Plans and Updates Submitted to ONC Have Provided Structure and Direction for Commonwealth Ongoing Efforts to Support Health Information Exchange

The Pennsylvania's *2010 Strategic Plan* that was accepted by the Office of the National Coordinator for Health Information Technology resulted in the Commonwealth receiving a one-time multi-year grant award of $17.1 million for the period

[10] HIPAA refers to the Health Insurance Portability and Accountability Act of 1996. It provides the ability to transfer and continue health coverage when workers change jobs, reduces health care fraud and abuse; mandates industry standards for health care information and billing; and requires the protection and confidential handling of protected health information. According to the federal Department of Health and Human Services, the HIPAA Privacy Rule established national standards to protect individuals' medical records and other personal health information and applies to health plans, health care clearinghouses, and health care providers that conduct certain health care transactions electronically. The Rule requires appropriate safeguards to protect the privacy of personal health information, and sets limits and conditions on the uses and disclosures that may be made of such information without patient authorization. The Rule also gives patients rights over their health information, including rights to examine and obtain a copy of their health records, and to request corrections.

February 8, 2010, through February 7, 2014.[11] Over time, the 2010 plan was updated and revised, and such plans and their revisions have provided the structure and direction for Commonwealth Executive Office's, and later the Pennsylvania eHealth Partnership Authority's, ongoing efforts to support statewide electronic health information exchange. In addition, they have provided for extensive coordination with the Department of Human Services, Office of Medical Assistance, and its plans and activities to implement health information technology in the state's Medicaid program.

Typically, changes that occurred to Pennsylvania's strategic and operational plans for statewide health information exchange resulted from additional direction from the ONC, input from stakeholders, specific requests from regional health information organizations, changes in technology, and the availability of support for certain initiatives through funding available to the Department of Human Services' Office of Medical Assistance. For example:

- Pennsylvania's *2011 Operational Plan* provided for implementation of the national DIRECT specifications, including lab results, to assist eligible providers to meet Medicare and Medicaid requirements for "meaningful use" of electronic medical records. It called for leveraging DIRECT capacities to facilitate exchange between local and regional entities with internal health information exchange capacities. In part, such change occurred as ONC in its initial Program Information Notice[12] for the *State Health Information Cooperative Agreement Program* emphasized states establish strategies to meet gaps in health information exchange capacities for providers and hospitals attempting to comply with Medicare and Medicaid requirements for meaningful use of electronic medical records.[13] (See Finding C for information about Pennsylvania's certification and grant funding in support of DIRECT.)
- The *2012 Strategic Plan for Health Information Exchange* (approved by ONC in May 2012) resulted from an intensive six-months of work and stakeholder engagement (about 150 stakeholders and 30 organizations) via workgroups in the areas of business and operations; legal, privacy, and security; financial sustainability; evaluation and performance; and communications and outreach. Based on such stakeholder input, the plan recommended legislation to create a public authority to administer the

[11] Subsequently, ONC reallocated $8,836,739 of the $17.1 million in federal funds from the Commonwealth's Executive Offices to the PA eHealth Partnership Authority and issued a grant extension allowing such funds to be expended for expenses incurred by the Authority from August 1, 2013, through October 17, 2014. All but $71,160 of such federal funds were expended by the Authority prior to the federal funds lapsing.

[12] ONC-HIE-PIN 001.

[13] Similarly, CMS in a letter to State Medicaid Directors (SMD# 10-016) advised states that to qualify for certain enhanced federal matching funds, the DHHS Secretary requires that they "pursue initiatives that encourage the adoption of certified EHR technology for the promotion of health care quality and the exchange of health information."

federal grant. In the Plan, the Commonwealth[14] also committed to implementing DIRECT at a statewide level using a market-based approach (i.e., Commercial Health Information Service Providers or HISPs) as outlined by ONC[15] rather than through a single state contract. The plan also provided for incentive grants to promote adoption of DIRECT messaging in Pennsylvania and capacity building grants for regional health information exchanges. (See Finding C for information on such grants.)

- The *2012 Strategic and Operational Plan* was adopted in a resolution approved by the newly created Pennsylvania eHealth Partnership Authority Board at its first public meeting in April 2013. One month later, the Authority entered into a multi-year contract with Truven Health Analytics to provide for technical implementation of a statewide health information exchange network.[16]
- The *2012 Strategic and Operational Plan* was updated in 2013. The update proposed development of a Public Health Gateway to be a component of the proposed statewide health information exchange network and provide a single point for communications with several Commonwealth agencies, including the Pennsylvania Department of Health's public health registries and the Department of Human Services for reporting of meaningful use-related measures. Such plans for a Public Health Gateway replaced earlier Commonwealth strategies to develop an internal Commonwealth agency health information exchange that would participate in the statewide health information exchange and pay fees for such participation along with other exchange participants.
- The *Pennsylvania eHealth Partnership Authority 2014-2017 Strategic and Operational Plan for Electronic Health Information Exchange* (approved by the Authority Board in September 2014) included certain changes to address concerns raised by many of the regional health information organizations. In effect, such changes provided for additional technical options for local regional health information exchanges to connect to the planned "network-of-networks" statewide exchange. The plan further highlighted initiatives to encourage Medicaid providers to join with the regional health information organizations planning to join the statewide health information exchange network.

Act 2012-121, Pennsylvania's eHealth Information Technology Act. As part of the implementation of the Commonwealth's plans for statewide health information exchange, the Pennsylvania General Assembly unanimously adopted Act

[14] Specifically, the Pennsylvania eHealth Collaborative created by Commonwealth Executive Order 2011-04 in July 2011 to replace Executive Order 2008-03's Pennsylvania Health Information Exchange (PHIX).
[15] ONC-HIE-PIN-002.
[16] In August 2012, the Governor's Office of Administration, Office of Information Technology, acting on behalf of the newly authorized Pennsylvania eHealth Partnership Authority, issued a request for proposals for a vendor to provide such services.

2012-121, Pennsylvania's eHealth Information Technology Act. In doing so, Pennsylvania became one of 33 states and territories that by 2013 had enacted state legislation to promote statewide eHealth information exchange.[17]

The Act established the Pennsylvania eHealth Partnership Authority as an independent state agency with a governing board consisting of private and public stakeholders, (including the Secretaries of Health and Human Services or their designees). Briefly, the Act, charged the Authority to:

- Establish advisory groups with a diverse membership representing interested affected groups and individuals.
- Develop and conduct public information programs to educate and inform consumers and patients.
- Apply for grants and loans to carry out the purposes of the Act.
- Accept funds from both public and private sources consistent with federal and state law.
- Develop and maintain a directory of health care provider contact information to enable participants to share health information electronically.
- Help develop, establish and maintain a health information exchange that complies with federal and state laws.
- Develop criteria for approval of participants in the statewide health information exchange.
- Adopt policies and procedures to govern electronic exchange of health information in accordance with the Act.
- Develop and maintain standards to ensure interoperability.
- Develop and maintain a registry of patients choosing to opt out of the health information exchange.
- Establish and collect fees from health care providers, payers, and consumers who voluntarily participate in the statewide exchange.

Progress in Implementing Health Information Technology and eHealth Information Exchange in the Commonwealth Despite Many Challenges

In recent years, there has been considerable increase in the adoption of health information technology by health care providers, including acute care hospitals, office-based physicians, and others. In particular, such change can be seen in the adoption of electronic health records and their use in sharing patient health information among patient health care providers.

[17] NORC, *Evaluation of the State Health Information Exchange Cooperative Agreement Program: State Approaches to Enabling HIE: Typology Brief*, August 2014.

Electronic Health Record Adoption in Acute Care Hospitals. In 2010, 52 percent of Pennsylvania's non-federal acute care hospitals electronically exchanged health information with outside ambulatory providers or hospitals. By 2014, 87 percent of these hospitals engaged in such exchange, according to ONC and the American Hospital Association.

Electronic Health Record Adoption by Office-Based Physicians. In 2010, 44 percent of Pennsylvania office-based physicians had adopted some form of electronic health records, with 26 percent having adopted a basic EHR.[18] By 2014, 76 percent of office-based physicians had adopted certified EHR systems.[19]

ePrescribing. Pharmacies were among the earliest adopters of health information technology. By 2012, 90 percent of Pennsylvania's licensed pharmacies were enabled for ePrescribing. Typically, pharmacies obtained such services through SureScripts.[20] Of those who were not ePrescribing at the time, nearly two-thirds indicated plans to do so within six months.

Other Providers. As discussed in Finding C, Pennsylvania has applied and received permission to use certain Medicaid funding to support adoption of health information exchange by providers who often serve Medicaid clients, such as nursing facilities and home health providers. The slower adoption of eHealth information exchange among such providers is due in part to their exclusion from Medicare and Medicaid electronic health record incentive programs, despite the important roles they play in caring for program beneficiaries.

Progress Toward Statewide Health Information Exchange. Pennsylvania has also made progress in implementing key objectives set forth in its federally approved plans for statewide health information exchange and in Act 2012-121. For example, the Pennsylvania eHealth Partnership Authority has:

- Involved key stakeholders through the establishment of a significant number of advisory groups. Exhibit 1 identifies the Partnership's stakeholder committees, their composition, and current status.

[18] An EHR system is a medical or health record system that is either all or partially electronic, and excludes systems solely for billing. A basic EHR system performs the following computerized functions: patient demographics, problem lists, medications taken by the patient, clinician notes, orders for medication, and viewing of lab reports and radiology images.

[19] CMS for its incentive programs requires that EHR systems meet requirements as they evolve. ONC's Certified HIT Product List (CHPL) designates systems that may meet CMS's certification requirements.

[20] SureScripts is one of many health IT developers involved in development of electronic health records, information exchange software, and other products used by a wide range of hospitals and providers. Nationwide, in 2014, 56 percent of physicians and 95 percent of pharmacies processed 1.2 billion electronic prescriptions on SureScript's network.

Exhibit 1

Selected Pennsylvania eHealth Partnership Authority Stakeholder Committees*

- *HIE Trust Community Committee*: consists of representatives from HIO [Health Information Organizations] certified by the Authority and those in the process of seeking certification. The committee provides input on the HIO certification programs and shares best practices learned concerning the process for such local regional health information organizations to connect to the statewide exchange network.

- *HISP Trust Community Committee*: consists of representatives from HISPs [Health Information Service Providers] certified by the Authority. The committee provides the Authority with input regarding the certification program and how the HISPs can cooperate with the Authority to expand use of the DIRECT protocol.

- *Privacy, Security and Standards Committee*: consists of volunteer stakeholders with a legal, privacy, or security background and serves as a forum to discuss policy issues such as standards adoption, alignment with federal and state law, and legal portions of the Authority's certification program.

- *P3N Operations Committee*: consists of volunteer stakeholders with a technical background to participate in ongoing discussions between Authority staff and the Authority's technical vendor [Truven Health Analytics] and involves the technical workings of the statewide exchange network [P3N].

- *Communication and Outreach Committee*: consists of volunteer stakeholders who assist the Authority in the development, review, and distribution of Authority community education and outreach activities and materials. Volunteer stakeholders may also assist with the distribution of such materials and coordinate their local efforts with those of the Authority.

- *Payer Committee*: consists of any stakeholder working with a payer organization. This committee is currently inactive.

- *Safety Net Providers Committee*: consists of volunteer stakeholders who work in the safety net provider community to consider how such providers can leverage electronic health information exchange networks and how they can be incentivized to join a certified local HIO.

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* Other committees included the Finance and Sustainability Committee, which assisted the Authority to formulate and develop financing options, including development and application of a participant fee schedule. The future status of this committee is uncertain as the Board adopted a number of its recommendations in 2014 and the Board subsequently created a Board Finance Oversight Committee. Other committees also include the Clinical Committee consisting of volunteer stakeholders with clinical experience. It was formed to develop and oversee clinical outcome research; however, performance of such studies is premature given the status of available data at this time.

Source: Developed by LB&FC staff.

- Protected consumers and participants in the statewide exchange through development of certification standards for health information service providers[21] and regional health information exchange organizations seeking to participate in the statewide health information exchange network. [22] Included along with such standards is a unified legal framework developed by the Authority for use with all Pennsylvania's health information exchange network participants.
- Developed a directory of health care provider contact information for providers exchanging protected health information through DIRECT.
- Established a registry for persons choosing to opt out of the statewide health information exchange, and posted information at its website for providers and consumers as to how they can participate with the statewide registry. (See Finding D for more information on this registry.)
- Applied for grant funds to offer incentives and assist with the costs incurred by those seeking to connect with the statewide health information exchange. (See Finding C for more information on such grants.)
- Developed public information materials, which are available at its website, for providers and the public to acquaint them with the benefits of health care information exchange and to support the educational efforts of local regional exchange.
- Established a technical infrastructure for a statewide health information exchange "network-of-networks" (P3N, i.e., PA Patient and Provider Network), which is available[23] to regional health information exchange organizations[24] that qualify and elect to participate. (See Finding D for additional information on P3N.)
- Initiated the Public Health Gateway in 2015. (See Finding C for more information on the Public Health Gateway.)

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[21] State certification of HISPs began in May 2012, with the certification of four HISPs (Allied HIE, KeyHIE, MaxMD, and Secure Exchange Solutions).

[22] As technology changes such standards must be continually updated. As of July 2015, the Authority had issued Version 3 of its Certification Requirements for HIOs. In the first half of 2016, the Authority was working to update the most recent version of such requirements.

[23] As of 2014.

[24] In October 2014, the Board defined a Health Information Organization to mean "organizations that enable exchange between at least two unaffiliated provider and/or payer (private or public) organizations, and enable users to satisfy health information exchange-related [Medicare and Medicaid] Meaningful Use requirements, if applicable." HIOs must have formal relationships to provide for such exchange and demonstrate they actually do so. Unaffiliated means the organizations are not part of a single legal business entity and do not necessarily share a single electronic health record system, including, for example, software-as-a-service or platform-as-a-service electronic health records hosted by a common vendor. As a result, health systems utilizing an electronic record system across their system providers do not meet the definition of an HIO for purposes of participating in Pennsylvania's statewide health information exchange network. Such health systems might also utilize electronic medical record systems that have the ability to exchange clinical information with unaffiliated providers with the same system anywhere in the state or nation (e.g., *Epic Care Everywhere*). Such health systems, however, would not meet the definition of an HIO for purposes of participating in Pennsylvania's health information exchange network.

- Considered plans for sustainability, and adopted an initial fee structure for participants in the statewide exchange.[25]

The Authority has also taken important steps toward the establishment of a statewide health information exchange network. In September 2014, following necessary testing and demonstration, eVantageHealth (a.k.a. St. Luke's University Health Network or SLUHN) joined Pennsylvania's statewide exchange known as P3N, and P3N became operational. As of late May 2016, HSX (a.k.a the Health-Share Exchange of Southeastern Pennsylvania) had joined the statewide network, and several other regional HIOs were aggressively working to operationally join the network by July 2016. Such regional HIOs included KeyHIE, ClinicalConnect HIE (CCHIE), and the Mount Nittany Health Exchange.[26] Other health system and health sharing organizations were also actively considering joining the statewide exchange.

Despite the notable progress, both in Pennsylvania and nationwide, the pace of development of the statewide health exchange network has not been as rapid as anticipated in 2009. LB&FC staff spoke with all but one of the current Pennsylvania eHealth Partnership Authority Board members, most of whom had been involved with health information exchange efforts for many years. Such members complemented the work of the Authority's existing staff and recognized progress that had been made. Consistently, however, they noted they would have preferred to see earlier more widespread adoption of statewide health information exchange.

Local regional health information exchange organizations advised us they encountered many unanticipated challenges while working to achieve the current level of statewide exchange. Given the incremental approach to exchange endorsed at the federal level, local regional health information exchange organizations have had to address the challenges of providers operating with existing electronic medical records and differing health information technology systems. The Authority, moreover, has had to adopt its approaches to address different technology adopted by local regional health exchange organizations and their vendors, and evolving standards at the national level.

To simply illustrate such challenges, Exhibit 2 identifies some of the many differing electronic medical records systems used by providers participating in regional HIOs and the different technology adopted by regional HIOs seeking to

[25] In January 2015, the Authority Board adopted a fee schedule for FY 2014-15 and FY 2015-16. Subsequently, in March 2015, it ratified updates to the schedule, and in April 2015 ratified a motion to defer implementation of the fee schedule until at least two regional HIOs are in production status with P3N. At its April 2016 meeting, the Board adopted a resolution delaying the first increase in the HIO fee schedule from July 1, 2016, to July 1, 2017. See Finding H for additional information on the Authority's fee schedule and its sustainability.

[26] At any given point in time, as of June 2016, only one regional HIO was fully operational with the state exchange. HIOs that join P3N may be placed in "off line" status as they change electronic medical record vendors or work to resolve matters with specific provider participants.

Exhibit 2

Pennsylvania Regional HIOs Selected Characteristics

Regional HIOs	HIE Vendor	XDS/XCA Connection	EHR Systems Connected to the HIO
CCHIE	dbMotion	XCA	• Allscripts Enterprise • Allscripts Sunrise Clinical Manager • Answers on Demand • (Cerner) Siemens Sorian • dbMotion • eClinicalWorks • e-MDs • MEDITECH Client/Server • MEDITECH MAGIC • NextGen
SLUHN	Caradigm	XDS	• Allscripts Myway • Allscripts Pro • Allscripts Touchworks • Athena Health • Atlas • eClinical Works • Epic • McKesson Horizon Clinical (Relay Health) • McKesson Star • Medent • STI
HSX	Mirth Connect	XCA	• Allscripts • Cerner • eClinical Works • Epic • GE Centricity • MEDITECH • NextGen • Siemens
KeyHIE	Orion	XCA	• Allegheny Software • Allscripts • Care360 • CPSI • Delta Medical Systems • e-MDs • Epic • GE Healthcare • Greenway • Healthland • Medent • MEDITECH • NextGen • NTT Data • PointClickCare • Siemens

Developed by LB&FC staff from PA eHealth Partnership Authority HIO Survey Data.

participate in the state's exchange network. (The Glossary in Appendix B provides additional information about the technologies listed in the exhibit.)

Authority staff have indicated that Pennsylvania, and other states, have learned several lessons as part of their efforts to establish a statewide exchange. National-level vendors, for example, have not always been able or willing to offer versions of their products tailored to meet state-specific policy and technical requirements, thus slowing the pace of statewide (and national) health information exchange implementation. Simply acquiring technology, however, is not sufficient. Its actual ongoing use requires integration into provider workflow and user training and support.

Despite the continued consensus about the promise of health information exchange to improve quality of health care and control costs, to date, studies have not clearly demonstrated the cost effectiveness of information exchanging. In April 2016, the Centers for Medicare and Medicaid Services, in a proposed rule concerning Medicare Payments under the Physician Fee Schedule, noted:

> At present, evidence on EHR benefits in either improving quality of care or reducing health care cost is mixed. This is not surprising since the adoption of EHR as a fully functioning part of medical practice is still in its infancy.[27]

National experts in the health information technology field have also noted:[28]

> Since the passage of HITECH, a number of states have expanded their HIE capacity and successfully promoted health professional adoption of the DIRECT protocol….In spite of these achievements, the state HIE Cooperative Agreement Program, in general, fell short of its intended goals….As of January 2015, no state had successfully established the infrastructure to support bi-directional interoperability for all health professional practices in the state.

National experts have further noted that states were "stymied by a number of both anticipated and unanticipated challenges encountered at the national, state and community levels." In particular:

> Technology barriers, including incomplete national standards, inconsistent implementation of available standards and the absence of a

[27] April 2016, Centers for Medicare and Medicaid Services proposed rule for the Medicare Program: Merit-Based Incentive Payment System (MIPS) and Alternative Payment Model (APM) Incentive under the Physician Fee Schedule, and Criteria for Physician-Focused Payment Models.

[28] Robert Wood Johnson Foundation, Mathematica Policy Research, Harvard School of Public Health, and University of Michigan School of Information. *Health Information Technology in the United States 2015: Transition to a Post-HITECH World*.

> demonstrated patient-matching algorithm, remain barriers that cannot be resolved without federal leadership.

Nonetheless, even with the slower than hoped for pace of adoption and barriers that have been encountered, national experts anticipate there will be further progress toward optimizing use of health information technology and exchange. From their perspective:

> Two forces have the potential to break through the current institutional impediments to providing a fluid and meaningful exchange of useful health information data: 1) the growing movement of payment innovation, and 2) the emergence of interoperable software architecture that can make data liquid and fungible.

Currently, there are a variety of initiatives to remove barriers to interoperability, which is essential for widespread health information exchange. The Secretary of the U.S. Department of Health and Human Services, for example, recently announced that health information technology developers that provide 90 percent of the electronic medical record systems for U.S. hospitals and five of the largest health systems have agreed to implement federally recognized, national interoperability standards, policies, guidance, and practices for electronic health information exchange, and to adopt best practices related to privacy and security.

At the federal level, there are also several efforts to promote payment innovation in the Medicare and Medicaid programs. Nationally, electronic health information exchange[29] is viewed as essential to implement alternative payment models[30] that base provider payments on quality improvement and performance rather than just service volume.

Those who have evaluated state health information exchange efforts nationally have concluded that, while states are far from achieving broad-based health information exchange, state and federal policies can help ensure this occurs. They have noted that states have a continued role to play in promoting such exchange. Based on the experience of efforts thus far, states can, for example:

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[29] The Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), which provides for the Merit-based Incentive Payment System (MIPS) to replace updates to the Medicare physician fee schedule requires sharing electronic health information with other providers and with patients using a broad range of certified EHR technology and other health IT. Electronic health records and the electronic exchange of health information can occur either directly or through health information exchanges.

[30] Alternative Payment Models are new ways to pay health care providers for the care they provide to Medicare beneficiaries. Patient Centered Medical Homes, bundled payment models, and Accountable Care Organizations (ACO) are examples of APMs. The ACO model, for example, is designed to reward providers financially for working together, sharing information, and coordinating care, especially for high-risk and high-cost chronically-ill patients. In addition to overall Medicare spending, such models factor in performance on quality measures when determining payments.

