

GAO Highlights

Highlights of [GAO-16-413T](#), a testimony before the Subcommittee on Emergency Preparedness, Response, and Communications; Committee on Homeland Security, House of Representatives

Why GAO Did This Study

The potential threat of a naturally occurring pandemic or a terrorist attack with a biological weapon of mass destruction underscores the importance of a national biosurveillance capability—that is, the ability to detect biological events of national significance to provide early warning and information to guide public health and emergency response. The Implementing Recommendations of the 9/11 Commission Act of 2007 addresses this capability, in part by creating NBIC. The center was tasked with integrating information from human health, animal, plant, food, and environmental monitoring systems across the federal government, to improve the likelihood of identifying a biological event at an earlier stage. Similarly, DHS's BioWatch program aims to provide early indication of an aerosolized biological weapon attack.

GAO has published a series of reports on biosurveillance efforts spanning more than a decade. This statement describes progress and challenges GAO has reported in DHS's implementation of NBIC and BioWatch and considerations for the future of biosurveillance efforts at DHS.

This testimony is based on previous GAO reports issued from December 2009 through September 2015 related to biosurveillance. To conduct our prior work, we reviewed relevant presidential directives, laws, policies, and strategic plans; and interviewed federal, state, and industry officials, among others. We also analyzed key program documents, including test plans, test results, and modeling studies.

View [GAO-16-413T](#). For more information, contact Chris Currie at (404) 679-1875, or curriec@gao.gov.

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BIOSURVEILLANCE

Ongoing Challenges and Future Considerations for DHS Biosurveillance Efforts

What GAO Found

Since 2009, GAO has reported on progress and challenges with two of the Department of Homeland Security's (DHS) biosurveillance efforts—the National Biosurveillance Integration Center (NBIC) and the BioWatch program (designed to provide early detection of an aerosolized biological attack). In December 2009, GAO reported that NBIC was not fully equipped to carry out its mission because it lacked key resources—data and personnel—from its partner agencies, which may have been at least partially the result of collaboration challenges it faced. For example, some partners reported that they did not trust NBIC to use their information and resources appropriately, while others were not convinced of the value that working with NBIC provided because NBIC's mission was not clearly articulated. GAO recommended that NBIC develop a strategy for addressing barriers to collaboration and develop accountability mechanisms to monitor these efforts. DHS agreed, and in August 2012, NBIC issued the NBIC Strategic Plan, which is intended to provide NBIC's strategic vision, clarify the center's mission and purpose, and articulate the value that NBIC seeks to provide to its partners, among other things. In September 2015, GAO reported that despite NBIC's efforts to collaborate with interagency partners to create and issue a strategic plan that would clarify its mission and the various efforts to fulfill its three roles—analyzer, coordinator, and innovator—a variety of challenges remained when GAO surveyed NBIC's interagency partners in 2015. Notably, many of these partners continued to express uncertainty about the value NBIC provided. GAO identified options for policy or structural changes that could help NBIC better fulfill its biosurveillance integration mission, such as changes to NBIC's roles.

Since 2012, GAO has reported that DHS has faced challenges in clearly justifying the need for the BioWatch program and its ability to reliably address that need (to detect attacks). In September 2012, GAO found that DHS approved a next-generation BioWatch acquisition in October 2009 without fully developing knowledge that would help ensure sound investment decision making and pursuit of optimal solutions. GAO recommended that before continuing the acquisition, DHS reevaluate the mission need and possible alternatives based on cost-benefit and risk information. DHS concurred and in April 2014, canceled the acquisition because an alternatives analysis did not confirm an overwhelming benefit to justify the cost. Having canceled the next generation acquisition, DHS continues to rely on the currently deployed BioWatch system for early detection of an aerosolized biological attack. However, in 2015, GAO found that DHS lacks reliable information about the current system's technical capabilities to detect a biological attack, in part because in the 12 years since BioWatch's initial deployment, DHS has not developed technical performance requirements for the system. GAO reported in September 2015 that DHS commissioned tests of the current system's technical performance characteristics, but without performance requirements, DHS cannot interpret the test results and draw conclusions about the system's ability to detect attacks. DHS is considering upgrades to the current system, but GAO recommended that DHS not pursue upgrades until it establishes technical performance requirements to meet a clearly defined operational objective and assesses the system against these performance requirements. DHS concurred and is working to address the recommendation.