

Stakeholder Perspectives of Biosurveillance: a Qualitative Analysis

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Objectives

To understand the perspective of biosurveillance stakeholders and how their participation creates value for them as well as public health departments.

Background

For more than a decade, biosurveillance systems (and more recently BioSense) have been employed in the United States. Efforts to drastically expand these surveillance capacities have been a national priority given concerns about national security. However, there has been little emphasis on value or increasing value to communities or agencies contributing and analyzing data. This qualitative analysis focused on all biosurveillance stakeholders and the opportunity to enhance interoperability and reuse of data and systems.

Methods

Methods: Targeted focus groups and/or key informant interviews with stakeholders in 3 biosurveillance communities. Items discussed included role of biosurveillance in: response steps for a recent public health emergency, high-workload outbreaks, recent seasonal influenza surveillance activities, and perceived value. Primary focus was on how biosurveillance promotes: 1) early event detection, 2) situational awareness and/or 3) countermeasure response in these communities.

Results

Site visits to NYC, Boston, and Baltimore were conducted over 2 days each, with 19, 9 and 12 individuals interviewed, respectively. NYC and Boston initiated their systems in the 1990's regarding risk for diarrheal illnesses (i.e., cryptosporidiosis), while Baltimore began its efforts in the fall 2001. Data sources include 46, 12, and 4 emergency departments in NYC, Boston, and Baltimore, respectively. Additional source include 911/EMS calls (all sites); 11 and 10 hospital clinics and 17 and 25 community health clinics in NYC and Boston, respectively. NYC and Baltimore have a variety of multiple other data sources: dead animal reports, pharmacies and public school health clinics. While BioSense sites exist in some of these

cities, there is relatively little local health department use of these data sources. Most health departments described value of identifying onset of seasonal influenza, heat-related illness and detection of other, non-infectious events than early detection of infectious diseases.

Hospital-based infection control practitioners have little value derived from these systems but saw potential in sharing the results of surveillance activities across institutions. Having created informatics tools to analyze their own environment and systems, these neither feed nor derive data from biosurveillance systems in these communities. None of these biosurveillance systems currently connect to regional health information organizations.

Conclusions

All sites agreed that syndromic surveillance systems have limited value in detecting small outbreaks. Value increases by blending with traditional public health surveillance and combining biosurveillance data with various other data sources. Access to biosurveillance data by other programs, enhanced the overall public health utility. Hospital infection control practitioners saw potential increased value through return of information on a regional basis to those facilities. Cost of biosurveillance work is not trivial, with significant information and technology burdens. As BioSense redefines itself for the next 5 years¹, additional value may be derived from stronger relationships with data providers, other data stream stakeholders and emphasis on mutually beneficial output from the biosurveillance system.

References

1. Health Data Management. Feds Fund Public Health Links; 2008. <http://www.healthdatamanagement.com/news/NHIN25932-1.html>