Issue Brief: eCR

Executive Summary

Electronic Case Reporting: Executive Summary

About

Electronic case reporting (eCR) is the automated generation and transmission of case reports from EHRs to public health agencies for review and action. It is a valuable tool that reduces the burden of public health reporting of infectious diseases while improving the timeliness, accuracy and completeness of data. Currently, infectious disease case reports are created through time-intensive manual processes (e.g., written reports, fax or mail) that lead to slow response times and dangerous disease outbreaks. Digital Bridge collaborators have created a new approach that will automatically flag potential disease cases, create the report and digitally send them to public health, lessening manual work processes and improving routine outbreak management.

eCR Technical Approach

Digital Bridge's technical approach aims to change the status-quo of point-to-point data connections between health care organizations and their public health partners by offering a central decision support service to facilitate case reporting.

The approach leverages existing electronic health record systems to automatically flag potentially reportable disease cases and create a case report. The report is then sent digitally to the central decision support service to validate its format and determine whether the case is reportable to public health. If the case is reportable, the report is forwarded to appropriate public health agencies. The decision support service eliminates guesswork on which jurisdiction the case report goes to, and alleviates burdensome manual reporting processes for health care professionals. This real-time, automated process improves the accuracy and completeness of the data. It is designed to be system agnostic and adoptable by any size organization and data provider.

The decision support service runs on the APHL Informatics Messaging Service (AIMS), a secure, cloud-based platform developed by the Association of Public Health Laboratories. Case reports are evaluated against public health reporting criteria by the Reportable Conditions Knowledge Management System (RCKMS), developed by the Council of State and Territorial Epidemiologists (CSTE). eCR pilot activities for this technical approach will continue through 2018.

eCR Implementations

To effectively test the technical approach, Digital Bridge is coordinating eCR implementations at selected pilot sites through 2018. Each site consists of a state or local public health agency, a health care provider within the agency's jurisdiction and the provider's EHR vendor. The Digital Bridge evaluation committee created a plan to guide the assessment of both the eCR process and the overall implementation experience. As the sites continue through the implementation process, each will periodically submit data and participate in key informant interviews to measure the efficacy of eCR and collect lessons learned.

eCR Legal Approach

The Digital Bridge collaborative worked with health IT and privacy experts to develop the legal framework and agreements required to implement the eCR technical approach. The current legal approach positions the decision support service to act as a business associate of health care organizations or their existing health information exchange partners, allowing the AIMS platform and RCKMS to access required patient data and facilitate case reporting on behalf of providers. While stakeholder groups have expressed consensus on this approach during the pilot phase, there is interest in evaluating the viability of the decision support service acting on behalf of public health agencies as a long-term legal solution.