Syndromic Surveillance in a Health Information Exchange

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Project Overview

The UW Clinical Informatics Research Group (CIRG) has developed several generations of syndromic surveillance systems since March 2000. The first systems were data warehouses, collecting visit level data on patients presenting to emergency departments and primary care clinics, and assigning those visits into syndromes which correspond to bioterrorism agents. These data were analyzed by epidemiologists at Seattle and King County Public Health to analyze the data for variances in patterns of diagnoses, volume, etc., as part of the county wide real-time disease surveillance system. This system has evolved into a regional monitoring project covering a three county rural area on the Olympic Peninsula, and operated in cooperation with the Kitsap County Health Department.

In the past year, CIRG developed the Shoki webservices framework for population health monitoring. Shoki is a toolkit for building automated surveillance systems, and was used to demonstrate syndromic surveillance in a prototype regional health information organization (RHIO), jn February 2006 as part of the Integrating the Healthcare Enterprise (IHE) Showcase at the HIMSS conference. The Showcase is a demonstration RHIO comprised of approximately 40 electronic medical record vendors and medical imaging/instrumentation manufacturers demonstrating interoperability between commercially available systems. CIRG showed that this prototype RHIO could be effectively used for automated public health surveillance.

The IHE framework is one of the technical solutions used by the prototype National Health Information Networks (NHINs) funded through the Office of the National Coordinator for Heath Information Technology (ONC). These prototype NHINs must show by Fall of 2006 that they are able to deliver value in four key sectors, including Public Health. Utility to public health is to be demonstrated through satisfaction of the Biosurveillance use case developed as part of the ONC-funded activities. The Mendocino HRE is a participant in one of the prototype NHINs.

Dr's Lober and Baseman are faculty in the CDC-funded UW Center for Public Health Informatics, and are involved in the Biosurveillance use case standards workgroup.

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Mendocino County Department of Public Health

1120 South Dora Street, Ukiah, California

CIRG Clinical Informatics Research Group

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Lunch provided -- RSVP to Tanya at 707-462-6369