



The Office of the National Coordinator for
Health Information Technology

Provider Directory Community of Practice (CoP) Boot Camp

02/01/2011



Today's Agenda

- Opening remarks, introductions – Liesa Jenkins (5 minutes)
- Provider Directories and Meaningful Use – Claudia Williams (25 minutes)
- Overview of HITPC Information Exchange Workgroup Findings – Micky Tripathi (20 minutes)
- Provider Directories – Designing with the End in Mind – Linda Syth (20 minutes)
- Question and Answer period – ALL (20 minutes)



Our Speakers

- Claudia Williams, *Director, State HIE Cooperative Agreement Program*
- Micky Tripathi, *President and CEO, Massachusetts eHealth Collaborative; Chair, HITPC Information Exchange Workgroup*
- Linda Syth, *COO, Wisconsin Medical Society*



Logistical Information

- All lines will be muted until the Q/A session.
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Provider Directories and Meaningful Use

Claudia Williams, Director
State HIE Program





Why Provider Directories

- Key infrastructure to enable Meaningful Use exchange requirements, especially sharing care summaries across providers.
- Facilitates incremental development of exchange infrastructure
 - Key component to facilitate directed exchange
 - Also an important component of query/response exchange



Key Elements of Provider Directory

- Open to all qualified entities
 - For instance it would be available for use by any qualified HISP, HIO or other exchange entity within the state
- Aiming for authoritative
 - Includes all licensed providers



Advancing Provider Directories

- ONC is working to help advanced the development and understanding of provider directories through various means including:
 - Information Exchange Workgroup
 - HIT Standards Committee
 - State HIE Program Community of Practice
 - S and I Framework

Information Exchange Workgroup Recommendations



- The recommendations on Entity-Level Provider Directories are currently under consideration by ONC.



Overview of HITPC Information Exchange Workgroup Findings

**Micky Tripathi, Chair
HITPC IE WG**



Charge to the IE Workgroup

- **Breakthrough areas where policy barriers prevent providers and/or states from being effective enablers of broader and deeper health exchange**
 - Specific clinical transactions already identified as important to meaningful use
 - Critical issues that get unearthed by the over \$1.5 billion programs in state-level HIE, RECs, Beacons, and NHIN Direct
- **IE WG will also act as conduit for state-level policy issues that need HITPC attention**
 - For issues in IE WG charter, Identify and recommend solutions to such issues to HITPC
 - For issues outside of IE WG charter, navigate to most appropriate HITPC WG(s) and facilitate/coordinate as necessary



IE Workgroup Membership

Chair: Micky Tripathi, Massachusetts eHealth Collaborative

Co-Chair: David Lansky, Pacific Business Group on Health

Name	Affiliation
Hunt Blair	Vermont Medicaid
Jim Buehler	CDC
Connie W. Delaney	University of Minnesota, Nursing
Paul Egerman	
Judy Faulkner	Epic
Seth Foldy	CDC
Donna Frescatore	NY Medicaid
Jonah Frohlich	Manatt Health Solutions
Dave Goetz	Dept. of Finance and Administration, TN
James Golden	Minnesota Department of Health
Gayle Harrell	

Name	Affiliation
Dianne Hasselman	Center for Health Care Strategies
George Hripcsak	Columbia University
Jessica Kahn	CMS
Charles Kennedy	WellPoint, Inc.
Michael Klag	Johns Hopkins School of Public Health
Deven McGraw	Center for Democracy & Technology
George Oestreich	Missouri Medicaid
David A. Ross	Public Health Informatics Institute
Steven Stack	American Medical Association
Walter Suarez	Kaiser Permanente
Latanya Sweeney	Carnegie Mellon University



Provider Directory Task Force

Policy Objective and Problem Statement

Policy objective

- Facilitate rapid increase in secure electronic health information exchange (HIE) throughout our health system

Problem Statement

- The lack of a consistent approach to cross-organizational provider directories is a known barrier to progress both in “directed exchange” and in health information exchange more broadly
- Will also represent a missed opportunity to align multiple activities and combine multiple streams of funding that could yield a lower cost, higher quality service for all (e.g., State-level HIE grants, Beacon grants, Medicaid, Public Health)
- Key questions that the IE WG – Provider Directory Task Force will address:
 1. How can provider directories accelerate information exchange?
 2. What can federal and state governments do to guide directory development to support meaningful use and drive system-wide improvements in care?
 3. What policy actions can be taken to promote creation of provider directories that accelerate secure information exchange?
 4. How can information exchange across state borders and nationwide be accelerated by consistent application and use of provider directories?

