



Public Health Interoperability

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Presented to: HL7 Partners in Interoperability

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Brief Introduction to Public Health and Public Health Surveillance



Public Health Surveillance . . .

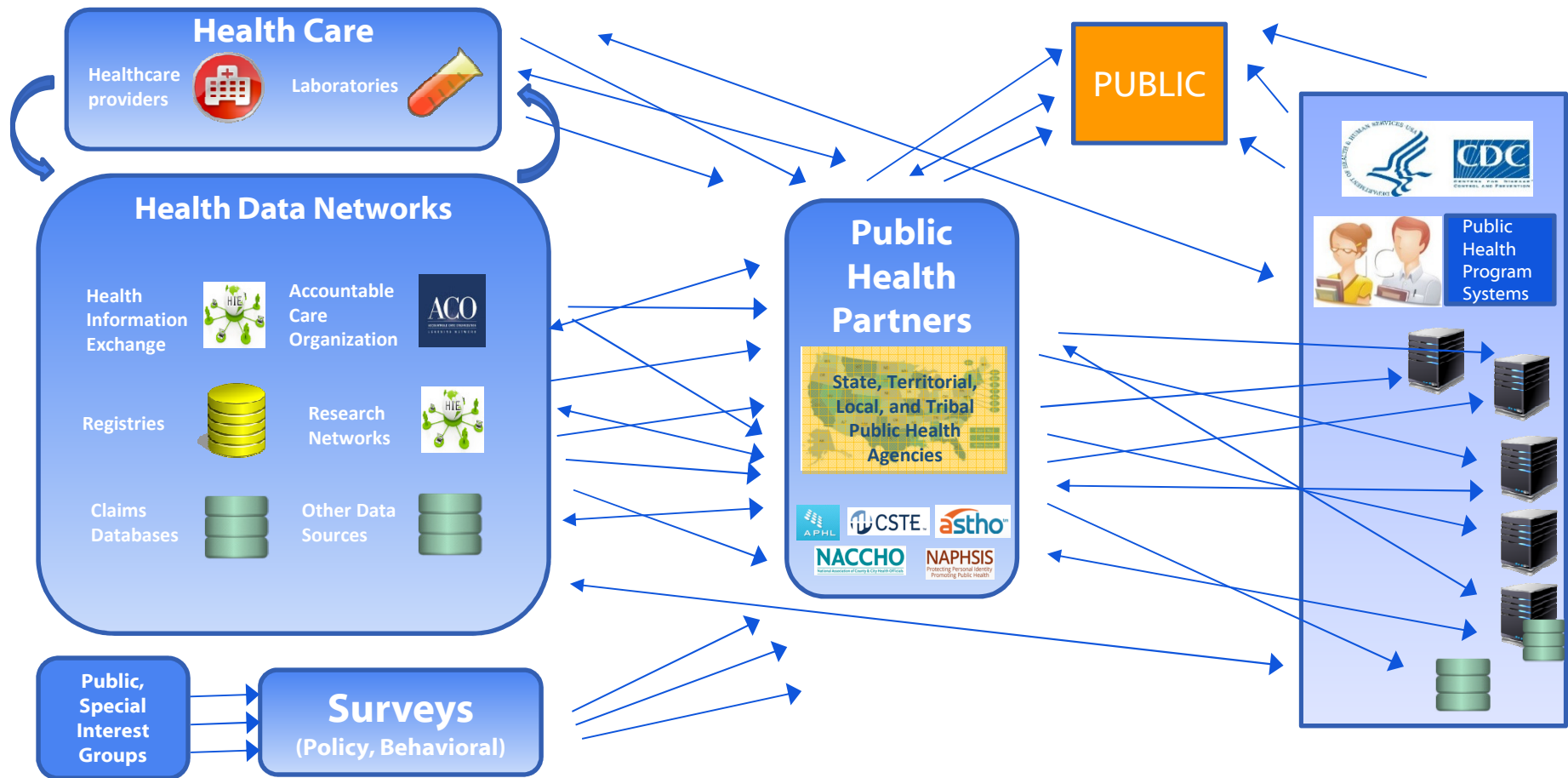
- Timely, high-quality, actionable
 - Collection, analysis, and interpretation of health data
 - Essential to planning, implementation, and evaluation
 - Dissemination to those who need to know
 - Linked to prevention and control



