Electronic Health Information: State and Local Approaches to Data Sharing

Thursday, October 20, 2016
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Electronic Health Information: State and Local Approaches to Data Sharing

Thursday, October 20, 2016
Moderator

**Rachel Hulkower**, Public Health Analyst, Chenega Professional & Technical Services, Public Health Law Program, Centers for Disease Control and Prevention

- J.D., Georgia State University College of Law
- M.S.P.H., University of North Carolina Gillings School of Global Public Health

**Areas of expertise:**
- Electronic health information
- Access to care
Presenter Introduction

**Lilly Kan**, Senior Director for Infectious Disease and Informatics, National Association of County and City Health Officials

- M.P.H., Johns Hopkins Bloomberg School of Public Health

- Research interests/areas of expertise:
  - Data access, sharing, and application
  - Infectious disease prevention and control
  - Public health preparedness and response
  - Public health and healthcare collaboration
Cason Schmidt, Research Assistant Professor and HIPAA Compliance Officer, Department of Health Policy and Management, Texas A&M University

- J.D., Arizona State University

- Areas of expertise:
  - Health information technology
  - Electronic health information
  - Expanding access to healthcare services
Presenter Introduction

Jennifer Bernstein, Deputy Director, Mid-States Region, Network for Public Health Law

- J.D., University of Iowa
- M.P.H, University of Iowa

Areas of expertise:
- Data sharing
- Health equity
- Mental health and trauma-informed care
- Sexual, reproductive, and maternal health
Public Health Information Exchange for Local Health Departments

Lilly Kan, MPH
Senior Director, Infectious Disease & Informatics
October 20, 2016
DATA SHARING FOR PUBLIC HEALTH PURPOSES


National Association of County & City Health Officials
The National Connection for Local Public Health
LOCAL HEALTH DEPARTMENT
INFORMATICS USE

- Accounting and finance
- Programmatic reporting
- Surveillance
- Clinical records management
- Quality improvement and assurance activities
- Program improvement
- Human resources management
INFORMATION SYSTEMS & TYPES OF DATA

- Electronic medical records
- Disease surveillance systems
- Immunization information systems
- Syndromic surveillance systems
- Laboratory
- Pharmacy
- Billing

- School absenteeism
- Transportation
- Census
- Programs
- Surveys
- Social media
- Housing
- Vital records
- Environmental health
### ACTIVITIES PERFORMED AT OR FOR LOCAL HEALTH DEPARTMENTS

<table>
<thead>
<tr>
<th>Activities Performed</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extracts data from information systems</td>
<td>69.5%</td>
</tr>
<tr>
<td>Uses and interprets quantitative data</td>
<td>66.4%</td>
</tr>
<tr>
<td>Uses and interprets qualitative data</td>
<td>55.1%</td>
</tr>
<tr>
<td>Uses statistical or other analytical software</td>
<td>39.7%</td>
</tr>
<tr>
<td>Uses geographic information systems</td>
<td>45.0%</td>
</tr>
<tr>
<td>Conducts business process analysis and redesign</td>
<td>24.0%</td>
</tr>
<tr>
<td>Develops requirements for informatics system development</td>
<td>19.7%</td>
</tr>
<tr>
<td>Provides project management</td>
<td>35.8%</td>
</tr>
<tr>
<td>Acts as ‘super users’ for your information systems</td>
<td>35.8%</td>
</tr>
<tr>
<td>Maintains (modifies content of) a web site</td>
<td>72.1%</td>
</tr>
<tr>
<td>None of the above</td>
<td>10.3%</td>
</tr>
</tbody>
</table>

n = 306

The State of Health Informatics Capacity and Needs of Local Health Departments

Infrastructure

Only two in five LHDs rate their IT infrastructure as good or excellent

State-governed and small and medium LHDs are less likely to rate their IT infrastructure as good or excellent

Electronic Information Systems

29% Still use paper records for storage of clinical data

Small LHDs are even more likely to use paper records

Size of population served

- Small: 37%
- Medium: 18%
- Large: 12%

Percent using paper records

31% Use a vendor-built electronic health record (EHR) system; 8% use a custom-built or open source EHR system

Large LHDs are more likely to use an EHR system

Size of population served

- Small: 26%
- Medium: 53%
- Large: 72%

Percent using an EHR system

9% Provide no clinical services (therefore EHR systems are not applicable)

Data Analysis Note

Data are analyzed by type of governance, meaning statistics are grouped by LHDs' relationship to their state health department (i.e., locally governed, governed by the state, or governed by both state and local authorities).