Provider Directory Task Force Membership



Co-Chair: Jonah Frohlich, Manatt Health Solutions
Co-Chair: Walter Suarez, Kaiser Permanente

Name	Affiliation
Hunt Blair	Vermont Medicaid
Sorin Davis	CAQH
Paul Egerman	Epic
Judy Faulkner	DHS, Wisconsin
Seth Foldy	CDC
Dave Goetz	Dept. of Finance and Administration, TN
James Golden.	Minnesota Department of Health
Keith Hepp	HealthBridge
Jessica Kahn	CMS
JP Little	Surescripts
George Oestreich	Missouri Medicaid
Lisa Robin	Federation of State Medical Boards
Steven Stack	AMA
Sid Thornton	Intermountain Healthcare



What are Provider Directories?

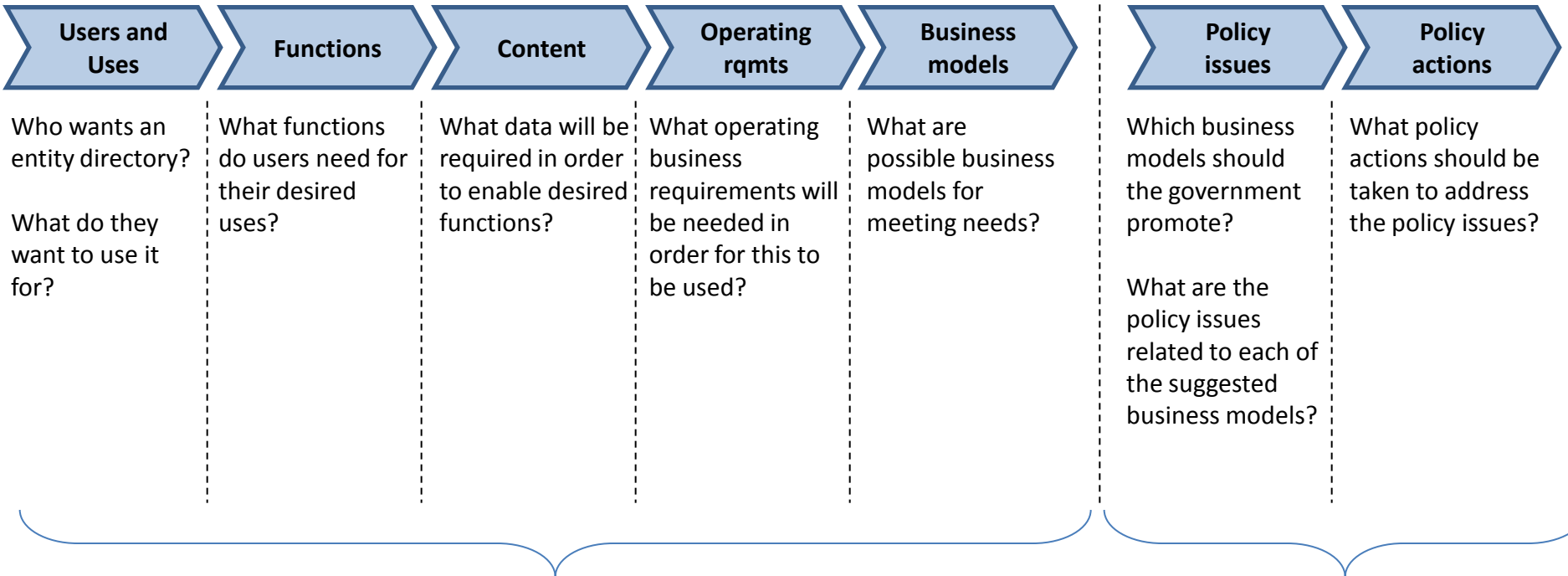
- An electronic searchable resource that lists all information exchange participants, their names, addresses and other characteristics and that is used to support secure and reliable exchanges of health information.
- Two types being considered:
 - Entity-Level Provider Directory (ELPD): A directory listing provider organizations
 - Individual-Level Provider Directory (ILPD): a directory listing individual providers

Provider Directories - Where are we in the process?



