



Pennsylvania eHealth Partnership Advisory Board Meeting

December 6, 2018



**PA PATIENT &
PROVIDER NETWORK**
PRIVATE & PROTECTED



pennsylvania
DEPARTMENT OF HUMAN SERVICES

Agenda

- 10 a.m. Welcome and Introductions
- 10:15 Department of Human Services Priorities
- 10:30 Act 76 of 2016 Advisory Board Provisions
- 10:40 Administrative Procedures
- 10:50 State Ethics Act Discussion
- 11 a.m. How Health Information Exchange Works in Pennsylvania
- Noon Brief Lunch Break
- 12:15 PA eHealth Priorities
- 12:45 Future Advisory Board Issues
- 1 p.m. Introduction to Pennsylvania's Health Information Exchange Organizations
- 1:50 Public Comment
- 2 p.m. Adjournment



Welcome and Introductions

David F. Simon, JD

Chief Legal Affairs Officer

Philadelphia College of Osteopathic Medicine

and

PA eHealth Advisory Board Chair

PA eHealth Advisory Board

Ms. ALISON BEAM, Chief of Staff
Pennsylvania Insurance Department (Insurance Commissioner Designee)

Ms. SARAH BOATENG, Chief of Staff
Pennsylvania Department of Health (Secretary of Health Designee)

Mr. MARTIN CICCOCIOPPO, Director, PA eHealth Partnership Program
Pennsylvania Department of Human Services (Secretary of DHS Designee)

Ms. PAMELA E. CLARKE, Senior Director, Member Services, Privacy and Policy
HealthShare Exchange (House Appointed HIO Representative)

Mr. JOSEPH FISNE, Associate Chief Information Officer
Geisinger Health System (Senate Appointed HIO Representative)

Mr. SCOTT FRANK, Chief Information Officer
Capital Blue Cross (Insurer Representative)

Ms. JENNIFER B. HAGGERTY, Chief Operating Officer
Pennsylvania Homecare Association (Home Care or Hospice Representative)

PA eHealth Advisory Board continued

Dr. BRIAN HANNAH, Vice President, Chief Medical Information Officer
Mercy Health (Hospital Representative)

Dr. TIMOTHY HEILMANN, Chief Medical Information Officer
UPMC Susquehanna (Physician or Nurse Representative)

Ms. JULIE KORICK, Director of Finance & Business Development
Pennsylvania Association of Community Health Centers (Underserved Representative)

Ms. MINTA LIVENGOOD, Vice Chair
Consumer Subcommittee of the MAAC (Consumer Representative)

Mr. PAUL MCGUIRE, Long Term Care Consultant
(Post-Acute Care Facility Representative)

Dr. MICHAEL A. SHEINBERG, Chief Medical Information Officer
Penn Medicine Lancaster General Health (House Appointed HIO Representative)

Mr. DAVID F. SIMON (Chair), Chief Legal Affairs Officer
Philadelphia College of Osteopathic Medicine (Consumer Representative)

Department of Human Services' Priorities

Sally A. Kozak, MHA, RN

Deputy Secretary

Office of Medical Assistance Programs

Pennsylvania Department of Human Services

Health Information Exchange Goals

- Engage all providers in robust health information exchange
- Increase the speed and accuracy of diagnosis for individuals and populations
- Alert providers/care teams to an admission of patient
- Reduce readmissions and redundant tests by sharing patient information and care plans with other providers and payers who care for the same patients
- Increase patient satisfaction by reducing their time spent in the healthcare system and eliminating frustrating duplication

Act 76 of 2016 Advisory Board Provisions

Kathleen Beani, M.Ed.

Human Services Program Specialist

Pennsylvania eHealth Partnership Program

Office of Medical Assistance Programs

Pennsylvania Department of Human Services

Act 76 of 2016

- On July 8, 2016, Act 76 created the Pennsylvania eHealth Partnership Program (eHealth Partnership) within the Pennsylvania Department of Human Services (DHS). Concurrent with the passage of Act 76, Act 121 of 2012 was repealed, and the independent Pennsylvania eHealth Partnership Authority (Authority) and its governing board were disbanded.
- All the programmatic responsibilities of the Authority transitioned into DHS' Pennsylvania eHealth Partnership Program.
- The HIE Trust Community Committee, made up of certified participating health information organization leaders, has met continuously on a monthly basis since 2015.
- Establish an advisory board with a diverse membership representing interested and affected groups and individuals.

PA eHealth Powers and Duties

1. Develop, establish and maintain a health information exchange that complies with Federal and State law and that:
 - (i) Promotes efficient and effective communication among multiple health care providers, payers and participants.
 - (ii) Creates efficiencies and promotes accuracy in the delivery of health care.
 - (iii) Supports the ability to improve community health status.
2. Determine criteria for organizations and individuals to become and remain participants in the health information exchange, including criteria for organizations and individuals to be suspended and disengaged as participants in the health information exchange.
3. Develop and maintain a directory of health care providers' contact information to enable participants to share health information electronically.
4. Develop and maintain standards to ensure interoperability.

PA eHealth Powers and Duties (continued)

5. Establish and collect fees.... Participation in the health information exchange by any health care provider, payer, consumer or any other person shall be voluntary.
6. Establish an advisory board with a diverse membership representing interested and affected groups and individuals.
7. Develop and conduct public information programs to educate and inform consumers and patients about health information.
8. Submit an annual report....
9. Develop and maintain: (i) a registry of patients choosing to opt out of the health information exchange; and (ii) procedures to reenroll into the health information exchange.
10. Promulgate regulations, as necessary, to implement and administer this article.
11. Perform all other activities in furtherance of the purposes of this article.

PA eHealth Advisory Board Representation

Seat	Position/Constituency
1	DHS Secretary or Designee
2	DOH Secretary or Designee
3	Insurance Commissioner or Designee
4	Unserved/Underserved
5	Physician/Nurse
6	Hospital
7	Insurance
8	Assisted living, personal care residence, long-term care, continuing care or BH/MH
9	Consumer
10	Consumer
11	HIO/Senate
12	HIO/Senate*
13	HIO/Senate
14	HIO/House
15	HIO/House*
16	HIO/House*
17	Home care or hospice

* Vacant

PA eHealth Advisory Board

- **Board Member Terms**
 - With the exception of the first three Board members noted, a member of the Board shall serve for a term of three years after completion of the initial terms, and may serve no more than two full consecutive three-year terms.
 - A member shall remain on the board until their replacement has been appointed.
- **Meetings**
 - Should be held at least quarterly and may provide for special meetings as the Board deems necessary.
 - Shall be subject to the requirements of 65 PA CS Ch.7 (related to open meetings).
 - May be held anywhere within the Commonwealth.

PA eHealth Advisory Board

- Quorum
 - A majority of the appointed members of the Board shall constitute a quorum for the transaction of any business.
 - An act by a majority of the members present at a meeting at which there is a quorum shall be deemed to be that of the Board.
- Chairperson
 - The Secretary shall appoint a Chairperson of the Board.
 - Board members shall annually elect, by a majority vote of the members, a vice chairperson from among the members of the Board.

Advisory Board Administrative Procedures

Terri Lynn Brown

Administrative Officer

Pennsylvania eHealth Partnership Program

Office of Medical Assistance Programs

Pennsylvania Department of Human Services

Reimbursement

- The members of the board may not receive a salary or per diem allowance for serving as members of the board but shall be reimbursed for actual and necessary expenses incurred in the performance of the members' duties.
- Commonwealth travelers who are not employed by the commonwealth must follow the same procedures as employees if their travel is paid for by the Commonwealth.
- All hotel reservations, flights, and car rentals associated with Board Travel must be booked by the Board Travel Arranger, Terri Brown. When a new board meeting is announced, please contact Terri Brown if you need any hotel, flight or car reservations.
- Terri Brown will submit all expenses and items paid by the Board Member will be reimbursed according to the Travel Policy.

State Ethics Act Discussion

S. Elizabeth Bahn, MBA MSCJ CPIP

Program and Fiscal Manager

Pennsylvania eHealth Partnership Program

Office of Medical Assistance Programs

Pennsylvania Department of Human Services

Advisory Board Appointment Letters

Identified:

- Appointee name
- Appointee's constituency group
- Initial term
- Potential additional terms

Appointment letters also stated:

- As a member of the PA eHealth Advisory Board, you are subject to the Public Official and Employee Ethics Act (Ethics Act), 66 Pa. C.S. § § 1101 et seq., and the Governor's Code of Conduct, Executive Order 1980-18 Amended.

Statement of Financial Interests

- The Ethics Act provides that public officials, public employees, solicitors, candidates and nominees – as those terms are defined by the Ethics Act – must file the Statement of Financial Interests form. Public officials and public employees are specifically required to file the Statement of Financial Interests form each year the position is held and the year following termination of service.
- Each year, the filing deadline for solicitors, public officials and public employees (who are not candidates or nominees) is May 1.
- Filing includes: Name; Address; Reason for Filing; Occupation; Real Estate Interests; Creditors; Direct or Indirect Sources of Income; Gifts; Transportation, Lodging, or Hospitality Expenses; Office, Directorship or Employment in any Business Entity; Financial Interests; and Transferred Business Interests.

Ethics Act Advisory Board Exception

- **"Public official."** 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 this 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.
- Any person subject to the Ethics Act may request an advisory opinion about his or her own obligations. An advisory opinion may also be requested by the authorized representative of such person or by the appointing authority or employer of such person.

▶ How Health Information Exchange Works in PA

Allen Price, M.Eng. PMP

Project Manager

Pennsylvania eHealth Partnership Program

Pennsylvania Office of Administration

Health and Human Services Delivery Center

How HIE is Structured in PA

Electronic Health Information Exchange is the secure exchange of protected health information in a digital format.

Locally: HIE occurs within physician practices, health systems, and other provider organizations through their own electronic health records (EHR) systems.

Regionally: Providers connect to a network known as a health information organization (HIO). Patient records held by an HIO-connected provider are available to other providers connected to that same HIO.

Statewide: HIOs connect to the **PA Patient & Provider Network (P3N)**. A main service of the Pennsylvania Department of Human Services' PA eHealth Partnership Program, the P3N facilitates the secure sharing of patient information across a larger geographic area as well as enhanced provider reporting.

PA eHealth Connections

- **Statewide Connections with four Certified HIOs**
 - ClinicalConnect Health Information Exchange (Connected: July 2016)
 - HealthShare Exchange of Southeastern Pennsylvania (Connected: April 2016)
 - Keystone Health Information Exchange (Connected: May 2016)
 - Mount Nittany Exchange (Connected: July 2016)
- **Onboarding New HIO**
 - Lancaster General Health has begun the P3N Onboarding Process (Applied: May 2018)

How Health Information Exchange Works

1

The patient goes to a healthcare provider.



2

The healthcare provider requests patient medical records through its health information organization, or HIO.



The HIO sends the request via the PA Patient & Provider Network, or P3N, to other P3N-connected HIOs, which locate the needed patient information from their member providers.

The retrieved patient medical record is forwarded to the requesting HIO which sends it through the P3N to the requesting healthcare provider.



The HIO sends the request via the PA Patient & Provider Network, or P3N, to other P3N-connected HIOs, which locate the needed patient information from their member providers.