- Provide leadership and coordination, in particular, in convening stakeholders, developing policy, reforming delivery systems, and conducting ongoing state-level needs assessments.
- Engage in future HIE efforts vis a vis Medicaid and social services.
- Exert influence as a payer, and support for HIE sustainability.
- Leverage existing HIE investments under delivery system reform.

National experts have, therefore, concluded:

> At a minimum, states should develop contingency plans in order to ensure that the significant state and federal investments in HIE can continue to be leveraged beyond the [State Health Information Exchange Cooperative Agreement] Program period.[31]

Pennsylvania's Proposal to Continue the Momentum for eHealth Information Exchange

To provide a "contingency plan" for Pennsylvania, and in an effort to save an estimated $1 million in General Fund monies, the Governor in his proposed FY 2016-17 budget provided for transitioning the PA eHealth Partnership Authority to the Department of Human Services in the Office of the Secretary. Currently, the Department of Human Services is well positioned to help continue the momentum to facilitate state health information exchange.

In recent years, the Department of Human Services has coordinated closely with the Authority. In particular, it has worked to support statewide health information exchange through provision of provider and other data to support the establishment of the statewide exchange. Its Office of Medical Assistance has also worked closely with the Authority to promote the adoption of health information technology among key Medicaid providers, including post-acute care and behavioral health providers. (See Finding C.)

The Department also has direct experience in working with providers involved in the implementation of eHealth information exchange. For example, it has:

- Introduced pay-for-performance programs for managed care organizations (MCOs) in Health Choices, its mandatory managed care program. As part of such programs, the Department requires the MCOs to establish provider incentives to electronically submit quality measures.

[31] Dullabh, P. et al, Final Report: Key Challenges to Enabling Health Information Exchange and How States Can Help, NORC, August 2014, p. 10.

- Participated in various medical home initiatives, which involve the use of electronic health records and health information exchange to assure that providers have the right information for the right patient at the point of care.
- Worked with several health systems (as part of the federal Quality Demonstration Grant Program) to show how a set of core children's quality measures could be used to improve quality of care for children, promote the use of health information technology to enhance service quality and coordination, and demonstrate the impact of model electronic health record formats for children.

The Department recognizes that eHealth information exchange is essential if it is to achieve its goal of increasing coordination of care and service quality for those served through its programs. Given its responsibility for implementing the state's technology improvement program in the Medicaid program, moreover, it has staff with certain expertise in contracting for health information technology and can serve as an asset to the Authority in its work, and has the ability to take on the administrative work currently performed through interagency agreements with other state agencies.

On June 30, 2016, House Bill HB 1062, P.N. 3638, as amended and adopted in the Senate, passed the House. Included within the bill are provisions that repeal Act 2012-121, provide for the establishment of the Pennsylvania eHealth Partnership Program within the Department of Human Services, retain a separate eHealth Partnership Fund separate from the General Fund, and continue to provide for the collection of fees to support the state eHealth information exchange. The bill provides for the creation of the Pennsylvania eHealth Partnership Advisory Board with various members appointed by the Secretary of the Department of Human Services, and leaders in the Pennsylvania General Assembly to be formed within 90 days of the effective date of enactment of the legislation. The legislation calls for the newly created Program to continue to perform duties similar to those currently assigned in statute to the Authority, including the development of the statewide exchange, with participation in the exchange continuing to be voluntary.

The legislation removes from the newly created Advisory Board the power to hire staff and enter into contracts and agreements. It also modifies the composition of the Board by adding the Pennsylvania Department of Insurance Commissioner and a home care representative and eliminating the two additional ex-officio non-voting members elected by the advisory council, and assigns the Department the power to promulgate program regulations for the newly created program.

The legislation becomes effective immediately. With its enactment, moreover, all responsibilities, contracts, liabilities, and grants from the Authority are transferred to the Department.

In January 2016, the consensus of the Board called for the Authority to be re-authorized for a period of three to five years. However, in June 2016, the President of the Authority Board endorsed proposed legislation terminating the Authority and establishing the eHealth Partnership Program within DHS. Partnership Authority Board members with whom we spoke also concurred with the transfer if it provides stability and continuity for the work of the Authority. They also emphasized the importance of the Department of Human Services continuing to solicit input and guidance from the Board and those who have actively participated with the Authority through its advisory committees.

In our opinion, the legislative proposal to transition the independent Authority to the Department of Human Services is a reasonable contingency plan. As discussed in Finding I, the Authority has relied on executive branch agencies for administrative support since its inception. No other entity, moreover, has stepped forward at this time to take on the functions currently performed by the Authority.

The legislative proposal[32] provides for continuity for the momentum and substantial investment in health care exchange that has been made thus far. It allows for certain federal funds to support the development of a statewide exchange. It provides time for significant matters (such as interoperability standards and federal approaches to value-based care) that may shape the future of health care exchange to be addressed at the federal level. It also allows time for the state to further refine its role in promoting electronic health information technology and health information exchange in light of changes achieved at the federal level and rapid changes in technology that are occurring.

[32] House Bill 1062, P.N. 3638, was signed by the Governor on July 8, 2016, and became Act 2016-76.

B. States Vary in the Models for Statewide eHealth Information Exchange They Have Adopted and Are Attempting to Implement

As discussed in Finding A, there were many private and public efforts to promote eHealth information exchange prior to the passage of the Health Information Technology for Economic and Clinical Health (HITECH) Act as part of the American Recovery and Reinvestment Act of 2009 (ARRA). In part, as a result of such varied earlier efforts, the U.S. Department of Health and Human Services Office of the National Coordinator (ONC) for Health Information Technology stressed the importance of states leveraging their existing health information exchange infrastructure when planning and implementing programs under HITECH's *State Health Information Exchange Cooperative Agreement Program*. As a result, as discussed below, there is no single approach recommended for states to support nationwide implementation of eHealth information exchange.

State Approaches to eHealth Information Exchange

When announcing the availability of federal funding for the program for states, territories, and the District of Columbia, ONC provided states with significant flexibility to advance health information exchange, including flexibility in several areas:

- Program leadership and organizational structure.
- Technical approaches.
- Legal and policy approaches.

Program Leadership and Organization Structure. Within the *State Health Information Exchange Cooperative Agreement Program,* governance structures were intended to provide oversight and accountability for eHealth exchange and to protect the public interest. ONC permitted states to provide leadership themselves or provide for "State Designated Entities" (SDEs). State Designated Entities were required[1] to:

- be a not-for-profit organization with broad stakeholder representation on the board,
- demonstrate that one of its principal goals is to use health IT through authorized and secure electronic health information, and
- adopt fair and nondiscriminatory participation by stakeholders.

[1]Public Health Service Act, 42 U.S.C. §300jj-33.

As a result, three models of state leadership and organizational structure emerged:

- A state-led model with the state receiving federal grant funds and leading implementation of the state health information exchange.
- An SDE-like model with the state receiving the federal funds and designating an SDE to lead implementation.
- A "true" SDE with federal program funds going directly to the SDE that was responsible for leading implementation.

About 45 percent of program participants, including Pennsylvania and neighboring West Virginia, elected to receive the federal grant funds and have the state lead efforts to implement the eHealth information exchange. SDE-like models were adopted in neighboring Maryland, New Jersey, and New York, and "true" SDE models were adopted in Delaware and Ohio.

Nationwide, about 25 percent of the *Cooperative Agreement Program* grant recipients were co-located with the state's Regional Extension Center (REC)—the program established through HITECH to help individual and small practices, and those providing primary care in public and critical access hospitals, community health centers, and other underserved areas to adopt and meaningfully use electronic health records. Most of Pennsylvania's neighboring states provided for such co-location. As a result, the non-profit organizations in Maryland, Ohio, New Jersey, and New York designated to lead state health information exchange efforts were co-located with the state REC.[2]

Technical Approaches. Technical infrastructure is essential for developing HIE capacity, and includes: "the architecture, hardware, software, applications, network configurations and other technological aspects that physically enable the technical services for HIE in a secure and appropriate manner." Within the *Cooperative Agreement Program*, three major high level approaches evolved:

- Establishing a single statewide organization to provide HIE services.
- Using a "network-of-networks" approach to connect local or regional health information organization.
- Mixing the two models with grantees leveraging existing services and also establishing central services to fill gaps.

Pennsylvania, after consideration of a central model (such as occurs in Delaware, Maryland, and West Virginia), adopted a light "network-of-networks" approach to provide for statewide exchange. Such an approach reflected the existence

[2] Finding A provides information on Pennsylvania's two RECs.

of health information exchange through several regional exchanges and major health systems. It also reflected the existence of strong private sector involvement in provision of eHealth information exchange.

Directed Exchange. Like most states, Pennsylvania helped enable directed exchange. As noted in Finding A, ONC emphasized that states should initially promote such exchange with the introduction of the Direct Project. Direct specifies a set of standards and services to transport health information point-to-point that is fast and secure. It offers all providers, including those without electronic health record capacity, a way to exchange patient health information, including sharing protected data (i.e., drug and alcohol, mental health, AIDS/HIV status) with the patient's consent, with providers who subscribe to regional and state-level entities that facilitate exchange across unaffiliated organizations.

By the end of 2013, directed exchange was broadly available statewide in most states, including Pennsylvania. Thirty-five of the 56 states, territories, and the District of Columbia or their designated SDEs that participated in the *Cooperative Agreement Program* served as a health information service provider (HISP) for purpose of directed exchange, or they had entered into a contract with such a provider for such services.[3] Pennsylvania, however, elected not to provide or centrally contract for directed exchange services. Rather, it facilitated directed exchange by certifying HISPs and offering financial incentives for them to connect providers.

Query-Based Exchange. With query-based exchange, providers have the ability to search and retrieve and/or request patient information from other providers from central or federated repositories. Pennsylvania elected to develop a federated repository. Such repositories enable flow of information from one provider or organization to another while allowing participating organizations to keep local data control. In such decentralized models, only a limited set of patient data elements (e.g., patient demographics) are centrally located to allow participants to locate patient records across organizations through a central record locator service and/or master patient index. (See Finding D for additional information on Pennsylvania's health information exchange network, P3N.)

In 2013, 23 of the 56 *Cooperative Agreement Program* participants had query-based exchange broadly available statewide through a single service/entity. Such states included Delaware, Maryland, and West Virginia.

Legal and Policy Approaches. ONC required participants in its *Cooperative Agreement Program* to establish privacy and security protocols and incorporate the privacy and security provisions of the ARRA, HIPAA Privacy Rule, HIPAA Security Rule, Confidentiality of Alcohol and Drug Abuse Patient Records Regulations, and the DHHS Privacy and Security Framework into their strategic and operational

[3] Delaware, Maryland, Ohio, and West Virginia are examples of where this occurred.

plans. It further required states to adopt consent policies when they provide for query-based exchange.

Over two-thirds of the program grantees, including Pennsylvania, adopted opt-out consent models, where data is automatically eligible for exchange unless the patient actively prohibits it. Sixteen percent of the program grantees adopted an opt-in consent model.[4] New York and Ohio are among the grantees that have elected to use an opt-in consent model.

Legal and Policy Levers. In addition to adopting consent models, states have promoted the implementation of health information exchange through enactment of legislation. As of 2013, about 60 percent of the states had such legislation. In addition to Pennsylvania, such states include Delaware, Maryland, New York, and West Virginia.

Other possible state legal and policy levers that have been used to promote health information exchange include mandating provider participation. Like most states, Pennsylvania has not taken such an approach, and participation in Pennsylvania's health information exchange is voluntary. Maryland is the only neighboring state with some form of mandate. In Maryland, the Maryland Health Care Commission[5] mandated all acute care hospitals submit demographic data to its SDE. Such hospitals are also required to send admission, discharge, or transfer (ADT) data in order for the Maryland Health Services Cost Review Commission[6] to track readmissions across hospitals.

States are more likely to promote information exchange through processes for accrediting or certifying health information exchange organizations or health information service providers. Over one-third of the states, including Pennsylvania, use accreditation, and/or certification of HIOs and HISPs to promote health information exchange. Such voluntary approaches can help build trust among participants and allow all participants to know if their counterparts are complying with relevant federal and state requirements.

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[4] An additional 16 percent used "other" approaches, including not instituting a uniform consent model and allowing individual organizations to choose their own consent approach.

[5] The Maryland Health Care Commission is an independent regulatory agency whose mission is to plan for health system needs, promote informed decision-making, increase accountability, and improve access by providing timely and accurate information on availability, cost, and quality of services to policy makers, purchasers, providers, and the public.

[6] The Health Services Cost Review Commission (HSCRC) was established in 1971 as an independent state agency with seven commissioners appointed by the Governor to regulate hospital rates in ways that promote cost containment, access to care, equity, financial stability, and hospital accountability. The HSCRC sets rates for all payers, including Medicare and Medicaid. Maryland is the only state in the nation with such a system.

C. The Commonwealth and the Pennsylvania eHealth Partnership Authority Have Sought and Distributed Federal and Private Funds to Support Statewide eHealth Information Exchange

In recent years, considerable private and public funding has been invested to promote the adoption of electronic exchange of health information with its potential to improve healthcare in the Commonwealth. As discussed below, about $1.50 billion in public funding has been invested in the Commonwealth to promote electronic health information exchange. Such investments have occurred through programs such as the Centers for Medicare and Medicaid Services (CMS) Medicare and Medicaid Electronic Health Record Incentive Programs, the State Health Information Exchange Cooperative Agreement Program, and the Centers for Medicare and Medicaid Services' State Medicaid Health Information Technology Implementation Advanced Planning Document (IAPD). In general, such programs are intended to help offset the substantial upfront costs providers incur as they introduce and move toward meaningful use of electronic health records. [1]

Medicare and Medicaid Electronic Health Record Incentive Programs

Since 2011, nationwide, over 450,000 unique eligible providers and almost 5,000 hospitals have participated in the Medicare and Medicaid Electronic Health Record Incentive Programs. In Pennsylvania, over 22,000 unique eligible providers and 172 hospitals participated from January 2011 to February 2016. As of February 2016, according to CMS, such Pennsylvania providers received $1.45 billion in Medicare and Medicaid incentive payments, including over $353 million for participating Medicaid providers. (Appendix C provides additional information on these programs.)

State Health Information Exchange Cooperative Agreement Program

In addition to the investment to promote the adoption of electronic health records, public funds have also been available to promote statewide eHealth information exchange. As shown in Table 1, $7.4 million, or more than 40 percent of the Commonwealth's *State Health Information Exchange Cooperative Agreement Program* federal funds ($17.1 million), have been invested to directly promote health information exchange in Pennsylvania at the local and regional levels.

[1] Research supported by the U.S. Department of Health and Human Resources, Agency for Healthcare Research and Quality (AHRQ) found that the cost of implementing an electronic medical record system was approximately $164,000 for a single primary care physician and about $234,000 for a practice with five primary care physicians. Such costs include hardware costs, software and maintenance costs, and labor costs associated with implementation.

Table 1 shows 31 percent of the $7.4 million in federal funds went to support projects involving DIRECT messaging among health care providers (hospitals, physicians, laboratories, and home health providers), with such health information exchange occurring through state certified Health Information Service Providers (HISPs). Table1 also shows the largest share of such federal funds (60 percent) invested at the local level went to support development of the capacity of regional health information exchange organizations and to provide incentives for such organizations to connect to a Pennsylvania "network-of-networks" for statewide exchange (i.e., P3N).

In order to receive a capacity building grant, a local regional exchange organization had to agree to provide a local cash and in-kind match; participate in state-sponsored work groups involved in developing technical requirements for the statewide exchange; and align local regional efforts with technical requirements, certification programs, security policy frameworks, and financial sustainability models adopted by the Commonwealth. They also had to agree to join the statewide health information exchange network and remain a participant for several years.

Table 1

State Health Information Exchange Cooperative Agreement Program Projects

Project	Federal Expenditures	Other Cash Expenditures	In-Kind Contribution
DIRECT	$ 862,250		
Lab Pilot	1,400,000		$ 698,289
Home Health Grants	539,475		362,000
Consumer Education	94,550		
Community Shared Services Capacity Building	4,500,000	$2,225,000	1,000,000
Total	7,396,275	2,225,000	1,060,289

Source: Developed by LB&FC staff from PA eHealth Partnership Authority project closeout reports.

The DIRECT Project program started just prior to the legislative creation of the Pennsylvania eHealth Partnership Authority to satisfy ONC program goals. Through this grant program, Pennsylvania certified HISPs were paid $250 for each provider they signed up for DIRECT messaging from May 2012 through April 2013. All four of Pennsylvania's certified HISPs (AlliedHIE, KeyHIE, Max MD, and SES) participated in the DIRECT grant program.

The Commonwealth's Lab Pilot and Home Health Grants also provided incentives for the adoption of DIRECT messaging by way of Pennsylvania-certified HISPs. The Lab Pilot supported the creation of interfaces specifically focused on transmitting certain lab data between provider offices and labs and hospitals by way of the HISP. Through this time-limited program, each HISP could receive up to $250,000 to enable connections between a lab and up to four provider offices. All

four of Pennsylvania's state-certified HISPs also participated in the Lab Pilot program.

The Commonwealth's Home Health Grant funded home health agencies to purchase DIRECT accounts and iPads for home health nurses. Five home health agencies/consortia[2] participated in this time-limited program.

The Community Shared Services Capacity Grants were also initiated just prior to the legislation creating the Pennsylvania eHealth Partnership Authority. Initially, six organizations applied for the grants, and four (St. Luke's Hospital, Lehigh Valley Hospital, Healthshare Exchange of Southeastern Pennsylvania, and Highmark) were selected to receive them. One grantee (Highmark HIE) subsequently elected to decline the grant and did not proceed to establish a regional health information exchange organization. Regional health exchange organizations receiving capacity grants were required to provide matching funds as a condition of receipt and commit to connecting to the statewide health information exchange "network-of-networks" and participate in the statewide exchange for several years.[3]

Statewide Health Information Exchange Technical Contracts: In addition to funding in support of local and regional health information exchanges, the Pennsylvania eHealth Partnership Authority expended over $7 million (as of August 2015) to develop and operate the statewide exchange through technical contractors. In May 2013, the Commonwealth entered into a five-year contract for just over $9 million with Truven Health Analytics Inc. to develop and implement the statewide "network-of-networks" exchange. Federal State Health Information Cooperative Agreement funds account for two-thirds of the expenditures thus far, with state funds accounting for the remainder.[4]

To provide for the statewide health information exchange, the Authority also engaged with Maximus Human Services Inc. for services valued at up to $1.1 million over a two-year period.[5] Maximus provided the Authority with monthly on-site independent verification and validation services over Truven's implementation of the statewide exchange network and identified internal control risks and methods to address them.[6]

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[2] VNA Health System, a KeyHIE participant; Punxsutawney Area Hospital; Immediate Home Care, At Peace Home Health; and VNA of Indiana County.

[3] The PA eHealth Partnership Authority's Financial Statements indicate the Authority received $464,500 in grantee contributions in FY 2013-14 and $236,217 in private sector contributions in FY 2014-15.

[4] $4,678,627 of $7,055,885.

[5] The Authority did not issue a specific RFP and directly contract for services from Maximus. Rather, it procured services from Maximus through a purchase order against the Department of General Services' Master IT Services Invitation to Qualify contract.

[6] Following the implementation of the statewide exchange, the PA eHealth Partnership Authority terminated its agreement with Maximus resulting in savings of $221,320.

Medicaid Health Information Technology Implementation Advanced Planning Document (IAPD) Funding

The Commonwealth has also sought federal Medicaid funds to invest in the development of statewide electronic health information exchange.

FFY 2015 HIO "Onboarding" Grants: Starting in 2014, the Pennsylvania eHealth Partnership Authority worked with the Department of Human Services (DHS) to obtain grant funds from the Centers for Medicare and Medicaid Services to assist in the development of statewide health information exchange consistent with the goals of the state Medicaid program's health information technology plan. In FFY 2015, CMS authorized the Department and the Authority to offer up to about $12 million[7] to state certified HIOs to connect hospitals and ambulatory providers to their networks and through the HIO to the statewide exchange. As part of an interagency agreement between the Authority and DHS, the Department agreed to utilize DHS state matching funds to meet CMS's state match requirements.[8]

Specifically, the FFY 2015 grant program made available:

- $15,000 to support HIOs in their certification and joining the statewide exchange,
- up to $70,000 to connect each hospital to the HIO,[9] and
- up to $50,000 to create each ambulatory EHR interface and connect at least two ambulatory practices who use the EHR to the HIO.[10]

Two regional health information exchange organizations (KeyHIE and HSX) were authorized to expend such funds to "onboard" 14 hospitals that met CMS requirements[11] to the HIOs' network. As part of the grant/contract, the regional HIOs were also required to join the statewide exchange and participate for a specified period. In FFY 2015, $650,000 (of the approximate $12 million available) was distributed under this program.

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[7] Such CMS federal funds are authorized for expenditure as part of the state budget and appropriation processes. They, however, are no longer available if unexpended at the end of the federal fiscal year. The FFY 2015 grant program, which was announced in April 2015 ended September 2015. As a result, much of the approximately $12 million that was authorized by CMS and the state appropriation process did not get expended during FFY 2015 and such federal funds lapsed at the end of the federal fiscal year (i.e., September 30, 2015).

[8] Grant participants were also requested to donate to support the Authority operations, with the goal of raising $1 million in 2015.

[9] Implementation includes administrative activities (e.g., project management), legal activities, configuration, workflow integration, and training for facility users.

[10] Implementation of an ambulatory electronic health record (EHR) interface includes workflow redesign, training, and go-live support for at least two ambulatory practices using the EHR system.