A Foundational Data Activity

Thacker SB, Berkelman RL. History of public health surveillance. In Public Health Surveillance, Halperin W, Baker EL (eds): New York;Van Nostrand Reinhold, 1992. Cited from MMWR/July 27,2012/ Vol 61/pp 10.

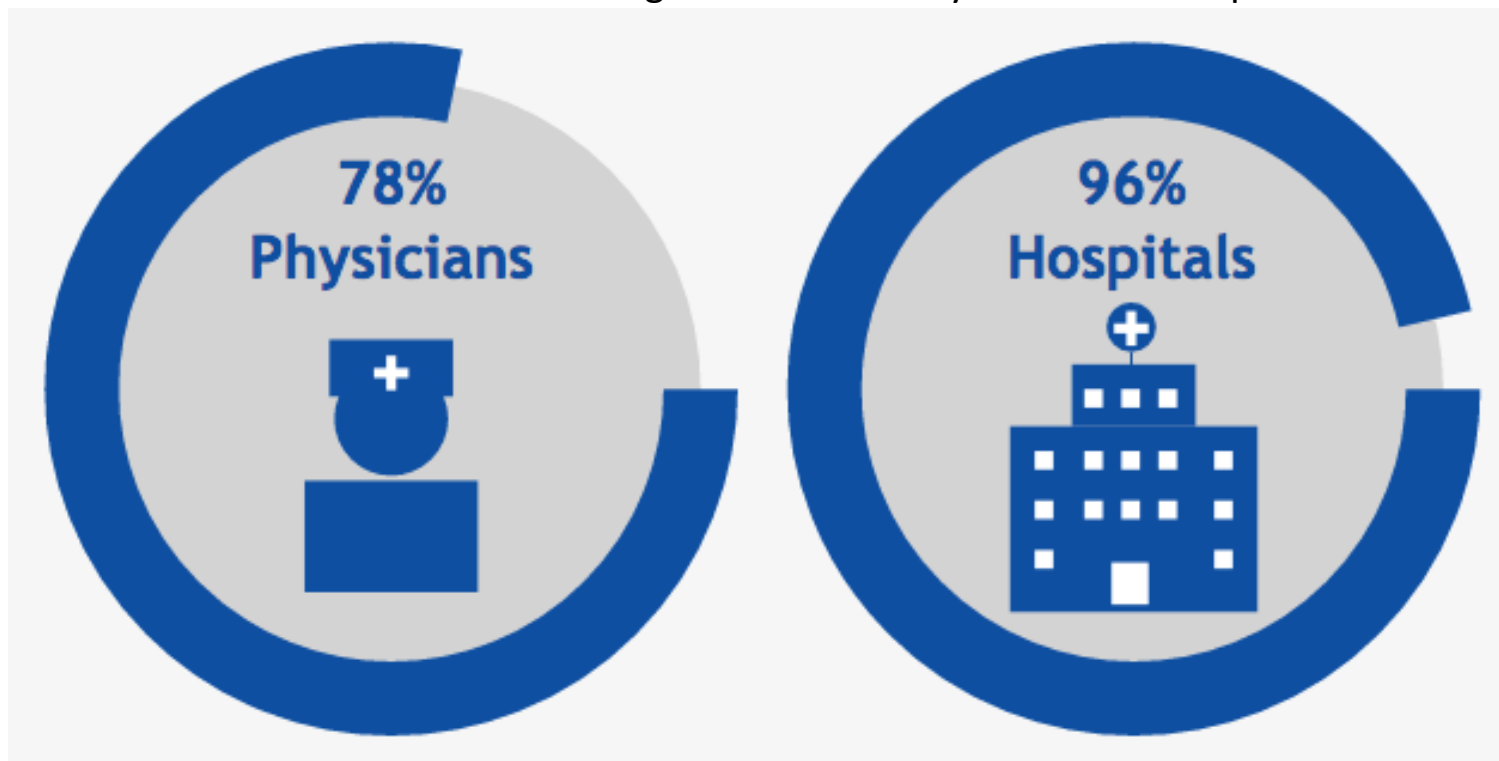
Public Health Surveillance Ecosystem (Abridged)