Recommendations on Directory Requirements and Options

Policy Recommendations



-- *Entity-Level Provider Directory (ELPD) Recommendations Endorsed by HITPC December, 2010*

-- *Individual-Level Provider Directory (ILPD) Recommendations to HITPC March 2011*

-- *Recommendations on Policy levers for ELPD Endorsed by HITPC*



Entity-Level Provider Directories (ELPDs)

Approved Recommendations - ELPDs (1)



Users and Uses

Recommendation: The following entities should be listed in the ELPD

- Health care provider organizations (i.e., hospitals, clinics, nursing homes, pharmacies, labs, etc)
- Other health care organizations (i.e., health plans, public health agencies)
- Health Information Organizations (i.e., regional HIE operators, health information service providers)
- Other organizations involved in the exchange of health information (business associates, clearinghouses)

Functions

Recommendation: ELPDs should support the following functionality

- Support directed exchanges (send/receive as well as query/retrieve)
- Provide basic “discoverability” of entity
- Provide basic “discoverability” information exchange capabilities (i.e. CCD, HL7 2.XX)
- Provide basic “discoverability” of entity’s security credentials

Approved Recommendations - ELPDs

(2)



Content

Recommendation: ELPD content should be limited to the following categories of information

- Entity 'demographics' and identification information
 - Name, address(es); Other familiar names; Human level contact
- Information Exchange Services
 - Relevant domains (as defined by each entity); relevant website locations
 - Protocols and standards supported for Information Exchange (SMTP, REST, CCD/CDA, CCR, HL7 2.x.x, etc)
 - Two Options:
 - Include a 'pointer' in the directory to the entity's information (*recommended*)
 - Include the entity-level information in the directory
 - General Inbox location, if applicable (for message pick-up/drop-off)
- Security

Basic information about security credentials (i.e., type, location for authentication)

Approved Recommendations - ELPDs

(3)



Operating
Rqrmts. /
Business
Model

Recommendation: Business model and operating approach

- Internet-like model (nationally coordinated, federated approach)
 - Certified registrars: registrars are ‘registered’ and certified to receive/process/accept entities in the ELPDs
 - National guidelines: Registrars follow national guidelines for who to accept, validation of application, addressing
 - Registrar reciprocity and Publication to National Registry System:
 - Entities registered by one registrar are ‘recognized’ across system (no need to register again at different registrars)
 - Each registrar publishes directory information into a national provider directory registry system that, like DNS, will support identification of entities across registrar domains
 - ELPDs: maintained by registrars; cross-referenced through system (similar to DNS)
 - Possible roles of federal government:
 - National standardization and harmonization
 - Some agencies could be registrars themselves (i.e., Medicare, VA)
 - Build on existing national/federal tools (i.e., PECOS, NPPEs, NLR, others)



Recommendations on Policy Levers to Establish Nation-wide Entity-Level Provider Directory

Policy Questions

- Which business models should the government promote?
- What are the potential government roles and levers?
- What is the appropriate level of depth in policy recommendations (and avoid stepping into role of Standards Committee)
- What is critical and necessary to meet our goals (minimal necessary principal)

Policy Options



Business Model recommendation to HITPC 11/19	Potential Government Roles/Policy Levers			
	<i>Infrastructure</i>	<i>Maintaining data quality and accuracy</i>	<i>Standards and Interoperability</i>	<i>Governance and Participation</i>
<p>Internet/like model - nationally coordinated, federated approach.</p> <p>Operates similar to DNS</p>	<p>Standards, services and policies to link existing and new ELPD assets managed by registrars</p> <p>Certified registrars and/or accreditation process</p> <p>Some federal agencies could be registrars (Medicare/VA)</p> <p>States can also be registrars (HIE program)</p>	<p>Meaningful use (EPs and hospitals required to participate and maintain own data)</p> <p>Licensing/payment policy, especially for entities that do not receive MU incentives</p> <p>Requirements for participants in Nationwide Health Information Network</p> <p>Registration for Direct address</p> <p>Onboarding for Exchange gateway</p>	<p>Standards developed through S&I framework, recommended by HITSC</p> <ul style="list-style-type: none"> • Data elements • Interoperability with EHR • Open interfaces <p>Could be adopted through/by:</p> <ul style="list-style-type: none"> • EHR certification/MU standards rules • Requirements for any directories/registrars receiving HITECH funds (state HIE program) • Requirements for participants in Nationwide Health Information Network • Federal agencies serving as registrars 	<p>ELPD governance could be requirement of Nationwide Health Information Network governance</p> <p>Levers to entice entities to participate in the provider directories</p> <p>Levers to entice potential registrars to become registrars</p>



ELPDs – Policy Recommendation 1

- **The HITSC should be directed to identify technology, vocabulary, and content standards that will create an ELPD with multiple registrars and a single, nationwide, registry**
 - The single, nationwide registry must be accessible by EHR systems and must accept registrations from accredited state/regional registrars and publish updates that are consumable to those registrars
 - Acquisition of a security credential (certificate) and discoverability of this credential using the ELPD must be included in the technical approach
 - The technical approach must also include a process for certification of ELPD functionality in EHRs and accreditation of registrars
 - Recognizing that some policy questions may still be unanswered, the HITSC should consult the HITPC as necessary during standards development to assure alignment of standards with policy
- **Discussion**
 - The infrastructure for an effective nationwide ELPD includes the registry itself, a robust process for managing registry entries, and means for users to access registry information