[11] CMS has several requirements that must be met for providers to participate in the onboarding grant programs it funds. Typically, such providers must be eligible providers under the Medicaid EHR Incentive Program (see Appendix C). They must also be utilizing EHRs that meet CMS recognized standards.

FFY 2016 HIO Onboarding Grants: A similar one-time grant subsidy program became available in FFY 2016. CMS authorized Pennsylvania to receive reimbursement for expenditure of up to about $17 million, including up to about $12 million for regional HIOs to join hospitals and ambulatory practices to their networks and through the HIO to the statewide exchange. Such grants cover HIO vendor and staff resource costs to complete onboarding activities, which would otherwise be borne by providers. Providers, however, are responsible for their EHR vendors' charges for any costs associated with their EHR systems for health information exchange other than actual HIO interface and integration. As of June 2016, $3.5 million had been awarded to three regional HIOs (HSX, ClinicalConnect, and Mt. Nittany Medical Center) to join 45 hospitals and two regional HIOs (HSX and Mt. Nittany Medical Center) and to join 15 ambulatory care centers to the statewide health information exchange.

The FFY 2016 grant program (which closed in mid-April 2016) also made available up to about $3 million for long-term care providers and home health agencies to join regional HIOs and the statewide exchange and a grant (about $760,000) to develop a portal to permit post-acute care providers without electronic medical records to participate with the HIO and the statewide exchange. As of June 2016, two regional HIOs had been awarded a total of $290,000 to develop long-term care post-acute care portals. Long-term care providers and home health providers, however, had not been identified to participate in the onboarding program. DHS and the PA eHealth Partnership Authority are, however, working with CMS and Commonwealth providers to identify ways to facilitate post-acute care and behavioral health providers to qualify for the grant program.

Public Health Gateway: The Commonwealth has also utilized IAPD funding to develop a Public Health Gateway (PHG) for the statewide exchange. As noted in Finding A, the PHG is intended to provide a single point for transmission of data from healthcare providers to the Commonwealth for public health registries and quality measures required of Medicaid providers by CMS.

The PHG, according to the Commonwealth's IAPD,

- Acts as a message forwarding service in receiving and distributing information.
- The information comes from healthcare providers through their HIOs to a state connection governed by the Authority.
- The connection point is a web service that then routes the report information to the correct destinations.
- The web service is hosted by DHS.
- PA Department of Health further routes public health reports to the public reporting registry.

- Agencies use the report messages to feed their applicable/existing systems and business processes.

In all, the IAPD provides for over $1.6 million in project costs to support the development and implementation of the Public Health Gateway.

In addition, the FFY 2016 IAPD provides over $660,000 in partial funding to support several related projects. Such projects include Medicaid eligibility updates to the statewide exchange, immunization patient demographic updates, patient portal updates, interstate health information exchange, and HIO integration updates with the statewide exchange.

In 2016, DHS and Authority staff were working together to develop a FFY 2017 plan to allow continued access to Medicaid IAPD funding to support providers joining local regional HIOs to connect to the statewide exchange. They were also seeking IAPD funding to continue the development of the statewide Public Health Gateway portal for a single connection for providers to report to immunization, surveillance, cancer, and other registries, and to report on required meaningful use quality measures to DHS's Office of Medical Assistance.

D. The Pennsylvania eHealth Partnership Authority Has Established a State Health Information Exchange Registry to Allow Individuals to Control Access to Their Personal Health Information

One key policy decision states must make in their efforts to promote electronic health information exchange concerns how they provide for consent and confidentiality of personal health information[1] for their statewide exchanges. Almost 70 percent of those receiving grants through the *State Health Information Exchange Cooperative Agreement Program* have instituted an "opt-out consent model" for their exchanges.[2] Such models do not require patients to explicitly consent to participate in the statewide exchange, and can avoid some of the initial challenges of securing large numbers of patient participants in the exchange.

The Pennsylvania General Assembly when enacting legislation providing for a statewide health information exchange adopted the "opt-out consent model." It also adopted several provisions to permit individuals to control access to their personal health information and assure the privacy and security of their records.

Act 2012-121's Provisions to Allow Individual Control of Access to Personal Health Information

Act 2012-121 directed the PA eHealth Partnership Authority to:

- Promulgate a patient consent form.
- Establish an opt-out registry as part of the statewide health information exchange network.
- Comply with federal and state laws with respect to exchange of personal health information.

Patient Consent Form. Specifically, the Act required the Authority to:

> Promulgate a consent form including notice of a patient's ability to decline to allow exchange of the patient's electronic health information in the health information exchange.

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[1] Throughout this finding, we have elected to use the term "personal health information" as the HIPAA Privacy Rule provides federal protections for personal health information held by covered entities and gives patients an array of rights regarding such information. The specific term used in the Privacy Rule is "protected health information" (PHI). PHI is operationally defined in the rule to include information in any format that identifies the individual, including demographic information collected from an individual that can reasonably be used to identify the individual and not simply the past, present, or future physical or mental health or medical condition of an individual. (See Appendix B.)

[2] NORC, *Evaluation of the State Health Information Exchange Cooperative Agreement Program State Approaches to Enabling HIE: Typology Brief*, August 2014.

It further required the form, at a minimum and in plain language, include the following information:

- Definition of a health information exchange.
- Explanation of the benefits of participation in the health information exchange.
- Explanation of the limits of the patient's ability to decline the release or exchange of the patient's health information with the health information exchange.
- Explanation of the manner in which an individual may decline to participate in the health information exchange. [3]

Exhibit 3 provides a copy of the Authority's Opt-Out or Opt-Back-In Form. As shown in Exhibit 3, the form is consistent with the requirements set forth in the Act.

The form also discloses important details about the sharing of patient information through the exchange. It, for example, makes clear that participation in the statewide exchange is voluntary for both the patient and the patient's providers. As a result, the patient who participates in the exchange is made aware that all of the patient's health information may not be available to all of the patient's healthcare providers. The form notes that available information is only shared consistent with federal and state laws, including the federal Health Insurance Portability and Accountability Act (HIPAA). It also advises the patient that if s/he elects to opt-out of the statewide exchange, the patient's providers may share information necessary for treatment through means other than the statewide exchange (e.g., fax, DIRECT, comparable provider EHR systems, etc.) in order to provide for the patient's care.

In addition to the Opt-Out or Opt-Back-In Form, the Authority has developed a brochure for patients: *Improving Your Care Through the Secure Exchange of Health Information: A Guide for Patients*. The brochure provides a brief consumer friendly explanation of the statewide health information exchange network (P3N) and how it may be used by providers that elect to participate with the statewide network.

Opt-Out Registry. The Act requires the Authority to establish an "opt-out registry" as part of the state health information exchange network (P3N). It further outlines the process for patients to follow to add their names to the state's opt-out registry, and outlines a process for providers and the Authority to follow when responding to patient requests. Specifically, it provides:

[3] Act 2012-121, §701(b).

Exhibit 3

OPT-OUT OR OPT-BACK-IN FORM
FOR THE PENNSYLVANIA PATIENT & PROVIDER NETWORK

P3N PA PATIENT & PROVIDER NETWORK
PRIVATE & PROTECTED

(P3N) INSTRUCTIONS:

STEP #1 - Please read the material on the back of this form before completing the form.

STEP #2 - Complete Section 1 to opt out **OR** Section 2 to opt back in to the P3N. Please initial that you have read and understand each of the statements in either Section 1 **OR** Section 2.

STEP #3 - Please complete **ALL** of the remaining sections of the form and sign.

SECTION 1 - To **OPT OUT** of the Pennsylvania Patient & Provider Network (**P3N**) complete this section:

Initial	By submitting this Opt-Out Form information about me will NOT be accessible to healthcare providers and other authorized users (including for emergency services) by use of the P3N.
Initial	I understand that by opting out, this form will be shared with healthcare providers and other authorized users so they know that I do NOT want my information accessible in P3N.
Initial	I may choose to participate in the P3N again at any time by submitting this form as an Opt-Back-In form.

SECTION 2 - To **OPT BACK IN** to the Pennsylvania Patient & Provider Network (**P3N**) complete this section:

Initial	By completing this section, information about me (including information created prior to today's date) **WILL** be accessible to healthcare providers and other authorized users (including for emergency services) by use of the P3N.

SECTION 3 - Please complete each area below:

First Name:_____ Middle Name:_____ Last Name: _____

Maiden Name:_____ Date of Birth:_____ Gender: ☐ Female ☐ Male

Street Address: _____

City:_____ State:_____ Zip Code: _____

Phone 1:_____ Phone 2 (optional): _____

Email Address (optional):_____ Last Four (4) Digits of Social Security Number (optional): _____

By signing this form, I verify that I am the person named above, or that I am legally authorized to complete and sign this form for the person named above. The information provided on this form, and the preferences expressed herein, are true and correct to the best of my knowledge, information, and belief. I understand that false statements made on or through this form are subject to the penalties of 18 Pa. C.S.A. Section 4904 relating to unsworn falsification to authorities, and I am making this statement under penalty of perjury.

Patient Signature:_____ Date Signed: _____
(Signature of patient, parent, legal guardian, or legal representative, where required.
If legal guardian or representative, please state your relationship to the patient.)

Guardian or Representative:_____ Relationship to Patient: _____
(Print Name)

This form must be returned with original signatures in black or blue ink. All non-optional fields must be filled out in order for your request to be processed. A separate form must be filled out for each family member. A contact phone number is required in case we must contact you to ensure the accuracy of the information provided above. You will receive an acknowledgement of the receipt of this form.

Return Form To:

Pennsylvania eHealth Partnership Authority
613 North Street • 402A Finance Building • Harrisburg, PA 17120
ra-consentmgt@pa.gov • www.paehealth.org • 717-214-2490

Exhibit 3 (Continued)

THE PENNSYLVANIA PATIENT AND PROVIDER NETWORK (P3N)

Participation in P3N is voluntary. P3N is a service of the Pennsylvania eHealth Partnership Authority, established by the Pennsylvania eHealth Information Technology Act of 2012. If any of your healthcare providers participate in the P3N their information about you may be shared by use of the P3N services, and you benefit from that sharing. If you choose to opt out of the P3N, you can change your mind at any time.

WHAT IS HEALTH INFORMATION EXCHANGE?

Health information exchange is the electronic movement of health information between approved participating healthcare providers or health information organizations in a way that ensures the secure exchange of health information to provide care to patients. Under Pennsylvania law, the Authority was created to promote this kind of exchange, and does so in part by providing the P3N services, which help to connect approved and participating regional health information organizations to each other. Individual healthcare providers connect to the P3N by joining their regional health information organization.

WHAT ARE THE BENEFITS OF HEALTH INFORMATION EXCHANGE?

If your healthcare provider is connected to the P3N, their information about you, including information about your healthcare, treatment, medication, and related information, will be more easily and more quickly shared with others also connected to the P3N, which may include your primary care physician, your hospital, the specialist(s) you are seeing, your pharmacy, your insurance company's care manager, and others involved in your care. This helps your healthcare providers work together to make better-informed decisions about your healthcare. Health information exchange can improve the patient experience, reduce the unnecessary duplication of tests and procedures, improve healthcare results, and save money. Healthcare providers sharing your information between themselves is nothing new, but electronic sharing of the information is much more helpful than the old paper-based methods.

HOW IS MY HEALTH INFORMATION SHARED?

If your healthcare provider is connected to the P3N, they make information about you automatically accessible by use of P3N services, under Pennsylvania law. Healthcare providers receive accounts that let them ask the P3N if any information is available for one of their patients. If your healthcare provider does not have an account, then their information about you is not visible by use of P3N services, and they cannot use P3N services. If your healthcare provider has an account and makes an inquiry about you, they will see a list of what records exist about you and where they reside within the P3N, providing them access to these records.

HOW IS MY HEALTH INFORMATION PROTECTED?

The P3N carefully protects the privacy and security of your information by use of state of the art technical and administrative methods. P3N participants and the Authority must follow all applicable federal and state privacy laws, including, in most cases, the federal Health Insurance Portability and Accountability Act (HIPAA) and the Health Information Technology for Economic and Clinical Health Act (HITECH), as well as related regulations. All P3N participants must sign an agreement promising to treat your information with appropriate care, to meet certain P3N standards, and to follow P3N procedures regarding the protection of account access.

HOW CAN I OPT OUT?

While patient participation in the P3N is encouraged, you may opt out of the sharing of your health information via P3N services. To opt out, complete and sign the other side of this form and return it to your healthcare provider or the Authority. It may take up to five business days after the Authority receives your form to make your request in the P3N. Once you are in the opt-out registry, P3N participants searching the registry will see that you have opted out. This means your providers will not be able to see your information using P3N services, not even in an emergency. If you change your mind, you may opt back in by using this form.

WHAT IF I OPT OUT?

If you opt out of participation in the P3N, your healthcare provider or other P3N participant will know that they cannot display their information about you in response to a P3N query. This does not prevent the provider or other entity from seeking and/or transmitting information about you through other electronic or non-electronic methods, and it does not prevent the sharing of information about you outside the P3N in ways that are necessary, and for reasons that are permitted by law.

WHAT IF I OPT BACK IN?

If you opt back in to the P3N, your healthcare provider or another P3N participant will be able to access information about you (including information created before your opt-back-in date). If you choose, you may opt out again in the future.

December 2014

Source: Pennsylvania eHealth Partnership Authority.

- A patient must sign and date a form (see Exhibit 3) declining participation [or when choosing to re-enroll].
- If appropriate, the signature must be witnessed by the patient's representative.
- Copies of the completed form must be sent by the provider within five business days to the Authority to be included in the opt-out registry.
- After receipt of the form, the Authority within five business days must notify health information organizations that the patient has not authorized the release of the health information.
- Once the patient is included in the opt-out registry, the Authority shall notify the patient. The notification shall include a copy of the completed form signed by the patient or electronic notification to the patient.[4]

After a patient opts out of participation and the patient's name is included in the statewide consent registry, health care providers and other participants in the statewide exchange will see that the patient has opted out and information about the patient cannot be obtained through the statewide registry.[5]

To date, few patients have elected to opt-out of participation in the Pennsylvania's statewide health information exchange, according to the Authority. From December 2015 to February 2016, the Authority received 10 patient opt-out requests, and as of February 2016, only 22 patients had opted out of the statewide exchange and been placed on the P3N Opt-Out Registry.[6]

The number of patients electing to opt-out of participation in the statewide exchange may increase as more regional health information organizations (HIOs) become fully operational with the statewide exchange network by summer 2016. Conceivably, the number may also increase as the public becomes more aware of health care record data breaches. According to U.S. Department of Health and Human Services' data for 2015, over 94 million health records had been breached through June 2015.[7] Act 2012-121 requires the Authority in its annual report to the Governor and the Pennsylvania General Assembly to provide a summary of any reportable security breaches that occurred and corrective actions that were taken.[8] The 2014 and 2015 annual reports indicate that the Authority's health information exchange network experienced no reportable security breaches in 2014 and 2015.

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[4] Act 2012-121, §701(c).
[5] The provider, however, can obtain the information through other means outside of the statewide exchange for reasons permitted by law.
[6] According to the Authority, one patient who had opted-out subsequently opted back-in.
[7] Given the exponential increase in health record data breaches, one major insurer announced it would offer its customers identity protection beginning in 2016.
[8] Act 2012-121, §303(a)15.

Compliance With Federal and State Laws Regarding Exchange of Personal Health Information. Act 2012-121 notes that health care providers and payers are permitted to obtain and store patient health records in electronic form and exchange health information with another provider or payer in accordance with existing federal and state laws. It also specified that:

> Nothing in this act shall supersede or limit any other law which requires additional consent to the release of health information or otherwise establishes greater restrictions or limitations on the release of health information.[9]

The federal Health Insurance Portability and Accountability Act (HIPAA) of 1996 and related regulations apply to the release of patient health information, including release through state and regional health information exchange organizations. Certain other more stringent federal and state statutes and regulations also apply.

Typically, the federal HIPAA Privacy Rule[10] permits health care providers to share medical and health information necessary to treat the patient when s/he is present for care without needing patient consent or authorization.[11] As a result, states, like Pennsylvania, can adopt "opt-out models" for their state health information exchanges.

HIPAA and the Privacy Rule, however, do not take precedence over other federal and state laws that impose additional requirement on release of protected patient health information.[12] Such laws and relevant regulations typically require the patient's specific consent for release of the patient's medical record to another of the patient's treatment providers.[13] Examples of such additional requirements occur for medical records involving substance abuse, mental health, and HIV/AIDS treatment. Information and data subject to these additional requirements is often referred to as "super-protected data."

Pennsylvania's state health information exchange network (P3N) does not actually store patient health/clinical information at the state level.[14] It only facilitates the secure movement of clinical information via participating regional health information exchange organizations in response to a clinician's request. Nonetheless,

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[9] Act 2012-121, §701(a)(2).
[10] 45 CFR 164
[11] 45 CFR 164.506(c)(2).
[12] 45 CFR 160.203.
[13] In Pennsylvania, for example, 35 P.S. §7606 provides for confidentiality of HIV related information, 71 P.S. §1690.108 provides for confidentiality of drug and alcohol abuse records, and 50 P.S. §7111 provides for confidentiality of mental health records. All require patient written consent for disclosure and other additional stringent requirements.
[14] It does, however, store certain demographic data that is Protected Health Information, according to HIPAA's Privacy Rule.

federal and state laws regarding privacy of individual health information apply to the state and regional exchange operations. To appreciate why such federal and state law protections apply, it helps to understand the key components of Pennsylvania's statewide exchange network.

Pennsylvania's State Health Information Exchange Network's (P3N) Component Technology. In addition to the patient consent or opt-out registry (discussed above),[15] Pennsylvania's state exchange network includes:

- a Master Patient Index,
- a Provider Director, and
- a Record Locator Service.

P3N's Master Patient Index contains individual demographic information provided by participating regional HIOs and government agencies.[16] Such demographic data includes first and last name, address, social security number, phone, race, gender, and date of birth. The Master Patient Index uses such data to create a patient identity crosswalk that helps determine whether or not healthcare records located in different places belong to the same patient across HIOs. Such crosswalks are essential as healthcare system patient identifiers differ from one system to another. Moreover, while HIPAA provides for the generation of national unique identification numbers for patients to support healthcare information exchange, Congress has consistently prohibited the U.S. Department of Health and Human Services from using federal funds to develop such identification numbers because of privacy concerns.[17]

P3N's Provider Directory serves a similar function to that of the Master Patient Index. It locates providers across the Commonwealth.

P3N's Record Locator Service locates sources of an individual patient's health records based on information provided to P3N by regional HIO participants from their participating providers. P3N's Record Locator Service provides regional HIOs with the option to register the existence of various clinical documents. Such documents that are registered by a regional HIO may differ from one HIO to another, and the documents provided to the regional HIO by its participating providers may also differ across participants. According to a recent HIO Survey conducted by the Authority, most HIO survey respondents reported their provider participants are

[15] Finding C provides information on the Public Health Gateway and its function with respect to the P3N.
[16] The Department of Human Services Medical Assistance Program and certain Department of Health registries such as the immunization registry.
[17] Gold, M. et al., "Obtaining Providers' Buy-In and Establishing Effective Means of Information Exchange Will Be Critical to HITECH's Success," *Health Affairs* 31, no. 3 (2012); 514-526.

the repositories (via their electronic health record systems) for patient health data.[18, 19]

The individual patient clinical documents that a provider registers with a regional HIO, and the regional HIO subsequently registers with the statewide exchange network's Record Locator Service, may directly or indirectly include super-protected data (e.g., medication used to treat HIV/AIDS, medical procedures followed due to an individual's HIV/AIDS status, or indicators of substance abuse and mental health treatment), which may be imbedded in the clinical record and may require a patient's explicit consent for release to another health care provider.

In view of such challenges, one Pennsylvania regional HIO has incorporated an "opt-in model," rather than the state "opt-out model," into its operations. As a result, patients of certain providers who wish to participate in the regional exchange must grant specific consent for release of their personal health information to the regional exchange.[20]

At other HIOs, decisions are often left to participating providers about the sharing of individual patient records. Participating providers, therefore, may decide which records may include super-protected data and exclude such patient records from the exchange. Nonetheless, super-protected data is often irrevocably embedded amongst other health information and may unintentionally be shared. Representatives of regional health information exchanges with whom we spoke noted this can present challenges for them as technology is not currently available to allow them to identify all patient records that include information for which the patient's specific consent is required.

A recent national survey of health information exchanges found that 86 percent of those surveyed reported that stakeholder concerns about privacy and security slowed their development of health information exchange. At the national level, such concerns are even more challenging as different states have differing legal requirements related to the release of certain patient medical records. To begin to help address such concerns and challenges at the national level, federal agencies

[18] Only Lancaster General Health and the Behavioral Health HIE reported having a central repository for patient health data.

[19] The Authority has established protections for the data it retains. See Finding I for information on Authority compliance with HIPAA risk assessment requirements.

[20] Health care providers and HIOs take care to comply with HIPAA as failure to comply can result in civil and criminal penalties and result in exclusion from participation in Medicare. According to the American Medical Association, in 2005, the U.S. Department of Justice concluded that criminal penalties for violation of HIPAA apply directly to covered entities that in addition to health care providers include health plans, health care clearinghouses, health care providers who transmit claims in electronic form, Medicare prescription drug care sponsors, and individuals such as directors, employees, or other officers of the covered entity where the covered entity is not an individual.

have sponsored demonstrations and developed proposals for how to segment certain federal super-protected data related to substance abuse treatment.[21]

In Pennsylvania, the PA eHealth Partnership Authority has invested considerable effort convening stakeholders to find ways to balance the need for privacy and security and sharing electronic health information. Recently, the Authority and Pennsylvania regional HIOs have been working to create a list of super-protected data codes that can be used statewide to "scrub" records and identify all data requiring specific patient consent in order for the regional or state exchange to respond to a record query. Possible lists that have been developed have been provided to an Authority work group for consideration and release as a possible best practice for regional and state exchange.