Underlying Currents Shaping Public Health Surveillance

Ubiquity of Electronic Health Records

Possession of Certified EHR Among Office-Based Physicians and Hospitals in 2015



Source: <https://dashboard.healthit.gov/report-to-congress/2016-report-congress-examining-hitech-era-future-health-information-technology.php>

Calls for Enhancements to CDC Surveillance Systems

- *Congressional FY 2015 budget language* requires CDC to “develop a timeline for a cloud-based and flexible IT public health data reporting platform for CDC programs”
- *Council of State and Territorial Epidemiologists and other partners* have asked CDC to evaluate which data elements are truly needed for surveillance and to coordinate across CDC programs to harmonize and standardize data elements
- *CDC Director and Advisory Committee to Director* charged Office of Public Health Scientific Services to lead the CDC surveillance strategy



CDC Surveillance Strategy Goals

- Improve availability and timeliness
- Effective use of emerging information technology
- Retire redundant surveillance systems
- Maximize performance

Accomplish three practical objectives

- Reduce burden on states
- Improve performance inside CDC
- Improve value back to states

Executive Perspective

The *Executive Perspective* column is a regular feature in *Public Health Reports* by leaders of offices under the Assistant Secretary for Health. In this installment, Drs. Chesley L. Richards, Michael F. Iademarco, and Tara C. Anderson describe the U.S. Centers for Disease Control and Prevention's (CDC's) new strategy for federally supported public health surveillance activities. The new strategy focuses on what CDC must do inside and outside the agency to encourage progress in the field, working side by side with its state, territorial, local, and tribal partners.

Frederic E. Shaw, MD, JD
Acting Editor, *Public Health Reports*

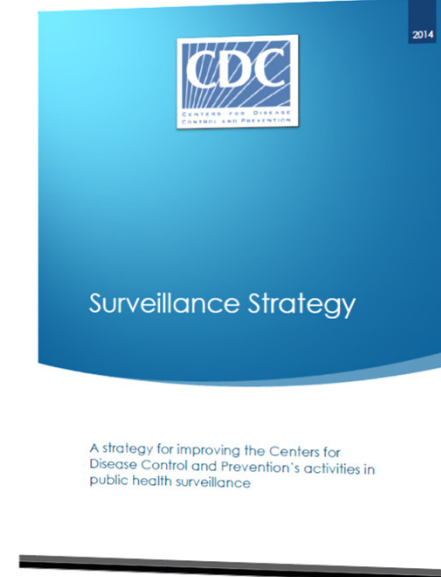
A NEW STRATEGY FOR PUBLIC HEALTH SURVEILLANCE AT CDC: IMPROVING NATIONAL SURVEILLANCE ACTIVITIES AND OUTCOMES

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Public health surveillance is the cornerstone of public health practice and can be defined as the "systematic