4



3



How Health Information Exchange Works

Demoski, Henry M
Age / Gender 37 Male
DOB 08/01/1981

MRN N/A
SSN *

Address * 3601 S Broad St.
City / State Philadelphia PA
Zip 19148

Reports Group By: Group Year
Expand All Collapse All

Summarization Of Episode Status: Print Report Download Report

12/04/2018 11:49 Summarization Of Episode
12/04/2018 11:49 MT NITTANY Aggregated CCD
10/30/2018 14:21 P3N Web Client: Patient Consent Document
10/30/2018 14:21 pdf Demoski_Henry_Opt Back-In.pdf
10/05/2018 10:03 P3N Web Client: Patient Consent Document
10/05/2018 10:03 pdf optout.pdf
06/27/2018 17:01 P3N Web Client: Patient Consent Document
06/27/2018 16:05 P3N Web Client: Patient Consent Document
06/27/2018 17:01 pdf OptIn.pdf
06/27/2018 16:05 pdf optout.pdf

Summarization Of Episode Section Views Auto Filter
Apply Save As Default
Select All Unselect All

DATE	TIME	STATUS	DESCRIPTION	DATA SOURCE(S)
04/20/2018	04:23:00 PM EDT - 04/30/2018 12:18:00 PM EDT	CHF	HSX Test Panel	
10/21/2016	06:10:00 PM EDT - 10/23/2016 12:15:00 PM EDT	CHF	Attender: MD Margo Turner MD Admitter: MD Margo Turner MD Referrer: DO Robert Bryan DO Consultant: MD Corey Brotz MD	Temple Jeanes Hospital
09/30/2016	09:13:00 AM EDT	WOUND CHECK	Attender: Harold Feiler DO	Doylestown Hospital
03/19/2016	09:09:00 AM EDT	O	Attender: JOHN GOODMAN 00795 GOODMAN JOHN A Admitter: JOHN GOODMAN	AI100
03/11/2016	09:13:00 AM EST - 06/13/2016 09:49:00 AM EDT	Inpatient	Attender: Jason Komasz MD Admitter: Jason Komasz MD	Doylestown Hospital
10/09/2014	12:22:00 PM EDT - 10/24/2014 10:18:00 AM EDT	Lab	Attender: MARY ELLEN PELLETIER MD	Main Line Health Bryn Mawr Rehab Hospital

Medical Records from Different Providers, Different EHR systems, across the state

VACCINE	DATE	STATUS	DESCRIPTION	DATA SOURCE(S)
influenza, injectable, quadrivalent, preservative free (GLAXO SMITH KLINE, Lot # 359mh); Administered 10/7/2016 10:59 AM; 60 MCG = 0.5 ML, I-MUSCULAR	10/07/2016 10:59:00 AM EDT	completed		Temple Jeanes Hospital
influenza, injectable, quadrivalent, preservative free (GLAXO SMITH KLINE, Lot # HZ723); Administered 10/13/2015 5:08 AM; 60 MCG = 0.5 ML, I-MUSCULAR	10/13/2015 05:08:00 AM EDT	completed		Temple Jeanes Hospital
influenza, injectable, quadrivalent, preservative free	10/18/2014	completed		Temple

How Health Information Exchange Works

- **53% of DOH licensed hospitals are affiliated with a P3N-certified HIO**
- **Wide Range of Provider Types Can Access the P3N**

Cancer Treatment Centers	Mental Health/Substance Abuse Facilities
Community Health Centers (includes FQHCs)	Outpatient Facilities
Dental Services	Payers
Home Health Agencies	Pharmacies
Hospitals: Acute Care	Physician Practices
Hospitals: Critical Access (CAHs)	Physical Therapy Facilities
Imaging Services	Rehabilitation Facilities
Laboratory Services	Specialists
Long-Term/Post-Acute Care Facilities	Urgent Care Facilities

Statewide Health Information Exchange

Provider Directory

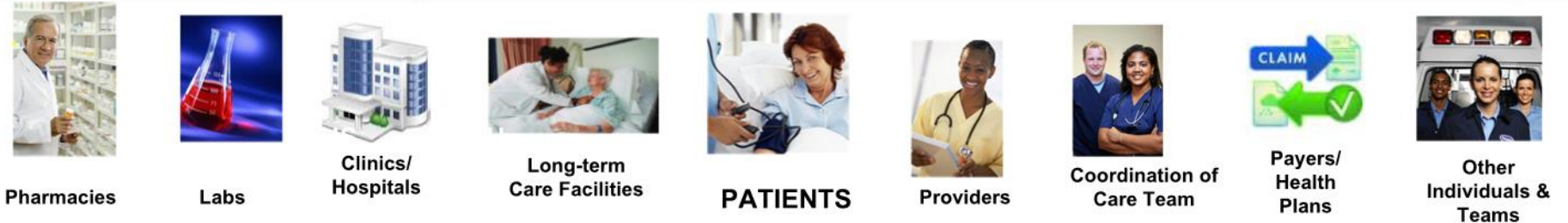
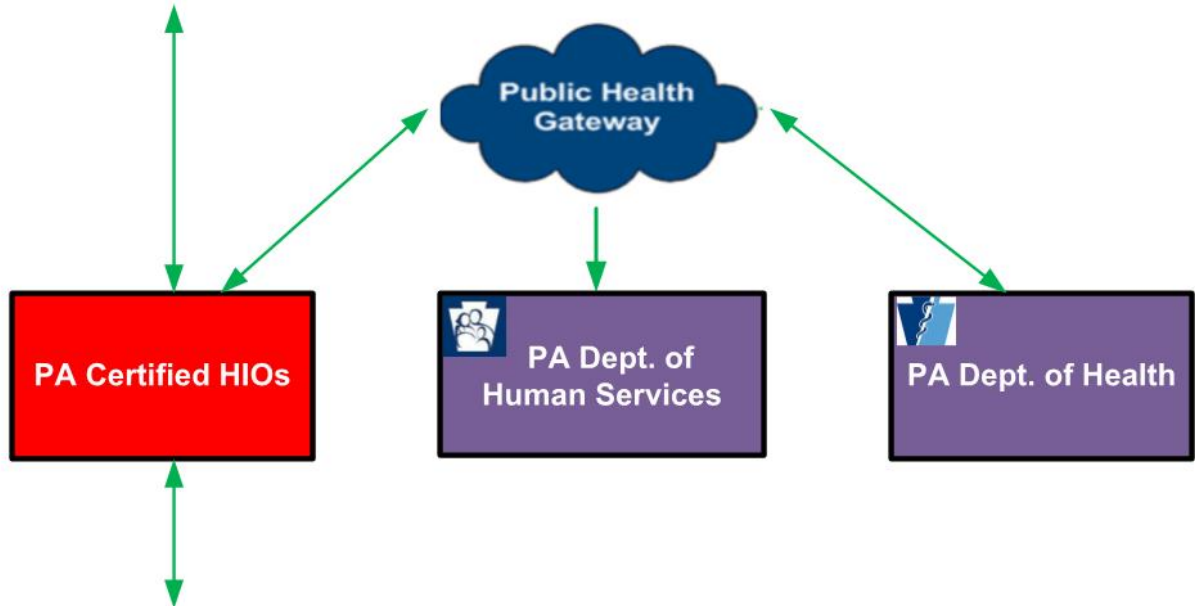
Master Patient Index



Record Locator Service

Opt-Out Registry

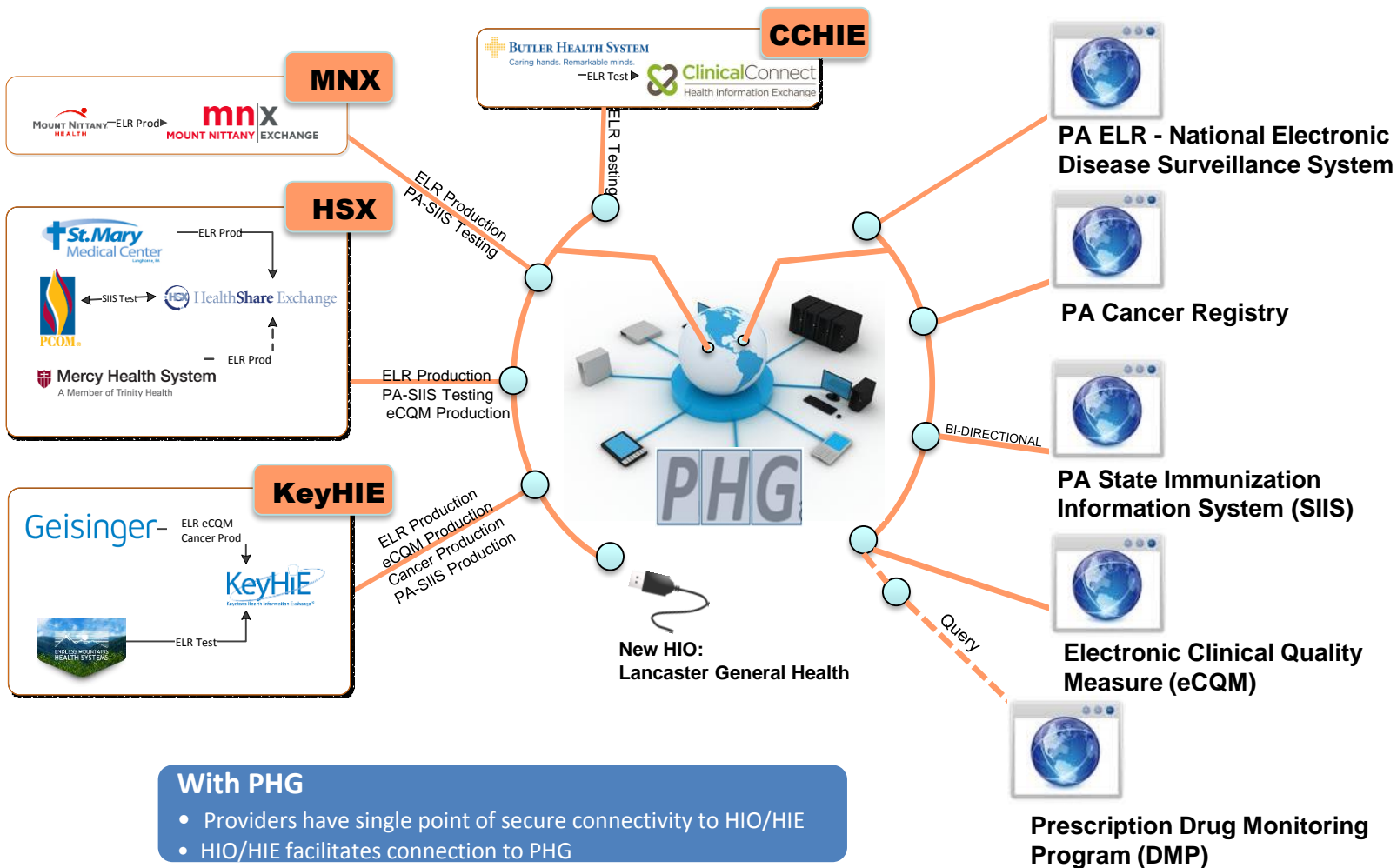
Encounter Notification Service



PA eHealth Services

- **Provider Directory** – Health Providers, Individual & Organization,
- **Master Patient Index** – Patient IDs and Demographics
- **Record Locator Service** – Clinical Document Metadata and Repositories
- **Opt-out Registry** – Citizens can opt-out of sharing across the P3N
- **Public Health Gateway** – Access to Public Health Reporting Registries
- **Encounter Notification Service** – Emergency Department Encounters shared across HIOs with standard Admission, Discharge, and Transfer (ADT) Messages

Public Health Gateway



With PHG

- Providers have single point of secure connectivity to HIO/HIE
- HIO/HIE facilitates connection to PHG

Statewide Encounter Notification Service

- Live on January 31, 2018
- Allows patient's care team to be notified when their patient is receiving care from providers in different HIOs
- Three HIOs are participating (HSX, KeyHIE, and MNX)
- Thirty-eight (38) hospital emergency departments (ED) are in production
- Ten (10) EDs in the near-term pipeline
- Additional EDs in participating HIOs to be added as ready
- Inpatient encounters are next to be exchanged
- P3N evaluated 131,441 Admission/Discharge/Transfer (ADT) messages during the week ending 11/16/2018 and forwarded 24,391 ADTs (19%) to other HIOs. This represents 1,191 unique patients who may have benefited from their care teams knowing about their ED encounter real time.