[21] See, for example, the *Federal Register*, *Vol. 81, No. 26, February 9, 2016, Part III*, the Department of Health and Human Services' Proposed Rule 42 CFR Part 2, Confidentiality of Substance Use Disorder Patient Records.

E. The Pennsylvania eHealth Partnership Authority Has Engaged in Many Consumer Education and Outreach Efforts, Though Its Board Is Currently Without the Required Number of Consumer Representatives

Act 2012-121 directed the Pennsylvania eHealth Partnership Authority to "develop and conduct public information programs to educate and inform consumers and patients about health information."[1] Early on, moreover, the Pennsylvania eHealth Partnership Authority recognized that consumer education was a key component of its work and took steps to reach out to and educate consumers about eHealth information exchange. It has:

- Conducted consumer surveys.
- Conducted an ad campaign.
- Developed brochures and public service ads.
- Sponsored a speakers' bureau.
- Provided a grant to a regional health information organization to provide for paid advertising, outreach initiatives, a media plan, and outreach efforts as part of a consumer awareness campaign.
- Held plenary meetings for stakeholders.
- Developed a website with information for patients on health information exchange.
- Provided tools for providers to help engage and educate consumers.

Consumer Surveys

In May and June 2013, the Authority sponsored a survey of about 1,500 citizens to understand their awareness of health information technology and health information exchange, and the role consumers can play in the adoption of such technology. The survey found that many consumers agreed that patient online access to electronic medical records is important and that public policies protecting such records are also important

The survey also found that fewer than half of those surveyed were aware of many of the potential benefits of health information exchange, even though the majority stated their physicians used electronic medical records. The survey also found that physicians are the most important means to educate consumers regarding health care issues, though internet, television, radio, newspapers, and magazines are also important.

[1] Act 2012-121, §303 (a)(14).

Later, the Authority participated in a statewide poll of 703 registered voters. In response to the question "did what you saw, read or heard about Health IT or use of EHRs between patients and their health care providers give you a more favorable or more unfavorable opinion about the importance of using these technologies to securely access medical records online?," 55 percent were more favorable or somewhat more favorable. And, in response to the question "how important is it that EHRs improve the quality and safety of your health care?," 67 percent indicated it was very important or somewhat important.

Ad Campaign

In January 2014, the Authority launched a month-long consumer media ad campaign to educate consumers about electronic health information exchange.[2] Thirty-second commercials were aired on television and radio in six media markets. The commercials appeared during a Philadelphia Eagles playoff game, airing once during the pregame show, once during the game, and once during the postgame show. The spot directed people to the Authority's website for additional information or to their health care providers. The campaign also included Google Ads that appeared when people use certain keywords in Google searches.

Brochures and Public Service Ads

The Authority developed general brochures for consumers about the meaning and value of health information exchange, and specific brochures about the consumer's ability to opt-out or opt-back-in to the statewide consumer consent registry. Such brochures are also included in a toolkit developed for providers to use in educating consumers about electronic medical records and health information exchange.

The Authority also developed 3-5 minute videos and 30-60 second public service ads. Such ads could be used by health information exchanges and providers in-house, or for media placement. Short videos on health information exchange in Pennsylvania are also available to consumers at its website.

Speakers' Bureau

Representatives of the Authority are available for community presentations. The Authority also has available fact sheets and talking points that may be used in such presentations.

[2] According to the Authority, the ad campaign was conducted at a cost of $500,000, and was available to 50 million television viewers and 20 million radio listeners. During the campaign, the Authority's website went from having 15 visitors per day to an average of 175.

Regional Health Information Exchange Grant

As discussed in Finding C, the Authority provided a grant to a regional health information exchange organization to implement a local (rather than statewide) consumer awareness campaign. The local campaign included paid advertising in local media markets, media plans that include spokespersons' preparation around key messages and use of consumer testimonials, opinion editorials, letters to editor responses, newspaper articles about the value of health information exchange, outreach efforts at senior expos, career days, business and industry presentations, and social media.

Plenary Meetings

The Authority conducted two two-day plenary meetings with certain support from private sponsors. The first plenary meeting occurred in October 2013. The 2013 meeting provided opportunity to update 170 attendees on the Authority's work and engage participants in discussions to help the Authority with future planning. Featured topics included: Discharge Notification/Referral Results/Consultation Results Delivery; Connecting Ancillary Providers; Super-Protected Data; Advance Directives/Proxy Registries; and Care Coordination and Community Resources.

A second two-day plenary meeting was held in October 2014. The second meeting was also attended by more than 170 participants in the fields of health information technology, healthcare, and healthcare policy. The program provided participants with information on the status of the Authority and its planned directions, information on lessons learned as a result of pilot projects, and presentations on the value of eHealth information exchange from the perspective of consumers, providers, payers, and communities. The meeting also provided information on past and present coordination with the state's Medical Assistance program, including demonstrations the Medical Assistance Programs had sponsored in southeastern Pennsylvania.

The Authority's planned plenary meeting for October 2015 was postponed. Subsequent plenary meetings will be contingent upon the availability of public and private funding for their support.

Website

The Authority's website provides significant information for consumers and providers about its activities. It also provides a portal for patients to opt-out or opt-back-in to the statewide exchange.

Tools for Providers to Educate and Engage Consumers

The Authority's website includes a toolkit for providers to help them to better understand the value of eHealth exchange, and provide consumers with information and acquaint them with opportunities available to connect to an exchange. The

toolkit includes a variety of fact sheets[3] and consumer resources related to the state exchange (e.g., brochures, opt-out and opt-back-in forms in English and Spanish). The Authority's website also offers providers information concerning how to choose a local health information exchange organization with which to participate.

Consumer Participation With the Authority

In addition to requiring the Authority to provide outreach and education to consumers, Act 2012-121 required the Authority to include two consumers on its board. The Act specifies that the two consumers are to be appointed by the Governor. Currently, the Authority Board includes one consumer, who also serves as the Board's chair. The second consumer position has been vacant since August 2015.

Consumers can bring an important perspective to electronic health records and eHealth information exchange, and they have a key role to play in improving the accuracy of medical records. Their engagement will be critical if eHealth information exchange is to realize its potential to improve health care quality and reducing unnecessary costs.

Geisinger Health System, for example, recently participated in a study supported by the federal Agency for Healthcare Research and Quality (AHRQ) conducted by NORC at the University of Chicago and the University of Massachusetts. In 2011, the health system launched an online process for patients to provide electronic feedback on their medication lists' accuracy before a doctor's visit. Patient feedback was then forwarded to a Geisinger pharmacist for review and follow-up with the patient before changing the medication list shared by the patient with the physician. The study found:

- Patients were eager to provide feedback on their medications.
- Patients requested changes in 89 percent of cases where the feedback form was returned. Such changes included frequency or dosage changes to existing prescriptions.
- Patients provided useful and accurate online feedback, with pharmacists responding positively to the patient's request to change the medication list in 68 percent of the patient requests.

Based on such findings, the AHQR sponsored research concluded patient feedback, within a useful workflow, can improve medical record accuracy, and thus provide for patient safety and quality of care.

[3] Such fact sheets include information on the Authority, the Public Health Gateway, and Super Protected Data.

F. Pennsylvania eHealth Partnership Authority Board Members Have Been Actively Engaged in the Operation of the Authority and Complied With Act 2012-121's Requirements for Its Public Meetings

Act 2012-121 provides that the powers and duties of the Pennsylvania eHealth Partnership Authority are "vested in and exercised by a board of directors" designated in accordance with the Act. The Act requires the board hold at least quarterly meetings subject to the requirements of the Sunshine Act.[1] It also requires that action may be taken by the board upon a quorum of its members present in person or through electronic means if authorized by the board's bylaws.[2] As discussed below, the Authority Board has complied with such requirements.

Authority Board Meetings

LB&FC staff reviewed all of the Board's public meeting notices and meeting minutes from April 2013, (when the Board held its first meeting) through December 2015. We also were present at four meetings of the Board, including its December 2015, and January, April, and June 2016 meetings.

We found the Board complied with Act 121's requirement to hold quarterly meetings. It held quarterly meetings in 2013, seven meetings in 2014, eight in 2015, and three regular meetings as of June 2016.

We also found the Authority Board complied with the Sunshine Act requirement for public meeting notice. Specifically, it followed the procedures for compliance outlined in Commonwealth Management Directive 250-1, as amended, including procedures for submission of the public notice to the Governor's Office of Administration for publication. In addition to providing the time and location of the meeting, the Authority's meeting notices also list contacts for persons in need of accommodations to discuss how their needs may be met.[3]

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[1] 65 Pa.C.S.A. §701 et seq.

[2] Act 2012-121, §302.

[3] The Authority also has standing and ad hoc board committees and several advisory committees, which assist the Board to carry out its mission. Minutes of such meetings are maintained, provided to the Board, and publicly available. Public notice is not provided for such committee meetings, some of which involve Authority Board members, as they are convened for purposes of fact-finding or information-gathering. According to the Authority's legal counsel, moreover, meetings of the standing and ad hoc board committees and advisory committees are not meetings for purposes of the Sunshine Act. For purposes of that Act, a meeting is defined as a "prearranged gathering of an agency which is attended or participated in by a quorum of the members of an agency held for the purpose of deliberating agency business or taking official action." The Authority's bylaws preclude any of its standing and ad hoc committees from being comprised of a quorum of board members, and such committees do not have decision-making authority. Finding A provides additional information on the Authority's committees.

The Authority also posts its Board's meeting schedule on its website. The website provides Board meeting agendas, approved meeting minutes, and other meeting documents.

At each of its meetings, the Board specifically provides opportunity for public comment. In April 2013, the Board adopted a resolution approving the ability of attendees to offer public comment at meetings. The resolution also provided guidelines for such comments, which may be in verbal or written form.

Board Member Meeting Participation

The Authority Board members have consistently participated at board meetings. As a result, a quorum[4] was established at all of its meetings. Of the 18 meetings held by the Board from April 2013 through December 2015, all members were present at five meetings, and all but one at five additional meetings. At most, four board members did not participate, and this occurred only once.

Within its bylaws, the Board recognized the importance of member participation. It, therefore, provided that:

> Directors are expected to attend all meetings of the Board whether regular or specially called meetings, either in person or by the electronically provided means set forth herein. Directors who miss or who are not able to attend three (3) consecutive Board meeting or a minimum of at least three-fourths (3/4) of all Board Meetings during a 12-month period shall be subject to possible recommendation for removal from the Board for non-attendance, based on an appropriate vote of the Board.[5]

Board members may also be recommended for removal for cause, such as an undisclosed conflict of interest. While this has never occurred, such removal requires the vote of two-thirds of the Board and notification of the Board member's appointing authority.

[4] A majority of the appointed members of the board constitutes a quorum. The board's two nonvoting board members, who are elected by advisory council members, are not considered for purposes of quorum.
[5] Bylaws of Pennsylvania eHealth Partnership Authority.

G. Pennsylvania eHealth Partnership Authority Board Members Have Filed Required Financial Disclosure Forms and Must Also Adhere to the Governor's Code of Conduct

The Pennsylvania Public Official and Employees Ethics Act, as amended,[1] was enacted to help assure public trust in those holding public office. To provide for such assurance, the Act, in part, provides for financial disclosure by public officials and employees. The Act defines a public official as

> Any person elected by the public or elected or appointed by a governmental body or an appointed official in the executive, legislative, or judicial branch of the Commonwealth or any political subdivision thereof, provided that it shall not include members of advisory boards that have no authority to expend public funds other than reimbursement for personal expense or to otherwise exercise the power of the State or any political subdivision thereof.[2]

Pennsylvania Public Official and Employee Ethics Act Requirement

Pennsylvania eHealth Partnership Authority board members are public officials for purposes of the Pennsylvania Public Official and Employees Ethics Act. As such they are required to file Statements of Financial Interests for the preceding calendar year by May 1 of each year during which they hold a position and by May 1 for the year after they leave the position. In the case of board members, such statements are to be filed with the PA State Ethics Commission.

Pennsylvania eHealth Partnership Authority Board members have consistently filed Statements of Financial Interest with the PA State Ethic Commission. According to data provided by the PA State Ethics Commission, as of January 2016, the required statements had been filed for calendar years 2013 and 2014[3] by all current appointed and non-appointed board members who were on the Authority Board during that period. The required statements had also been filed by the three appointed board members who had served and resigned, and ex officio officials who served during the period.

In addition, according to the PA State Ethics Commission data, one current non-appointed board member who did not serve on the Board in 2013 filed the required statement for 2014. Another member who joined the Board in 2015 was not required to file for 2014.

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[1] 65 Pa.C.S.A. §1101 et seq.
[2] 65 Pa.C.S.A. §1102.
[3] 2015 statements were not due until May 2016.

Governor's Code of Conduct

The Pennsylvania eHealth Partnership Authority was established as an independent agency in state government. Act 2012-121, moreover, did not require that Authority Board members and staff comply with the Governor's Code of Conduct, which is applicable to Executive Branch employees, appointees, and officials. Nonetheless, the Board adopted bylaws requiring the Authority Board and staff to adhere to the requirements of the Governor's Code of Conduct. [4]

In addition to requirements for filing of statements of financial interest, the Governor's Code of Conduct addresses restricted activities and conflicts of interest. The Code, for example, prohibits an appointee from engaging directly or indirectly in business transactions or private arrangements for profit which accrue from or are based upon the position.

The Code also addresses matters such as gifts and favors. It prohibits appointees from accepting for personal use a gift, gratuity, favor, entertainment, loan, or other thing of monetary value from a person who is seeking to obtain business from or has a financial relationship with the Commonwealth, conducts operations or activities regulated by the Commonwealth, is engaged in proceedings before the Commonwealth or in court proceedings in which the Commonwealth is an adverse party, or has interest that may be substantially affected by the performance or nonperformance of the official duty of the employee.

[4] 4 Pa. Code §7.151 et seq.

H. The Pennsylvania eHealth Partnership Authority Has Established a Fee Schedule as Required by Act 2012-121, Though Fee Revenue Is Unlikely to Financially Sustain Its Operations

Act 2012-121 provided for the Authority to:

> Establish and collect fees adopted by the authority. Fees may include transaction fees, subscription fees or other fees or donations, to cover costs of implementation and operation of the health information exchange or other services provided by the authority. Receipt of services provided by or through the authority may be conditioned on payment of fees. Participation in the health information exchange by any health care provider, payer, consumer or any other person is voluntary.[1]

The Authority formed committees to consider various options for fee schedules and their financial and administrative implications.

In March 2015, following much deliberation by various committees and staff, the Authority Board adopted a fee schedule for certified regional health organizations that participate in the statewide exchange (P3N). The adopted fee schedule was to go into effect July 1, 2015. It also provided for annual fee increases starting on July 1, 2016. Subsequently, the Board agreed to delay implementation of the fee schedule until at least two regional HIOs had joined the statewide exchange, and it delayed implementation of the scheduled July 2016 fee increase until July 2017. Table 2 provides the Authority's fee schedule as of April 2016.

Table 2

Fee Schedule as of April 15, 2016

HIO Category	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19
Small[a]	$ 22,500	$ 22,500	$ 26,000	$ 30,000
Medium[b]	45,000	45,000	52,000	60,000
Large[c]	90,000	90,000	104,000	120,000
Very Large[d]	135,000	135,000	156,000	180,000

[a] Category requires less than 200 points.
[b] Category requires 200 to 999 points.
[c] Category requires 1,000 to 2,500 points.
[d] Category requires more than 2,500 points.

Source: Pennsylvania eHealth Partnership Authority Approved HIO Fee Model and Schedule Updated April 15, 2016.

[1] Act 2012-121, §303(a)(12).

As shown in Table 2, an HIO's fees are based on category. To be categorized as a very large HIO, for example, an HIO would need to achieve more than 2,500 points under the Authority's point system. An HIO would qualify as very large, for example, if it had 10 participant hospitals each with more than 300 beds (100 points for each such hospital) and had payer participants with at least 1,500,000 covered lives (1 point for each 1,000 covered lives), thus achieving 2,500 points.

The Authority anticipates $500,000 in annual HIO fee revenue by July 2017, with an annual budget of about $4 million (including a $1.5 million General Fund appropriation in FY 2015-16).[2] Such anticipated fees assume that about five regional HIOs will be fully operational with the statewide health information exchange network in 2016. They do not, however, allow for the Authority to be financially self-sufficient by July 2017, or provide for one-third of the Authority's estimated budget requirements.

Very early financial sustainability planning suggested about one-third of the Authority's budget requirements would come from participant fees. Such early planning, however, was based on other state health information exchange models, such as Delaware. In such other models, the state exchange is a "state designated entity" that markets health information exchange services (e.g., DIRECT or qualify to operate as a registry that can report quality measure data to the Centers for Medicare and Medicaid Service for the Physician Quality Reporting System Program) and may compete with commercial vendors, or may operate in small states with only one HIO.[3]

In contrast, the Pennsylvania eHealth Partnership Authority was created to build on the Commonwealth's existing local exchange networks and health information service providers and not compete or supplant them. As a result, its "light network-of-networks" statewide exchange model only performs services not performed by local exchange networks or commercial providers. As shown in Exhibit 4, the Authority does not provide directed exchange, or analytic services, and thus is effectively precluded from raising revenues for such services in support of its operating budget requirements.

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[2] Such an amount excludes federal grant funding for selected projects available to the Department of Human Services through the Centers for Medicare and Medicaid Services. See the Fiscal Information in Section III.

[3] Early planning also allowed for the Authority to become an overarching HIE governing entity after the federal grant for statewide exchange ended and for the Authority to then transition to an independent non-profit organization. Given Pennsylvania's large and diverse health care landscape, the many current and diverse options for healthcare information exchange across the state, and the limited ability of Pennsylvania's federated health information exchange model to generate private revenues sufficient to financially sustain its operation and required infrastructure, the transition of the Authority to an independent non-profit organization does not appear to be feasible. Existing organizations that support the development and use of health care information exchange and the existing regional HIOs, moreover, have not expressed an interest in immediately assuming additional responsibilities currently carried out by the state Authority.

Exhibit 4

PA eHealth Partnership Authority Services

(As of April 2016)

Citizen-centric focus and alignment through facilitated conversations between participating HIOs [regional health information organizations] and stakeholders.

Alignment with national and state interagency efforts through Authority participation in efforts such as the ONC's Interoperability Roadmap and the State Medicaid HIT [Health Information Technology] Plan.

Certification program that ensures all participating HIOs are operating on a level playing field with regard to interoperability standards, privacy, and security. Enables interoperability without multiple integrations. Multiple connection models and options are supported.

Unified legal framework such that participating organizations need only sign a participation agreement with the Authority instead of working out multiple legal arrangements with other HIOs.

Grant programs available only to certified HIOs to support HIOs in their development or onboarding efforts.

Statewide patient consent management including a single, easily accessed repository for patients' opt-out and opt-back-in choices, using a statewide Authority opt-out/opt-back-in form available to all HIOs and connected providers.

Statewide patient identity management to enable consent management and clinical document exchange.

Public health gateway that enables "one-stop-shop" connection to various government agencies (e.g., Department of Health Electronic Lab Reporting Registry, Cancer Registry, Immunization Registry, and Syndromic Surveillance Registry; and the Department of Human Service's electronic Care Quality Measures Registry).

Authoritative state-level provider directory that includes state licensure data for individual practitioners and facilities and national provider identifiers.

Facilitated clinical document exchange on behalf of those HIOs using XDS, and mediated exchange on behalf of those using XCA in late 2016.

HIE Trust Community that enables collaboration between HIOs without anti-trust concerns.

Other stakeholder committee facilitation as requested by the HIOs.

Ongoing interstate engagement efforts addressing both technical connections and legal frameworks.

Source: Pennsylvania eHealth Partnership Authority HIO Fee Model, April 2016.

Revenues from private sources are unlikely to be sufficient to sustain the operation of Pennsylvania's statewide health information exchange model. Nonetheless, such private revenues continue to be important. They demonstrate support for statewide health information exchange. Moreover, they may help to support exchange services for populations not covered through the federal and state Medicaid program.

To date, federal IAPD (i.e., Medicaid Health Information Technology Implementation Advanced Planning Document) funding has been targeted to certain Medicaid providers and others serving large volumes of Medicaid participants (see Appendix C). Such targeting has occurred as CMS only permits states to use federal IAPD funds to cover the portion of total project costs associated with Medicaid participants.[4] Some of the proposed Authority-related projects included in the Department of Human Service's IAPD identify projects for which CMS will only share in a part of the total costs. Medicaid's fair share for an interstate HIE project and updates to the P3N Master Patient Index, for example, is only 25 percent of the total costs. Total costs for these two projects will exceed $500,000, and only about $100,000 in federal CMS funds will be available for their support. Certain private funding, therefore, may be essential to assist with such investments.

Exhibit 4 also shows that the activities performed by the Authority are those typically performed by a public agency. As such, some level of continued public support to financially sustain Authority services appears reasonable in view of the significant investment private providers are currently making to develop and implement health technology and information exchange into the health care sector.

[4] SMD #11-004 and SMD #16-003.

I. The Pennsylvania eHealth Partnership Authority Has Adopted and Supplemented Executive Branch Administrative Policies and Procedures and Relied on Executive Offices for Certain Administrative Services

The Pennsylvania eHealth Partnership Authority has designed and implemented plans, policies, and procedures to help provide for its effective and efficient operation. As noted in Finding A, the Authority has operated based on strategic and operational plans and their updates. Its current plan was last updated in 2014, and an update is planned for the second half of 2016.

As discussed below, even though the Authority is an independent state agency with a governing board, it has chosen to have several key administrative functions and activities carried out by other Commonwealth executive agencies through interagency agreements. It has also developed detailed policies and procedures for its operations that incorporate commonwealth executive agency procedures, and voluntarily complies with standards for internal controls for executive branch agencies set forth by the Governor's Office of the Budget.