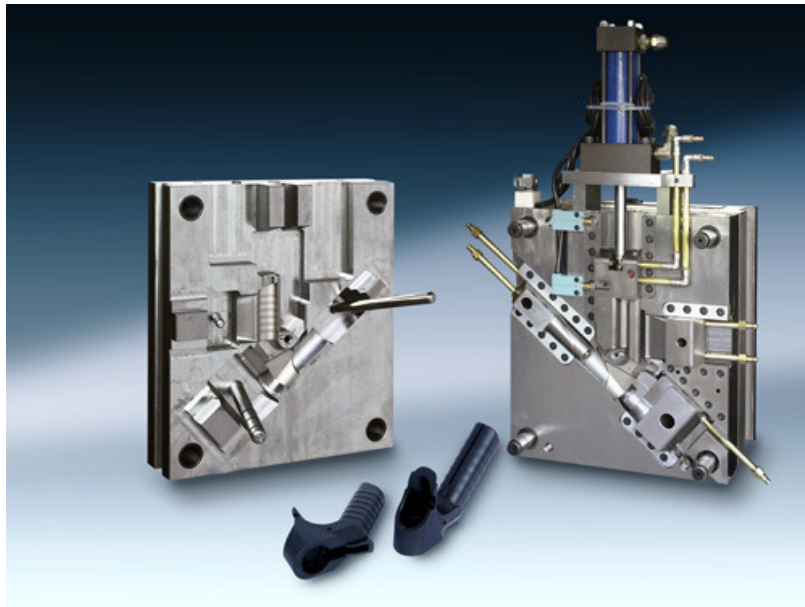
past few years, observers inside and outside CDC have identified some of the most important influences shaping surveillance in the 21st century (e.g., security concerns, technological advances, and health-care reform) and how these influences may affect the surveillance enterprise. Observers have touched on the need for ongoing evaluation of surveillance systems; standardization, with the goal of developing sustainable and integrated systems; and system and workforce adaptability to current demands. These observers have recognized many challenges that could impede progress, such as funding, workforce, information technology standards, patient confidentiality, and concerns about data access, quality, and sharing.^{1,8} For example, one fundamental challenge is the tension, both at the federal and STLT levels, between the needs of the whole surveillance enterprise and specific disease control programs, which require specialized surveillance data and are organized and funded along disease-specific lines.

CDC's overarching goal for federally supported surveillance activities is to get the right information into