PA eHealth Certification Package

- P3N Application for Participation (updated September 2018)
- Participation Agreement (PAR) v4 (updated September 2018)
- Appendix A - P3N Technical Requirements (updated September 2018)
- P3N Policy 1 - Terms and Definitions (updated September 2016)
- P3N Policy 2 - Documentation Change Management Policy (updated September 2018)
- P3N Policy 3 - Certification Policy and Process (updated September 2018)
- P3N Policy 4 - User Management Policy (updated September 2018)
- P3N Policy 5 - Privacy Policy (updated September 2018)
- P3N Policy 6 - Auditing Policy (updated September 2018)
- P3N Policy 7 - Data and Privacy Breach Policy (updated September 2018)
- P3N Policy 8 - Reporting Policy (updated September 2018)
- P3N Policy 9 - HIE Trust Community Committee Participation Policy (updated September 2018)
- P3N Policy 10 - Security Policy (updated September 2018)
- HIO Fee Model and Schedule v4 (approved April 2016)

<http://dhs.pa.gov/provider/healthinformationexchange/hioconnection/index.htm>

Promoting Interoperability Program

Dana Kaplan

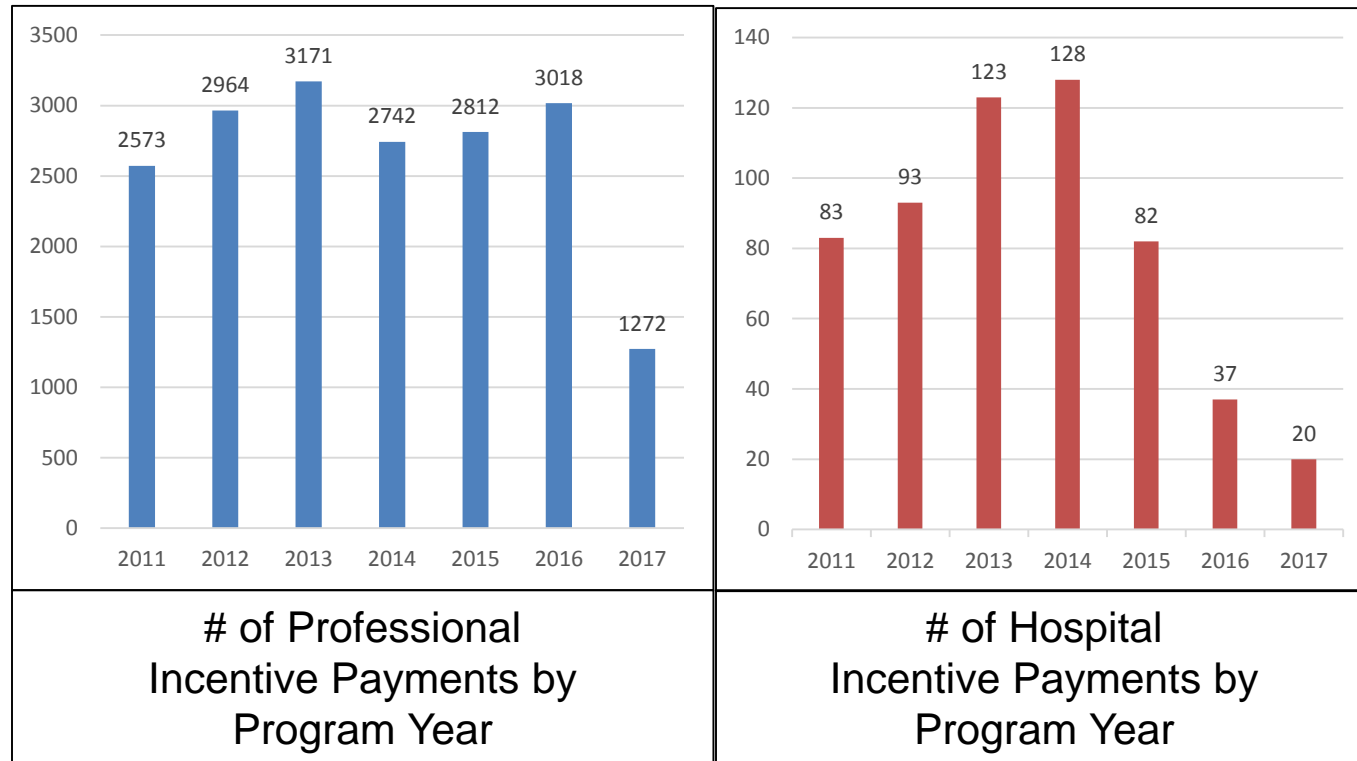
OMAP HIT Coordinator

Department of Human Services

Office of Medical Assistance Programs

Promoting Interoperability Program

Payment Summary through December 3, 2018



There are 93 pending program year 2016 apps, 392 pending program year 2017 apps and 4 pending program year 2018 apps

Total EP payments to date are \$252,304,357 and EH payments are \$213,621,467.33

Promoting Interoperability Program

Opportunity

- Providers can still receive up to \$63,250 over 6 annual payments
- Providers can skip years and still have the potential to receive all 6 payments
- Last year providers can participate is **2021**

Eligibility

- Providers who have already participated in the Medicaid EHR Incentive Program (any state)
- Providers who have not yet received 6 payments

Technical Assistance

- Providers may be eligible for technical assistance.
- Email us at ra-mahealthit@pa.gov to find out if the provider is eligible for this technical assistance

CMS Updates

- MA EHR Incentive Program is now called the Promoting Interoperability Program
- Starting in 2019, providers must use a 2015 Certified EHR in order to participate
 - Only 24% of the PA participants in 2016 and 2017 were using a 2015 Certified EHR so we expect the number of participants in 2019 to be lower than initially anticipated
- The last date a payment can be made is December 31, 2021
- Reporting period for PIP and Clinical Quality Measures is 90 days for 2021
- Because payments have to be made by December 31, 2021, providers should submit their 2021 applications earlier in the year to give us time to process and pay the applications by 12/31/2021

Pennsylvania eHealth Priorities

Martin Ciccocioppo, MBA MHA

Director

Pennsylvania eHealth Partnership Program

Office of Medical Assistance Programs

Pennsylvania Department of Human Services

Pennsylvania eHealth Strategic Plan

1. Improve upon our existing services by leveraging other state services and resources
2. Expand the coverage area of providers exchanging data
3. Increase bi-directional access to public health reporting registries
4. Provide improved analytics to better support performance measurement and quality reporting
5. Enhance the types of patient data exchanged
6. Update the certification program to better serve all current and new participants
7. Offer expanded system access to patients and providers
8. Expand exchange capabilities to include external state and federal partners

PA eHealth Initiatives

- Join the Sequoia Project national eHealth Exchange
 - Enable health information exchange (HIE) outside of Pennsylvania
 - Enable HIE with federal agencies such as Veterans Affairs
- Expansion of Public Health Gateway to include syndromic surveillance, case reporting, and the prescription drug monitoring program
- Increase provider connections to existing HIOs by offering \$8 million in onboarding grants in FFY 2019
- Increase number of HIOs connected to the Pennsylvania Patient and Provider Network (P3N)
- Connect state agencies that provide health care services to P3N
- Improve analytics to support performance measurement and quality reporting
- Enhance the type of patient data being exchanged
 - Creating advanced directives registry
 - Supporting a radiology image sharing pilot
 - Discussing sharing care plans

FFY 2019 Projects (1-3)

HIE Onboarding Grants

These grants will be made available to Health Information Organizations (HIOs) to support them in their efforts to connect a variety of healthcare providers to HIO's networks and, in turn, to the P3N.

PHG Onboarding Grants

These grants are made available to HIOs to support their efforts to connect their Member Organizations to the Public Health Gateway (PHG). The PHG permits a single point of connection from a provider, via an HIO, to a variety of public health reporting systems.

Radiology Image Sharing

This project will utilize an HIO to electronically share existing radiology and mammography images across a network of care team members to reduce unnecessary radiology exposure to patients and is more cost-effective and value-based. KeyHIE will be the HIO to implement this initiative.

FFY 2019 Projects (4-5)

Advance Care Planning Documents Registry

The primary goal of this project is to customize and extend the already-established P3N to provide a state-wide centralized ACPD registry available to all healthcare providers in PA for Medicaid patients initially. The project will establish an advance care planning document registry in cooperation with our HIO partners; develop an operations and support plan; determine usage metrics and steps to increase utilization; and develop an education and outreach plan.

HIO Integration for Department of Corrections

The goal of this project is to enable health information exchange for the Dept. of Corrections by connecting their electronic health records system to the P3N. To reach this goal, DHS will create a customized interface between Corrections and the P3N. The interfaces will support submission of data to – as well as query of – the state’s health registries and certified HIOs.

FFY 2019 Projects (6-8)

PHG Utilization

This project supports the advancement of the PHG and is primarily DOH staff expenses.

Case Reporting

This project will expand electronic case reporting (eCR) capabilities by building a service to allow enhanced HIE integration that is not dependent on the Digital Bridge. This service will enable the reporting of additional types of cases and also meet the MU requirements.

Immunization Registry Interoperability

The goal of this project is to provide a secure means for DOH to automatically evaluate test submissions to the PA-SIIS for proper content and structure. This funding will support the addition of 3 contract staff. This initiative supports the MU Stage 3 Public Health Objective.

(Note: Projects 6-8 support Dept. of Health public health registries.)

FFY 2019 Projects (9-10)

Education and Outreach

This project will utilize an outside vendor to offer training, technical assistance and outreach to small and mid-sized provider groups and eligible professionals in PA to continue the group's participation in the incentive program.

Allegheny County Population Health

Allegheny County Health Department (ACHD), in collaboration with Western PA's two largest health systems, will implement a software tool and network infrastructure to conduct population health analysis of EHR data aggregated from the participating systems. Specifically, the ACHD will use software to perform an analysis of the geographical distribution of diabetes and hypertension, looking at disease progression, treatment, and control.

Total FFY 2019 IAPD Funding = \$11.7 million

(DHS provides the 10% state matching funds.)

FFY 2020 IAPD Project Suggestions

- Analytics to Measure Opioid Use Epidemic
- Better Support Emergency Management Services and Disaster Response
- Include Schools in the Immunization Registry
- Expand Encounter Notification Service
- Leverage the eCQM Repository to Collect Quality Metrics for other Programs
- Expand Technical Assistance Program
- Opportunities to Reduce On-going Costs
- Use of Application Programming Interface Standards to Improve Record Sharing
- Foster the Sharing of Care Plans Among Providers and Payers
- Collection of Social Determinants of Health Information (SDOH)
- Enable Community Referrals to Address Identified SDOH Needs

Future Advisory Board Issues

- Enhancing statewide health information exchange
- P3N HIO Fee Schedule for Beyond June 30, 2019
- P3N Connections Outside of Pennsylvania (i.e., National eHealth Exchange and SHIEC Patient Centered Data Home)
- P3N Infrastructure Procurement, current vendor contract expires April 30, 2021
- Encounter Notification Service Expansion
- Sharing of Care Plans among Providers and Payers
- Patient Unified Lookup System for Emergencies (PULSE)
- IAPD Project Prioritization and Sizing
- Measuring and Improving Population Health
- Collection of Social Determinants of Health Information (SDOH)
- Enabling Community Referrals to Address Identified SDOH Needs
- Respond to Federal Rulemaking
- Collaboration with HIETCC



ClinicalConnect
Health Information Exchange



ClinicalConnect Health Information Exchange Overview

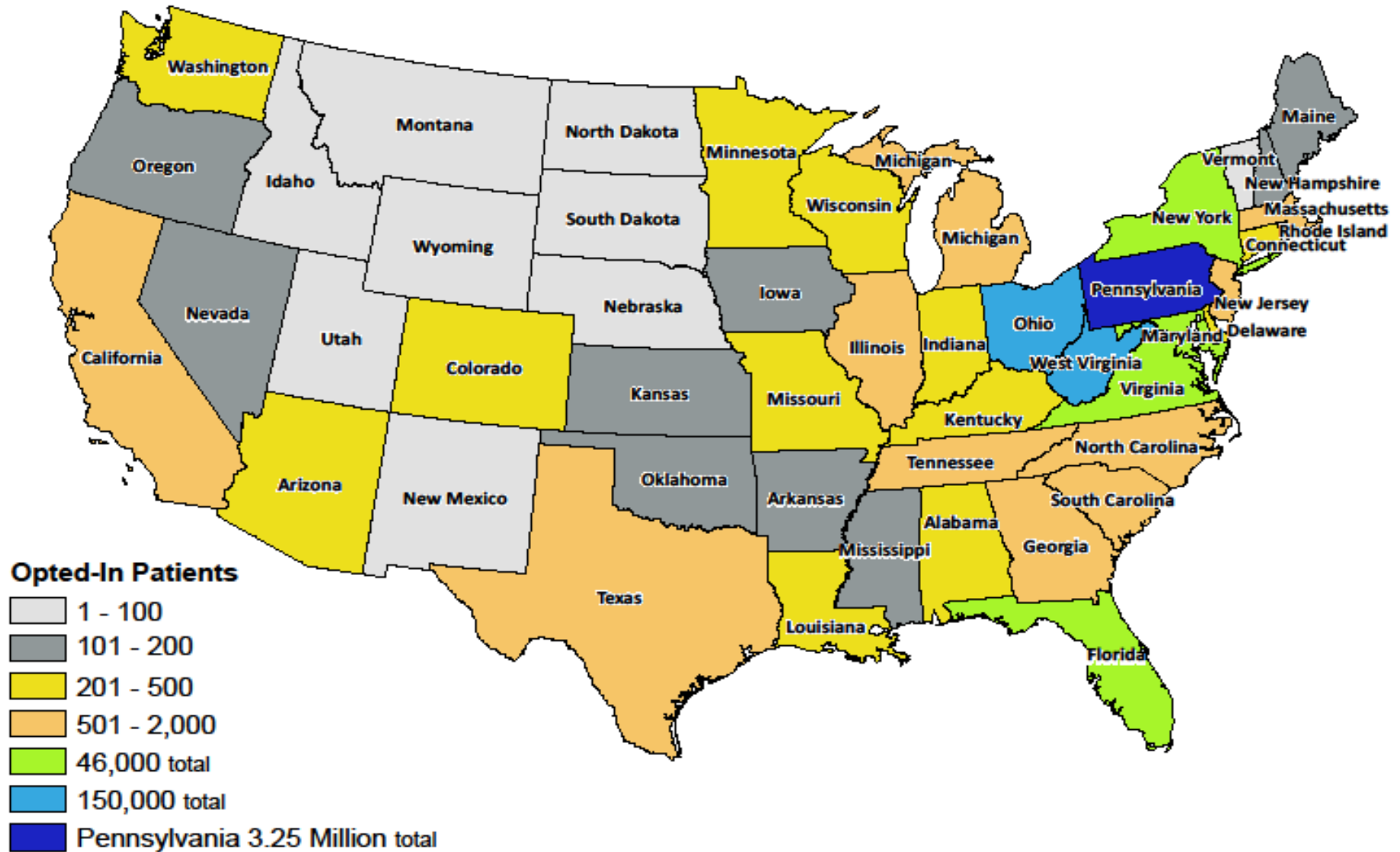
December 2018

Who ClinicalConnect HIE is

- **Western PA Health Information Exchange**
- **Live since June 2012**
- **Opt-out patient consent model**
- **Services Offered**
 - Clinical Data Repository
 - eClinical Quality Measures
 - Direct Secure Messaging
- **Utilization**
 - **>8.6 M** unique patients
 - **>3.6 M** patients in our HIE
 - **>47 K** users
 - **>1.6 M** charts opened
- **Data Exchanged**
 - Allergies
 - Clinical Documents
 - Diagnosis
 - Encounters
 - Immunizations
 - Labs
 - Medications
 - Problems
 - Procedures
 - Vital Signs
 - NOT STORED: Super Protected Data (Drug/Alcohol, HIV/AIDS and Mental Health from licensed facilities)