ELPDs – Policy Recommendation 2

- **The federal government should use the strongest available levers to require registration in, and encourage use of, the nationwide ELPD**
 - ELPD registration and use should be incorporated in MU Stage 2/3 and in NHIN participation requirements
 - The MU Working Group should work jointly with the IE WG to determine the best approach for incorporating ELPD registration and use in MU Stage 2/3
 - ELPD governance and participation should be included as part of NHIN “Conditions of Trust and Interoperability” and used as a lever to establish NHIN Governance
 - Require ELPD registration for participation in NHIN Exchange and Direct
 - Create an accreditation process for registrars within the context of other similar processes (e.g., certificate issuance)
- **Discussion**
 - MU and NHIN governance are complementary levers – MU has greater reach and more immediate relevance in the market, whereas NHIN governance will have persistence beyond HITECH incentives
 - The IE Working Group strongly supports incorporating ELPD registration and use in MU Stage 2/3 requirements; we recognize, however, that the details of how to incorporate this in MU needs to be integrated with other HIE infrastructure requirements and addressed to the greatest extent possible as part of a clinical process rather than as a technology process requirement
 - We also believe that ELPD registration and use should be a NHIN participation requirement; the national registry can be used either to validate potential NHIN participants or to list NHIN participants who have been validated through a separate process
 - CMS processes (NRL, PECOS, etc) should be leveraged to the greatest extent possible



ELPDs – Policy Recommendation 3

- **State-level HIE and Beacon programs should be required to enable the use of a national registry in addressing their constituents provider directory needs**
 - ONC should require conformance with ELPD standards and technical guidelines
 - ONC should encourage state-level HIE program grantees to become accredited registrars and to work in partnership with other grantees to create multi-state/regional registrars where feasible and to promote the establishment of accredited registrars in their states and regions
- **Discussion**
 - ELPDs can provide a foundation to on which to build ILPDs and/or other sub-national public and private registries
 - While it might be desirable to require that state-level HIE grantees become registrars, variations in state laws as well as the potential for many other organizations to become registrars obviates the need to have this as a requirement
 - States and State Designated Entities (SDEs) may want to consider entering into partnerships with other states/SDEs to group purchase registry services, or for leader states/SDEs to procure and make services available to providers in other states.



Individual-Level Provider Directories (ILPDs)



ILPD Assumptions and Framing

- Scope of ILPDs should be sub-national level
- Rigid conformance not required
- States are currently implementing ILPDs as we speak - need to produce recommendations rapidly
 - Focus on best practices for establishing and maintaining ILPDs (particularly data accuracy)
 - Best practices for local policy levers for incenting participation in ILPDs
- Will use the framework from ELPD for the development of recommendations on ILPDs



Recommendations on ILPD Users and Uses – Use Case Scenarios

- **Scenarios**

- Clinic-to-Clinic Exchange – Push Scenario
- Clinic-to-Clinic Exchange – Pull Scenario
- Hospital-to-Clinic Exchange – Push Scenario
- Hospital-to-Clinic Exchange – Pull Scenario
- Lab-to-Clinic Exchange – Push Scenario
- Public Health Alert – Push Scenario

Note: Pull Scenarios not required transactions in MU

- **Common Threads**

- Submitter needs to send a message to an individual provider
- Submitter has some information on individual but does not have individual's location information
- ILPD is used to identify all possible locations
- With additional information, submitter identifies/selects appropriate location
- ILPD links to ELPD to obtain security credentials/digital certificates location of submitter/receiver entities
- Submitter sends data to individual provider at the identified location

- **Privacy and Security Considerations**

- All use cases are contingent on following all federal and state privacy laws and rules.
- Pull use case adds an extra layer of complexity that requires a strong focus on following relevant privacy laws and rules.

