Learning Objectives

1. **Explore multiple HIE models from the national and state perspectives addressing approaches to achieving financial sustainability.**

2. **Discover best practices and transformational approaches for funding HIEs at state and regional levels.**

3. **Examine critical lessons learned based on a case study of key stakeholder from the Commonwealth of Pennsylvania.**

4. **Investigate how HIEs are repositioning efforts to implement the HITECH Act through Meaningful Use (MU) and incorporating new approaches such as Accountable Care Organizations (ACO).**
Building on Success - PAeHI White Papers

2008
- Establishing widespread adoption of electronic health records and electronic prescribing in Pennsylvania
- Building a Sustainable Model for Health Information Exchange in Pennsylvania

2009
- Ensuring privacy and security of Health Information Exchange in Pennsylvania

2010
- Financing Research and Framework Development for a Health Information Exchange

Financing Research and Framework Development for a Health Information Exchange "White Paper"

1. Trends and demographics
2. Approaches for "thinking about sustainability"
3. Prior planning efforts by PA's Health Information Exchange and PAeHI
4. Interview findings from 11 leading national HIE's on models and experiences
5. Findings from 26 individuals representing 13 Pennsylvania stakeholder groups
6. Current Pennsylvania HIT/HIE initiatives
7. Assessment of opportunities
8. Go-forward strategy

Hospitals across PA
HIEs in Cross-Border States

<table>
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<tr>
<th>A: DHIN</th>
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<td>B: HEALTHeLINK</td>
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<td>H: HIE Initiatives</td>
<td>PA</td>
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Case Study
HIE Impact of Pennsylvania Demographics

- Large populations to leverage economies of scale
- Many medium-to-large size health systems with some already achieving electronic adoption
- Multiple private health insurers/Medicaid covers 78% of population
- Medicaid representing 16% of this population
- Numerous small hospitals with 84% of total hospital having less than 300 beds and 47% having less than 100 beds
- Estimated 3,000 physicians in small, 1-2 physician-independent practices with approximately 2,300 in rural areas
- Majority of private insured covered lives are self-insured large corporations (national/international); Fully insured plans have interest in local, community or regional HIEs

Case Study
Historical Pennsylvania HIE Activities

- Comprehensive Roadmap -- Prescription for Pennsylvania (2007)
- ONC has provided $17.1M in funds for a state-level HIE
- HIE initiatives across Pennsylvania
- 12 Hospital based, community, regional HIE’s in operation/planning stages
- Public Health Initiatives
  - 9 current or emerging
  - Medicaid is developing plans to engage the state health care providers and patients
- Broadband deployment goals by 2015
  - Six different initiatives totaling $130.2M in grants to expand broadband and telemedicine
  - Includes $99.7M to establish 1,700-mile fiber network to provide affordable services across the Commonwealth
Case Study
Basics of HIE Financial Sustainability

**Typical Participant in HIE**
- Data exchange between key providers utilizing common data to treat shared patients
- HIE also includes providers along the continuum of care who can join as standalone institutions or networks.

**Typical Core Function**
- Core services include:
  - Secure clinical messaging (the exchange of data)
  - Inquiry (the ability to look up key clinical and administrative data)
  - Web-based EHR and ePrescribing (for those without other solutions)
  - Public health connectivity (reportable conditions and alerts)
  - Direct data feeds through the HIE to EHRs, databases, and registries.

**Typical HIE Technical Infrastructure**
- Distributed Media Model such as when a patient is given a CD by the physician to update a personal health record.
- Peer-to-Peer Model is commonly used with a hospital portal providing the hospital’s patient data to physicians at remote locations such as their practice sites.
- Federated/Record Locator Service Model
- Centralized Warehouse Model
- Hybrid Model that enable data exchange and data access across multiple organizations.

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Case Study
Simple Framework
Comparing HIEs & Impact on Financial Sustainability

**Integrated delivery networks (IDNs)**
- Organized by one Institution
- Hospitals to connect its physicians & provider partners & ensure that hospitals and physicians can participate in Meaningful Use Incentive
- Costs are absorbed by Institution & Hospital vendors set up networks
- Examples: Pinnacle Health System and Doylestown Hospital

**Community/Regional HIE**
- Organized around one or more medical referral regions with a multi-stakeholder governing body
- Fees are paid by the stakeholders based on their participation & startup funding coming from key stakeholders or outside funding sources
- Examples: Geisinger’s KeyHIE and UPMC’s HIE are blended IDN/Regional HIEs.