Interoperability Challenge

ClinicalConnect HIE Membership

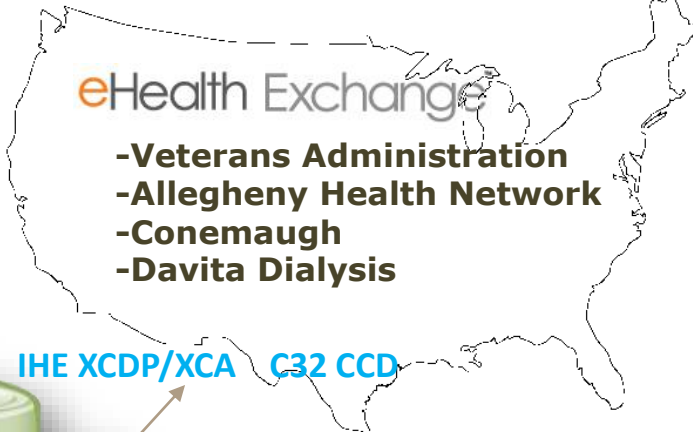


Alaska and Hawaii are not shown on the map and have a few hundred members.

CCHIE Regional Members

- ACMH Hospital
- Butler Health System
- Community Health Clinic, Inc.
- East Liberty Family Health Care Center
- Excela Health
- Heritage Valley Health System
- Lawrence County Family Medicine
- Ohio Valley Hospital
- Pediatric Alliance, P.C.
- Presbyterian SeniorCare
- St. Clair Hospital
- The Children's Home & Lemieux Family Center, Pediatric Specialty Hospital & Child's Way
- The Children's Institute of Pittsburgh
- Uniontown Hospital
- UPMC
- Washington Health System

- I. Viewing of Patient Data
 - SAML API (HTTPS)
 - HL7 v2 ADT (VPN)
- II. Data Contribution
 - CCD
 - HITSP C32 (IHE XDR, HTTPS)
 - CCDA CCD (IHE XDR, HTTPS)
 - Documents
 - HITSP C62 Unstructured (IHE XDR, HTTPS)
 - HL7 v2 MDM Interfaces (VPN)
 - Lab Results
 - HL7 v2 ORU Interfaces (VPN)



IHE XCDP/XCA C32 CCD



Federated



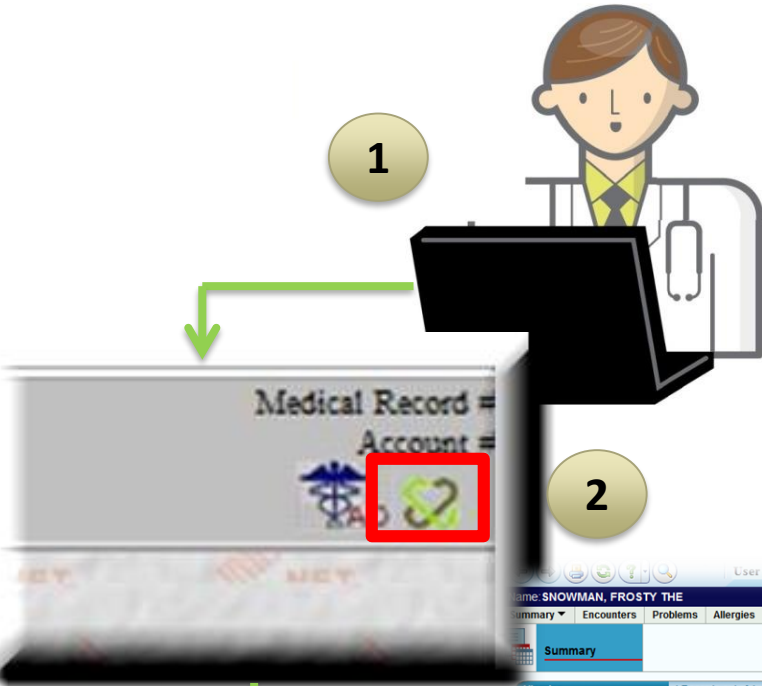
UPMC LIFE CHANGING MEDICINE

Clinical Data Repository

Hybrid Model HIE

*Store discrete data elements from **Regional Members** : Problems, Allergies, Medications, Immunizations, Labs, & Encounters and Clinical Documentation such as Discharge Summaries, Progress Notes, Procedure Notes, etc.

How a clinician accesses ClinicalConnect HIE



1

1. Clinician logs into member EHR and must select patient record

2

2. Clinician clicks a custom *link* to CCHIE

3

3. Patient is displayed in context via a new window with regional summarized member data

Summary

Name: SNOWMAN, FROSTY THE MRN: 1089065 Age: 77 Years Gender: Male

Summary Encounters Problems Allergies Medications Labs Immunizations Documents

Allergies		4 Records out of 4	
Allergy To	Reaction		
Keflex CAPS	Swelling		
Nonsteroidal Anti-inflammatory Compound...	Swelling, NOS		
Lactose	Lactose		
Peanuts	Anaphylaxis		

Medications		2 Records out of 4	
Medication	SIG		
Furosemide (Furosemide 40 MG...)	40 mg By Mouth Daily		
Warfarin (Warfarin Sodium 3 MG...)	3 mg By Mouth Daily		

Encounters				4 Records out of 5			
Admission Date	Type	Facility	Attending				
5/3/2012 13:35	emergency	Heritage Valley S...	EMERGENCY...				
5/1/2012 14:00	General	Heritage Valley S...	EMERGENCY...				
4/9/2012	ambulatory	UPMC - UNIV OF ...					
4/5/2012 14:06	ambulatory	NorthWest	FORSYTHE...				

Problems		3 Records out of 3	
Problem			
Urinary tract infectious disease (UTI (urinary tract infection))			
Seizure disorder			
Atrial fibrillation (Atrial Fibrillation and Flutter)			

Labs			4 Records out of 6		
Collected	Test	Specimen			
4/30/2012 21:48	Electrolytes				
4/20/2012 01:52	Digoxin				
4/6/2012 14:37	AFB Culture - Decontamin...	Abscess			

First Name: Emma Watson

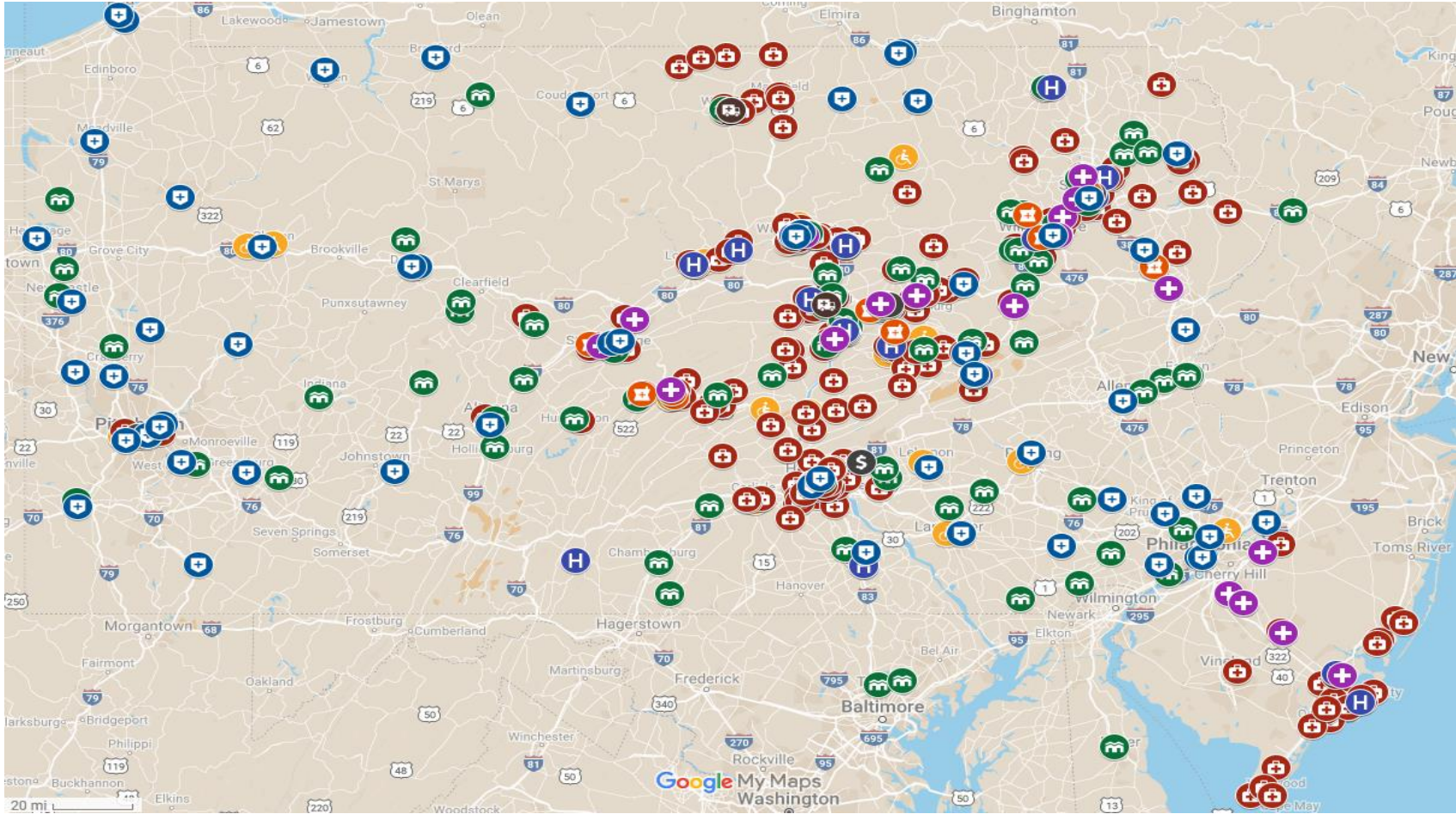
- Chronic heart failure
- Acute heart failure
- Acute or chronic heart failure
- Diagnosis of Class, leave the document unchanged
- Diagnosis - not enough information is available
- Diagnosis
- Add other/abandon text to the Assessment
- Diagnosis - query does not apply
- Diagnosis - not enough information is available
- Diagnosis

About KeyHIE

- Health Information Exchange
- Founded in 2005
 - One of the oldest HIEs in the US
- Serves approximately 5.7M patients, over 53 counties in PA

Mission: To nurture information sharing between providers with secure access to quality healthcare data, when and where it is needed

