Leveraging Health Data Utilities for a National Public Health System

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Meet Our Speakers

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Conflict of Interest

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Have no real or apparent conflicts of interest to report.
Agenda

• Defining a Health Data Utility
• Difference Between a Health Data Utility and a Health Information Exchange
• How HDUs Can Support Public Health (State Level)
• How HDUs Can Support Public Health (National Level)
• Challenges and Obstacles
• What’s Next
• Questions
Learning Objectives

• Recognize the benefits of a national system for public health surveillance, response and research support
• Analyze the role of HIEs to form a national network of state-based HDUs
• Describe the challenges and barriers of a national public health model and assess opportunities to address them
Defining a Health Data Utility
The Future that HIEs Should be Navigating Toward is That…

- Every state should have a not-for-profit statewide Health Data Utility (HDU)
- These statewide HDUs should affiliate with each other into a finite number of multi-state groupings of their choosing
- Those HDUs have a responsibility to serve public health
What does a Health Data Utility (HDU) do?

1. **An HDU combines data to enhance data**
   - Public health practice uses registries and reportable events to gather information and make decisions
   - Combining registries with existing clinical and claims data significantly enhances information available to public health

2. **An HDU delivers data back to clinicians in the field**
   - Public health records can be made part of the medical history available to a treating clinician and enhance public health interventions
   - HDUs make public health data available to clinicians in a consistent and workflow-friendly way

3. **An HDU supports public health interoperability projects**
   - Examples: facilitating mandatory reporting, calculating quality measures, hosting selected registry data, interfacing with Advanced Directive registries, compiling resource directories, publishing public health charts and graphs, aggregating EMS and police reports for overdose events
   - An HDU brings technical expertise to the public health team, working under the direction of public health leaders
How is a Health Data Utility Different from a Health Information Exchange
HDU or HIE?

- Everyone here knows generally what an HIE is and does... secure exchange, curation, analysis of health data (etc, etc)
- But in each state there are many programs, functions, and needs requiring the secure exchange, curation and/or analysis of health data not typically performed by the HIE.
- Increasingly, these functions are being aggregated into a single statewide not for profit organization... a statewide health data utility (HDU)
HDU or HIE?
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HIE or HIE?

Statewide Health Improvement Collaborative (RHIC)

Regional Health Improvement Collaborative (RHIC)

Prescription Drug Monitoring Program (PDMP)

Statewide Syndromic Surveillance

All-Payer Claims Database

And more…
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HDU or HIE?

HIE

Statewide HDU

All-Payor Claims Database

Prescription Drug Monitoring Program (PDMP)

Regional Health Improvement Collaborative (RHIC)

Statewide Syndromic Surveillance

But this could work...

And more…
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HDU or HIE?

Statewide Syndromic Surveillance
All-Payor Claims Database
Regional Health Improvement Collaborative (RHIC)
Prescription Drug Monitoring Program (PDMP)
And more...

Or even this... maybe...
How HDUs Support Public Health (State Level)
Health Data Utilities must serve public health
Examples of What an HDU Can Do

- Enhance the race and ethnicity data on reportable COVID cases, from low accuracy to over 90% accuracy
- Serve as a single source of data for:
  - Test results... in a public health emergency or ongoing syndromic surveillance
  - Modeling, forecasting, and dashboards
  - Populating/enhancing public health registries
- Deliver school absentee data to a student’s treating pediatrician
- Improve situational awareness of respiratory infection trends in a region, with ambulatory encounter data and not just hospitalizations
- Notify emergency department clinicians of a patient’s prior diagnosis of a drug resistant infection
- Analyze COVID breakthrough infections, matching chronic conditions flags to reported cases among those previously vaccinated
- Inform prescribing clinicians when a patient has previously experienced an overdose

By combining existing data sets, these real-world examples are achieved without adding any new reporting burdens to healthcare providers.
More Examples of What an HDU Can Do

- Calculate changes in rates of preventative healthcare services during a pandemic, by neighborhood and by demographic
- Alert EMS personnel regarding an infectious disease diagnosis for a recently served patient
- Maintain an up-to-date directory of organizations registered to provide certain services
- Operate a behavioral health bed registry which publishes real-time bed availability to referring clinicians
- Provide immunization reports to individual practices, showing patient-by-patient immunization status in the state’s immunization registry to support outreach
- Rapidly stand-up clinician referral and scheduling tools for state managed services such as COVID testing, immunization, or infusion centers

Even for tactical projects which might be done otherwise, a state’s partnership with an HDU can bring technical know-how to bear more quickly.
What characteristics make an HDU work?

HDUs should be:

- Statewide, or matching the jurisdiction of the public health agency
- Officially designated through a method of the state’s choosing
- Non-profit or independently governed state entities, broadly governed by a mix of public sector and private sector health leaders
- Connected to all important healthcare providers, especially hospitals
- Receiving some data by mandate or via the department of health
- Held to a high level of security and patient privacy protections
Can an HDU be Multi-State?

Each state should govern its HDU, with the ability to set priorities, invest in capabilities, and regulate aspects of patient privacy.

States should be sharing technology where possible, and states of modestly-sized populations should not build unique infrastructures.

States should accommodate public health data sharing across borders, especially in those regions that form a single medical trading area.
An HDU can only be fully effective if it has complete and unfragmented information within a jurisdiction.

It must necessarily be a monopoly, managing sensitive data; therefore, it must be transparent and possibly regulated.
How HDUs Support Public Health (National Level)
Serving National Data Needs

National-level coordination will be necessary to leverage the statewide HDU for federal public health needs:

• Aggregate data from the HDUs, for use by federal agencies to foster healthcare research, provide situational awareness and early warning during health crises, and to better understand issues of health equity
• Maintain common data standards and promote data quality through content testing
• Promote data collection methods which limit the reporting burden on healthcare providers
• Enable improved consumer protection in uses of health records
• Convene multi-jurisdictional stakeholders like healthcare, corrections, and community providers
• Promote best practices among HDUs
Challenges and Obstacles
Challenges and Obstacles

- Success requires key federal agencies and national public health organizations to embrace this approach
- Many states will have policy barriers that need to be addressed
- Many state HIEs will need to grow and add capabilities to serve as their state’s HDU
- State-level politics needs to be navigated to cooperatively determine which functions are carried by the HDU (and which within state agencies)
What’s Next?
What’s Next to Advance Down this Path…

• Propagate, debate, and refine the concept of Statewide HDUs as key to support public health

• Engender federal and state policies in support of the formation and advancement of HDUs in every state

• Work with state public health authorities, national policy makers, ONC, CDC, and FDA to move the nation in this direction -- agree upon approach, standards, and priorities

• Leverage successful HDU models, approaches, and infrastructure across multiple states to accelerate progress
QUESTIONS
Questions & Discussion

For more information on the concept of Statewide Health Data Utilities, read... [https://www.himss.org/resources/hies-are-vital-public-health-need-reshaping](https://www.himss.org/resources/hies-are-vital-public-health-need-reshaping)

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