BIOTERRORISM

Information Technology Strategy Could Strengthen Federal Agencies' Abilities to Respond to Public Health Emergencies

Why GAO Did This Study

The October 2001 anthrax attacks, the recent outbreak of the virulent Severe Acute Respiratory Syndrome (SARS), and increased awareness that terrorist groups may be capable of releasing life-threatening biological agents have prompted efforts to improve our nation's preparedness for, and response to, public health emergencies—including bioterrorism. GAO was asked, among other things, to identify federal agencies' information technology (IT) initiatives to support our nation's readiness to deal with bioterrorism. Specifically, we compiled an inventory of such activities, determined the range of these coordination activities with other agencies, and identified the use of health care standards in these efforts.

What GAO Recommends

In order to enhance American preparedness for public health emergencies—especially those involving bioterrorism—GAO recommends that the Secretary of Health and Human Services (HHS), in coordination with other key stakeholders, develop a strategy that includes setting priorities for IT initiatives and coordinating the development of IT standards for the health care industry.

In commenting on a draft of this report, agencies concurred with our results but did not comment on the recommendations. Technical comments were incorporated as appropriate.

www.gao.gov/cgi-bin/getrpt?GAO-03-139.

To view the full report, including the scope and methodology, click on the link above. For more information, contact David A. Powner at (202) 512-9286 or pownerd@gao.gov.

What GAO Found

The six key federal agencies involved in bioterrorism preparedness and response identified about 70 planned and operational information systems in several IT categories associated with supporting a public health emergency. These encompass detection (systems that collect and identify potential biological agents from environmental samples), surveillance (systems that facilitate ongoing data collection, analysis, and interpretation of disease-related data), communications (systems that facilitate the secure and timely delivery of information to the relevant responders and decision makers), and supporting technologies (tools or systems that provide information for the other categories of systems)—see table below. For example, the Centers for Disease Control and Prevention (CDC) is currently implementing its Health Alert Network, an early warning and response system intended to provide federal, state, and local agencies with better communications during public health emergencies, and the Department of Defense is using its Electronic Surveillance System for the Early Notification of Community-based Epidemics to support early identification of infectious disease outbreaks in the military by comparing analyses of data collected daily with historical trends. The extent of coordination or interaction of these systems among agencies covered a wide range—from an absence of coordination, to awareness among the agencies with no formal coordination, to formal coordination, to joint development of initiatives.

Summary of the Systems Inventory by Agency

IT Categories	HHS	Defense	Energy	Agriculture	EPA	VA	Total
Detection	0	4	6	0	0	0	**10**
Surveillance	18	7	2	6	0	1	**34**
Communications	5	2	0	3	0	0	**10**
Supporting Tech	5	1	6	1	5	0	**18**
Total	**28**	**14**	**14**	**10**	**5**	**1**	**72**

Source: GAO.

IT can more effectively facilitate emergency response if standards are developed and implemented that allow systems to be interoperable. The need for common, agreed-upon standards is widely acknowledged in the health community, and activities to strengthen and increase the use of applicable standards are ongoing. For example, CDC has defined a public health information architecture, which identifies data, communication, and security standards needed to ensure the interoperability of related systems. Despite these ongoing efforts to address IT standards, many issues remain to be worked out, including coordinating the various standards-setting initiatives and monitoring the implementation of standards for health care delivery and public health. An underlying challenge for establishing and implementing such standards is the lack of an overall strategy guiding IT development and initiatives. Without such a strategy to address the development and implementation of standards, agencies may not be well positioned to take advantage of IT that could facilitate better preparation for and response to public health emergencies—including bioterrorism.

United States General Accounting Office