Administrative Activities Performed Through Interagency Agreements

To perform a variety of administrative functions, the Authority has entered into interagency agreements with the Governor's:

- Office of Administration,
- Office of the Budget and Comptroller,
- Office of General Counsel, and
- Office of Information Technology.

For example,

- The Office of Administration's Office of Human Resources (HR) provides human resources support for the Authority, which includes support in managing personnel action requests (PARs), time and attendance, human resources policy, employee relations, safety and workers' compensation, organization management and classification, human resources related training, workplace violence, State Employees' Assistance Program, recruitment, placement, Equal Employment Opportunity policy, and Americans with Disability Act policy.
- The Office of Administrative Services-Executive Offices in the Office of the Budget provides budget management, purchasing, payment processing,

non-IT continuity of operations planning, facilities and parking management, and automotive liaison services on an as needed basis.

- The Office of General Counsel provides legal representation and services as needed.
- The Office of Administration, Office of Information Technology provides the Authority with IT services (other than P3N services), and desktop computers and communications equipment used by Authority staff.

As a result of such interagency agreements, the Authority follows the Office of Administration's HR practices and policies,[1] relies on the Commonwealth's procurement codes, uses systems and follows processes established by the Governor's Budget Office and Comptroller, and follows Commonwealth IT policies, including IT acceptable use policy. Such policies apply not only to staff, but also, as relevant, to the Board. Board member travel expenses and reimbursement, for example, are processed by the Office of the Budget, Office of Comptroller Operations Bureau of Commonwealth Payroll Operations, Travel Audit Sections and Commonwealth travel policies are followed.

PA eHealth Partnership Authority Policies and Procedures

As of late 2015, the Authority had in place a well-developed policy and procedure manual to guide activities of its staff, board, stakeholders, and their interface with relevant Commonwealth agencies. As shown in Exhibit 5, the Authority has developed approximately 30 policies and procedures. Typically, the Authority's policies and procedures reference Commonwealth policies and procedures and federal and state statutes and regulations with which the Authority, its staff, board, and stakeholders must comply.

In some instances, the policies and procedures are designed to supplement Commonwealth executive branch agency policies. Certain of its policies and procedures, for example, have been developed to take into account compliance with national standards related to electronic exchange of personal health information with which the Authority must comply.

In other instances, the policies and procedures attempt to mirror Commonwealth agency practices while accounting for differences in the Authority's statutory and administrative framework. For example, the Authority's policies and procedures concerning staff management incorporate Commonwealth policies related to personnel management (i.e., Management Directive 505.7), but provide for different

[1] The Authority's interagency agreement with the Office of Administration notes "HR policy applicable to Authority employees, unless altered by official action of the Authority Board, shall be consistent with personnel rules otherwise applicable to the Executive Branch of the Commonwealth (including policy as described in Management Directive 505.7, *Personnel Rules*).

hiring authority, with the Board Chairman having hiring authority for the Authority's executive positions and the Authority's Executive Director for all other state employee positions. Commonwealth and Authority policies and procedures allow for hiring that exceeds the Commonwealth's salary guidelines if certain processes are followed and executive approvals are obtained. In the case of the Authority, its policies and procedures allow the Executive Director to hire staff and exceed Commonwealth salary guidelines. The Executive Director, however, may only do so with the Board's approval.

LB&FC staff reviewed all of the Authority's policies and procedures. Of the 35 listed in Exhibit 5, 15 are in whole or part based on or related to the Nationwide Privacy and Security Framework published by ONC to develop a standardized policy framework for statewide health information exchanges.[2] They also incorporate relevant federal and state laws and regulations, such as HIPAA (the federal Health Insurance Portability and Accountability Act of 1996).

Several of the Authority's policies and procedures were developed or refined following the Authority's completion of a HIPAA Risk Self-Assessment. In June 2015, the Board directed the Authority staff to conduct a formal self-assessment of the Authority's readiness in the event of a breach, or an audit by the Office for Civil Rights of the U.S. Department of Health and Human Services. The assessment was carried out by staff under the auspices of the Board Audit Committee, and with assistance from Quality Insights of Pennsylvania,[3] which performed similar assessments for the Department of Human Services' EHR Incentive program participants. The assessment identified opportunities for the Authority to improve its privacy and security policies and operations, and most such improvements were fully implemented by December 2015.

The remaining policies and procedures listed in Exhibit 5 relate to staff, budgeting, and agency and board operations, including the system in place to routinely review and update the policies. The Authority's policies clearly specify the board and staff responsibilities and those of other Commonwealth executive branch agencies with respect to such functions and required tasks. They also set forth in specific detail the role of the Board and its Board Finance and Audit Committees with respect to Authority staff. Staff routinely provide reports to such committees, and reports from these committees are subsequently presented to the full Board.[4]

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[2] Such standards address, for example, network privacy policy, network use-management policy, network monitor-audit-breach policy, notice of privacy practices for statewide electronic health information exchange, data use and reciprocal support agreement, participation/business associate agreements, and process related to patient consent.

[3] See Finding A for additional information on Quality Insights of Pennsylvania and its role in health care for major public programs.

[4] The Board Finance Committee serves as an advisory group for the preparation of the financial reports (including budgeting, procurement, and contracting) for presentation and consideration by the Board. The Board Audit Committee oversees the selection of an independent financial auditor and the completion of the annual financial audit required by Act 2012-121. It also oversees the annual HIPAA risk assessment conducted by the Authority.

Exhibit 5

PA eHealth Partnership Authority
Policy and Procedures
As of December 2015

- Policy & Procedure Framework (P&P01)
- Project Management (P&P02)
- Risk Management (P&P03)
- Change Management (P&P04)
- Reporting (P&P05)
- Associate Orientation (P&P06)
- Staff Management (P&P07)
- Document Management (P&P08)
- Meetings and Meeting Summaries (P&P09)
- Protected Information (P&P10)
- Media Interaction (P&P11)
- Crisis Communications (P&P12)
- Right-To-Know Law (P&P13)
- General Correspondence (P&P14)
- Website Maintenance (P&P15)
- Stakeholder Contact List (P&P16)
- Budget & Finance (P&P17)
- P&P18 – Previous P&P retired and number not yet reused.
- Procurement (P&P19)
- Stakeholder Committees (P&P20)
- Interns & Sabbaticals (P&P21)
- P&P22 – Previous P&P retired and number not yet reused.
- Board Interaction & Administration (P&P23)
- P&P24 – Previous P&P retired and number not yet reused.
- HISP Certification (P&P25)
- HIO Certification (P&P26)
- Operations (P&P27)
- Privacy Officer (P&P28)
- Security Officer (P&P29)
- Breach Management (P&P30)
- Information Security Risk Management (P&P31)
- Privacy (P&P32)
- Security Management (P&P33)
- Security Awareness Training (P&P34)
- Continuity of Operations (P&P35) under development

Source: Developed by LB&FC staff from information provided by the Pennsylvania eHealth Partnership Authority.

Commonwealth Agency Internal Control Standards

Internal controls are processes developed and implemented by an agency or an agency's oversight body, management, and other personnel to provide reasonable assurance that the objectives of the agency will be achieved. In particular, they are controls to:

- promote efficient and effective operations,
- ensure compliance with laws, regulations and policies, and
- ensure reliable financial reporting.

Based on the framework set forth in the *Standards for Internal Control in the Federal Government*, the components of an effective internal control systems address control environment, risk assessment, control activities, information and communication, and monitoring.

Commonwealth agencies under the Governor's jurisdiction are required to establish and implement effective internal control systems, based on the standards for internal controls set forth in Management Directive 325.12, which are based on the federal standards. The Authority as an independent agency is not required to comply with Management Directive 325.12. Nonetheless, it has elected to do so, and has developed internal controls and a monitoring plan. The Authority's draft plan addresses each of the components of an effective internal control system.

***Control Environment*:** The Authority's draft plan notes that it provides for a control environment through its:

- adoption and compliance with all statutory ethical operations and the Governor's Code of Conduct (see Finding G);
- operation with oversight from the Board and its finance and audit committees;
- operation based on strategic and operational plans that are routinely revised;
- individual job descriptions and performance standards, routine staff meetings, and in-service staff training; and
- assignment of individuals with primary responsibility for various recurring activities and processes for monitoring for their status and completion.

Risk Assessment: The draft plan notes the Authority has in place a risk assessment process, including risk assessment management specific to protected health information. As noted in the plan, the Authority has limited exposure to common fraud risk as it does not handle cash, and the physical inventory for its

small staff is limited to routine office equipment and supplies. Moreover, with respect to the grant funds it awards, the awarding and accounting for such funds occurs in coordination with other agencies such as the Office of General Counsel, the Comptroller, the Office of the Budget, the Attorney General's Office, and the Department of Human Services.

Control Activities: The control activities related to the operations of the Authority are for the most part designed by sources outside of the Authority itself. They include specific physical and electronic privacy and security constraints imposed by HIPAA and other healthcare legislation and regulation at the federal and state level; compliance with Commonwealth policies and procedures related to procurement, human resources, and information technology; and federal funding source requirements. In addition, stakeholders involved with the implementation of the statewide health exchange have significant interest in assuring the Authority operates in an efficient manner and is in compliance with relevant regulation. They, moreover, can exercise influence through their representation on the Authority's Board. With respect to its vendors, the Authority exercises control through its contract provisions, and provision for contract monitoring and reporting to the Board.

Information and Communication: The Authority through its Board and stakeholder committees receives considerable information concerning its activities and progress toward achieving its planned objectives. It also has in place processes for both internal and external communication, including a monthly stakeholder newsletter and a public website that includes considerable information relevant to its activities.

Monitoring: The Authority's draft plan describes its ongoing monitoring activities. Implementation of such activities include its processes to update its strategic and operational plans, and its policies and procedures; its implementation of an annual HIPAA risk assessment; and its regular reporting to the Board and its committees on its compliance and accomplishments.

III. Background

Following public hearings and based on recommendations from the Commonwealth's major health and insuring organizations and the Governor's Office, the Pennsylvania General Assembly passed Act 2012-121. The Act established the Pennsylvania eHealth Partnership Authority as an independent agency of the Commonwealth and established a non-lapsing special fund in support of its operation. With the establishment of the Authority in statute, the Pennsylvania General Assembly built on prior public and private efforts to administratively promote the adoption of health information technology and statewide health information exchange.

Act 2012-121 created the Authority as an independent Commonwealth agency as of July 2012, and provided for it to expire five years later, in July 2017, unless reauthorized. The actual establishment of an Authority governing board and the hiring of staff, however, was not immediately accomplished. The Authority's governing board held its first meeting in April 2013, about one year after the effective date of the Act—and hired an Executive Director and Deputy Director in April 2014, almost two years after passage of legislation creating the Authority.

Legal Background

Act 2012-121 assigned the Authority the following specific powers and duties:

- Develop, establish, and maintain a health information exchange that complies with federal and state law and that (1) promotes efficient and effective communication among multiple health care providers, payers, and participants; (2) creates efficiencies and promotes accuracy in the delivery of health care; and (3) supports the ability to improve community health status.
- Adopt (1) policies to govern the electronic exchange of health information; (2) rules, responsibilities, and obligations for organizations and individuals to become and remain participants in the health information exchange; and (3) policies and procedures for organizations and individuals to be suspended and disengaged as participants in the health information exchange.
- Apply for, solicit, receive, establish priorities for, allocate, disburse, contract for, administer, and expend funds.
- Apply for, accept, and administer grants and loans.
- Accept funds from public and private sources.
- Develop and maintain a directory of health care providers' contact information to enable participants to share health information electronically.

- Develop criteria for the approval of participants in the health information exchange.
- Develop and maintain standards to ensure interoperability.
- Establish and collect fees, for example, transaction fees, subscription fees, or other fees or donations, to cover the cost of implementing and operating the health information exchange and other services provided by the Authority.
- Establish advisory groups.
- Develop and conduct public information programs to educate and inform consumers and patients about health information.
- Submit an annual report to the Governor, the Senate President pro tempore, and the House Speaker.
- Develop and maintain (1) a registry of patients choosing to opt-out of the state health information exchange; and (2) procedures to re-enroll into the state health information exchange.

In addition, the Act charged the Authority with the duty of ensuring that the state health information exchange complies with existing federal and state laws on privacy and handling of health care information. Specifically, it requires that three classes of super-protected data (SPD)—mental health diagnosis and treatment, HIV/AIDS status and treatment, and drug and alcohol treatment—must comply with state law.[1] As a result, health information falling under any of the three classes of SPD cannot be disclosed without the patient's specific consent.

Governing Board

The Authority governing board authorized by Act 2012-121 consists of 17 members who must be residents of the Commonwealth. The Board's members serve without compensation, but are entitled to reimbursement for actual and necessary expenses in attending meetings or for performing other official duties authorized by the Board. The Authority Board's members must include:

- The Secretary of Health, or a designee.
- The Secretary of Human Services, or a designee.
- One representative of the health care community focused on an unserved or underserved rural or urban patient population, appointed by the Governor from a list of individuals submitted by both the Pennsylvania Area

[1] In Pennsylvania, 35 P.S. §7606 provides for confidentiality of HIV related information, 71 P.S. §1690.108 provides for confidentiality of drug and alcohol abuse records, and 50 P.S. §7111 provides for confidentiality of mental health records. All require patient written consent for disclosure and other additional stringent requirements.

Health Education Center and the Association of Community Health Centers.

- One physician or nurse appointed by the Governor from lists of individuals submitted by the Pennsylvania Medical Society, the Pennsylvania Osteopathic Medical Association, the Pennsylvania Academy of Family Physicians, and the Pennsylvania State Nurses Association. At least one name on each list shall include an individual residing in an unserved or underserved rural patient population area and an individual in an unserved or underserved urban patient population area.
- One hospital representative appointed by the Governor from a list of individuals submitted by the Hospital and Healthsystem Association of Pennsylvania. At least one name on this list shall include an individual residing in an unserved or underserved rural or urban patient population area.
- One insurance representative appointed by the Governor from lists of individuals submitted by the Blue Cross and Blue Shield plans and the Insurance Federation of Pennsylvania.
- One representative of an assisted living residence, personal care home, long-term care nursing facility, continuing care facility, or behavioral or mental health facility who shall be appointed by the Governor.
- Two consumer representatives appointed by the Governor who are not primarily involved in providing health care or health care insurance. At least one of these individuals shall have expertise in health care or health care information technology or the laboratory industry.
- Three representatives from established health information organizations appointed by the President pro tempore of the Senate, in consultation with the Majority Leader and the Minority Leader of the Senate, each of whom shall recommend one person. At least one of these representatives shall be from the private information technology sector with knowledge about security issues.
- Three representatives from established health information organizations appointed by the Speaker of the House of Representatives, in consultation with the Majority Leader and the Minority Leader of the House of Representatives, each of whom shall recommend one person. At least one of these representatives shall be from the private information technology sector with knowledge about security issues.
- Two non-voting members selected by members of the advisory council.

The composition of the Authority's Board reflects the recognition of the importance of involving key stakeholders in efforts to advance health information technology and exchange in the Commonwealth. As shown in Exhibit 6, over the years,

Exhibit 6

Pennsylvania Executive and Legislative Activities to Promote Health Information Technology & Exchange

Pennsylvania Health Information Exchange (PHIX) (4/26/2008-7/27/2011) Executive Order: 2008-03	Pennsylvania eHealth Collaborative (7/27/2011-7/5/2012) Executive Order 2011-04	Pennsylvania eHealth Partnership Authority (7/5/2012-6/30/2016) Pennsylvania eHealth Information Technology Act
Leadership PHIX Executive Office: Responsible to direct activities to support the development, implementation, and operations of HIT initiatives. Governor's Office of Health Care Reform: Provides strategic vision, policy, and planning guidance to PHIX Executive Office.	**Leadership** Executive Council: Responsible for establishing an overall policy and strategic direction for the Collaborative. The Executive Council is comprised of the following: a) Department of Health b) Department of Public Welfare c) Department of Aging d) Insurance Department e) Office of Administration f) Governor's Policy Office	**Leadership** Board of Directors: Exercises the powers and duties of the Authority. The board is comprised of the following: a) The Secretary of Health b) The Secretary of Human Services c) One representative of the health care community focused on unserved or underserved rural or urban patients d) One physician or nurse e) One hospital representative f) One insurance representative g) One representative of an assisted living residence, personal care home, long-term care nursing facility, continuing care facility or mental health facility h) Two consumer representatives not primarily involved in providing health care/insurance i) Three representatives from established health information organizations appointed by the President pro tempore of the Senate j) Three representatives from established health information organizations appointed by the Speaker of the House
Management Executive Director: Manages the PHIX Executive Office and reports to the Chief Information Officer in the Office of Administration.	**Management** Pennsylvania eHealth Collaborative Office: Managed by State HIT Coordinator, who directs day-to-day management, development, and implementation of recommendations made by the Collaborative.	**Management** Executive Director: responsible for the operation of management of the Authority in accordance with the strategies and directives of the Board and relevant federal and state laws and regulations.

Exhibit 6 (Continued)

Pennsylvania Health Information Exchange (PHIX) (4/26/2008-7/27/2011) Executive Order: 2008-03	Pennsylvania eHealth Collaborative (7/27/2011-7/5/2012) Executive Order 2011-04	Pennsylvania eHealth Partnership Authority (7/5/2012-6/30/2016) Pennsylvania eHealth Information Technology Act
Advisory Input	**Advisory Input**	**Advisory Input**
PHIX Advisory Council: Provides input on strategies, issues, and recommendations to the PHIX Executive Director. Comprised of a high-level representative from each of the agencies and entities listed below: a) Governor's Office of Health Care Reform b) Department of Health c) Department of Public Welfare d) Governor's Policy Office e) Governor's Budget Office f) Office of Administration g) Department of Community and Economic Development h) Pennsylvania Employee's Benefit Trust Fund i) Two members appointed by PA Senate j) Two members appointed by PA House k) A representative from the following: 1) Blue Cross Organizations 2) Commercial health care insurer 3) The Hospital and Healthsystem Association of Pennsylvania 4) The Pennsylvania Medical Society 5) Pennsylvania pharma Task Force 6) Pennsylvania Pharmacists Association 7) Pennsylvania State Nurses Association l) A representative from a consumer or patient advocate group	Advisory Committee: Provides recommendations and input on strategies and issues, but has no authority to make binding recommendations. The Committee is comprised of the following: a) The State HIT Coordinator[a] b) Between 25 and 35 appointees, representing stakeholders c) Chairperson: convenes meetings and conducts business d) Standing and ad hoc committees established by the Advisory Committee	Advisory Committees[b]/Workgroups:[c] Established by the Board to represent interested and affected groups. The following are the advisory committees and their prospective workgroups as of November 2015. a) P3N Operations (Implementation Tiger Team) b) HIE Trust Community c) HISP Trust Community d) Privacy, Security and Standards (Super-Protected Data Workgroup) e) Clinical (Care Cost/Quality Study Team) f) Communications and Outreach (Plenary Workgroup) g) Finance and Sustainability h) Payer i) Safety Net Provider

[a] Organizationally located within the Office of Administration, Office for Information Technology.
[b] The Authority's Strategic and Operational Plan (SOP) calls for the creation of various standing and ad-hoc committees comprised of Authority stakeholders to support the furtherance of the Authority's efforts under the SOP.
[C] Additional temporary stakeholder workgroups are formed by the Authority to assist the committees with specific activities. These workgroups are indicated by parenthesis. Furthermore, these workgroups consist of volunteers, and are much more informal than committees, who must have charters approved by the Board.

Source: Developed by LB&FC staff.

their input and role has expanded. For example, earlier efforts to promote statewide exchange involved health and insuring associations, and with the establishment of the Authority, grew to include more input from private sector representatives with specific expertise in health information exchange and security. Exhibit 6 also highlights the varying roles state agencies played overtime in planning for and implementing a statewide health information exchange, and the state administrative structure that was in place to support the transition to an operational independent authority.

The Authority board is chaired by a member appointed by the Governor from among the board's members. Board members serve three-year terms (after their initial appointment[2]) and, for the most part, may not serve more than two full consecutive three-year terms. Members may serve on the Board until their replacement is appointed, and all terms end with the expiration of the Authority.

The Board is required to hold at least quarterly meetings, and may meet anywhere within the Commonwealth. A majority of the appointed members of the Board constitutes a quorum.

As shown in Exhibit 7, four of the Board's members other than the two cabinet secretaries are serving in their initial terms, and one non-voting member is serving in a second consecutive term. Seven of the members whose initial terms have expired also continue to serve as replacements have not been appointed and they are eligible to serve in a consecutive term.

The Board also has three voting member vacancies. Such vacancies include: the hospital representative; the unserved or underserved, rural or urban patient population representative; and one of the two consumer representatives. As shown in Exhibit 7, the hospital vacancy has existed for more than one year. In September 2014, the Hospital and Healthsystem Association submitted recommendations to the Governor's Office to consider for the appointment. Nominees for the unserved or underserved rural or urban patient population vacancy have also been forwarded by relevant associations, according to Authority staff.

[2] Initial terms differ for board members. The representatives of health insurers and post-acute and behavioral health facilities appointed by the Governor initially serve for one year. The representatives of the unserved and underserved rural or urban population, physicians or nurses, and hospitals appointed by the Governor initially serve two-year terms. The two consumers appointed by the Governor initially serve three years, but are only permitted to serve one additional three-year term. The six representatives from established health information organizations appointed by legislative leaders in the Senate and House of Representatives initially serve terms that coincide with the their appointing members with the option for reappointment for two additional three-year terms.