Data are also analyzed by the size of the population served by LHDs, meaning statistics are grouped by the number of people living in the LHD jurisdiction (i.e., small LHDs serve less than 50,000 people; medium LHDs serve between 50,000 and 499,999 people, and large LHDs serve 500,000 or more people).

Proper statistical weights have been applied to account for sampling design and response patterns.

For more information, contact NACCHO at phinformatics@naccho.org
The State of Health Informatics Capacity and Needs of Local Health Departments

Infrastructure

Only two in five LHDs rate their IT infrastructure as good or excellent

State-governed and small and medium LHDs are less likely to rate their IT infrastructure as good or excellent

All LHDs 40%
LHD governance
State 25%
Local 40%
Shared 54%
Size of population served
Small 40%
Medium 39%
Large 48%

Percent rated their IT infrastructure as good or excellent

Electronic Information Systems

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# Local Health Departments Connected with Health Information Exchange

<table>
<thead>
<tr>
<th>Health Information Exchange Connection</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>45.3%</td>
</tr>
<tr>
<td>Not sure</td>
<td>15.6%</td>
</tr>
<tr>
<td>Yes</td>
<td>27.5%</td>
</tr>
<tr>
<td>N/A</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

$n = 324$

Source: Jiann-Ping Hsu College of Public Health & NACCHO. The state of health informatics capacity and needs of local health departments. Results from the 2015 NACCHO Informatics Assessment Survey. Unpublished data.
## ENTITIES SENDING OR RECEIVING ELECTRONIC HEALTH INFORMATION WITH LOCAL HEALTH DEPARTMENTS

<table>
<thead>
<tr>
<th>State department of health and/or human services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Laboratories</td>
</tr>
<tr>
<td>Hospitals</td>
</tr>
<tr>
<td>City/county departments/program outside local health department</td>
</tr>
<tr>
<td>Primary care clinics</td>
</tr>
<tr>
<td>Pharmacies</td>
</tr>
<tr>
<td>Long-term care facilities</td>
</tr>
<tr>
<td>Home health agencies</td>
</tr>
<tr>
<td>Health or county-based purchasing plans</td>
</tr>
<tr>
<td>Jail/correctional health</td>
</tr>
</tbody>
</table>

LARGEST CHALLENGES FOR LOCAL HEALTH DEPARTMENTS

- HIPAA, privacy, or legal concerns: 40%
- Lack of or access to technical support or expertise: 37%
- Competing priorities: 36%
- Unclear about value of return on investment: 28%
- Do not know exchange partners’ ability to electronically exchange health information: 28%
- Subscription rates for exchange services are too high: 22%
- Insufficient information on exchange options available: 22%
- Lack of support from leadership: 22%
- Exchange partners do not have the ability, interest, or incentive to electronically exchange information: 20%
- Inability of our organization’s EHR system to exchange electronic messages in standardized format: 15%
- Limited broadband/internet access: 9%

EFFORTS TO ADDRESS CHALLENGES

Digital Bridge
The Digital Intersection of Health Care and Public Health

About the Initiative
Representatives from public health, health delivery systems, and health information technology have agreed to improve the health of our nation by creating a bidirectional information flow between public health and health care. Electronic case reporting (eCR) is a natural first step toward achieving the vision. Capitalizing on existing methods for clinical data capture and exchange has potential to increase data consistency, completeness, and timeliness of public health surveillance data.

The approach for this project is based on public-private partnership motivated by mutually beneficial outcomes. These outcomes include improved data for public health and clinical practice and lower costs for information sharing.

Activities
Governance
An interim governance body is forming this fall, with equal representation from public health, health care delivery systems, and electronic health record vendors. Workgroups will focus on specific issues and report up to the governance body. These workgroups will seek input from existing eCR and other health data interoperability efforts.

Proof of Concept: eCR Pilot Sites
A proof of concept for eCR will be established. The proof of concept phase will consist of pilot demonstrations in various jurisdictions. Pilot sites, including organizations that are currently exploring eCR, will be recruited by early 2017 and results from these pilots are expected to be available by July 2017.

The Robert Wood Johnson Foundation agreed to be the neutral convener for the proof of concept phase, and Dr. John Lumpkin has agreed to chair the initial governance body. Deloitte Consulting and the Public Health Informatics Institute will provide program support.

Next Steps
Sustainability plans and processes (succession planning and participation from a wider audience for governance and workgroups) will be developed.

While the initial pilot activity will focus on electronic case reporting for infectious diseases, the governance principles and the infrastructure improvements that are developed should also be applicable to chronic conditions and other public health issues. This effort is intended to identify a consistent, nationwide, and sustainable approach to using health care’s EHR data to improve public health surveillance. Through more efficient data sharing, the digital bridge initiative will empower both public health and health care with the information needed to improve their constituents’ and patients’ health.