Recommendations on Content (as approved by TF)



- Basic ‘demographics’ and identification information
 - Name, identifiers (NPI, DEA, State Licenses, other)
- Practice and credentials information
 - Provider Type, Degrees, Specialty
 - Licenses (type, source, jurisdiction, reference information)
- Location Information
 - Practice site(s) – name, address, other contact information
 - Site link(s) to ELPD
- Security credentials (individual)
 - Not to be included in basic information

Recommendations on Functional Capabilities of ILPDs



- Support directed exchanges (send/receive as well as query/retrieve)
- Provide basic “discoverability” of Individual provider and Individual provider’s practice location(s)
- Provide basic “discoverability” of individual provider’s security credentials
- Links to/interacts with ELPD for basic information regarding exchange capabilities of entity where individual provider practices (i.e. CCD, HL7 2.XX)
- Mechanism for individuals listed in the ILPD or their delegated staff to correct/update listed information

Discussion on Business Model and Operating Requirements of IPLDs



- Overall approach
 - Follow an Internet-like model (nationally coordinated, federated approach)?
- Registration/Operation
 - Who operates ILPDs?
 - Who registers individuals?
- Data content:
 - Sources: NPPES, NPI, State licensure boards, CAQH, Health plan directories, others
 - Validity: What's the minimum level of accuracy needed for data assurance?
 - Standards: Are there standards that should be used for content?
 - Can linkages between ELPD and ILPD be established when collecting ILPD content?
- Linkages between ILPD and ELPD:
 - Value to users will be determined by the level of integration of ILPD and ELPD
 - What is the best way to link individual providers to their entities and assure alignment with terminology and entities in the ELPD?
- Security:
 - How would security, data use rights and access be managed?
- Should an EHR certification criterion be considered to support ILPDs?



ELPD Recommendations

- Delivered to Standards Committee January 12, 2011
- Standards Committee likely to assign project responsibility to the Security & Privacy Workgroup
- HITSC S&P Workgroup currently focusing on Digital Certificates – related topic to Provider Directories
- Timeframe for developing recommendations will be defined in the next few days
- Expect ongoing exchange between HITSC S&P Workgroup and HITPC Provider Directory Workgroup to clarify policy recommendations

Revised Workplan for ILPD Recommendations



Date	Meeting	Topic
Jan 18	PD TF	<ul style="list-style-type: none">• Present Framework and Definitions of Users & Uses, Functions, Content, and Operating Requirements• Discuss Possible Business Models
Jan 24	PD TF	<ul style="list-style-type: none">• Finalize content, use cases and operating requirements• Review Business model concepts
Jan 28	IE WG	<ul style="list-style-type: none">• Recommendations on users, uses, content, functional capabilities• Finalize business requirements• Discuss policy issues
Feb 7	PD TF	<ul style="list-style-type: none">• Finalize policy issues and actions
Feb 11	PD TF	<ul style="list-style-type: none">• If necessary
Feb 28	PD TF/IE WG	<ul style="list-style-type: none">• Approve Recommendation
Mar 2	HITPC	<ul style="list-style-type: none">• Recommendations to HITPC on Individual-level Provider Directories