Exhibit 7

Pennsylvania eHealth Partnership Authority Board of Directors Composition

	MEMBER	REPRESENT	APPOINTED BY	INITIAL TERM EXPIRATION DATE
1	David F. Simon, Chair	Consumers	Governor	Term Expiration: July 5, 2015
2	**Vacant**	Consumers	Governor	Term Expiration: July 5, 2015 Resigned effective: August 26, 2015
3	Karen Murphy, Secretary of Health	Ex Officio Appointment or a designee employee of the Department of Health	Governor (Appoints Cabinet Members)	Act 121 exempts this seat from expiration. Runs with cabinet appointment.
4	Ted Dallas, Secretary of Human Services Dr. David Kelley, Designee	Ex Officio Appointment or a designee employee of the Department of Human Services.	Governor (Appoints Cabinet Members)	Act 121 exempts this seat from expiration. Runs with cabinet appointment
5	**Vacant**	Unserved or underserved rural or urban patient population	Governor	Term Expiration: July 5, 2014 Resigned effective: October 2015
6	**Vacant**	Hospitals	Governor,	Term Expiration: July 5, 2014 Resigned effective: December 31, 2014
7	Gaspere Geraci	Physician or Nurse	Governor	Term Expiration: July 5, 2014
8	Paul McGuire, Vice Chair (Finance Committee Chair)	Assisted living residence, personal care home, long-term care nursing facility, continuing care facility, or behavioral or mental health facility	Governor	Term Expiration: July 5, 2013
9	Robert Torres	Insurance	Governor	Term Expiration: July 5, 2013
10	David Borden	Health Information Organizations	President pro tempore of the Senate, in consultation with Majority Leader and Minority Leader	Term Expiration: Runs coterminous with President Pro Tempore. Senator's current term expires in 2016
11	Christian Carmody	Health Information Organizations	Speaker of the House, in consultation with Majority Leader and Minority Leader	Term Expiration: Runs coterminous with Speaker
12	Michael Fiaschetti (Board Audit Committee Chair)	Health Information Organizations	President pro tempore of the Senate, in consultation with Majority Leader and Minority Leader	Term Expiration: Runs coterminous with President Pro Tempore. Senator's current term expires in 2016.
13	Dale Fuller	Health Information Organizations	Speaker of the House, in consultation with Majority Leader and Minority Leader	Term Expiration: Runs coterminous with Speaker.
14	Richard Snyder, Secretary	Health Information Organizations	Speaker of the House, in consultation with Majority Leader and Minority Leader	Term Expiration: Runs coterminous with Speaker.
15	James Younkin	Health Information Organizations	President pro tempore of the Senate, in consultation with Majority Leader and Minority Leader	Term Expiration: Runs coterminous with President Pro Tempore. Senator's current term expires in 2016.
16	Martin Ciccocioppo	Ex-Officio (Non-Voting)	Elected by advisory groups with a diverse membership representing interested and affected groups and individuals	Term Expiration: October 22, 2015 Reelected: January 2016
17	Vicki Hoak	Ex-Officio (Non-Voting)	Elected by advisory groups with a diverse membership representing interested and affected groups and individuals	Term Expiration: October 22, 2017

Source: Developed by LB&FC staff using information from the Pennsylvania eHealth Partnership Authority.

Agency Structure, Staffing, and Functions

The Pennsylvania eHealth Partnership Authority Board has the statutory authority to employ individuals as necessary to carry out its statutory mandates. Employees hired by the Authority, moreover, are Commonwealth state employees. Exhibit 8 provides the Authority's organization chart as of January 2016 with its authorized complement of 12 state employee positions.

As shown in Exhibit 8, the Authority's Executive Director reports to the Board and oversees the day-to-day operations of the Authority. The Executive Director is assisted by a Deputy Director, who oversees the program staff and works in direct coordination with a Press Secretary, who works to educate and inform consumers and patients about health information through public information programs. The Deputy Director also oversees three program areas including policy research, fiscal operations, and technical grant and contract matters.

Exhibit 8 also shows that as of January 2016, three approved complement positions were vacant: the Policy Lead, Business Analyst, and Project Manager. During FY 2015-16 the Authority has assigned and reassigned staff to assure that critical tasks are completed to move forward the developments of a HIPAA compliant statewide exchange. With resolution of the 2015-16 state budget impasse, the Authority has been seeking to fill the vacancies.

The Authority's organization chart begins to illustrate how existing Authority staff are augmented by other Commonwealth agencies and Commonwealth contractors. Exhibit 8, for example, shows that Public Health Gateway staff developers are staff augmentation contractor employees (supported with federal funding available to the Pennsylvania Department of Human) and are not state employees.[3]

The Authority's organization chart, however, does not provide a complete picture of the extent to which its staff are augmented by Commonwealth agencies and Commonwealth contractors. As of May 2016, for example, the Authority was receiving legal, budget and accounting, human resources, building and office maintenance, and other administrative support services through interagency agreements with the Governor's Executive Offices.

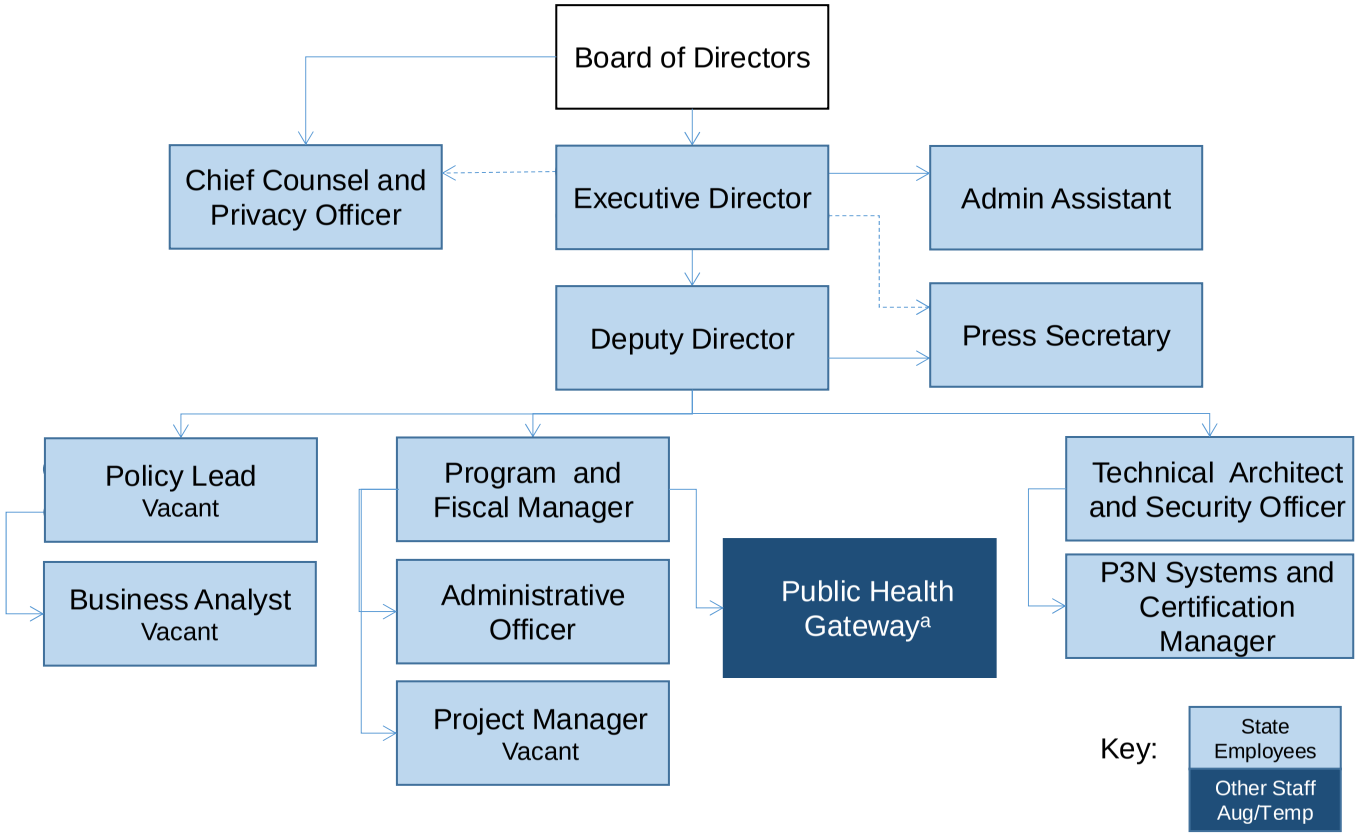
In FY 2012-13 and much of FY 2013-14, moreover, most Authority-related staffing was carried out through staff services provided through Commonwealth agencies and staff augmentation through Commonwealth contractors.[4] Several

[3] PA eHealth Partnership Authority Policy and Procedure on Staff Management requires that all contractor positions be approved by the Board of Directors.

[4] The Commonwealth executive branch and the Authority secured certain services through the Department of General Services' information technology staff augmentation contracts. Such Commonwealth executive branch contracts were originally implemented in 2005 to standardize the process for securing IT resources throughout the Commonwealth and streamline the procurement process.

Exhibit 8

PA eHealth Partnership Authority Organization Chart*



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*As of January 6, 2016.

[a] Staff paid under the U.S. Department of Health and Human Services Centers for Medicare and Medicaid Services funding to the Pennsylvania Department of Human Services.

Source: PA eHealth Partnership Authority.

such staff ultimately transitioned to the Authority or became Commonwealth employees. As of July 2014, legislative liaison services, fund development, and technical work associated with the development of the Public Health Gateway continued to be performed through staff augmentation contracts. As shown in Exhibit 8, the legislative liaison and fund development positions have since been eliminated, and the work to develop the Public Health Gateway continued to be performed through staff augmentation contracts through FY 2015-16.

Fiscal Information

Act 2012-121 established the Pennsylvania eHealth Partnership Fund as a separate fund in the State Treasury.[5] All interest earned from the investment or deposit of moneys accumulated in the Fund are to be deposited into the Fund for use by the Authority. Act 2012-121 also required that the accounts and books of the Authority be examined annually by an independent certified public accounting firm and be made public. Table 3 provides the revenues and operating expenses for the Fund based on financial statements prepared by its independent accountant.

Table 3

Pennsylvania eHealth Partnership Authority Fund
Total Revenues and Total Expenses
Selected State Fiscal Years

	FY 2013-14	FY 2014-15
Net Position, Beginning of Year	$ 1,799,969	$3,159,717
Operating Revenue	12,481,910	2,592,465
Operating Expenses	10,261,045	3,521,731
Nonoperating Revenue	3,623	5,760
Net Position, End of Year As Restated	$ 3,159,717	$2,236,211

Source: Pennsylvania eHealth Partnership Authority financial statements.

The marked decline in the Authority's operating revenues and expenses is due to the one-time federal funding available through the *State Health Information Exchange Cooperative Agreement Program* ending in October 2014. As shown in Table 4, in FY 2013-14, the Authority had available over $8 million in one-time federal funds that it was required to expend by October 2014 to prevent their lapsing. Table 4 also shows that Commonwealth and private funding has declined over the period, going from approximately $4 million in FY 2013-14 to about $2 million in FY 2014-15. As a result, the Authority's Fund balance has also markedly declined.

[5] Pursuant to Act 2012-121, the Pennsylvania eHealth Partnership Fund may be not considered a part of the state's General Fund.

Table 4

Pennsylvania eHealth Partnership Authority Fund Revenues by Source
Selected Fiscal Years

	FY 2013-14	FY 2014-15	FY 2015-16 Available Estimate[a]
Net Position Beginning of Year	$ 1,799,969	$3,159,717	$2,236,211
Private Revenues	464,500	236,217	Unknown
Commonwealth Contribution (PA eHealth Collaborative)	1,539,669		
Commonwealth (General Fund) Contribution	2,000,000	1,850,000	1,500,000
Intergovernmental Transfer	8,477,741	506,248	Unknown
Interest Income	3,623	5,760	
Total Available Revenues	$14,285,502	$5,757,942	$3,736,211

[a] Excludes federal Centers for Medicare and Medicaid Services IAPD revenues and the required 10 percent state matching funds that are appropriated to the Department of Human Services and may only be drawn down for CMS approved expenditures. Finding C provides information on certain actual commitments through this program.

Sources: Pennsylvania eHealth Partnership Authority financial statements and relevant appropriation acts and vetoes for FY 2015-16.

As shown in Table 5, the Authority's overall expenditures have also declined, but not uniformly across the various expense categories. Table 5 shows that P3N costs, which are largely the Authority's technology contractor costs, can change substantially from year to year (as payments are based on deliverables). Authority staff advised LB&FC staff that they anticipate P3N network costs will stabilize at about $1.1 million annually, assuming major new projects are not initiated. The Authority's current contract for the P3N network extends through April 2018.

Personnel and staff augmentation costs have also varied over time. In part, such variation is due to contract staff shifting into state personnel positions. Such variation is also due to positions being eliminated or remaining unfilled.

Table 5

Pennsylvania eHealth Partnership Authority Fund
Personnel and Operating Expenses
Selected State Fiscal Years

	FY 2013-14	FY 2014-15	FY 2015-16 Budget Estimates[a]
Personnel[b]	$ 913,929	$1,747,227	$1,398,000
Staff Augmentation	508,555	349,087	264,000
P3N Costs	4,855,355	921,740	1,786,000
Other Program Operations[c]	1,929,578	503,677	377,000
Federal Payments to For Profit Entities	2,053,628		
Total Personnel and Operations	$10,261,045	$3,521,731	$3,825,000

[a] Does not include payments to grantees or contractors supported with federal IAPD funds appropriated to the Department of Human Services.
b Includes all Commonwealth employees' salaries and benefits.
c Other program operational expenses include, for example, interagency agreements, hardware/software, subscriptions, memberships, telecom, travel, training, conference expenses, board expenses, advertising, printing, and postage, etc.,

Sources: Pennsylvania eHealth Partnership Authority financial statements and the quarterly report, December 2015 to February 2016.

Tables 4 and 5 show that in FY 2015-16, the Authority's planned expenditures may slightly outpace revenues if Authority expenses are fully incurred as budgeted, and revenues from private contributions and fees or other sources are not available. As shown in Table 4, the Authority has received private contributions in prior years, including contributions from regional health information exchanges. To date, however, it has not generated revenues from fees from regional health information exchanges that have connected to the statewide exchange (P3N). (See Finding H for additional information on the Authority's fee schedule and financial sustainability.)

The Department of Human Services' proposed FY 2016-17 budget includes approximately $4 million in federal and state funds[6] for Authority personnel and operations. Such an amount, moreover, excludes possible grants to regional health information exchanges and health care providers that may qualify for federal Center for Medicaid Services IAPD funding, Public Health Gateway contract staff, and other related IAPD projects. (See Finding C.)

[6] About 45 percent of such funds are federal funds, and the remainder are state funds.

IV. Appendices

APPENDIX A

Act 2012-122 – §303(d)

(d) Expiration.--The authority shall expire five years after the effective date of this chapter. One year prior to the expiration, the Legislative Budget and Finance Committee shall evaluate the management, viability and performance of the health information exchange and shall provide a report to the Communications and Technology Committee of the Senate and the Health Committee of the House of Representatives and the Human Services Committee of the House of Representatives. The report shall include recommendations as to reauthorization of the authority, dissolution of the authority or assumption of the authority's responsibilities and assets by another entity.

APPENDIX B

Glossary

- **American Recovery and Reinvestment Act of 2009 (ARRA):** Commonly referred to as the "stimulus" bill or the "Recovery Act," it was signed into law by the President on 2/17/09. This included the enactment of the Health Information Technology for Economic and Clinical Health Act. This is unrelated to the Affordable Care Act.
- **Certification** means completion by an HIO of the process for becoming a Certified Participant in the P3N. This process includes, but may not be limited to, acceptance and approval of the Application for Participation and all related documents, completion of P3N onboarding and interoperability testing, and full execution of the Participation Agreement.
- **Certification Packet** means all documents signed by the CP in the process of Certification which memorialize the CP's promises and obligations associated with the attributes of Certification.
- **Certified Participant:** An organization, usually an HIO, meeting the criteria necessary to join the Pennsylvania Patient and Provider Network (P3N).
- **Cross-Community Access Standard (XCA):** A method of sharing documents within a network across health information organizations. **Community Access (XCA)** accomplishes the goal of allowing network participants to share documents without the establishment of a centralized registry or index. Instead, participants create and maintain one-to-one technical relationships with one another. When an organization wishes to find information on a patient, a query is made to all other participating organizations. XCA is a "many-to-many" network standard—the opposite of a "one-to-many" network standard (XDS). XCA is the network standard that has been adopted for federal-level exchange, and has been used in a number of states that have established a network of HIOs rather than a single state-level HIO.
- **Cross-Enterprise Document Sharing (XDS) Registry:** A centralized system within a health information organization for maintaining information about the contents and location of a clinical document.
- **DIRECT:** The DIRECT protocol specifies a simple and secure way for participants to send authenticated, encrypted health information directly to known, trusted recipients over the internet in the form of a secure email.
- **Electronic Health Information Exchange:** The electronic movement of health-related information among unaffiliated organizations according to nationally recognized standards.

  Electronic Health Record: As defined in the ARRA, an Electronic Health Record means an electronic record of health-related information for an individual that includes patient demographic and clinical health information, such as medical histories and problem lists; and has the capacity to provide clinical decision support, to support healthcare provider order entry, to capture and query information relevant to healthcare quality, and to exchange electronic health information with and integrate such information from other sources.
- **Electronic PHI** means PHI that is transmitted or maintained in electronic media.

Appendix B (Continued)

- **Health Care Provider** means, as defined by state law [Pennsylvania eHealth Information Technology Act 2012-121], a person licensed by the Commonwealth to provide health care or professional clinical services. This term includes:
  1. A health care practitioner, as defined in Section 103 of the Act of July 19, 1979 (P.L.130, No.48), known as the Health Care Facilities Act.
  2. A Health Care Provider, as defined in Section 103 of the Health Care Facilities Act.
  3. A public health authority.
  4. A pharmacy.
  5. A laboratory.
  6. A person that provides items or services described in Section 1861(s) of the Social Security Act (49 Stat. 620, 42 U.S.C. 1395x (s)).
  7. A provider of services, as defined in Section 1861(u) of the Social Security Act (49 Stat. 620, 42 U.S.C. 1395x (u)).
- **Health Information Exchange (HIE)** means an interoperable system that electronically moves and exchanges Protected Health Information between CPs or Health Information Organizations in a manner that ensures the secure exchange of Protected Health Information to provide care to patients. Health Information Organization (HIO) means, as defined by the Authority Board of Directors in October 2014 and may be revised from time to time, organizations that enable exchange between at least two unaffiliated providers and/or payer (private or public) organizations, and enable users to satisfy health information exchange-related Meaningful Use requirements, if applicable. There are several clarifications to the HIO definition language: It is not sufficient that an organization claim capability to enable exchange between unaffiliated organizations, they must have contractual relationship(s) to provide such exchange and demonstrate that they actually do so. This requirement may be satisfied by (1) providing fully executed contracts to the Authority or (2) by providing attestations from two unaffiliated clients stating their contractual relationship to the HIO and a brief description of the HIE-related services provided to them by the HIO. The Authority will provide a sample form for this attestation. Organizations may receive provisional Certification if they meet all other Certification requirements other than the enablement of exchange between unaffiliated organizations, but then must demonstrate full compliance with the definition within twelve months of achieving provisional Certification. If they do not meet this requirement, their provisional Certification will be withdrawn. Unaffiliated means organizations that are not part of a single legal business entity (directly or through parent organizations) and do not share a single EHR system (this includes systems hosted by one or the other organization or their parent organizations, or software-as-a-service or platform-as-a-service EHRs hosted by a common vendor).
- **Health Information Service Provider:** An organization that manages security and transport for health information exchange among healthcare entities or individuals using the DIRECT standard for transport.
- **HIE Trust Community** means the collection of CPs subscribing to the P3N Services.
- **HIPAA Rules** means the Standards for Privacy of Individually Identifiable Health Information and the Security Standards for the Protection of Electronic Protected Health Information [45 C.F.R. Parts 160 and 164] promulgated by the U.S. Department of Health and Human Services under the Health Insurance Portability and Accountability Act ("**HIPAA**") of 1996, as amended by the applicable provisions of the American Recovery and Reinvestment Act, Public Law 111-5, as shall be in effect from time to time.

Appendix B (Continued)

- **Meaningful Use:** A program, regulated under the Centers for Medicare and Medicaid Services, that offers incentives to providers to adopt electronic health record technology with the goals of improved care, quality and efficiency, and reduced healthcare costs.
- **Opt-in models** require patients to specifically give permission for their information to be shared. While this is the safest way of ensuring that patient information is only shared if authorized by the patient, opt-in models mean that significant time may be required to get many patients to opt-in. This means that high volumes of exchange may require prolonged time to establish. Moreover, affirmative patient consent is difficult or impossible to obtain in emergency situations. For this reason, many opt-in models establish **"break the glass"** policies that permit network users to access information without patient consent in an emergency.
- **Opt-out models** allow a patient's information to be exchanged unless and until the patient takes action to prevent exchange. Many eHIEs, including the statewide model enacted in Act 121, take the view that exchange is permitted by federal law for **"treatment, payment and operations," or TPO**, without explicit patient consent, and therefore opt-out is a permissible model so long as TPO limitations are observed. This model allows patients to restrict eHIE if desired, while also permitting high-volume eHIE without lengthy start-up times. Many HIOs establish a central repository, called a **consent registry**, to store patent consent choice information. Per IHE, **Basic Patient Privacy Consents (BPPC)** is a mechanism which complements XDS or XCA, and provides mechanisms to "record patient privacy consent(s)" and "enforce the privacy consent appropriate to the use." In other words, BPPC provides standard PA eHealth Partnership Authority 2014–2017 Strategic and Operational Plan transactions to notify a consent registry of a change in a patient's preferences, and transactions for a participating organization to check on a patient's current consent status before exchanging information. In the P3N architecture, BPPC is one of several options for consent-related transactions available to network participants. The IHE specifications describe how patient consent decisions are maintained in an XDS Registry. Using the library card catalog analogy, HIOs need only query the XDS Registry for consent decision documents which can be accessed via the XDS Registry or card catalog as opt-out or opt-back-in. HIOs can use this information to determine current consent decision status of a patient (whether the patient wants their information shared or not). Many HIOs integrate the most current patient consent decision with their MPI so they will not provide clinical documents when records are requested for a patient that has opted out.
- **PA Patient & Provider Network** (P3N) means a network of networks, connected by a thin layer of services, governed by the Pennsylvania eHealth Partnership Authority, defined as a suite of registries and indexing and security services which help to create a pathway between CPs.
- **Protected Health Information** (PHI) means any information, transmitted or recorded in any form or medium, that:
  1. Relates to the past, present or future physical or mental health or medical condition of an individual.
  2. Relates to the past, present or future payment for the provision of health care to an individual.
  3. Identifies the individual (or for which there is a reasonable basis for believing that the information can be used to identify the individual).
  4. Shall have the meaning given to such term under HIPAA and HITECH. Protected Health Information includes Electronic PHI.