**State-level HIE**
- State geographic boundaries
- Responsible for addressing barriers to HIE adoption around privacy and security, standards, and legal issues
- Funded by Federal government to include state agencies and Public Health
- Example: Designation of a state-level HIE in Pennsylvania

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Case Study
Key Factors about HIEs

**Patient Care/Safety**
Health Information Exchanges provides improved and personal access to patient information, reduces paperwork for patients and doctors, expands opportunities for care by connecting patients with health care providers and more efficient access to clinical care data. Such systems can improve care coordination, increase care quality, reduce costs, and improve outcomes.

**Efficiencies**
Through initiatives like Meaningful Use of EHR’s and HIE’s especially at the state and regional level provide economies of scale, reduction of unnecessary or duplication of efforts, effective utilization of technology infrastructures, and improved realignment of communications between providers, practitioners, and patients with the goal of quality improvements and cost reduction.

**Jobs**
Health information technology (HIT) provides high value career opportunities that require robust IT skills as well as a deep understanding of medical processes, clinical decision support, and the ability to work in interdisciplinary teams. HIT professionals play a vital role in ensuring data exchange between health care providers and improving access to new technologies and products that may benefit patients and health care providers alike.
Case Study
PAeHI "Go Forward" Strategy

1. Articulate a high-level model that shows how IDNs, community/regional HIEs, and state-level HIEs can flourish across the state. Consider the unique issues in each medical referral region and statewide.

2. Collect market research by medical referral region and statewide in areas that need more exploration.

3. Engage stakeholders in a discussion about the model.

4. Come to general consensus on an HIE Sustainability Model for the state and next steps.

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Case Study—Pennsylvania’s Next Steps

<table>
<thead>
<tr>
<th>Phase 1 – ONC 2011 (Push)</th>
<th>Phase 2 – ONC 2012 (Push &amp; Pull)</th>
<th>Environmental Scan (Internal)</th>
<th>Environmental Scan (External)</th>
<th>Models</th>
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</table>
| • Leverage Direct specifications in Stage 2 Meaningful Use | • Health stakeholder process to define Pennsylvania's objectives | • Listing of all HIE stakeholders | • PA shares borders with 5 states | • Interoperability Models: 
  - Internal HIE-Other HIEs (Pull) 
  - Interoperability with local and regional entities 
  - Interoperability with state entities 

- Identify issues and complexities of cross-border data exchange

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<th>Key Points</th>
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<td>• Federal funding and prominence for HIE</td>
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<td>• 250 HIE’s nationally with 18 financially self-sustaining</td>
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<td>• Initiatives to drive Meaningful Use of EHRs and HIEs</td>
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<td>• Health Reform Legislations 2010 is pushing coordinated care through ACO’s and patient centered medical home</td>
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Best Practices and Models

Sustainable Models Started Prior to 2004
- Franciscan HIE (WA)
- Healthlinkage (OR)
- Indiana HIE
- Inland Northwest Health Services (WA)
- Utah Health Information Network (state-level)

Innovative Funding Between 2006-2008
- MedVirginia
- Minnesota HIE (state-level)
- Rochester RHIO
- Vermont Technology Leaders, Inc. (state-level)

Planning & Early Stage Starting 2010
- MHiH Resource Services (Michigan, State-level, planning stage)
- Capital Area RHIO (Lansing, MI; early stage start-up)

HIE Services Provided

Majority Provide
- Clinical messaging and Inquiry (CCD)
- PH Dept. reportable conditions or Immunization Registry

Most Provide
- Had or planning eRX, orders, physician workflow tools
- Six of 11 had or planning low-cost, Web-based certified EHRS that meets Meaningful Use

Unique Services
- INHS (WA) offers shared IT services to 38 hospitals plus majority of physicians; others use Virtual Private Network
- MiHIN Resource Services plans to implement 7 sub-state HIEs over 18 months.