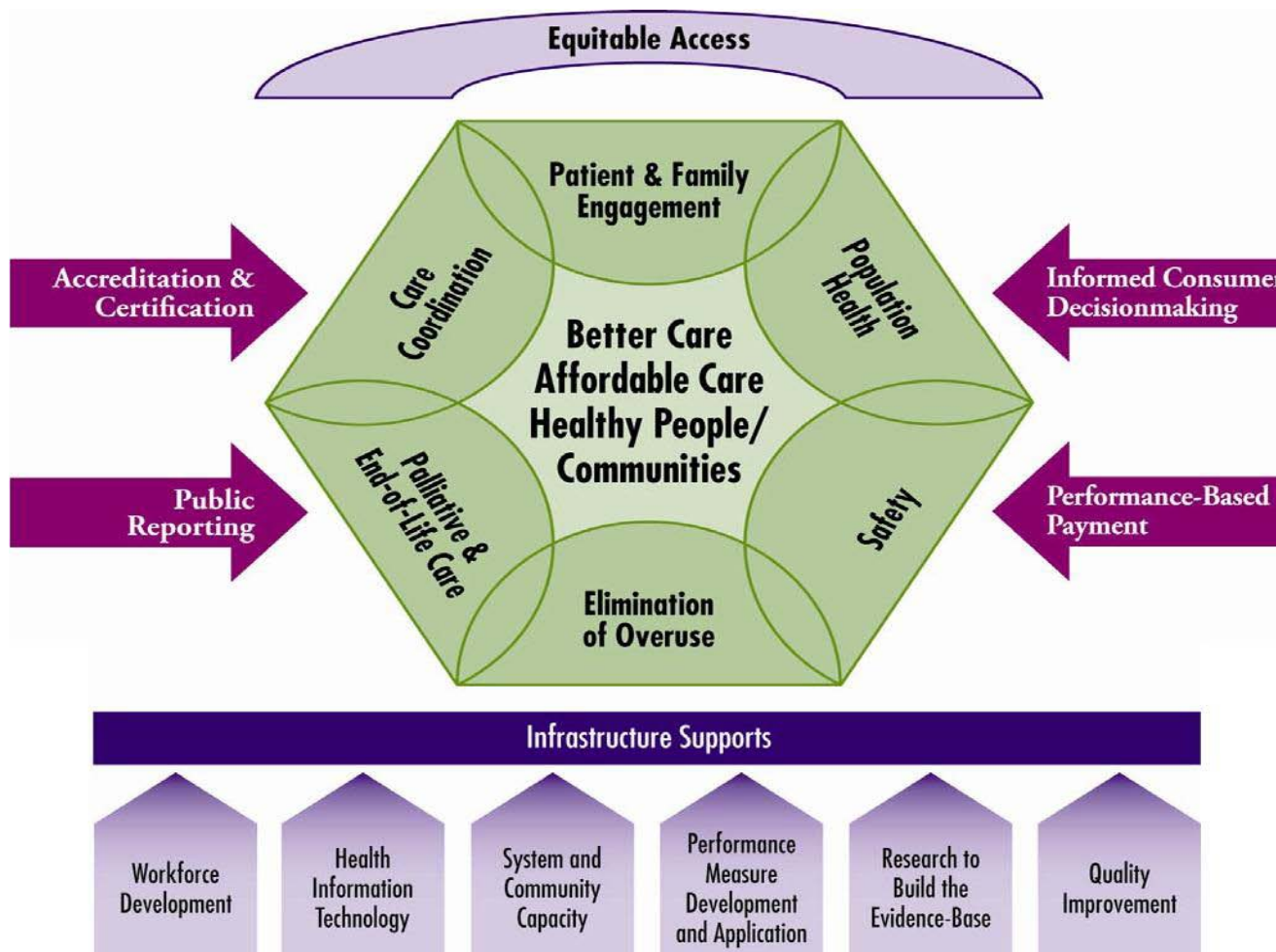


Provider Directories – Designing with the End in Mind

Linda Syth, COO
Wisconsin Medical Society

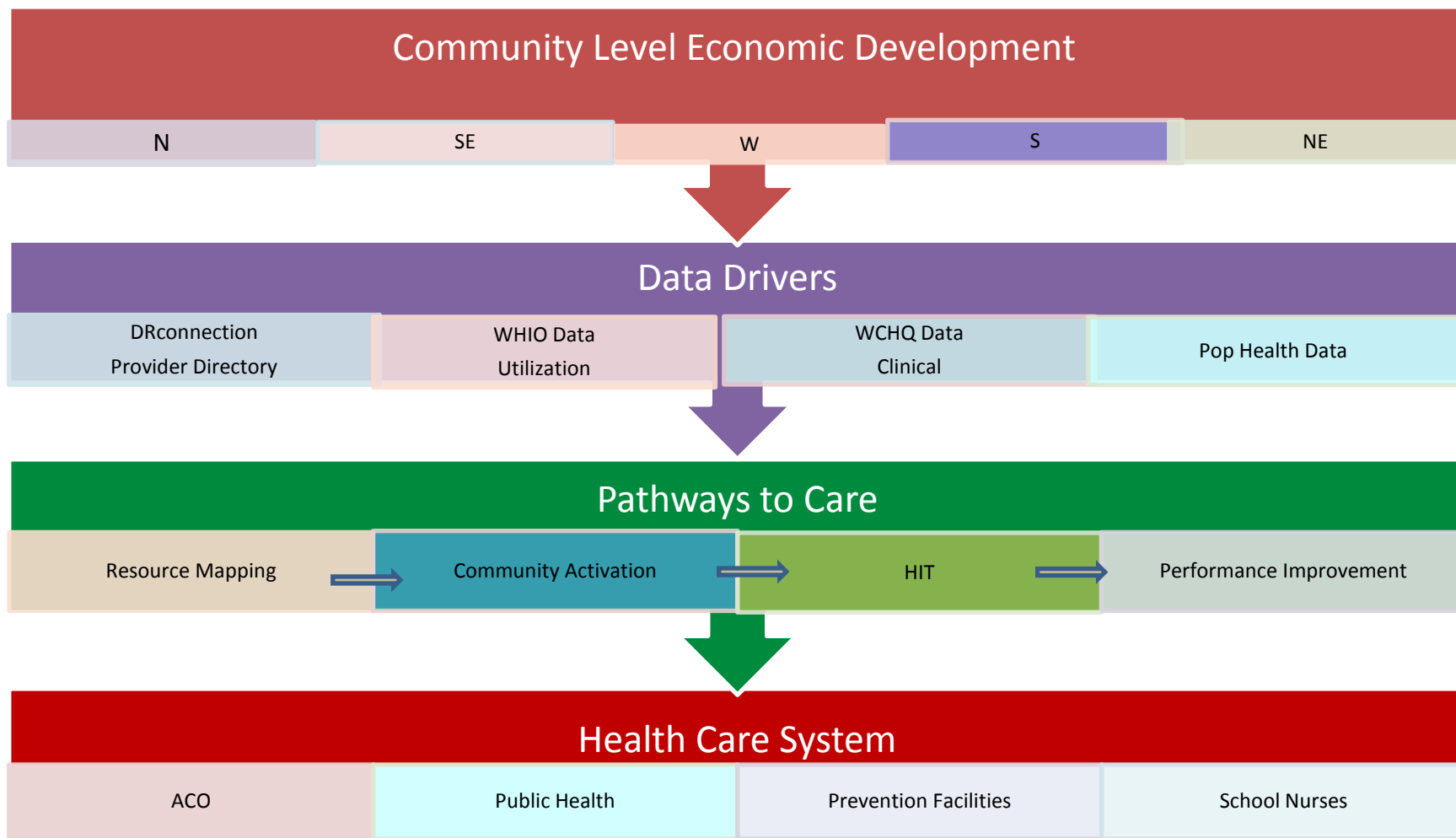


National Priorities Partnership Input to HHS to Inform the National Strategy for Healthcare Quality





Integrating to Deliver Better, Affordable Care Resulting in Healthy People & Communities





Infrastructure Supports in WI

- Workforce Planning
- HIT
- System and Community Capacity
- Performance Measure Development and Application
- Research to Build the Evidence Base
- Quality Improvement
- WCMEW
- WISHIN
- WHITEC
- UW Pop Health Institute
- WCHQ
- WHIO
- WPRI
- DRconnection
- Society's Center for Medical Practice Research and Education



It Starts with Trust

- **Why We Took On A Provider Directory**
 - Data being used to attribute 'quality' and cost to physicians—accuracy questioned
 - Provider information messy—many locations, roll up differently depending on reason