Appendix B (Continued)

- **Public Health Gateway:** Provides a secure, single point of entry for critical public health data, including electronic lab reporting, syndromic (disease) surveillance, cancer reporting, immunization registry, and clinical quality measurement.
- **Record Locator Service:** A Cross-Enterprise Document Sharing (XDS) Registry.
- **Super Protected Data:** In Pennsylvania, refers to health information extended additional privacy protections, by law, above and beyond those in the federal Health Insurance Portability and Accountability Act of 1996. In Pennsylvania, super protected data encompasses mental health diagnosis and treatment, HIV/AIDS status and treatment, and drug and alcohol abuse treatment.
- **Query** means a system search for clinical information (PHI) about a patient by an Authorized User conducted through the P3N on a Need-to-Know basis.

Source: *Pennsylvania eHealth Partnership Authority 2014-2017 Strategic and Operational Plan* and P3N Policy #1 Terms and Definitions.

APPENDIX C

Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs

The American Recovery and Reinvestment Act of 2009 (ARRA) (Pub.L. 111-5) amended Titles XVIII and XIX of the Social Security Act by providing for incentive payments to eligible professionals, eligible hospitals, and critical access hospitals, and Medicare managed care organizations to promote the adoption and meaningful use of interoperable health information technology and qualified electronic health records. Starting in 2011, the Medicare and Medicaid Electronic Health Record (EHR) Incentive Programs were established to encourage eligible professionals and eligible hospitals to adopt,[1] implement,[2] upgrade,[3] and demonstrate meaningful use of certified electronic health record technology.

To achieve meaningful use and demonstrate effective use of certified EHR technology (CEHRT),[4] eligible professionals and hospitals must meet a set of criteria that are phased in and implemented in stages. The first stage promotes basic EHR adoption, the second emphasizes care coordination and exchange of patient information, and the third improved healthcare outcomes.

As discussed below, the Medicare and the Medicaid EHR Incentive Programs are similar. However, there are also key differences in terms of eligible providers, maximum payment amounts, and the imposition of penalties or payment adjustments.

Eligible Providers

Permissible Provider Types: The Medicare and the Medicaid EHR Incentive Programs differ in the types of providers that qualify to participate and other related requirements. As shown in the diagram on the following page, nurse practitioners and physician assistants may be eligible to participate in Medicaid's program, but are not eligible for purposes of Medicare's EHR program. Certain hospitals, moreover, are only eligible to participate in the Medicaid incentive program.

Eligible professionals who are hospital-based are not eligible for incentive payments under the Medicare or Medicaid EHR programs. Eligible professionals are hospital-based if they furnish 90 percent or more of their professional covered services either in an inpatient or emergency department of a hospital.

Provider Volume: The Medicare program has no patient volumes associated with participant requirements. To participate in the Medicaid EHR Incentive Program, however, an eligible professional must have a Medicaid patient volume of at least 30 percent unless they are pediatricians or practice predominantly in a federally qualified health center or rural health center. Typically, hospitals must have a Medicaid patient volume of at least 10 percent.

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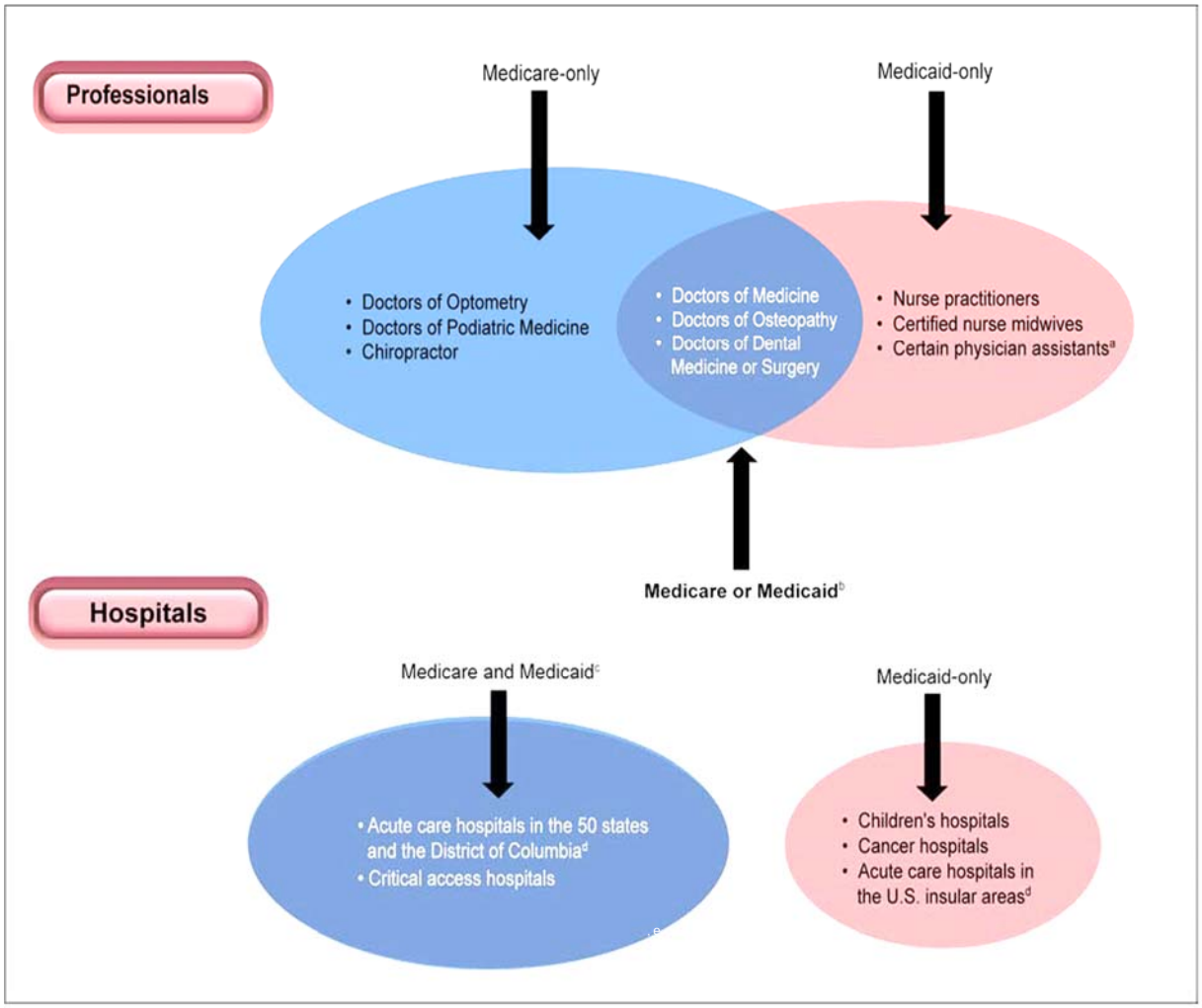
[1] Adopt means to acquire, purchase, or secure access to certified EHR technology.
[2] Implement means to install, or commence utilization of certified EHR technology capable of meeting meaningful use requirements.
[3] Upgrade means to expand the available functionality of certified EHR technology capable of meeting meaningful use requirements at the practice site, including staffing maintenance and training, or upgrade from existing EHR technology to a federally certified EHR technology.
[4] CEHRT refers to Health IT that is (1) certified under the federal Department of Health and Human Services, Office of the National Coordinator for Health Information Technology (ONC) Health IT Certification Program based on ONC standards, implementation specifications, and certification criteria and (2) designated/used by the Centers for Medicare and Medicaid Services to meet requirements in the EHR Incentive Programs and the Medicare Access and CHIP Reauthorization Act (MACRA) regulatory programs. The ONC certification program is voluntary and is not performed by ONC itself. Rather, ONC authorizes accredited third-party testing organizations and certification bodies to test and certify health IT and publish the results of their determinations. The cost for testing and certification are the responsibility of the health IT developer.

Appendix C (Continued)

Permissible Provider Types in the Medicare and Medicaid EHR Programs



[a] Physician assistants are one of the permissible provider types if they also work in a federally qualified health center or rural health center that is led by a physician assistant.
[b] Professionals that are eligible to participate in both the Medicare and Medicaid EHR programs may only receive an incentive payment from one program per year.
[c] In contrast to professionals, hospitals that are eligible to participate in both the Medicare and Medicaid EHR programs may receive an incentive payment from both programs in the same year.
[d] For the Medicare EHR program, acute care hospitals refer to hospitals described in Section 1886(d) of the Social Security Act, which are paid under the inpatient prospective payment system. For the Medicaid EHR program, acute care hospitals refer to hospitals with an average length of patient stay of 25 days or fewer with a CMS Certification Number that has the last four digits in the series 0001- 0879 or 1300-1399 and excludes critical access hospitals and cancer hospitals.
[e] There are no patient volume requirements for the Medicare EHR program. The Medicaid EHR program, however, requires eligible providers to meet a patient volume requirement. Specifically, eligible professionals must have a Medicaid patient volume of at least 30 percent unless they are pediatricians or practice predominantly in a federally qualified health center or rural health center; hospitals generally must have a Medicaid patient volume of at least 10 percent.
Source: United States Government Accountability Office, Electronic Health Records – First Year of EMS's Incentive Programs Shows Opportunities to Improve Processes to Verify Providers Met Requirements, GAO-12-481, April 2012.

Appendix C (Continued)

Medicare and Medicaid Incentive Payment Availability

Hospitals are eligible to receive both Medicare and Medicaid incentive payments, except for children's hospitals and cancer hospitals, which are only eligible for Medicaid incentive payments. Professionals who are eligible for both the Medicare and Medicaid EHR Incentive Programs, however, may receive an incentive payment from only one program per year.

Eligible professionals can earn incentive payments for up to five years if they elect to receive their incentive payment through Medicare or up to six years if they elect to receive their incentive payment through Medicaid. However, no Medicare EHR incentive program payment will be made to eligible professionals whose first year of participation in the Medicare EHR program is 2015 or later, when Medicare payment adjustments take effect for Medicare fee-for-service eligible professionals who cannot successfully demonstrate meaningful use of certified EHR technology.[5]

Maximum Incentive Payments

Medicaid Eligible Professionals: Medicaid eligible professionals may receive up to a maximum of $63,750 in six incentive payments by participating in six program years over the life of the incentive program. In Pennsylvania, for example, an eligible provider with at least 30 percent Medicaid patient volume would receive an initial payment of $21,250, and could qualify for five additional incentive payments of $8,500. Certain eligible providers that only must meet the 20 percent of total patient volume threshold may only receive up to $42,500 through six incentive payments over the life of the program.

Medicare Eligible Professionals: Medicare eligible professionals who qualify for the Electronic Health Record Incentive Payment may receive an incentive payment amount, subject to an annual limit, equal to 75 percent of the eligible professional's Medicare physician fee schedule allowed charges submitted not later than 2 months after the end of the calendar year. The maximum incentive payment over five years for an eligible professional is $44,000 for a provider demonstrating meaningful use annually over five years starting in 2011 and 2012. For eligible professionals starting in 2013, the maximum incentive payment they may receive over a four-year period is $39,000, and for those starting in 2014, the maximum incentive payment over a three-year period is $24,000. Such maximum incentive payments may be increased by 10 percent for eligible professionals furnishing more than 50 percent of their services in areas designated as a geographic health professional shortage areas.

Medicaid Eligible Hospitals: Based on federal regulations, eligible hospitals may receive Medicaid incentive payments over a four-year period (50 percent in the first year, 30 percent in the second year, and 10 percent in the third and fourth years) based on a formula set forth in federal rule. The formula provides for an initial $2 million base amount and the hospital's discharge-related amount;[6] hospital charges adjusted for charity care, and the hospital's Medicaid share of inpatient bed days. The formula also includes a transition factor that takes into account the year in which the eligible provider initially participates and the total number of years the provider participates in the program. The formula initially relies on facility self-reported data. Such data, however, are subject to audit that involves use of Medicare and Medicaid cost reports as well as other state Medicaid agency data to validate the self-reported data.

Medicare Eligible Hospitals: Similar to the Medicaid EHR Incentive Payment for eligible hospitals, Medicare's payment is based on an initial amount determined by a base amount ($2,000,000) and

[5] Eligible professionals can begin to participate in the Medicaid EHR Initiative Program until 2016.

[6] $200 for each acute care hospital discharge during a payment year, beginning with a hospital's 1,150th discharge of the year and ending with the hospital's 23,000th discharge of the year. No additional payment is made for discharges prior to the 1,150th discharge or for those discharges after the 23,000th discharge.

Appendix C (Continued)

the hospital's discharge related amount,[7] the hospital's total charges adjusted for charity care, the Medicare share, and a transition factor which phases down overtime and is dependent upon the year in which the eligible hospital first participates in the Medicare EHR Incentive Program.

Payment Adjustments

The Medicaid Incentive Program has no payment adjustment penalty for eligible providers and eligible hospitals that do not demonstrate meaningful use of electronic health records and do not bill Medicare. Medicare payment adjustments, however, are in place for Medicare providers and hospitals that are not meaningful users of certified electronic health record technology. Such Medicare professionals and hospitals, moreover, are required to demonstrate meaningful use every year to avoid payment adjustments in subsequent years.

Medicare Eligible Professionals: If a Medicare Eligible Professional does not demonstrate meaningful use of electronic health records beginning in 2015, the professional's Medicare physician fee schedule payments are subject to a payment adjustment of 1 percent for 2015, 2 percent for 2016, and 3 percent for 2017. In late 2015, Congress approved and the President signed legislation streamlining the process for providers to apply for payment adjustment hardship exemptions.

The Congress also approved and the President signed legislation sunsetting as of December 31, 2018 several separate Medicare payment adjustments, including the adjustment for failure to demonstrate meaningful use of electronic medical records. Replacing them will be a Merit-Based Incentive Payment System (MIPS) payment adjustment scheduled to begin in January 2019, with the maximum payment adjustment amount starting at 4 percent, and incrementally increasing to 9 percent in 2022 and onward.

Medicare Eligible Hospitals: Medicare eligible hospitals that are not meaningful users of electronic health record technology are subject to payment adjustments beginning October 2014. The payment adjustment or decrease is applicable to the percentage increase in the Inpatient Prospective Payment System (IPPS) payment. For 2015, the percentage decrease is 25 percent, with the decrease rising to 75 percent in 2017. For example, if the increase in the IPPS for 2015 is 2 percent, the Medicare eligible hospitals that is not a meaningful user would only receive a 1.5 percent increase in 2015.

Medicare eligible hospitals can apply for hardship exceptions to avoid their payment adjustment. Such exceptions may include lack of broadband and EHR vendor issues, such as switching vendors or products.

Meaningful Use

In October 2015, CMS released regulations specifying the criteria eligible professionals and eligible hospitals must meet to participate in the Medicare and Medicaid EHR Incentive Programs. The criteria differ somewhat for eligible professionals and eligible hospitals, and they differ for different years. The list entitled: Objectives and Measures for 2015 Through 2017 (Modified Stage 2), which begins on the following page, provides the Objectives and Measures to demonstrate meaningful use in the Medicare and Medicaid EHR Incentive Program for eligible providers and eligible hospitals for 2015 through 2017.

[7] $200 for each acute care hospital discharge during a payment year beginning with the 1,150th discharge and ending with the 23,000th discharge.

Appendix C (Continued)

Objectives and Measures for 2015 Through 2017 (Modified Stage 2)

Objectives for 2015 - 2017	Measures for Providers in 2015 Through 2017
	EP Objectives and Measures
Objective 1: Protect Patient Health Information	**Measure:** Conduct or review a security risk analysis in accordance with the requirements in 45 CFR §164.308(a)(1), including addressing the security (to include encryption) of ePHI created or maintained in CEHRT in accordance with requirements under 45 CFR §164.312(a)(2)(iv) and 45 CFR §164.306(d)(3), and implement security updates as necessary and correct identified security deficiencies as part of the EP's risk management process.
Objective 2: Clinical Decision Support	*In order for EPs to meet the objective they must satisfy both of the following measures:* **Measure 1:** Implement five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period. Absent four clinical quality measures related to an EP's scope of practice or patient population, the clinical decision support interventions must be related to high priority health conditions. **Measure 2:** The EP has enabled and implemented the functionality for drug-drug and drug allergy interaction checks for the entire EHR reporting period. **Exclusion**: For the second measure, any EP who writes fewer than 100 medication orders during the EHR reporting period.
Objective 3: Computerized Provider Order Entry	*An EP, through a combination of meeting the thresholds and exclusions (or both), must satisfy all three measures for this objective*. **Measure 1**: More than 60 percent of medication orders created by the EP during the EHR reporting period are recorded using computerized provider order entry. **Exclusion:** Any EP who writes fewer than 100 medication orders during the EHR reporting period. **Measure 2:** More than 30 percent of laboratory orders created by the EP during the EHR reporting period are recorded using computerized provider order entry. **Exclusion:** Any EP who writes fewer than 100 laboratory orders during the EHR reporting period. **Measure 3:** More than 30 percent of radiology orders created by the EP during the EHR reporting period are recorded using computerized provider order entry. **Exclusion:** Any EP who writes fewer than 100 radiology orders during the EHR reporting period.

Appendix C (Continued)

Objectives for 2015 - 2017	Measures for Providers in 2015 Through 2017
Objective 4: Electronic Prescribing	**EP Measure:** More than 50 percent of permissible prescriptions written by the EP are queried for a drug formulary and transmitted electronically using CEHRT. **Exclusions:** Any EP who: • writes fewer than 100 permissible prescriptions during the EHR reporting period; or • does not have a pharmacy within his or her organization and there are no pharmacies that accept electronic prescriptions within 10 miles of the EP's practice location at the start of his or her EHR reporting period.
Objective 5: Health Information Exchange	**Measure:** The EP that transitions or refers their patient to another setting of care or provider of care must (1) use CEHRT to create a summary of care record; and (2) electronically transmit such summary to a receiving provider for more than 10 percent of transitions of care and referrals. **Exclusion:** Any EP who transfers a patient to another setting or refers a patient to another provider less than 100 times during the EHR reporting period.
Objective 6: Patient Specific Education	**EP Measure:** Patient specific education resources identified by CEHRT are provided to patients for more than 10 percent of all unique patients with office visits seen by the EP during the EHR reporting period. **Exclusion:** Any EP who has no office visits during the EHR reporting period.
Objective 7: Medication Reconciliation	**Measure:** The EP performs medication reconciliation for more than 50 percent of transitions of care in which the patient is transitioned into the care of the EP. **Exclusion:** Any EP who was not the recipient of any transitions of care during the EHR reporting period.
Objective 8: Patient Electronic Access (VDT)	**EP Measure 1:** More than 50 percent of all unique patients seen by the EP during the EHR reporting period are provided timely access to view online, download, and transmit to a third party their health information subject to the EP's discretion to withhold certain information. **EP Measure 2:** For an EHR reporting period in 2015 and 2016, at least one patient seen by the EP during the EHR reporting period (or patient-authorized representative) views, downloads, or transmits to a third party his or her health information during the EHR reporting period. For an EHR reporting period in 2017, more than 5 percent of unique patients seen by the EP during the EHR reporting period (or his or her authorized representatives) view, download, or transmit to a third party their health information during the EHR reporting period. **Exclusions:** Any EP who: a. neither orders nor creates any of the information listed for inclusion as part of the measures; or b. conducts 50 percent or more of his or her patient encounters in a county that does not have 50 percent or more of its housing units with 4Mbps broadband availability according to the latest information available from the FCC on the first day of the EHR reporting period.

Appendix C (Continued)

Objectives for 2015 - 2017	Measures for Providers in 2015 Through 2017
Objective 9: Secure Messaging	**Measure:** For an EHR reporting period in 2015, the capability for patients to send and receive a secure electronic message with the EP was fully enabled during the EHR reporting period. For an EHR reporting period in 2016, for at least one patient seen by the EP during the EHR reporting period, a secure message was sent using the electronic messaging function of CEHRT to the patient (or the patient- authorized representative), or in response to a secure message sent by the patient (or the patient-authorized representative) during the EHR reporting period. For an EHR reporting period in 2017, for more than 5 percent of unique patients seen by the EP during the EHR reporting period, a secure message was sent using the electronic messaging function of CEHRT to the patient (or the patient-authorized representative), or in response to a secure message sent by the patient (or the patient- authorized representative) during the EHR reporting period. **Exclusion:** Any EP who has no office visits during the EHR reporting period, or any EP who conducts 50 percent or more of his or her patient encounters in a county that does not have 50 percent or more of its housing units with 4Mbps broadband availability according to the latest information available from the FCC on the first day of the EHR reporting period.
	Eligible Hospital and CAH Objectives and Measures
Objective 1: Protect Patient Health Information	**Measure:** Conduct or review a security risk analysis in accordance with the requirements in 45 CFR 1§64.308(a)(1), including addressing the security (to include encryption) of ePHI created or maintained in CEHRT in accordance with requirements under 45 CFR §164.312(a)(2)(iv) and 45 CFR §164.306(d)(3), and implement security updates as necessary and correct identified security deficiencies as part of the eligible hospital or CAH's risk management process.
Objective 2: Clinical Decision Support	**Measure 1:** Implement five clinical decision support interventions related to four or more clinical quality measures at a relevant point in patient care for the entire EHR reporting period. Absent four clinical quality measures related to an eligible hospital or CAH's scope of practice or patient population, the clinical decision support interventions must be related to high-priority health conditions. **Measure 2:** The eligible hospital or CAH has enabled and implemented the functionality for drug-drug and drug allergy interaction checks for the entire EHR reporting period.