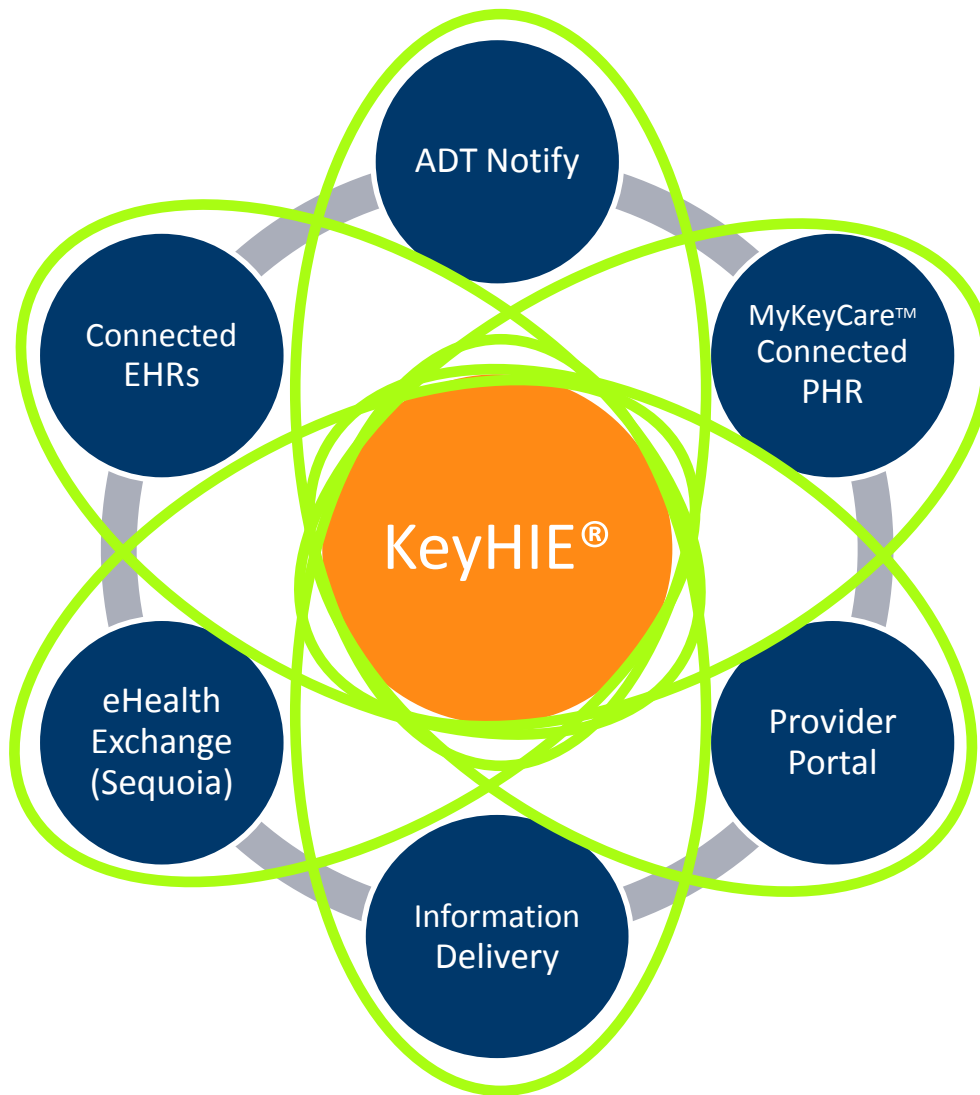
KeyHIE Footprint



29 Hospitals	369 Physician Practices	36 Home Health Locations	82 Long Term Care Facilities
12 Pharmacy	4 EMS	19 Urgent Care	4 Insurance



KeyHIE Products & Services



- Connecting the care continuum
- Connecting patients
- Delivering reports and results
- Alerts and messages
- Nationwide Exchange

KeyHIE Services

- KeyHIE Provider Portal
 - Web-based or within your own EHR
 - Clinical document viewer, summary viewer, EHR publisher
- KeyHIE Notifications & Information Delivery Service (IDS)
 - Subscribe to receive notifications when a patient is admitted, transferred or discharged from a participating hospital
 - Subscribe to have patient results/documents pushed to your connected EHR
- KeyHIE Transform
 - LTPAC transition of care support
 - EMS support
- DIRECT Secure Messaging
 - Secure, web-based email
- MyKeyCare patient portal
- Additional services include:
 - Workflow customization, training, marketing materials

KeyHIE Provider Portal

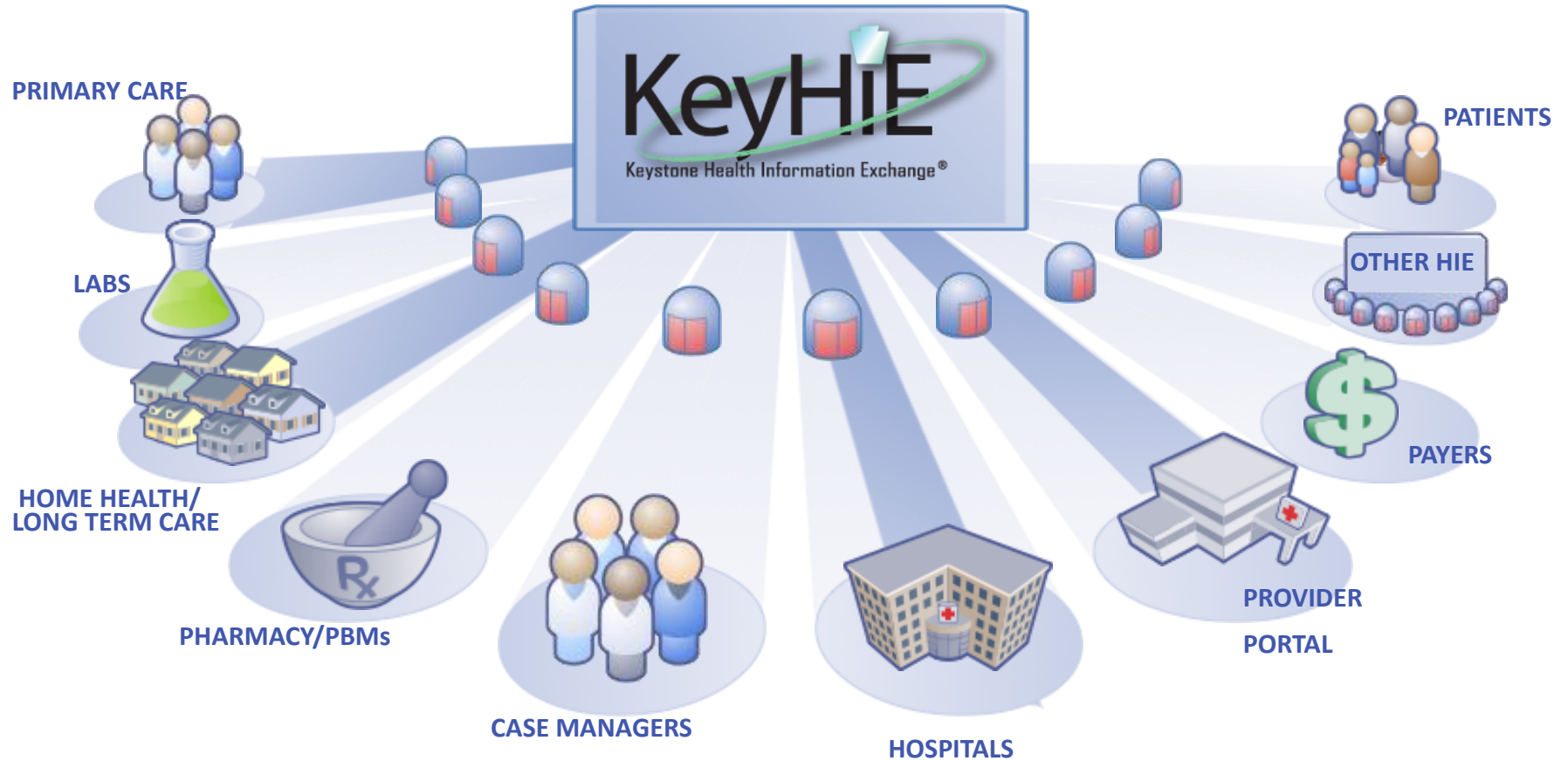
Your providers can:

- View clinical summaries/documents
 - EHR
 - Web portal
- Receive KeyHIE Notifications/IDS
 - Admission, ER, Discharge
 - Documents delivered
- Connect to PA Patient & Provider Network (P3N)
- Connect to eHealth Exchange (Sequoia)

Documents Available:

- Lab/test results
- H&Ps
- Consults
- Discharge & ED summaries
- Radiology reports
- EKG tracings
- Continuity of Care Documents (CCDs)
 - Allergies
 - Medications
 - Health problems
- And many more...

Operational flow:



KeyHIE IDS Subscription Types

Types of subscriptions available:

- Inpatient admission notification
- Inpatient discharge notification
- Emergency admission notification
- Emergency discharge notification
- Lab results delivery, including site-specific results
- Radiology reports
- Discharge summaries
- Consult notes
- ED summaries
- CCDA

IDS is designed in a configurable way to allow for new subscription types/rules to be implemented quickly and easily

IDS STATISTICS - QTR II - 2018



2.67 M

TOTAL SENT



80

UNIQUE RULES



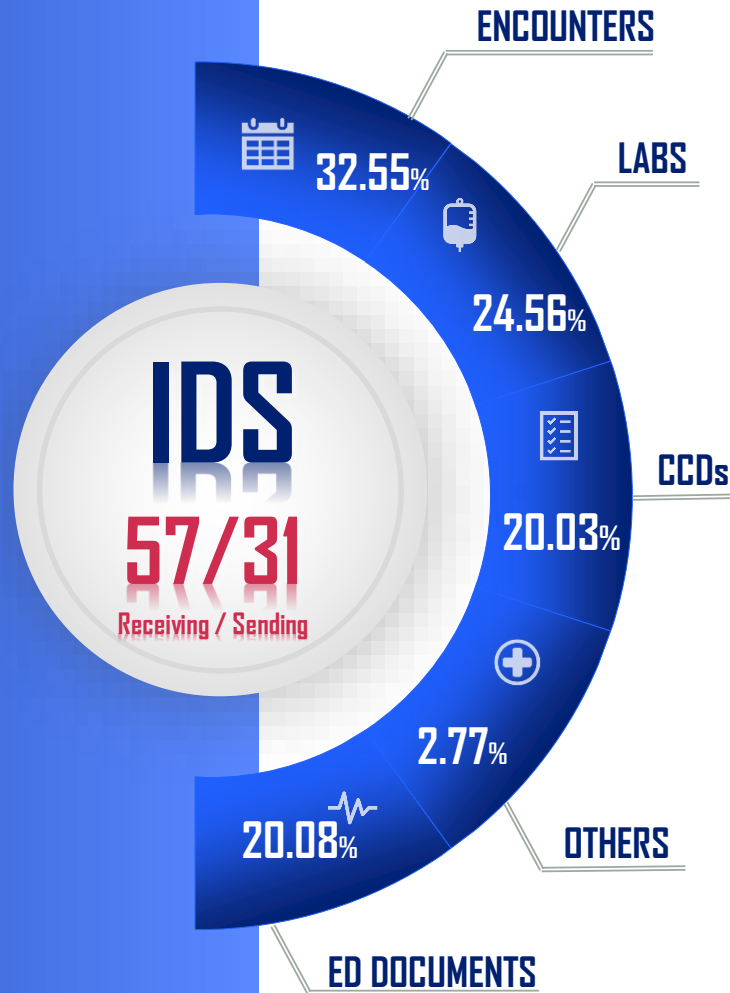
23.11 K

NOTIFICATIONS



1.80 M

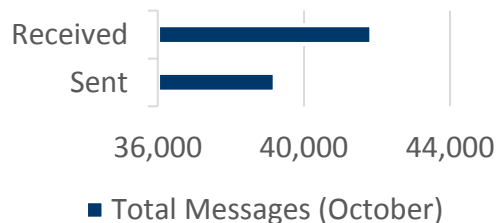
DOCUMENTS





Direct Secure Messaging (web)

Total Messages



KeyHIE Update October 2018



Certified HIO

Connected to P3N & Sequoia Project

5,834,271

unique patients with health records in Keyhie

4,520,202

New documents available in October

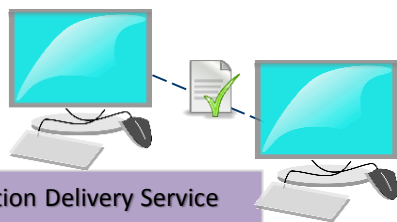
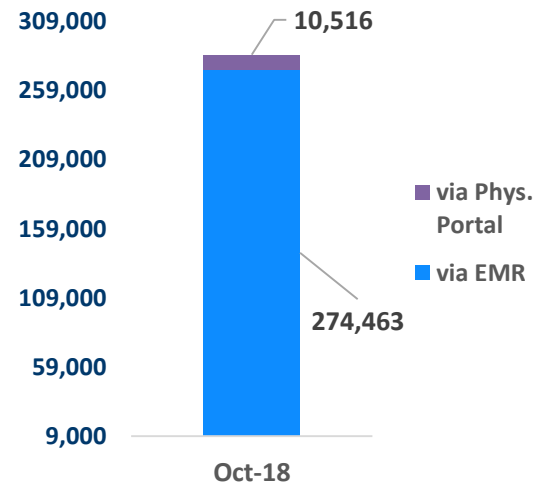
4,919

active KeyHIE users

43

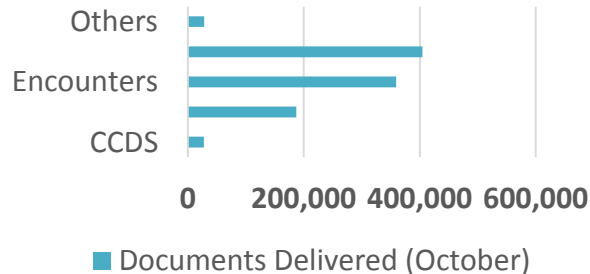
organizations moved to an opt-out consent model

