

# Late Season Influenza-Like Illness in Georgia: Prospective Detection of an Illness Cluster Using Emergency Department Syndromic Surveillance

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## OBJECTIVE

This paper describes a cluster of influenza-like illness (ILI) prospectively identified through emergency department (ED) syndromic surveillance (SS).

## BACKGROUND

Influenza activity in the United States typically peaks between December and March each year; however, influenza viruses do circulate year round and summer influenza outbreaks have been identified [1,2]. National influenza surveillance for the 2005-06 influenza season showed a late season increase in influenza B circulation continuing through May, 2006 at both the national and South Atlantic regional levels [3].

## METHODS

The Georgia Division of Public Health (DPH) monitors hospital ED chief complaint data daily using its State Electronic Notifiable Disease Surveillance System (SendSS) reporting system. Data are transmitted to DPH 7 days/week from hospital EDs in the Coastal, East Metro, and North Central Health Districts (Figure 1). Statistically significant data anomalies are detected using the Early Aberration Reporting System (EARS) [4]. E-mail alerts are generated by SendSS and distributed to all GA Health Districts for five priority syndromes, including FeverFlu (a syndrome that parallels ILI activity), when a C1, C2, and C3 flag are generated on a single day or when a syndrome has flagged for three consecutive days at the state or district level.

Figure 1: GA Public Health Districts



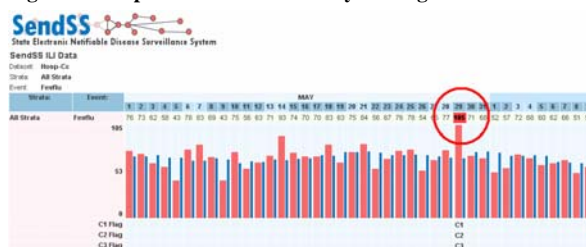
For influenza surveillance in the West Central Health District (WCHD), hospitals report to SendSS the total number of rapid influenza tests performed and the number of positive tests by influenza type. The infection control practitioner (ICP) at Hospital A in WCHD conducts employee absenteeism surveillance, including a voluntary reporting mechanism that collects information on the reason for absence.

## RESULTS

On May 30, 2006, the WCHD District Epidemiol-

ogist received a SendSS-generated e-mail alert indicating C1, C2, and C3 flags had been generated for the FeverFlu syndrome at both the State and East Metro Health District levels for May 29 (Figure 2). No positive rapid influenza tests had been reported in SendSS from WCHD hospitals. In response to the e-mail alert, the District Epidemiologist e-mailed the ICP at each WCHD hospital to inquire about recent rapid influenza test results. On June 2, the ICP from Hospital A reported that a positive rapid test for influenza B was identified on May 26. The ICP performed additional investigations that revealed eight employees had been absent due to ILI from May 24-31.

Figure 2: Graph of FeverFlu and May 29 Flag for State Level



## CONCLUSIONS

GA SS aided in the detection of a cluster of ILI impacting a local hospital that corresponded to influenza B circulation documented by rapid testing. SS identified this cluster 4 days prior to WCHD notification of the positive rapid influenza test from Hospital A. This demonstrates the value of SS for early detection of ILI, particularly during time periods outside of the usual influenza season. This event also demonstrates the value of communicating SS e-mail alerts to areas of the state that do not yet have participating EDs, particularly for syndrome capturing diseases with outbreak potential or seasonal trends. This illness cluster would not have been identified without the sharing between the Health District and DPH of SS data anomalies.

## REFERENCES

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