Transforming the Public Health Information System for the 21st Century:

HL7 Annual Meeting
September 23, 2020

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Technology has altered public health practice

As public health has become more connected, there is an expectation of shorter time for data collection and analysis. Modernization is responsible for creating and maintaining those connections.

1850s → 1950s → Today

Birth of **classic “shoe leather” epidemiology**, used by John Snow to combat the 1854 London cholera outbreak.

Refinement of classic epidemiological methods by fieldworkers in **CDC’s Epidemic Intelligence Service**.

Automated data streams between hospitals and public health departments are critical. **Solutions are expected cheaper and faster.**
Protecting Americans from the Public Health Crisis of
Vaping Illnesses Climbing Upward, Nearing 1,300 With 29 Deaths

The cause of the outbreak is still under investigation. Health officials can offer advice, but they may not be containable.

Cases of AFM, acute flaccid myelitis, or AFM, have spiked every two years since 2014, according to the CDC.

Another Burst of Polio-Like Cases in Children Alarms Doctors

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Sexually Transmitted Disease Cases Rise to Record High, C.D.C. Says

Sexually transmitted disease cases rose last year, and an alarming number of infections were linked to congenital syphilis.

How Many Opioid Overdoses Are Suicides?

The CDC director warns that Congo's Ebola outbreak may not be containable.

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“Data is Moving Slower than Disease”

Testimony of Janet Hamilton, Director of Science and Policy at CSTE, at Public Witness Day, April 9, 2019
Labor, Health and Human Services, Education, and Related Agencies (116th Congress)
Public Health Data Modernization Initiative Goals

• Public Health Information System can rapidly identify emerging threats
• Trusted data promotes evidence-based behaviors, interventions, and solutions to protect health
• All people have the right information at the right time to make decisions
US Core Data for Interoperability

Policy Considerations

+ Rapid Prototyping and Real-World Testing
Essential Questions for Data Modernization

What’s collected and how’s it collected?

Where’s it stored and how’s it structured?

How might we access and use it?
How might public health access, analyze, and act on data in 2022 and beyond?
PUBLIC
HEALTH DATA
MODERNIZATION

Listening Session on Real-World
Testing of 21st Century Cures
Act Requirements

https://www.cdc.gov/surveillance/pubs-resources/index.html

Meeting to Advance Push Button
Population Health: SMART/HL7
Bulk Data Export/FLAT FHIR

EXECUTIVE SUMMARY

November 6, 2019
Meeting funded by the Office of the National Coordinator for Health Information Technology and hosted by the
Baylor College of Medicine (BCOM) and the National Library of Medicine (NLM).
Foundational Activities

- Enhance Bulk FHIR Capabilities
- Develop and Test Use Cases with Implementers
- Conduct Policy and Legal Assessments
- Promote Widespread Adoption
Questions