
HL7 FHIR and Public Health

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Problem Statement

All levels of public health—from the local level to the national level—struggle to obtain timely, accurate, and actionable information from electronic health records.

Current methods for data exchange too often pull clinicians and frontline public health officials away from essential work and result in data omission and errors. Although data standards and methods for electronic data collection are available, several still cannot be implemented at scale without significant effort.

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

Impacts on CDC's Mission:

- ❑ **Loss of Trust:** Data providers incur significant administrative and financial burden without clear ROI
- ❑ **Delays and Loss of Precision:** Information falls through the cracks, is inaccessible to public health, too out of date, or otherwise unsuitable to drive public health prevention & response
- ❑ **Unsustainability of Current Approaches:** Current methods don't easily adapt or scale, which lead to increased costs and suboptimal use of workforce

Rube Goldberg Machine of COVID Reporting

<https://www.medrxiv.org/content/10.1101/2020.08.12.20173559v1>

<https://www.healthit.gov/hitac/events/health-it-advisory-committee-34>





**We need to strengthen
every link in the chain.**





<http://www.healthintersections.com.au/>

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>

EXECUTIVE SUMMARY

Anticipated Benefits

- ☐ Access timely and more detailed data across EHR vendors
- ☐ Put capabilities in place that are sustainable and sharable nationwide
- ☐ Preserve privacy and inherit security controls from existing infrastructure
- ☐ Use advanced analytics to uncover actionable information about diseases or conditions of interest



Hypothesis:

FHIR APIs rolling out nationwide can help public health to access detailed and timely data from electronic health records while lowering burden on and delivering greater value to data providers.



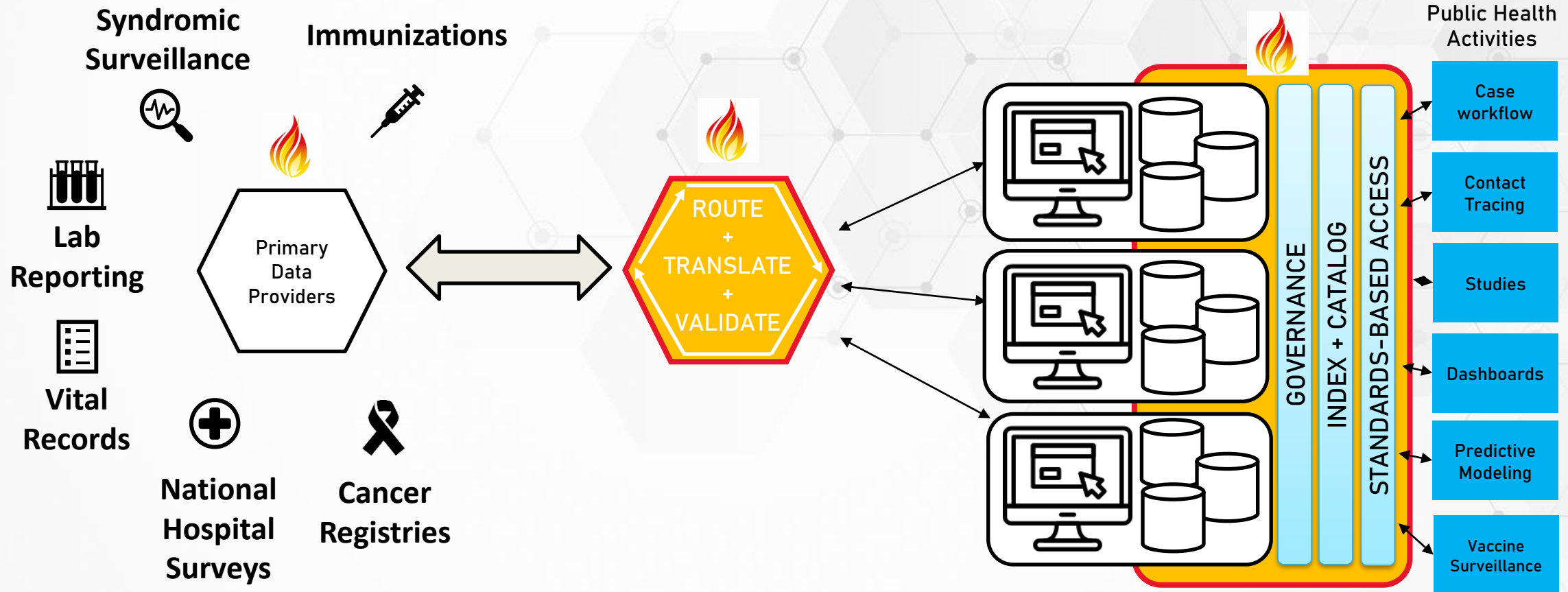
Approach:

- ❑ Resolve incompatibilities and redundancies in public health standards
- ❑ Elevate public health priorities as new EHR capabilities roll out
- ❑ Test new approaches and accelerate widespread adoption of proven solutions

FOUNDATIONAL COMPONENTS

GOAL: OPTIMIZED & AUTOMATED ACCESS TO DATA

Public Health Partners Will Conduct **Real-World Testing** of FHIR-Based Approaches for Accessing Data



Quicker, Easier, and More Secure Access to Data

Enterprise-Wide Leadership

**Alignment &
Advancement
of Existing
Standards**

**Design & Real-
World Testing
of New
Approaches**

**Assessment of
Policy and
Ethical
Considerations**

Tech + Policy + Ethics

Questions

