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