Total Documents Viewed



Information Delivery Service

Documents Delivered

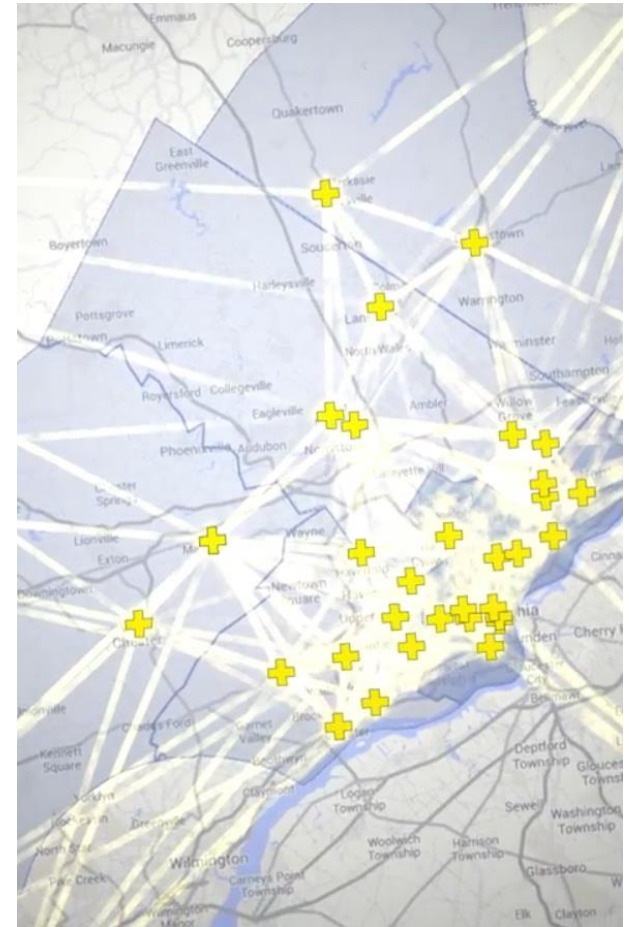


32,319 patients signed up for MyKeyCare

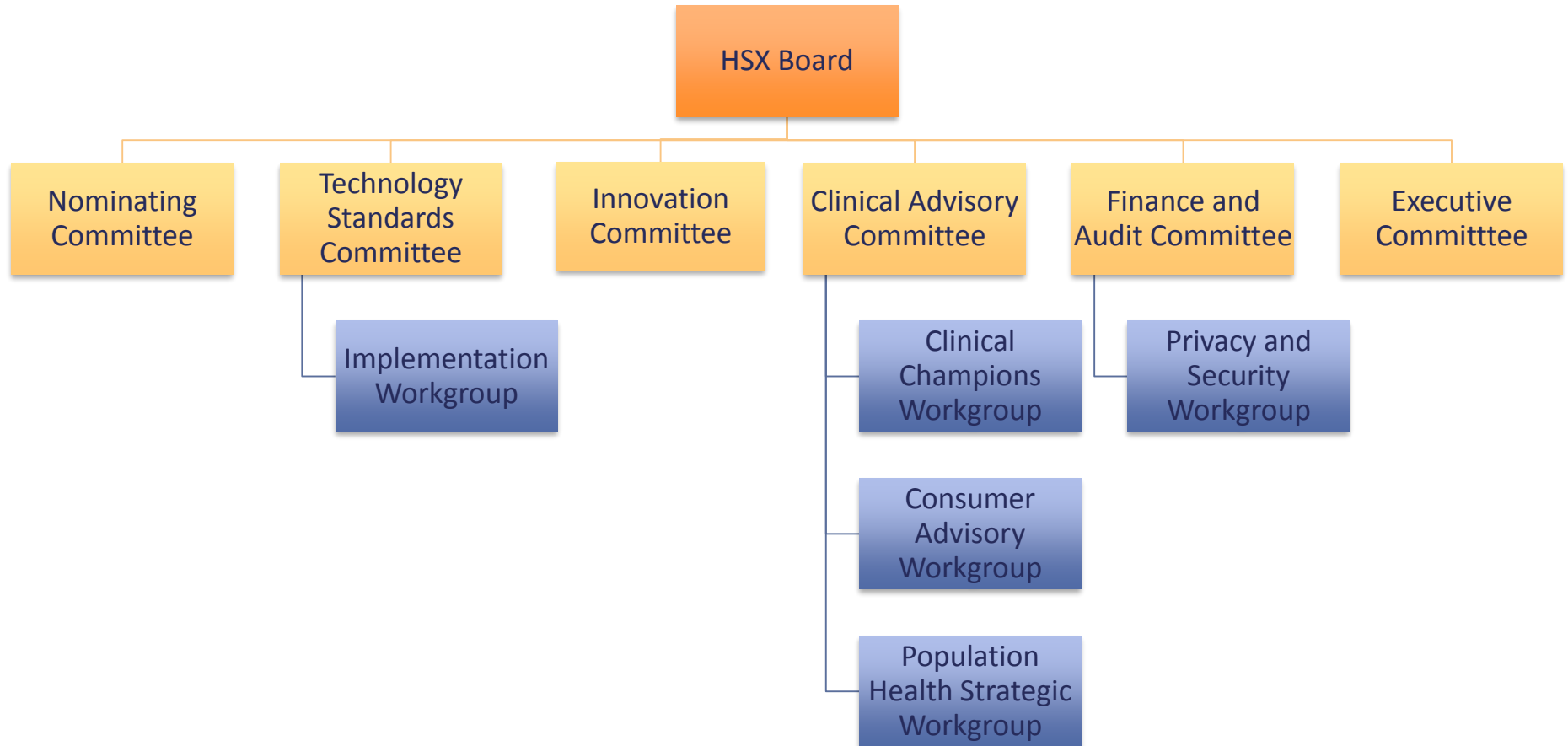
ABOUT HSX

Who We Are

- A **non-profit 501(c)(3)** – Member-owned entity formed in May 2012
- Staff of **20 FTEs**, technology vendors, consultants, college and graduate interns, and incredible volunteerism from our members
- Service area: **Delaware Valley**, including southeastern Pennsylvania (Greater Philadelphia area, including Bucks, Montgomery, Chester, Delaware, and Philadelphia counties) and southern New Jersey.

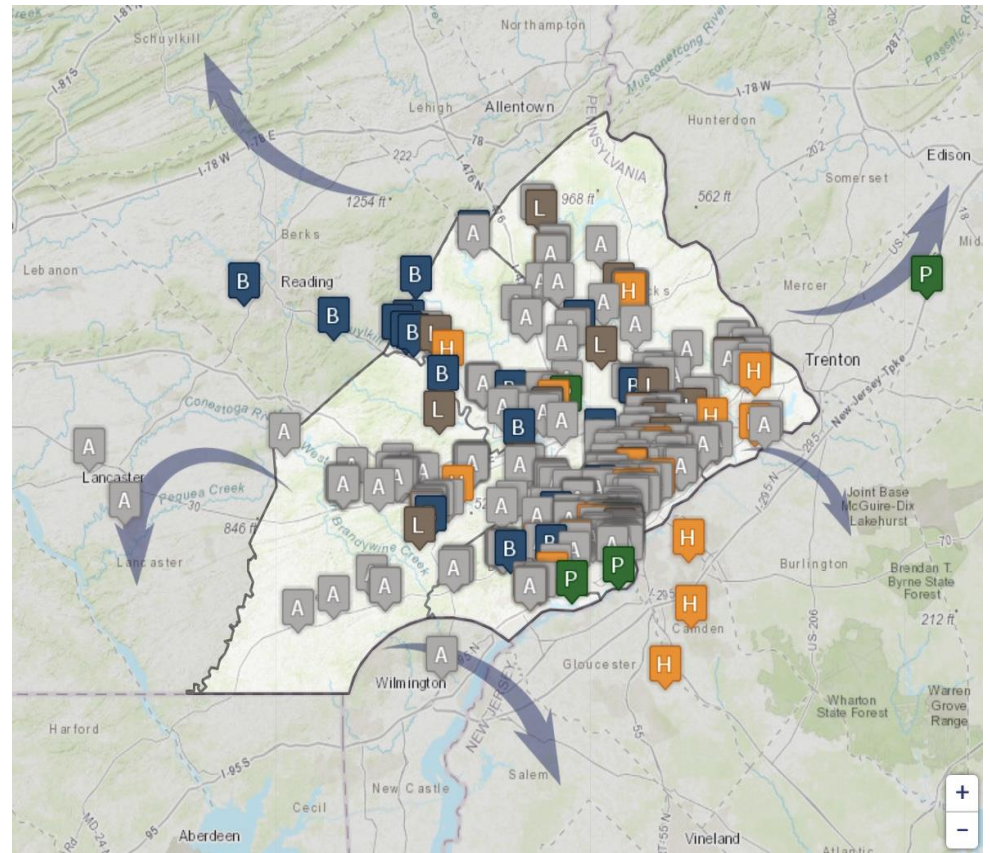


HSX Governance Updated 07/23/2018



The Network Value Growing Each Day ...

- **Over 7 million patients** in the HSX Clinical Data Repository- 20% increase in 2018!
 - **49% unique patients** with clinical information which is a 41% increase in 2018.
- **14,000+ physicians and other practitioners** in the HSX Provider Directory
- **95% messages sent** via HSX that are inter-health system
- **4+ million patients tracked** using HSX Encounter Notification Service (ENS)
- **300+ participating facilities**



Service coverage expanding as current members and participants become connected.

Current Membership

Acute-Care Hospitals & Health Systems

- 46 Hospitals

Specialty Hospitals

- Physicians Care Surgical Hospital
- Rothman Orthopaedic Specialty Hospital

Post-Acute Care Facilities

- 60+ Facilities Contracted

Home Health Organizations

- Aurora Homecare & Hospice
- CareGivers America Home Health
- Maxim Healthcare Services
- Mercy Home Health
- Southeastern Home Health Services

Behavioral Health Organizations

- Collaborative Care
- Creative Health Services
- Eagleville Hospital
- Elwyn
- Northwestern Human Services
- Springfield Psychological
- Valley Forge Medical Center

Health Plans

- Aetna, Inc.
- Aetna Better Health
- AmeriHealth Caritas
- AmeriHealth New Jersey
- Health Partners Plans
- Independence Blue Cross
- United Health Care

Clinically Integrated Network

- Doylestown Healthcare Partnership

Independent Ambulatory Practices (includes Federally Qualified Health Centers)