Seven Success Strategies
1. Innovative stakeholder negotiations
2. Building the right relations hospitals & payers
3. Physician adoption as driver of sustainability
4. Innovation to bring payers/providers together
5. Innovative sources for fee income
6. State leaders drive healthcare transformation
7. Longer-term HIEs look to the future
Many parts to the puzzle!

1- Innovative Stakeholder Negotiations

UTAH (UHIN)
How did they get each stakeholder group (physicians, hospitals, and payers) to pay 1/3 of the fees each to fund sustainable operations for clinical data exchange?

- Started with a highly successful claims exchange in the 1990s – easier to implement, faster ROI.
- Showed HIEs that were funded 100% by physicians, 100% by hospitals, and 100% by payers.
- That made getting 1/3 funding much easier.

2 - Establishing the Right Relations

New York (Rochester RHIO)
Budget is covered 2/3 by payers and 1/3 by hospitals.

Instead of being charged a RHIO fee, payers are assessed a hospital fee at patient discharge to cover RHIO costs. The hospital then uses these funds to pay fees to the RHIO.
3- Driver of Sustainability is Physician Adoption!

- Secret to Sustainability? Common clear voice – Inland Northwest, MedVirginia, HealthBridge, Franciscan HIE
- Priority on giving the leadership physicians the services they want
- Low cost of entry – no charge for clinical messaging & inquiry (CCD); charge for add-ons
- Physicians are primary outreach arm
- Physicians will pay for value (Inland Northwest)

4 - Bringing Payers & Providers Together

Indiana (IHIE)
- Quality Health First – uses HIE's access to both clinical and claims data for performance reporting
- 5 payers, 1,400 physicians

Minnesota (MN HIE)
- 6 institutions are able to populate patient data for 84% of the residents in the state
- Joint sponsorship for 3-year start up
- 3 hospitals, 2 health plans and state government
- Why? Avoid the mistakes of the claims system

5 - Innovative Sources of Fees

Michigan (Capital Area RHIO with help from state-level MiHIN)
- Medicaid
- Michigan Office of State Employees
- Michigan Office of State Retirees
- Board membership
- Public health surveillance & alerts
- University research

Minnesota (MI HIE)
- Clinics
- Long-term care
- Public health
- School districts
- Govt.
- Other Resources
- Demographics

Other Resources
Demographics
Govt.

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7/16/2011
6 - State Leadership Drives Health Care Transformation

- Vermont (VITL): Driven from Governor’s Initiative to transform health care starting with PCMH pilot; also eRX
- HIE is essential to vision
- Used stimulus to bring PCMH, REC, and HIE under one umbrella
- 7 year legislative HIT fund – funded by % of claims

Other Regions Focused on Transformation:
- MedVirginia
- Inland Northwest in Washington

7 - Longer-term HIEs Look to the Future

- Have a vision and strategy for transformation
  - Include component of integrated care
- Large data bases
  - Legacy system “took years to develop”
  - Can support ACOs, PCMH, care coordination programs, transitions of care, work redesign, population health outcome measures, etc.
- Federal funding to finance growth
  - Beacon, REC, SSA, VA, DoD, CMS, CDC, NHIN, etc.

Putting it all together!

- Government
- Hospitals
- Payers
- Physicians
- Sustainability
- Demographics
- Other Resources
Thank You!

PAeHI Team
Chris Cavanaugh, EdD, Executive Director
William (Buddy) Gillespie, Chair HIE Committee
Sharon Dorogy, Chair, PAeHI
Ken Coburn, MD, Co-Chair HIE Committee
Steven Fox, JD, Chair Policy Committee
Mark Jacobs, Chair BAT Committee
Robert Torres, State HIT Coordinator

www.paehi.org

New Heights Consulting and Strategies for Tomorrow
Camilla Hull Brown, MBA, Principal & Founder, Strategies for Tomorrow, Inc.
Denise Reeser, MBA, Managing Principal, New Heights Consulting, LLC
Barbara Burke, EdD, Consultant, Strategies for Tomorrow, Inc.