EMERGING INFECTIOUS DISEASES

Review of State and Federal Disease Surveillance Efforts

Why GAO Did This Study

The threat posed by infectious diseases has grown. New diseases, unknown in the United States just a decade ago, such as West Nile virus and severe acute respiratory syndrome (SARS), have emerged. To detect cases of infectious diseases, especially before they develop into widespread outbreaks, local, state, and federal public health officials as well as international organizations conduct disease surveillance. Disease surveillance is the process of reporting, collecting, analyzing, and exchanging information related to cases of infectious diseases.

In this report GAO was asked to examine disease surveillance efforts in the United States. Specifically, GAO described (1) how state and federal public health officials conduct surveillance for infectious diseases and (2) initiatives intended to enhance disease surveillance.

What GAO Found

Surveillance for infectious diseases in the United States comprises a variety of efforts at the state and federal levels. At the state level, state health departments collect and analyze data on cases of infectious diseases. These data are required to be reported by health care providers and others to the state. State public health departments verify reported cases of diseases, monitor disease incidence, identify possible outbreaks within their state, and report this information to CDC. At the federal level, agencies and departments collect and analyze disease surveillance data and maintain disease surveillance systems. For example, CDC uses the reports of diseases from the states to monitor national health trends, formulate and implement prevention strategies, and evaluate state and federal disease prevention efforts. FDA analyzes information on outbreaks of infectious diseases that originate from foods that the agency regulates. Some federal agencies and departments also fund and operate their own disease surveillance systems and laboratory networks and have several means of sharing surveillance information with local, state, and international public health partners.

State and federal public health officials have implemented a number of initiatives intended to enhance disease surveillance, but challenges remain. For example, officials have implemented and expanded syndromic surveillance systems, which monitor the frequency and distribution of health-related symptoms among people within a specific geographic area. Although syndromic surveillance systems are used by federal agencies and departments and in all of the states whose officials GAO interviewed, concerns have been raised about this approach to surveillance. Specifically, syndromic surveillance systems are relatively costly to maintain compared to other types of surveillance and are still largely untested. Public health officials are also implementing initiatives designed to enhance public health communications and disease reporting. For example, CDC is working to increase the number of participants using its public health communication systems. In addition, state public health departments and CDC are implementing an initiative designed to make electronic disease reporting more timely, accurate, and complete. However, the implementation of this initiative is incomplete. Finally, federal public health officials have enhanced federal coordination on disease surveillance and expanded training programs for epidemiologists and other public health experts.

In commenting on a draft of this report, the Department of Health and Human Services (HHS) said the report captures many important issues in surveillance. HHS also provided suggestions to clarify the discussion.