

## **The Efficacy of a Triage Expert System as an Automated Data Collection Tool for Syndromic Surveillance**

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A number of studies have demonstrated the usefulness of nurse call center data for the purpose of syndromic surveillance. These studies use limited “call type data” which sacrifices specificity for sensitivity. As part of a National Telecare Initiative, Veterans Affairs uses the Veterans Health Gateway™(VHG) to provide telephone triage services to millions of veterans using VHG provides decision support to nurses, as they perform symptom triage from regional call centers and community-based clinics in 26 states. The application has been designed to collect syndromic data in the background, as VA nurses triage veterans. Each triage encounter captures detailed history data and sorts the case into a level of urgency and a coded (ICD-9) final assessment. From these data, a physician-written rule assigns each case into one of 52 syndrome groups (e.g. influenza). The study is divided into two, six-month phases. Phase 1 identifies syndrome groups for the real-time detection of disease outbreaks. These data also define baseline incidence of syndromes using standard statistical methodologies. Phase 2 focuses on outbreak analysis: experts execute customizable rules (case definitions) that search for specific conditions diseases. DSHI Systems researchers hope to demonstrate that providing more detailed call center data will extend “desktop epidemiology” beyond simple outbreak detection. Using the computer to analyze and validate outbreaks will permit public health officials to effectively decide when a costly on-site investigation is warranted.