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# Roles of Health Literacy in Relation to Social Determinants of Health and Recommendations for Informatics-Based Interventions: Systematic Review

## Abstract

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# Roles of Health Literacy in Relation to Social Determinants of Health and Recommendations for Informatics-Based Interventions: Systematic Review

## Abstract

The intent of this article is to provide public health and health information exchanges (HIEs) insight into activities and processes for connecting public health with clinical care through HIEs. In 2007 the CDC issued a Request for Proposal (RFP) for the “Situational Awareness through Health Information Exchange” project. The project’s goals are to connect public health with health information exchanges (HIEs) to improve public health’s real-time understanding of communities’ population health and healthcare facility status. This article describes the approach and methodology used by the Northwest Public Health Information Exchange to achieve the project’s goals. The experience of the NWPHIE Collaboration provides an organizational and operational roadmap for implementing a successful regional HIE that ensures secure exchange and use of electronic health information between local and state public health and health care entities. Keywords: Data Collection; Electronic Health Records; Health Information Exchange; Information Management; Information Services; Medical Record Linkage; Public Health; Public Health Informatics

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# Roles of Health Literacy in Relation to Social Determinants of Health and Recommendations for Informatics-Based Interventions: Systematic Review

## Abstract

Public health situational awareness is contingent upon timely, comprehensive and accurate information from clinical systems. Ad-hoc models for sending non-standard clinical information directly to public health are inefficient and increasingly unsustainable. Information sharing models that leverage Health Information Exchanges (HIEs) are emerging. HIEs standardize, aggregate and streamline information sharing among data partners, including public health stakeholders, and HIE has supported public health practice in Indiana for more than 10 years. To accelerate nationwide adoption of HIE-supported situational awareness processes, the CDC awarded three HIEs across the nation, including Indiana, New York and Washington/Idaho. The Indiana partners included Indiana University School of Medicine, Regenstrief Institute, Indiana Health Information Exchange, Indiana State Department of Health, Health & Hospital Corporation of Marion County, and Children's Hospital Boston. Activities included augmenting biosurveillance processes, enabling bi-directional communication, enhancing automated detection of notifiable conditions, and demonstrating technological advances at national forums. HIE transactions destined for public health were enhanced with standardized clinical vocabulary and more complete physician contact information. During the 2009 H1N1 flu outbreak, the HIE delivered targeted public health broadcast messages to providers in Marion County, Indiana. We will review the partnership characteristics, activities, accomplishments and future directions for our health information exchange. Keywords: health information exchange, situational awareness, biosurveillance, syndromic surveillance, influenza.

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# Roles of Health Literacy in Relation to Social Determinants of Health and Recommendations for Informatics-Based Interventions: Systematic Review

## Abstract

Timely communication of information to health care providers during a public health event can improve overall response to such events. However, current methods for sending information to providers are inefficient and costly. Local health departments have traditionally used labor-intensive, mail-based processes to send public health alerts to the provider community. This article describes a novel approach for delivering public health alerts to providers by leveraging an electronic clinical messaging system within the context of a health information exchange. Alerts included notifications related to the 2009 H1N1 flu epidemic, a syphilis outbreak, and local rabies exposure. We describe the process for sending electronic public health alerts and the estimated impact on efficiency and cost effectiveness. **Keywords:** public health alerts, health information exchange, syndromic surveillance, clinical messaging, H1N1 flu, broadcast alert

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# Roles of Health Literacy in Relation to Social Determinants of Health and Recommendations for Informatics-Based Interventions: Systematic Review

## Abstract

In 2007 the CDC issued a Request for Proposal for the “Situational Awareness through Health Information Exchange” project. The Situational Awareness project’s goals are to connect public health with health information exchanges (HIEs) to improve public health’s real-time understanding of communities’ population health and healthcare facility status. During this same time period the Health and Human Services’ Office of the National Coordinator for Health Information Technology released several reports identifying the growing number of communities involved in health information exchange and outlining the requirements for a Nationwide Health Information Network (NHIN). CDC saw the possibilities of using HIEs and the NHIN to accelerate the real-time sharing of clinical and facility-based resource utilization information to enhance local, state, regional, and federal public health in responding to and managing potentially catastrophic infectious disease outbreaks and other public health emergencies. HIEs would provide a unified view of a patient across health care providers and would serve as data collection points for clinical and resource utilization data while NHIN services and standards would be used to capture HIE data of importance and send those data to public health. This article discusses how automated syndromic surveillance data feeds have proven more stable and representative than existing surveillance data feeds and summarizes other accomplishments of the Northwest Public Health Information Exchange in its contribution to the advancement of the National agenda for sharing interoperable health information with public health.

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# Roles of Health Literacy in Relation to Social Determinants of Health and Recommendations for Informatics-Based Interventions: Systematic Review

## Abstract

In 2008, the Centers for Disease Control and Prevention awarded contracts to health information exchanges in Indiana, New York and Washington/Idaho to accelerate public health situational awareness. Awardees in each state have disseminated their findings and lessons at professional conferences and in peer-reviewed journals. The dissemination formats ranged from papers, oral presentations, posters, panels and demonstrations at interoperability showcases. With a focus on health information exchange and public health, topics included biosurveillance, electronic laboratory reporting, broadcast messaging, and notifiable disease surveillance. Each presentation is summarized in this bibliography, and the authors affiliated with each site are highlighted. Keywords: biosurveillance, situational awareness, electronic laboratory reporting, health information exchange, notifiable diseases

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