- More than 110 organizations contracted

Accountable Care Organizations

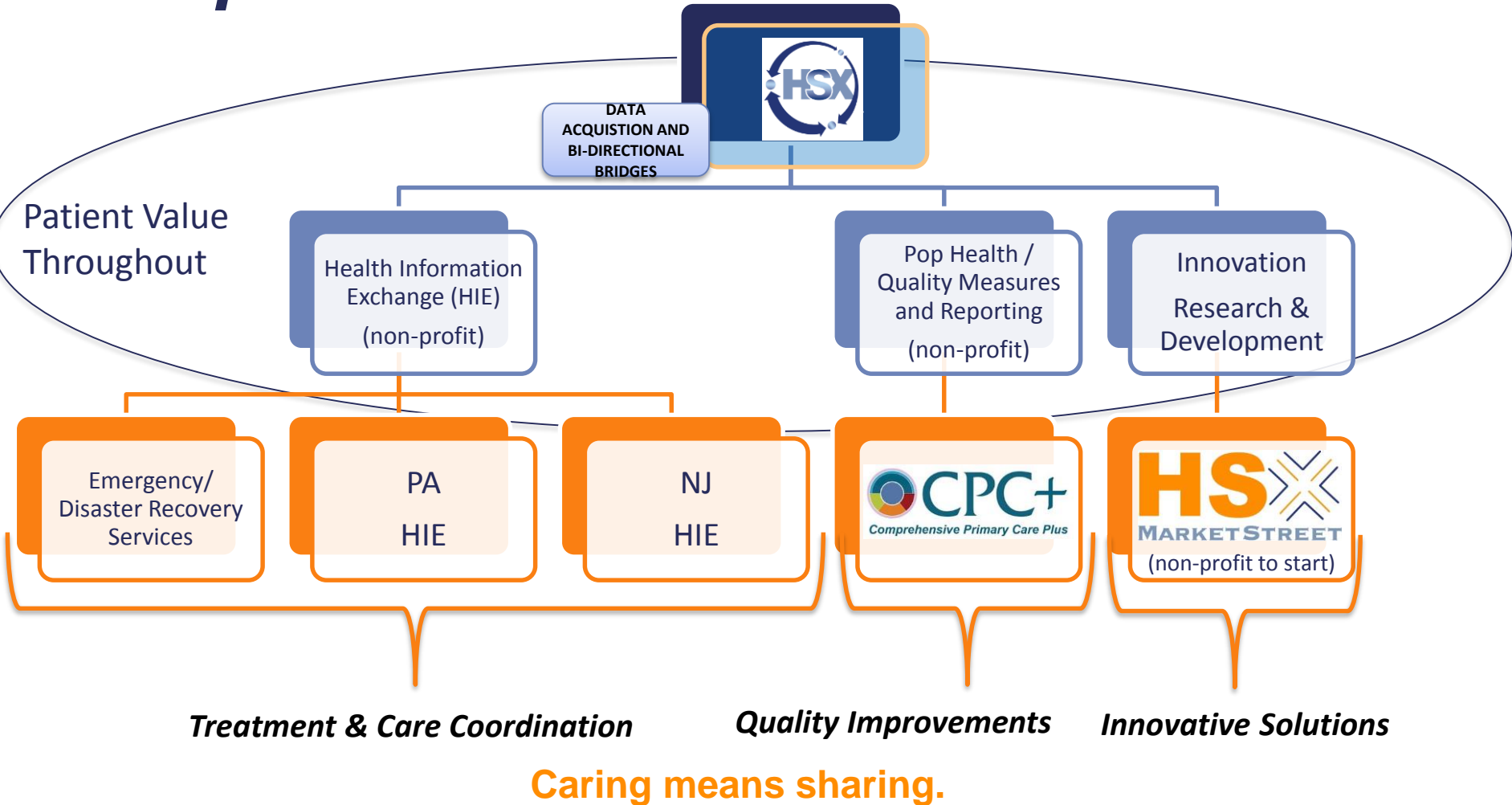
- Aledade, Inc.
- Delaware Valley ACO
- Fresenius Health Partners
- Mercy Accountable Care
- Philadelphia-Camden Integrated Kidney Care
- Quality Health Alliance

Population Health Service Organization

- Tandigm

**In 2018,
HSX
added 43
new
members!**

Introducing HSX 3.0 – A Collaboration Platform



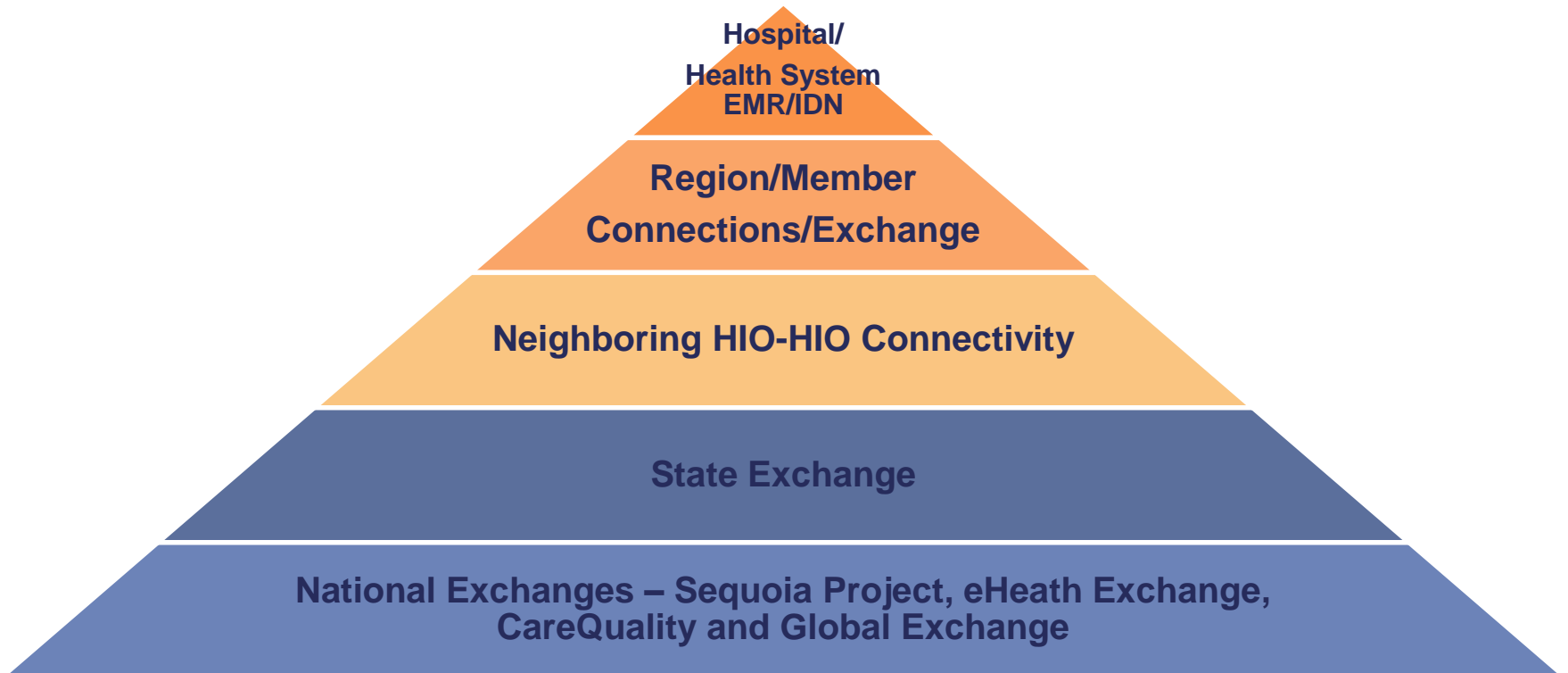
Service, Security and Implementation Assets

- Direct/Provider Directory
- Health Data Repository – Getting Clinically Richer Each Day!
- Patient Panels/Groupings That Create Multiple Relationships
- Encounter Notification and Tracking
- Emergency Department Focused Services
- Focus on Transitions of Care
- Emergency Response/Business Continuity
- Robust Security Program
- Experienced Team - Advisory Experience



Leverage The Assets To Their Fullest Potential - Your Community Asset!

Enabling Exchange within a Layered Ecosystem



A Two Sided Platform

14,000+
PROVIDERS



2000+
HEALTHCARE
FACILITIES



30+
EMR
SYSTEMS



6
HEALTH
PLANS



**Aggregated
Clinical and
Non-Clinical
Data**

8M+



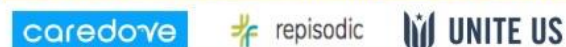
Wellness Application



Remote Patient Monitoring



Post Acute Care/Community Referral Services



Patient Centric Access to Data



Appointments/Referral/Prior Authorization



Transportation



Predictive Analytics



TeleHealth

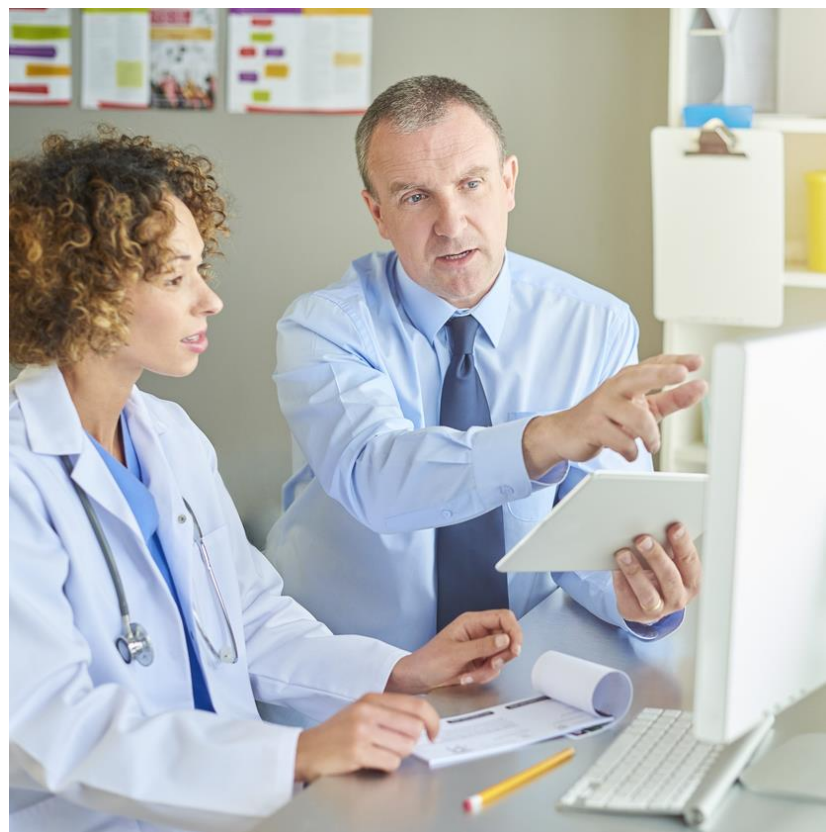


Care Management/ Value based solutions



HealthShare Exchange (HSX) Serves as Data Aggregator for Greater Philadelphia CPC+

- As part of HSX's Population Health Program, **quality reporting and performance indicators** will be provided for 210 participating practices and participating payors:
 - Independence Blue Cross
 - Aetna
 - Centers for Medicare & Medicaid Services (CMS)
- Feedback **reports** to primary care practices include:
 - performance highlights based on quality outcomes
 - process measures,
 - utilization measures
- **HSX vendor technology partner:** **Onpoint Health Data** supports data aggregation, processing, and report generation for Medicare Fee for Service and Medicare Advantage enrollees.
- **CMS prime contractor for CPC+ is:** **Deloitte Consulting, LLP**



Health Plan Improvement Data Gathering Made Easier

- **Challenge:** More than 90% of health plans utilize NCQA HEDIS to measure care and service performance. It serves as a comparative tool to fairly assess the performance of various plans.
 - Plans use these measures to identify areas for improvement.
- **Solution:** Provide HSX health plan members access to clinical data through the CDR.
 - This will make it more efficient for health plans to obtain clinical data from providers.
 - Health plans can reduce costs by minimizing clinical professionals visits to multiple provider sites to gather this information.



HSX Testimonials



“Knowing what lab tests, imaging studies, E.R. visits, and medications patients have had recently is helping us **avoid duplication**. It’s amazing and it’s going to be used all the time – including in pay for value.”

— *Stuart Brilliant, MD, Chief of Emergency Medicine, Paoli Hospital*

“**All of our providers** — physicians, nurse practitioners, physician assistants, and nurses — are now using this information from HSX.”

— *Jennifer Kabir, DNP, FNP-BC
Director of Performance Improvement & Clinical Informatics,
Delaware Valley Community Health (DVCH)*



“Critical to fulfilling our mission of delivering value-based, coordinated medical care is effective, timely, and accurate health information exchange. **HSX gives us that opportunity** by providing us the benefits of this region’s HIE.”