 - Same demographic data used over and over but requirements different
 - Physicians trust us
- **How We Came to Where We Are Today**
 - It's our business to know the physicians in Wisconsin
 - Our data reflected WI complexities—large integrated delivery—one to many data points
 - Rebuilt data base to be comprehensive and interoperable—can hold all HIPAA providers
 - Used in WI claims, clinical and workforce data projects
 - Support federated efforts—each state and region is unique in how care is delivered



It Must Maintain Trust

- **Challenges**

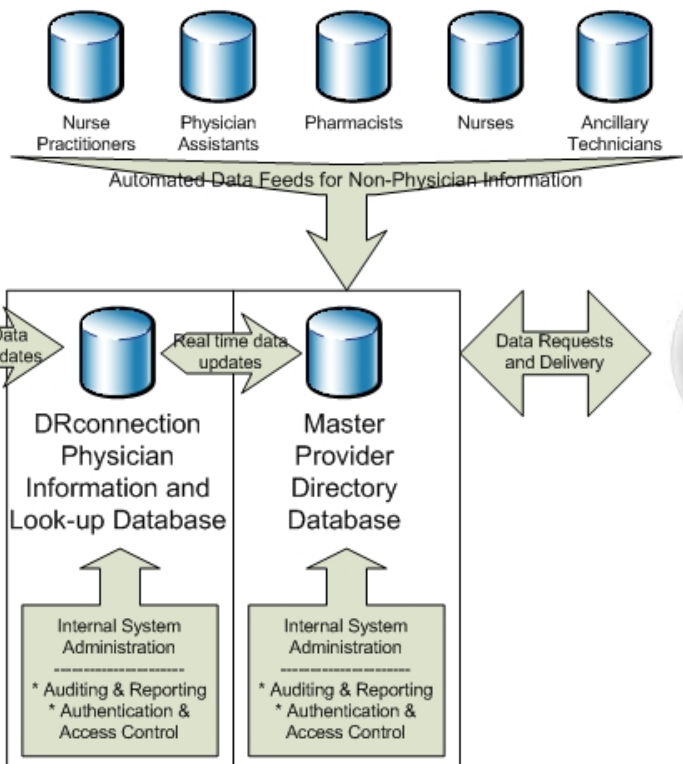
- Final standards and architecture still being molded nationally
- Need standards agreed to on
 - Content
 - Architecture
 - Interoperability
- Consistent terminology and semantics
- Data accuracy and maintenance—source where business purpose depends on accuracy (associations, integrated delivery)