This effort is intended to identify a consistent, nationwide, and sustainable approach to using health care’s EHR data to improve public health surveillance.

http://phii.org/digital-bridge
Thank you!

lkan@naccho.org
Bidirectional Data Exchange Between Public Health and Healthcare Providers

Cason Schmit, JD
Research Assistant Professor
HIPAA Compliance Officer
Department of Health Policy & Management
Texas A&M University

October 20, 2016
Disclaimer

The contents of this presentation do not represent official CDC determinations or policies.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of CDC.

The contents are for educational purposes only and are not intended as a substitute for professional legal advice.

Always seek the advice of an attorney or other qualified professional with any questions you may have regarding a legal matter.
Presentation Outline

- Introduction to Bidirectional Data Exchange (BDE)
  - What is BDE?
  - How does BDE benefit providers, public health, and communities?
- State BDE case studies and related legal authorities
  - What are some examples of BDE in action?
  - What kinds of laws authorize BDE?
Bidirectional Data Exchange (BDE)
What Is Bidirectional Data Exchange (BDE)?

- Ability to send and receive data by two or more parties on a common communication platform
  - E.g., health information exchange, electronic health record (EHR) system
- Common for provider–provider bidirectional data exchange in health information exchanges (HIEs)
- Less common for provider–public health BDE
  - I.e., ability of public health both to receive data from healthcare providers and to send providers communications on the same platform
Comparing BDE and Traditional Public Health Communication

- **Traditional communications**
  - Postal mail or phone call
    - Labor- and time-intensive
    - Outside clinical workflow
    - Slow
  - Health alert networks
    - Workflows optimized for non-physicians
    - Focus on sentinel physicians

- **BDE**
  - Rapid electronic communication
  - Capable of integrating into provider workflow
  - Point-of-care notifications
  - Targeted and tailored distribution
  - Potential for automation
Advantages of Public Health–Provider BDE: Providers

- Potential healthcare provider benefits:
  - Reduced duplication
  - Reduced postal mail
  - Timely information
  - Actionable, tailored guidance

Advantages of Public Health–Provider BDE: Public Health

- Potential public health benefits:
  - Faster communication
  - Ability to reach providers through established work patterns
  - Monitored delivery and receipt
  - Cost savings over paper alerts

Advantages of Public Health–Provider BDE: Health Information Exchange

- Potential HIE benefits:
  - Additional service on common health information exchange platform
  - Additional mechanism to validate provider information
  - Reduce community costs by reusing infrastructure

Advantages of Public Health–Provider BDE: Community

- Potential community benefits:
  - Faster response to outbreaks
  - Effective use of healthcare resources
  - Reduced disease burden from enhanced public health response

Possible Disadvantages of BDE

- Too many communications might result in “alert fatigue”
- Low-quality data might affect content of communications
  - E.g., concern over false-positive alerts
- Active management required for some systems
- Infrastructure capable of BDE is required
- Real and perceived patient privacy barriers exist
BDE Case Studies
Case Study: H1N1 Influenza Outbreak Notification

- Marion County Health Department (MCHD), Indiana: syndromic surveillance identified spike in H1N1 chief complaints and tests
  - April 2009—MCHD sent an alert to healthcare providers using a clinical messaging function of a local HIE
    - 98% delivery rate
  - May 2009—Follow-up alert on handling suspected cases after school closure
    - 95% delivery rate
  - September 2009—Alert sent informing physicians on how to obtain vaccines for upcoming flu season
- Estimated cost savings of $3,638 over traditional mail alerts to 3,085 providers

Indiana Disease Control Law

“(a) Case reports submitted to the local health department or the department may be used for:
   – (1) epidemiological investigation; or
   – (2) other disease intervention activities;”

“(d) ... Findings of the investigation shall be used to institute control measures to minimize or abrogate the risk of disease spread.”

410 Ind. Admin. Code 1-2.5-77(a), (d)
Case Study: Immunization Alerts

- Minnesota Immunization Information Connection (MIIC)
  - Providers with certain EHRs can access MIIC within the EHR
  - System notifies providers of
    - Patient immunization history
    - Future vaccination forecasting
  - Allows providers to quickly see how immunization schedules apply to current patient
  - Initial evaluation shows organizations using system 1,000–12,000 times per week

Minnesota Immunization Law

“Providers ..., group purchasers ..., elementary or secondary schools or child care facilities ..., public or private postsecondary educational institutions ..., a community health board community action agencies ..., and the commissioner of health may exchange immunization data with one another, without the patient's consent, if the person requesting access provides services on behalf of the patient.”