Appendix C (Continued)

Objectives for 2015 - 2017	Measures for Providers in 2015 Through 2017
Objective 3: Computerized Provider Order Entry	*Eligible hospitals and CAHs must meet the thresholds of all three measures.* **Measure 1:** More than 60 percent of medication orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are recorded using computerized provider order entry. **Measure 2:** More than 30 percent of laboratory orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are recorded using computerized provider order entry. **Measure 3:** More than 30 percent of radiology orders created by authorized providers of the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) during the EHR reporting period are recorded using computerized provider order entry.
Objective 4: Electronic Prescribing	**Eligible Hospital/CAH Measure:** More than 10 percent of hospital discharge medication orders for permissible prescriptions (for new and changed prescriptions) are queried for a drug formulary and transmitted electronically using CEHRT. **Exclusion:** Any eligible hospital or CAH that does not have an internal pharmacy that can accept electronic prescriptions and is not located within 10 miles of any pharmacy that accepts electronic prescriptions at the start of their EHR reporting period.
Objective 5: Health Information Exchange	**Measure:** The eligible hospital or CAH that transitions or refers their patient to another setting of care or provider of care must (1) use CEHRT to create a summary of care record; and (2) electronically transmit such summary to a receiving provider for more than 10 percent of transitions of care and referrals.
Objective 6: Patient Specific Education	**Eligible Hospital/CAH Measure:** More than 10 percent of all unique patients admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23) are provided patient specific education resources identified by CEHRT.
Objective 7: Medication Reconciliation	**Measure:** The eligible hospital or CAH performs medication reconciliation for more than 50 percent of transitions of care in which the patient is admitted to the eligible hospital's or CAH's inpatient or emergency department (POS 21 or 23).

Appendix C (Continued)

Objectives for 2015 - 2017	Measures for Providers in 2015 Through 2017
Objective 8: Patient Electronic Access (VDT)	**Eligible Hospital/CAH Measure 1:** More than 50 percent of all unique patients who are discharged from the inpatient or emergency department (POS 21 or 23) of an eligible hospital or CAH are provided timely access to view online, download, and transmit to a third party their health information. **Eligible Hospital/CAH Measure 2:** For an EHR reporting period in 2015 and 2016, at least 1 patient who is discharged from the inpatient or emergency department (POS 21 or 23) of an eligible hospital or CAH (or patient- authorized representative) views, downloads, or transmits to a third party his or her health information during the EHR reporting period. For an EHR reporting period in 2017, more than 5 percent of unique patients discharged from the inpatient or emergency department (POS 21 or 23) of an eligible hospital or CAH (or patient authorized representative) view, download, or transmit to a third party their information during the EHR reporting period. **Exclusion:** Any eligible hospital or CAH that is located in a county that does not have 50 percent or more of its housing units with 4Mbps broadband availability according to the latest information available from the FCC on the first day of the EHR reporting period.
Objective 9: Public Health Reporting	Eligible hospitals and CAHS scheduled to be in Stage 2 in 2015 must meet three measures. All eligible hospitals and CAHs in 2016 and 2017 must meet three measures. **Measure Option 1 – Immunization Registry Reporting:** The eligible hospital or CAH is in active engagement with a public health agency to submit immunization data. **Exclusion:** Any eligible hospital, or CAH meeting one or more of the following criteria may be excluded from the immunization registry reporting measure if the eligible hospital, or CAH: • does not administer any immunizations to any of the populations for which data is collected by its jurisdiction's immunization registry or immunization information system during the EHR reporting period; • operates in a jurisdiction for which no immunization registry or immunization information system is capable of accepting the specific standards required to meet the CEHRT definition at the start of the EHR reporting period; or • operates in a jurisdiction where no immunization registry or immunization information system has declared readiness to receive immunization data from the eligible hospital or CAHs at the start of the EHR reporting period. **Measure Option 2 – Syndromic Surveillance Reporting:** The eligible hospital or CAH is in active engagement with a public health agency to submit syndromic surveillance data. **Exclusion for eligible hospitals/CAHs:** Any eligible hospital or CAH meeting one or more of the following criteria may be excluded from the syndromic surveillance reporting measure if the eligible hospital or CAH: • does not have an emergency or urgent care department; • operates in a jurisdiction for which no public health agency is capable of receiving electronic syndromic surveillance data from eligible hospitals or CAHs in the specific standards required to meet the CEHRT definition at the start of the EHR reporting period; or

Appendix C (Continued)

Objectives for 2015 - 2017	Measures for Providers in 2015 Through 2017
Objective 9: Public Health Reporting (Continued)	• operates in a jurisdiction where no public health agency has declared readiness to receive syndromic surveillance data from eligible hospitals or CAHs at the start of the EHR reporting period. **Measure Option 3 – Specialized Registry Reporting:** The eligible hospital or CAH is in active engagement to submit data to a specialized registry. **Exclusions:** Any eligible hospital or CAH meeting at least one of the following criteria may be excluded from the specialized registry reporting measure if the eligible hospital or CAH: • does not diagnose or treat any disease or condition associated with, or collect relevant data that is collected by, a specialized registry in their jurisdiction during the EHR reporting period; • operates in a jurisdiction for which no specialized registry is capable of accepting electronic registry transactions in the specific standards required to meet the CEHRT definition at the start of the EHR reporting period; or • operates in a jurisdiction where no specialized registry for which the eligible hospital or CAH is eligible has declared readiness to receive electronic registry transactions at the beginning of the EHR reporting period. **Measure Option 4 – Electronic Reportable Laboratory Result Reporting:** The eligible hospital or CAH is in active engagement with a public health agency to submit electronic reportable laboratory (ELR) results. **Exclusions:** Any eligible hospital or CAH meeting one or more of the following criteria may be excluded from the electronic reportable laboratory result reporting measure if the eligible hospital or CAH: • does not perform or order laboratory tests that are reportable in their jurisdiction during the EHR reporting period; • operates in a jurisdiction for which no public health agency is capable of accepting the specific ELR standards required to meet the CEHRT definition at the start of the EHR reporting period; or • operates in a jurisdiction where no public health agency has declared readiness to receive electronic reportable laboratory results from eligible hospitals or CAHs at the start of the EHR reporting period.
Source: Federal Centers for Medicare and Medicaid Services.	

Appendix C (Continued)

Objective 2 references clinical quality measures (CQMs) that are required to be submitted. The lists entitled: "Clinical Quality Measures for 2014 Center for Medicare and Medicaid Services Electronic Health Record Incentive Programs for Eligible Professionals" and "Clinical Quality Measures for 2014 Center for Medicare and Medicaid Services Electronic Health Record Incentive Programs for Eligible Hospitals" identify the clinical quality measures that are to be reported by eligible providers and hospitals to meet the clinical decision support objective. (The lists begin on the following page.)

For the most part, eligible professionals attest to complying with the objectives and measures. The Centers for Medicare and Medicaid Services at its website provides highly detailed listings of the additional information and activities required to attest to meeting the requirement.

In 2015, CMS issued final rules for implementation of Meaningful Use Stage 3. The rule is controversial, and in September 2015, the American Medical Association and 41 medical specialty societies asked the Department of Human Services to pause implementation of the requirements. They note that:

> To date, 80 percent of physicians are utilizing EHRs, but less than 10 percent pf physicians have successfully participated in MU State 2. Furthermore, due to the inflexible MU regulations and certification requirements, vendors have created software products that are frequently unusable, administratively burdensome, and in many instances do not promote clinically relevant patient care.

In January 2016, the CMS Administrator acknowledged the concerns of physicians noting that while the EHR Incentive Program helped make progress in the adoption of new technology, "…it has also created real concerns about placing too much of a burden on physicians and pulling their time away from caring for patients." The Administrator proposed to transition the EHR Incentive Program and move toward allowing providers flexibility to customize health IT to their individual practice needs.

Congress also recognized the concerns of physicians. In late December 2015, it, therefore authorized CMS to streamline the process for granting hardship exceptions under meaningful use. It also allowed groups of health care providers to apply for hardship exceptions, replacing the requirement that each doctor must apply individually to have the request for an exception considered by CMS.

Appendix C (Continued)

Clinical Quality Measures for 2014 Center for Medicare and Medicaid Services Electronic Health Record Incentive Programs for Eligible Professionals
Measure Title and CMS Domain
Appropriate Testing for Children with Pharyngitis *Domain:* Efficient Use of Healthcare Resources
Initiation and Engagement of Alcohol and Other Drug Dependence Treatment *Domain:* Clinical Process/ Effectiveness
Controlling High Blood Pressure *Domain:* Clinical Process/ Effectiveness
Use of High-Risk Medications in the Elderly *Domain:* Patient Safety
Weight Assessment and Counseling for Nutrition and Physical Activity for Children and Adolescents *Domain:* Population/ Public Health
Preventive Care and Screening: Tobacco Use: Screening and Cessation Intervention *Domain:* Population/ Public Health
Breast Cancer Screening *Domain:* Clinical Process/ Effectiveness
Cervical Cancer Screening *Domain:* Clinical Process/ Effectiveness
Chlamydia Screening for Women *Domain:* Population/ Public Health
Colorectal Cancer Screening *Domain:* Clinical Process/ Effectiveness
Use of Appropriate Medications for Asthma *Domain:* Clinical Process/ Effectiveness
Childhood Immunization Status *Domain:* Population/ Public Health
Preventive Care and Screening: Influenza Immunization *Domain:* Population/ Public Health
Pneumonia Vaccination Status for Older Adults *Domain:* Clinical Process/ Effectiveness
Use of Imaging Studies for Low Back Pain *Domain:* Efficient Use of Healthcare Resources
Diabetes: Eye Exam *Domain:* Clinical Process/ Effectiveness
Diabetes: Foot Exam *Domain:* Clinical Process/ Effectiveness
Diabetes: Hemoglobin A1c Poor Control *Domain:* Clinical Process/ Effectiveness

Appendix C (Continued)

Measure Title and CMS Domain
Hemoglobin A1c Test for Pediatric Patients *Domain:* Clinical Process/ Effectiveness
Diabetes: Urine Protein Screening *Domain:* Clinical Process/ Effectiveness
Diabetes: Low Density Lipoprotein (LDL) Management *Domain:* Clinical Process/ Effectiveness
Ischemic Vascular Disease (IVD): Use of Aspirin or Another Antithrombotic *Domain:* Clinical Process/ Effectiveness
Appropriate Treatment for Children with Upper Respiratory Infection (URI) *Domain:* Efficient Use of Healthcare Resources
Coronary Artery Disease (CAD): Beta-Blocker Therapy-Prior Myocardial Infarction (MI) or Left Ventricular Systolic Dysfunction (LVEF <40%) *Domain:* Clinical Process/ Effectiveness
Ischemic Vascular Disease (IVD): Complete Lipid Panel and LDL Control *Domain:* Clinical Process/ Effectiveness
Heart Failure (HF): Angiotensin-Converting Enzyme (ACE) Inhibitor or Angiotensin Receptor Blocker (ARB) Therapy for Left Ventricular Systolic Dysfunction (LVSD) *Domain:* Clinical Process/ Effectiveness
Heart Failure (HF): Beta- Blocker Therapy for Left Ventricular Systolic Dysfunction (LVSD) *Domain:* Clinical Process/ Effectiveness
Primary Open-Angle Glaucoma (POAG): Optic Nerve Evaluation *Domain:* Clinical Process/ Effectiveness
Diabetic Retinopathy: Documentation of Presence or Absence of Macular Edema and Level of Severity of Retinopathy *Domain:* Clinical Process/ Effectiveness
Diabetic Retinopathy: Communication with the Physician Managing Ongoing Diabetes Care *Domain:* Clinical Process/ Effectiveness
Falls: Screening for Future Fall Risk *Domain:* Patient Safety
Adult Major Depressive Disorder (MDD): Suicide Risk Assessment *Domain:* Clinical Process/ Effectiveness
Anti-depressant Medication Management *Domain:* Clinical Process/ Effectiveness
ADHD: Follow-Up Care for Children Prescribed Attention- Deficit/Hyperactivity Disorder (ADHD) Medication *Domain:* Clinical Process/ Effectiveness
Bipolar Disorder and Major Depression: Appraisal for alcohol or chemical substance use *Domain:* Clinical Process/ Effectiveness
Oncology: Medical and Radiation – Pain Intensity Quantified *Domain:* Patient and Family Engagement

Appendix C (Continued)

Measure Title and CMS Domain
Colon Cancer: Chemotherapy for AJCC Stage III Colon Cancer Patients *Domain:* Clinical Process/ Effectiveness
Breast Cancer: Hormonal Therapy for Stage IC-IIIC Estrogen Receptor/Progesterone Receptor (ER/PR) Positive Breast Cancer *Domain:* Clinical Process/ Effectiveness
Prostate Cancer: Avoidance of Overuse of Bone Scan for Staging Low Risk Prostate Cancer Patients *Domain:* Efficient Use of Healthcare Resources
HIV/AIDS: Medical Visit *Domain:* Clinical Process/ Effectiveness
HIV/AIDS: Pneumocystis Jiroveci Pneumonia (PCP) Prophylaxis *Domain:* Clinical Process/ Effectiveness
HIV/AIDS: RNA Control for Patients with HIV *Domain:* Clinical Process/ Effectiveness
Preventive Care and Screening: Screening for Clinical Depression and Follow-Up Plan *Domain:* Population/ Public Health
Documentation of Current Medications in the Medical Record *Domain:* Patient Safety
Preventive Care and Screening: Body Mass Index (BMI) Screening and Follow-Up Plan *Domain:* Population/ Public Health
Cataracts: Complications within 30 Days Following Cataract Surgery Requiring Additional Surgical Procedures *Domain:* Patient Safety
Cataracts: 20/40 or Better Visual Acuity within 90 Days Following Cataract Surgery *Domain:* Clinical Process/ Effectiveness
Pregnant women that had HBsAg testing *Domain:* Clinical Process/ Effectiveness
Depression Remission at Twelve Months *Domain:* Clinical Process/ Effectiveness
Depression Utilization of the PHQ-9 Tool *Domain:* Clinical Process/ Effectiveness
Children Who Have Dental Decay or Cavities *Domain:* Clinical Process/ Effectiveness
Child and Adolescent Major Depressive Disorder (MDD): Suicide Risk Assessment *Domain:* Patient Safety
Maternal Depression Screening *Domain:* Population/ Public Health
Primary Caries Prevention Intervention as Offered by Primary Care Providers, including Dentists *Domain:* Clinical Process/ Effectiveness

Appendix C (Continued)

Measure Title and CMS Domain
Preventive Care and Screening: Cholesterol - Fasting Low Density Lipoprotein (LDL-C) Test Performed *Domain:* Clinical Process/ Effectiveness
Preventive Care and Screening: Risk-Stratified Cholesterol -Fasting Low Density Lipoprotein (LDL- C) *Domain:* Clinical Process/ Effectiveness
Dementia: Cognitive Assessment *Domain:* Clinical Process/ Effectiveness
Hypertension: Improvement in Blood Pressure *Domain:* Clinical Process/ Effectiveness
Closing the Referral Loop: Receipt of Specialist Report *Domain:* Care Coordination
Functional Status Assessment for Knee Replacement *Domain:* Patient and Family Engagement
Functional Status Assessment for Hip Replacement *Domain:* Patient and Family Engagement
Functional Status Assessment for Complex Chronic Conditions *Domain:* Patient and Family Engagement
ADE Prevention and Monitoring: Warfarin Time in Therapeutic Range *Domain:* Patient Safety
Preventive Care and Screening: Screening for High Blood Pressure and Follow-Up Documented *Domain:* Population/ Public Health
Source: Federal Centers for Medicare and Medicaid Services.

Appendix C (Continued)

Clinical Quality Measures for 2014 Center for Medicare and Medicaid Services Electronic Health Record Incentive Programs for Eligible Hospitals
Measure Title and NQS Domain
Exclusive Breast Milk Feeding *Domain:* Clinical Process/ Effectiveness
Home Management Plan of Care (HMPC) Document Given to Patient/Caregiver *Domain:* Patient and Family Engagement
Statin Prescribed at Discharge *Domain:* Clinical Process/ Effectiveness
Hearing Screening Prior To Hospital Discharge *Domain:* Clinical Process/ Effectiveness
Median Time from ED Arrival to ED Departure for Discharged ED Patients *Domain:* Care Coordination
Primary PCI Received Within 90 Minutes of Hospital Arrival *Domain:* Clinical Process/ Effectiveness
Median Time from ED Arrival to ED Departure for Admitted ED Patients *Domain:* Patient and Family Engagement
Fibrinolytic Therapy Received Within 30 Minutes of Hospital Arrival *Domain:* Clinical Process/ Effectiveness
Anticoagulation Therapy for Atrial Fibrillation/Flutter *Domain:* Clinical Process/ Effectiveness
Antithrombotic Therapy By End of Hospital Day 2 *Domain:* Clinical Process/ Effectiveness
Venous Thromboembolism Patients with Anticoagulation Overlap Therapy *Domain:* Clinical Process/ Effectiveness
Thrombolytic Therapy *Domain:* Clinical Process/ Effectiveness
Aspirin Prescribed at Discharge *Domain:* Clinical Process/ Effectiveness
Assessed for Rehabilitation *Domain:* Care Coordination
Discharged on Antithrombotic Therapy *Domain:* Clinical Process/ Effectiveness
Discharged on Statin Medication *Domain:* Clinical Process/ Effectiveness
Stroke Education *Domain:* Patient and Family Engagement
Venous Thromboembolism Prophylaxis *Domain:* Patient Safety

Appendix C (Continued)

Measure Title and NQS Domain
Venous Thromboembolism Patients Receiving Unfractionated Heparin with Dosages/Platelet Count Monitoring by Protocol or Nomogram *Domain:* Clinical Process/ Effectiveness
Venous Thromboembolism Discharge Instructions *Domain:* Patient and Family Engagement
Median Admit Decision Time to ED Departure Time for Admitted Patients *Domain:* Patient and Family Engagement
Elective Delivery *Domain:* Clinical Process/ Effectiveness
Incidence of Potentially- Preventable Venous Thromboembolism *Domain:* Patient Safety
Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision *Domain:* Patient Safety
Prophylactic Antibiotic Selection for Surgical Patients *Domain:* Efficient Use of Healthcare Resources
Urinary catheter removed on Postoperative Day 1 (POD 1) or Postoperative Day 2 (POD 2) with day of surgery being day zero *Domain:* Patient Safety
Healthy Term Newborn *Domain:* Patient Safety
Initial Antibiotic Selection for Community-Acquired Pneumonia (CAP) in Immunocompetent Patients *Domain:* Efficient Use of Healthcare Resources
Intensive Care Unit Venous Thromboembolism Prophylaxis *Domain:* Patient Safety
Source: Federal Centers for Medicare and Medicaid Services.

APPENDIX D

Response to This Report

RECEIVED SEP 2 3 2016

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HUMAN SERVICES
SEP 15 2016

Mr. Phillip Durgin, Executive Director
Legislative Budget and Finance Committee
P.O. Box 8737
Harrisburg, Pennsylvania 17105-8737

Dear Mr. Durgin:

Thank you for sharing the draft Legislative Budget and Finance Committee (LBFC) report titled *Pennsylvania eHealth Partnership Authority Evaluation*, and allowing the Department of Human Services (Department) to submit comments.

Act 121 of 2012 directed the LBFC to "evaluate the management, viability, and performance of the health information exchange and shall provide a report to the Communications and Technology Committee of the Senate and the Health Committee of the House of Representatives." In addition, Act 121 required the LBFC to "include recommendations as to the reauthorization of the authority, dissolution of the authority, or assumption of the authority's responsibilities and assets by another entity."

With the July 8, 2016 passage of Act 76 of 2016, which created the eHealth Partnership program within the Department and repealed Act 121, the Department assumed the authority's responsibilities and assets prior to the originally anticipated expiration of Act 121 in July 2017. Concurrent with this transition, the Department is submitting these comments on behalf of the eHealth program.

Throughout the LBFC's extensive research and work in this specialized area, LBFC staff worked very closely with the eHealth team, board, and stakeholders to reach three recommendations. Thank you to you and your team for your commitment and effort on your evaluation.

The Department supports each of the committee's recommendations and is working to form the eHealth Advisory Board. Electronic health information exchange (HIE) has been an evolving process in the commonwealth, as both the public and private sectors partnered to forge into uncharted territory. Beginning with a federal multimillion dollar grant to support the development and implementation of a statewide electronic health information exchange, eHealth has gone through a series of evolutionary changes over the past decade.

Thank you for recognizing the importance of HIE for Pennsylvanians. Working to achieve the Institute for Healthcare Improvement's "Triple Aim" (better care, better population health, and reduced per capita costs), HIE will support a quality health care delivery network, engage and encourage patients to be active partners in their care, and provide transparency.

The Department is committed to maintaining and maximizing a network that will provide the right information to the right health care provider at the right time in those critical, often most vulnerable, moments when patients need their information to be available to their care team.

The Department looks forward to working with the LBFC in the future as eHealth achieves robust statewide health information exchange and a gateway to support federal requirements and public health initiatives to support such things as immunization in the commonwealth.

It has been our pleasure to work with you throughout the process. If you have any further questions or comments, please contact Ms. Kelly Hoover Thompson, Executive Director, eHealth, at kelthompso@pa.gov or 717-233-4252.

Sincerely,

Theodore Dallas
Secretary

cc: Ms. Kelly Hoover Thompson