Master Provider Directory

Wisconsin Medical Society | 11/5/2010

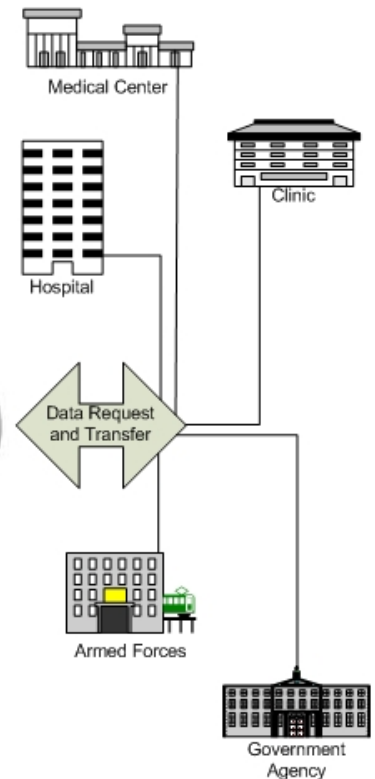
- Department of Regulation & Licensing
- Commissioner of Insurance
- National Change of Address
- American Medical Association
- Certifacts
- Clinic, Hospital, Other Informational Websites



Security Line

Internal Access

External Access





DRconnection

Streamline

PD

Business
Process
Improvement

Medicaid

Licensing &
IPFCF
Data

Credentialing
Data

QI
(Clinical &
Efficiency)

Workforce
Planning

ILPD

ELPD



Lessons Learned

- Physicians as leader of the health care team expect 98% accuracy, so cull down data points that need to be at that level
- Design must be configurable, scalable and usable
- Must be able to integrate with other data marts to allow long term goal of better, affordable care
- Must decrease administrative burden or won't be used consistently
- Multiple security and delegated authority layers needed
- Force consistent terminology and semantics
- Build for one-to-many relationships
- Source data from where business model dependent on accuracy



Means to an End

- HIE
- HIT
- EHR
- ACO
- MOL
- MOC
- PICME
- QI
- PD



Healthy People and Communities



Question and Answer Period

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Additional Slides

Advisory Committee and Support Team



Advisory Committee:

Hunt Blair, State HIT Coordinator,
Dept. of Vermont Health Access

Mike Cannon, State HIT Coordinator,
Idaho Health Data Exchange

Carladenise Edwards, President and
CEO, Cal eConnect

Gary Parker, Project Manager &
HIPAA Privacy Officer, Alabama Dept.
of Mental Health

Support Team:

Missy Hyatt, Coordinator, State HIE
TA Team

Liesa Jenkins, Champion, State HIE
TA Team

David Lawton, Facilitator, ONC

Kory Mertz, Facilitator, ONC

Chirag Rajpuria, Co-Coordinator,
State HIE TA Team



CoP Goals

- To support state-level leaders to develop and share tools and best practices for using provider directories to enable health information exchange within and among participating entities.
- To compile and share information for use in communicating business cases and value of provider directories to providers, consumers and stakeholders.
- To assess current market capabilities, gaps and strategies to increase participation in and use of provider directories
- To advance and support the adoption of national standards that advance on-the-ground implementation of provider directories



Provider Directory Resources

- Provider Directory CoP
 - <http://hitrc-collaborative.org/confluence/display/hiecoppviderdirectories/Provider+Directories+-+Home>
- HITPC IE Workgroup Homepage
 - http://healthit.hhs.gov/portal/server.pt?CommunityID=1474&spaceID=14&parentname=&control=SetCommunity&parentid=&in_hi_userid=11673&PageID=0&space=CommunityPage
- Provider Directory Environmental Scan
 - <http://hitrc-collaborative.org/confluence/display/hiecoppviderdirectories/Provider+Directory+Environmental+Scan>
- CAQH Presentation
 - http://healthit.hhs.gov/portal/server.pt/gateway/PTARGS_0_0_5420_1474_17114_43/http://wciplibcontent/publish/onc/public_communities/uz/wg_month_pages/info_ex_feb/files/caqh_ehi_provider_directory_survey_110910_external_rev_11_12_10.ppt



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- The recorded session will be posted to HITRC and sent out to CoP members and bootcamp attendees.
 - To join the Provider Directory CoP, please contact Missy Hyatt at mihyatt@deloitte.com.

Thank you for your participation!