Minn. Stat. Ann. § 144.3351 (West)
Case Study: HIV Treatment Notification

- Louisiana Public Health Information Exchange:
  - Integrates clinical EHRs and public health HIV surveillance
  - Alerts medical providers of HIV-infected patients who are not receiving adequate clinical care/monitoring
    - EHR-based alerts notify providers whenever these individuals access care for any reason
    - Enables immediate linkage into HIV treatment
  - Between 2/1/09 and 1/31/11, 488 alerts identified 345 HIV positive patients
    - 82% identified had at least one follow-up CD4 or HIV viral load test

Louisiana HIV Test Disclosure Law

“(B) Disclosure of HIV Test Results without the Subject's Consent:

HIV test results may be released to the following entities without authorization from the subject ... 
3. to a healthcare facility/provider or employee thereof when knowledge of HIV test results is necessary to provide appropriate care or treatment and afford the provider an opportunity to protect themselves from transmission of the virus”

Summary: Public Health—Healthcare BDE

- BDE = ability to send and receive data on a common platform
- Benefits providers, public health, and communities
- Can be used in a variety of settings
- Many existing laws authorize BDE
  - Laws can be general or specific
Questions?

Cason Schmit, J.D.

schmit@sph.tamhsc.edu
State Cross-Jurisdictional Data Sharing: Immunization Information System Memorandum of Understanding

Jennifer Bernstein, JD, MPH
Deputy Director, Mid-States Region
Network for Public Health Law
University of Michigan School of Public Health
Project: Interjurisdictional IIS data

» Memorandum: Legal Issues Related to Cross-jurisdictional Sharing of State Immunization Information System Data

» http://www.astho.org/Public-Policy/Public-Health-Law/Cross-Jurisdictional-Sharing-IIS-Data/

» Public Health Interjurisdictional Immunization Information System Memorandum of Understanding Template

Legal memorandum cross-jurisdictional exchange IIS data

» Assists public health to determine its legal authority to exchange IIS information with other jurisdictions

» Provides practical guidance to resolve legal issues and create data sharing agreements

» Identifies approaches to facilitate nationwide exchange
Determining exchange authority

1. Establish facts
   -- Data
   -- Participants
   -- Flow

2. Identify law

3. Apply law

4. Establish & document terms for sharing
General barriers to exchange

» State law applies – variation among states
» General vs. specific authority to exchange data
» Scope of sharing: prerequisites, conditions & limits
» Within a state – applicability of multiple laws, need to harmonize
» Variety and changing systems, manner of exchange, technological capability

-- Growing complexity, multiple points of data transfer, HIE laws
Specific barriers to exchange among five states convened by ASTHO

- One state: no authority to disclose information to other jurisdictions
- Limits on scope of authority to disclose information to other IIS
- Restrictions on data elements that can be shared
- Limits on use and disclosure of information by receiving state
- Sending IIS’ responsibility for information once sent
- Deleting data when right to opt-out exercised in sending state (applicability to information previously sent)
Data sharing agreement or memorandum of understanding?

» Some laws require agreement

» Necessary, even if not explicitly required

» Sets out legal authority, terms for sharing, provides for monitoring and accountability for compliance with terms

» IIS memorandum provides components to consider for DSA
MOU template provisions

- Parties – original and additional
- Purpose
- Communications outside MOU; emergency powers
- Definitions
- Data to be provided (elements, frequency, method of exchange)
- Incorporation, use and disclosure of data
- Privacy and security safeguards
- HIPAA – exchange among “public health authorities”
- Period of MOU
- Termination
- Warranties – best efforts, no guarantees
- Contract boilerplate (e.g. authority, entire agreement, severability, limitation on liability, no third party beneficiaries, governing law, etc.)
MOU template provisions, continued

» **Appendix A**: Identifies IIS core data elements and any additional data elements that each party is able to provide and receive from other parties

» **Appendix B**: Each party identifies frequency and methods of exchange and transport

» **Appendix C**: Each sending party identifies any limitations on maintenance, use or disclosure of data based on the sending party’s law or policies
Next steps:

• Execution
• Implementation

Jennifer Bernstein
jberstein@networkforphl.org
Q&A

Please type your questions in the Q&A panel.
Thank you for attending

Please join us for this upcoming webinar:

**Public Health Data in the Courts: Gobeille v. Liberty Mutual and its Implications**
November 17, 2016 | 1 – 2:30 p.m. (ET)

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