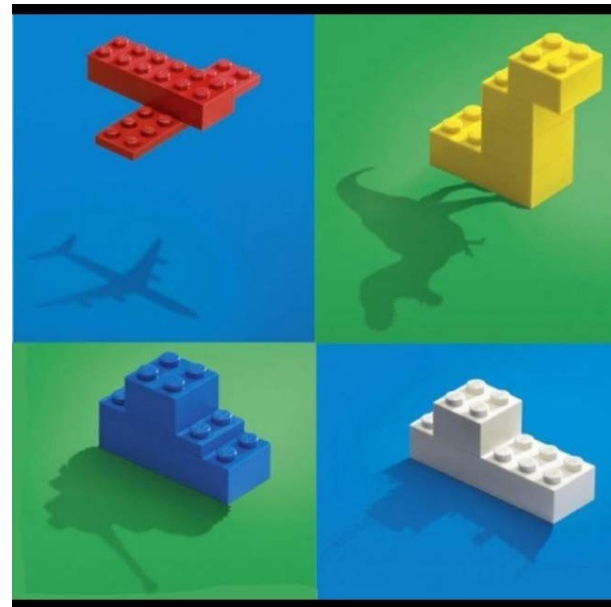


<http://www.cdc.gov/surveillance/>

Moving from Single Purpose Systems to Shared Services



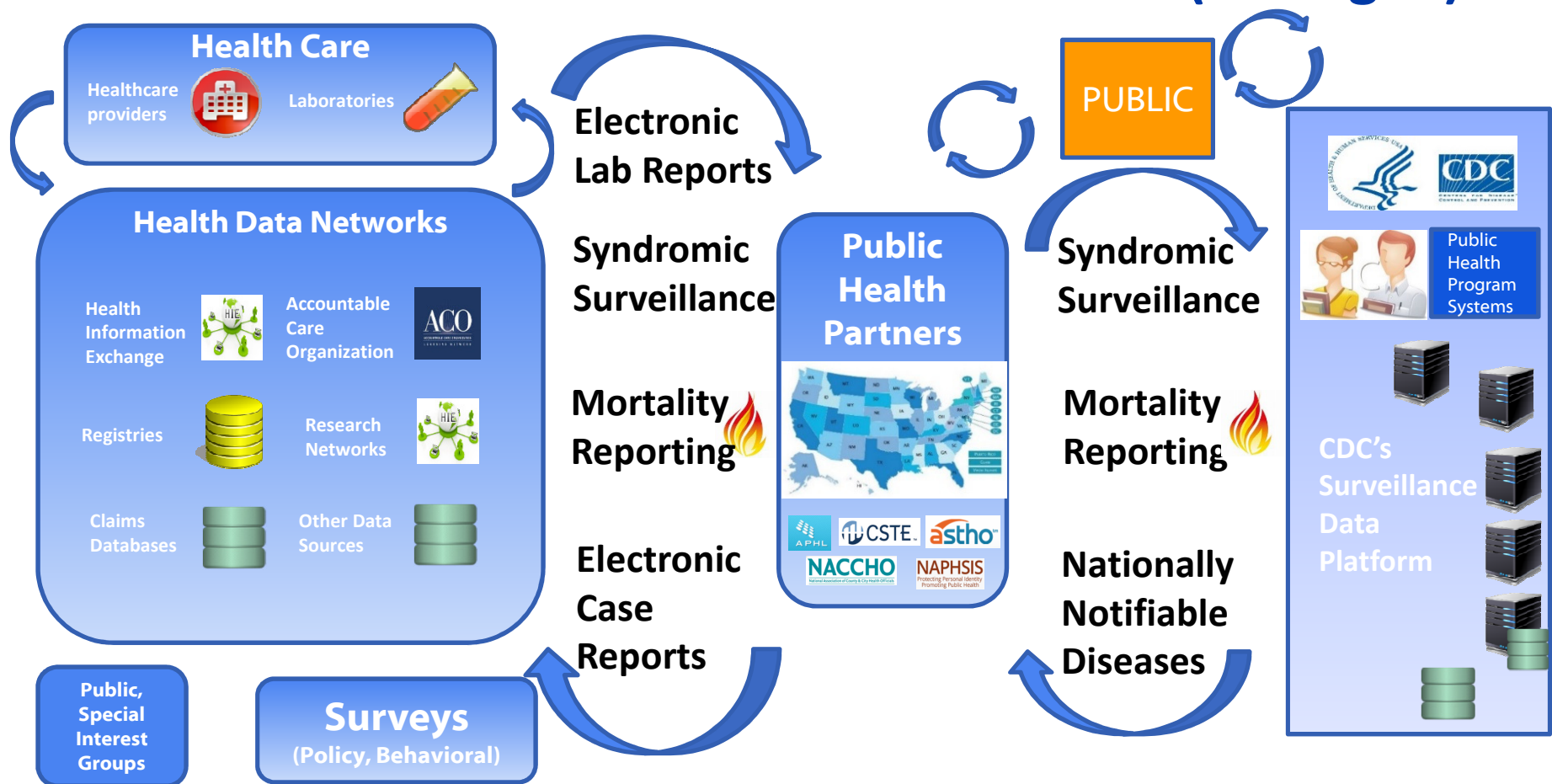
(single purpose system)



(shared services)



Enhanced Public Health Surveillance (Abridged)



The Road Ahead

Challenges in Bridging the Gap Between Healthcare and Public Health

- **Workforce**

- Foundational capabilities to collect and analyze data

- **Technology**

- National scalability v. value at local level

- **Interoperability**

- Capacity to work within modernized & legacy HIT systems



Example Collaboration: Bidirectional Exchange of Electronic Case Reporting Data

Public Health

- Define Trigger Codes
- Agree to Standards
- Policy and Regulatory Changes

Vendors & Healthcare Delivery

- Define & Implement Standards
- Proof of Concepts
- Enable Data Transmission



Thank you

For more information, contact CDC
1-800-CDC-INFO (232-4636)
TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

