

Preparing for the Pandemic: A Review of State Pandemic Influenza Preparedness Plans and Recommendations for Influenza Surveillance During Interpandemic Periods and Pandemic Alerts

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OBJECTIVE

This paper examines the results of a review of state pandemic influenza preparedness plans and compares various approaches for routine influenza surveillance during interpandemic periods with approaches for enhanced surveillance during pandemic alerts. The results of this review are compared with the experience of using a hospital-based syndromic surveillance system as a supplement to laboratory and clinical influenza surveillance systems.

BACKGROUND

In response to increasing reports of avian influenza being identified throughout the eastern hemisphere, the World Health Organization (WHO) and the U.S. Department of Health and Human Services (DHHS) have published pandemic influenza preparedness plans. These plans include detailed recommendations for routine influenza surveillance during ongoing interpandemic periods as well as recommendations for enhanced influenza surveillance during episodes of international, national, and local pandemic alerts [1,2]. Like many states, the Connecticut Department of Public Health (DPH), prepared its own Pandemic Influenza Response Plan [3]. The DPH has also been expanding its arsenal of surveillance systems. These systems include a syndromic surveillance system, known as the Hospital Admissions Surveillance System (HASS), developed in September 2001 to monitor for possible bioterrorism events and emerging infections [4]. HASS data has been utilized to supplement information received from laboratory-confirmed influenza test (LCT), influenza-like-illness (ILI) reporting, and pneumonia influenza mortality (PIM) to track seasonal influenza [5].

METHODS

Various state pandemic influenza preparedness plans were reviewed to compare approaches for routine influenza surveillance during interpandemic periods with the enhanced and automated surveillance needed during international, national and local pandemic alerts.

RESULTS

The state pandemic influenza preparedness plan review revealed that most states rely on traditional

laboratory based influenza testing combined with limited influenza-like-illness surveillance to assess the impact of seasonal influenza during routine interpandemic periods. While many states have proposed development of automated hospital-based syndromic surveillance systems, most plan to rely on existing BioSense networks and other federal systems to identify and track the presence of novel influenza strains during pandemic alerts. During the 2005-2006 influenza season, the Connecticut DPH completed additional tests of the effectiveness of its multiple statewide influenza surveillance systems. Connecticut's unique joint laboratory confirmed test and statewide hospital admissions-based syndromic surveillance system, in conjunction with other indirect measures of influenza activity, proved to be a valuable tool to quickly identify and track influenza strains and characterize the impact of influenza on Connecticut populations.

CONCLUSIONS

Most existing state health department surveillance systems provide sufficient data to track influenza during the interpandemic periods. While national systems can provide information on regional outbreaks, enhanced automated state and local surveillance systems are needed to quickly identify and track novel influenza strains and characterize the impact of influenza on local populations during regional pandemic influenza alerts.

REFERENCES

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