— *Katherine A. Schneider, MD, President and CEO,
Delaware Valley Accountable Care Organization (DVACO)*



Lancaster General Health

Central PA Connect Health Information Exchange

December 6, 2018

Central PA Connect
HEALTH INFORMATION | EXCHANGE

Lancaster General Health/Penn Medicine

- An integrated delivery system including 4 hospitals, 19 outpatient locations, 5 urgent care sites, a physician network, post-acute providers and health sciences college
- Serves Lancaster County and region of 890,000+
- Joined Penn Medicine on Aug. 1, 2015

Licensed Beds	719
Inpatient Discharges	35,444
Outpatient Visits	1 million +
Total System Revenues	\$1 billion+
Surgeries	40,400+
Operating Rooms	40
Employees	7,800+
Medical Staff Members to include Mid-level providers	1297+

19 Ambulatory Locations

Suburban Outpatient Pavilion

- *Largest in region with more than 650,000 sq. feet of clinical space*
- *Physician offices surround central core of outpatient services*



Downtown Outpatient Pavilion

- *Adjacent to Lancaster General Hospital*

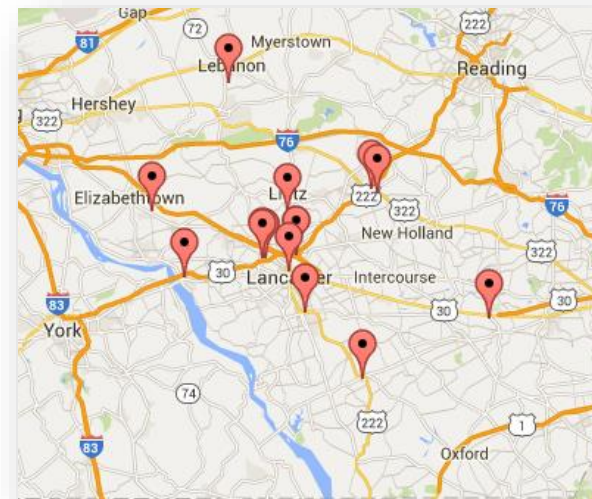
Network of Outpatient Centers

- *Lab testing, imaging, rehab, sleep studies*
- *Most are adjacent to a LG Health physician practice*

Five Urgent Cares & a Retail location

- *Total UC/Retail visits: 121,400+*

Network of 546+ employed specialty & primary care physicians throughout the region

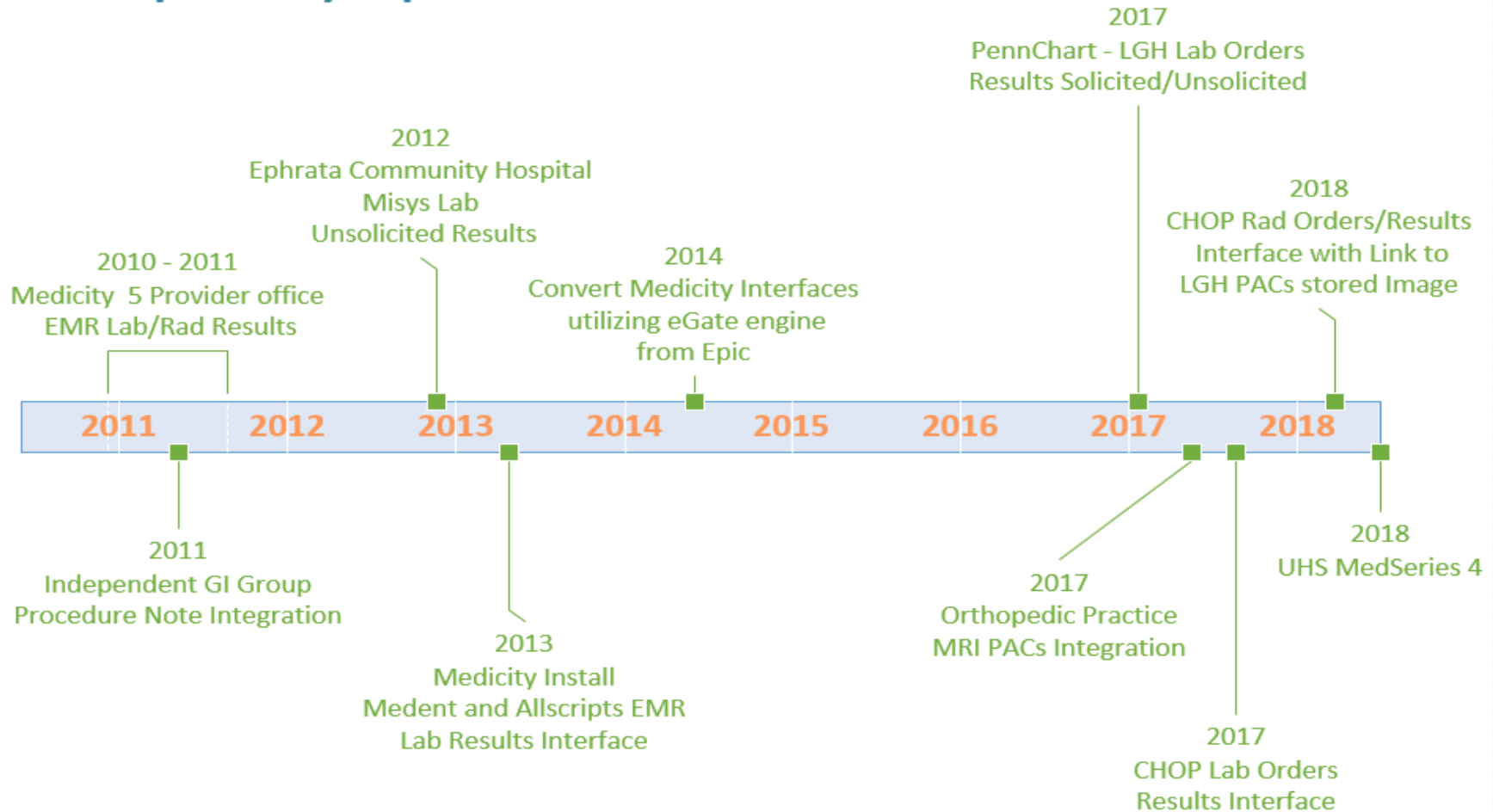


Lancaster General Health Overview

- 1.3 million patient records in LGH Master Patient Index
- Over 60% market share in Lancaster County
- Over 65% of Laboratory services provided in Lancaster County
- 69% of Medical Staff and mid-level providers using Epic for primary documentation or interfaced to Epic
- **80* owned Practices** (546 Providers, Primary Care PCMH Certified)
- **23 connected independent Ambulatory practices** (349 providers)

* 80 owned practices include 30 Primary Care, 37 specialty and 13 specialty clinics

Lancaster General Health Interoperability Experience



Health Information Exchange



18 SNF's
129 Provider Offices
3 Insurance companies

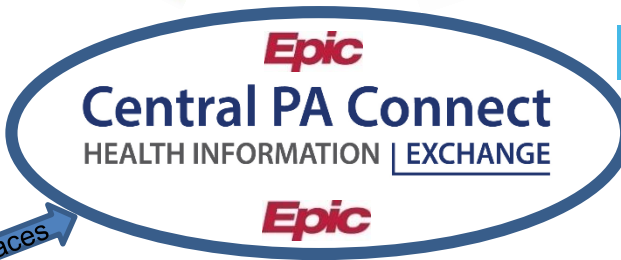
Community Connect
practices

5.5 Million+ documents
5000+ organizations
(shows explosive growth over 2016 figures at 1 Million documents with 120 organizations)

LGHealthLink

Community Connect

Care Everywhere



carequality

e-Prescribing
Refill Requests
Formularies
Direct Messages

surescripts

HL7 Interfaces

eHealth Exchange



F
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Lancaster General HIO Strategy

Clinical

- Expand the community network and data capture, leveraging a common platform (data types include encounters, clinical notes, immunizations, laboratory and radiology results)
- Collaborate and grow external data sharing via PA eHealth to benefit other HIOs
- Facilitate timely, actionable information providing an exchange for ACO at risk populations & clinical integrated networks (transitions of care, closing care gaps, preventing readmissions)

Governance

- Execute on Penn Medicine corporate approval to form LG Health HIE and leverage existing HIE governance model to include Penn Medicine HIE Committee and LG Health Information Management Internal Controls Committee
- Structure Member Organization governance with balanced participation

Business Model

- Increase value by leveraging existing Epic EMR functionality, integrating discrete data feeds for exchange with Member Organizations and other HIOs (CCDs)
- Contain cost through shared services and support of grant funding to reduce the cost of integration and support for Member Organizations

Technology and Security

- Leverage Epic EMR functionality to provide secure access to those patient records shared with Member Organizations
- Utilize HL7, CCD standards and EpicCare Link portal for secure data share

PAeHealth HIO Project

- **HIE Program** of Projects
 - PAeHealth **HIO Project**
- **Status**
 - PAR signed waiting for countersignature
 - Applying for onboarding Grant funds
 - P3N Connection should be live end of January
 - Wrap around services to include discrete data interfaces to Community Practices and SNFs happening in parallel (earmarked to begin end of January)
 - Payor discovery underway
 - Internal operations set and governance in-place

MNX Background

- Focus on offering an HIE option for smaller organizations in central PA
- Partners with limited resources, not always eligible for federal incentive programs
- The need for a low barrier-to-entry option with basic capabilities
- Launched and onboarded with statewide exchange P3N in June 2016
- Today, **18** member organizations in varying states of onboarding completion (ex: Mount Nittany Health, Clarion Hospital, Punxsutawney Area Hospital, Tyrone Hospital, WellSpan Health, orthopedics office, FOHC, independent pediatrics office, etc.)

Essential Services

- Access to MNX Provider Portal (Web-based) to view and extract patient data and technical support to contribute data into MNX's regional clinical data repository
- Unlimited access to the other 3 or more HIOs and their members' data through P3N with P3N-provided query capabilities (available through same Web-based tool or deep integration)

The screenshot displays the MNX Mount Nittany Exchange patient portal. At the top left is the logo for MNX Mount Nittany Exchange. On the top right, the user's name 'Mt. Nittany Amanda Rummel' and options for 'Shared' and 'Logout' are visible. A navigation menu includes 'My Results', 'Patients', 'Providers', 'Reports', 'Setup', and 'Administration'. Below this, a breadcrumb trail shows 'Patient > Test, Sus...'. A 'Patient Actions' sidebar on the left lists various options such as 'Back to List', 'Download CCD', 'Download CCDA CCD', 'Download Summary PDF', 'Share Summary', 'Send Summary to Me', 'View Clinical Messages', 'Configure Layout', 'Show Next 90 Days of Data', 'Show All Data', 'Filter Displayed Items By Date', and 'P3N Document Query'. The main content area is for a patient named 'Test, Sus...', a 19-year-old female. Her address is '4 ... DRIVE, CORNING, NY 14830'. A 'Data Limited to Last 90 Days' notice is present. The patient's data is organized into several tabs: 'Summary' (selected), 'More Patient Information', 'Patient Groups', 'Patient Documents', and 'P3N Documents'. Under the 'Summary' tab, there are four data panels: 'Ambulatory Encounters (0)', 'Conditions (0)', 'Laboratories (0)', and 'Transcriptions (0)'. Each panel currently displays 'No ... to display'. At the bottom of the main area, there are also panels for 'Medications (0)' and 'Allergies (0)'. The interface is clean and modern, with a light gray background and blue accents.

Essential Services

- Limited Alerts for certain defined patient activity (e.g., Emergency Department encounter notifications via MNX Mobile Alerts app)
- Members-only Web site (video tutorials, sample documentation, etc.)

The screenshot displays the MNX Mobile Alert App interface. At the top, the logo for Mount Nittany Exchange (MNX) is visible, along with the text "MOUNT NITTANY EXCHANGE". Below the logo, the title "MNX Mobile Alert App" is centered. A paragraph of text explains the app's purpose: "Mount Nittany Exchange is pleased to offer a new value-add tool for providers that are affiliated with Member Organizations of MNX. As of June 2017, providers can download a mobile app for smartphones that provides a push notification when a provider's patients are admitted to Mount Nittany Medical Center as an inpatient or are treated in Mount Nittany Medical Center's emergency department. As more facilities connect to Mount Nittany Exchange, alerts for patients visiting these acute care facilities can also be added. In effect, this provides one central place for providers to follow their patients' acute care encounter activity in our region."

Below the text, three smartphone screens are shown, illustrating the app's functionality:

- Settings Screen:** Shows options for "Push Alerts" (toggle on), "Polling Cycle Interval" (set to "Every 60" seconds), and "Subscriptions" (ER ADMIT, SYSTEM, and INPAT ADMIT are all selected).
- Inbox Screen (Left):** Shows a summary of alerts: "15 Unread" for ER ADMIT and "2 Unread" for INPAT ADMIT.
- Inbox Screen (Right):** Shows a list of individual alerts with details such as patient name, age, and time.

Alert Type	Age	Time
ER ADMIT M	77	08/02/17 02:49
ER ADMIT F	27	08/01/17 17:22
ER ADMIT F	66	07/28/17 07:57
ER ADMIT F	52	07/23/17 09:18

Essential Services

- Safety net filters for Super Protected Data (although each MO is expected to avoid sending SPD in early stages)
- Patient consent/opt-out support
- MNX became first of the PA HIOs to connect to state's **Public Health Gateway** and onboard a hospital Lab to the state's Electronic Lab Reporting registry; other registries available as member organizations express interest (ELR, PA SIIS, Cancer, eCQM, PDMP)
- Evaluating value-add opportunities in transitions of care, imaging, and other information not necessarily contained in ADTs and CCD/CCDAs
- Committed to connecting our members to broader multi-state/vendor exchanges in the coming year, preferably via P3N

Public Comment

- Name of submitter for written comment submission acknowledged by chair
- Verbal comment (3 minutes per commenter)

DHS eHealth Partnership Program

For further information:

www.PAeHealth.org

P3N HIO Certification Package:

<http://dhs.pa.gov/provider/healthinformationexchange/hioconnection/index.htm>

P3N Certified Health Information Organizations (HIO) Information:

http://dhs.pa.gov/cs/groups/webcontent/documents/document/c_281601.pdf