



Testimony

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BIOSURVEILLANCE

Additional Planning, Oversight, and Coordination Needed to Enhance National Capability

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Accessible Version

GAO Highlights

Highlights of [GAO-15-664T](#), a testimony before the Committee on Homeland Security and Governmental Affairs, U.S. Senate

Why GAO Did This Study

Naturally-occurring infectious disease or the intentional use of a biological agent to inflict harm could have catastrophic consequences. For example, the recent outbreak of naturally-occurring highly pathogenic avian influenza affecting wild birds and poultry in the Midwest and on the Pacific coast presents a serious threat to the economy and trade, and underscores the importance of maintaining effective food and agriculture disease surveillance systems. Biosurveillance aims to detect such events as early as possible and to enhance situational awareness related to human, animal, and plant health.

Since 2010, GAO has issued a number of reports that discuss the importance of effectively conducting biosurveillance across the human, animal, and plant domains. This statement discusses prior GAO reports and the status of recommendations related to (1) federal, state, and local biosurveillance efforts, and (2) efforts related to food and agriculture disease surveillance.

This testimony is based on previous GAO products issued from 2010 through 2013 related to biosurveillance, along with selected updates conducted from November 2014 through June 2015. For these updates, GAO reviewed agency responses and documents provided in response to its recommendation follow-up efforts, such as the July 2012 *National Strategy for Biosurveillance*.

View [GAO-15-664T](#). For more information, contact Chris Currie at (404) 679-1875 or curriec@gao.gov and Steve D. Morris at (202) 512-3841 and morris@gao.gov.

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BIOSURVEILLANCE

Additional Planning, Oversight, and Coordination Needed to Enhance National Capability

What GAO Found

In June 2010, GAO reported that there was neither a comprehensive national strategy nor a designated focal point with the authority and resources to guide development of a national biosurveillance capability. Further, in October 2011, GAO reported that states and local agencies faced challenges in developing and maintaining their biosurveillance capabilities, such as obtaining resources for an adequate workforce, and that the federal government had not conducted an assessment of state and local jurisdictions' ability to contribute to a national biosurveillance capability. To help ensure the successful implementation of a complex, intergovernmental undertaking, GAO recommended in 2010 that the White House's Homeland Security Council direct the National Security Council Staff to develop a national biosurveillance strategy, and further recommended in 2011 that the strategy consider nonfederal capabilities. The White House issued the *National Strategy for Biosurveillance* in July 2012, which describes the U.S. government's approach to strengthening biosurveillance. However, the strategy did not fully respond to the challenges GAO identified. For example, it did not establish a framework to prioritize resource investments or address the need to leverage nonfederal resources. The White House was to issue an implementation plan within 120 days of publishing the strategy. GAO has reported that it is possible that the implementation plan could address issues previously identified, such as resource investment prioritization; however, the plan has not been released as of June 2015.

In August 2011, GAO reported that there was no centralized coordination to oversee federal agencies' efforts to implement Homeland Security Presidential Directive 9 (HSPD-9) on the nation's food and agriculture defense policy, which includes food and agriculture disease surveillance. GAO also found that the Department of Agriculture (USDA) had no department-wide strategy for implementing its HSPD-9 responsibilities. Therefore, GAO recommended that the National Security Council Staff and the Department of Homeland Security resume their efforts to coordinate and oversee implementation, and that USDA develop a department-wide strategy. In response, the National Security Council Staff began hosting interagency working group meetings, and DHS has worked to develop a report on agencies' HSPD-9 implementation efforts, which officials stated will be finalized by late summer 2015. As of February 2015, USDA had conducted a gap analysis of its HSPD-9 implementation efforts but had not yet developed a department-wide strategy. Further, GAO reported in May 2013 that USDA's Animal and Plant Inspection Service (APHIS) had broadened its previous disease-by-disease surveillance approach to an approach in which the agency monitors the overall health of livestock and poultry, but had not yet integrated this approach into an overall strategy aligned with the nation's larger biosurveillance efforts, such as efforts called for in HSPD-9. GAO recommended that APHIS integrate its new approach into an overall strategy aligned with national homeland security efforts, and develop goals and measures for the new approach. In June 2015, officials stated that APHIS has begun to develop some measures, but noted that resource constraints limit their ability to assess their new approach to disease surveillance. Fully integrating its new approach into an overall strategy aligned with broader homeland security efforts, as GAO recommended, will better position APHIS to support national efforts to address threats to animal and human health.

Chairman Johnson, Ranking Member Carper, and Members of the Committee:

A catastrophic biological event, such as a naturally occurring pandemic or a terrorist attack with a weapon of mass destruction, could cause thousands of casualties, weaken the economy, and threaten national security. Biosurveillance aims to detect such events as early as possible and to enhance situational awareness and decision making by gathering, integrating, interpreting, and communicating essential information related to all-hazards threats or disease activity affecting human, animal, or plant health. The recent outbreak of highly pathogenic avian influenza in the Midwest and on the Pacific coast underscores the importance of maintaining effective animal and plant surveillance systems within the broader context of biosurveillance, as the disruption of the agriculture or food production systems can present a serious threat to the national economy, trade, and human health. Although the current strain is only affecting birds at this time, prior influenza strains have had devastating effects on humans. For example, as we reported in 2011, the Department of Health and Human Service (HHS) estimated that there were as many as 89 million U.S. cases of H1N1 influenza from April 2009 to April 2010.¹

Effective preparation for, detection of, and response to a major biological event of natural, accidental, or intentional origin requires effective coordination and cooperation among different federal agencies, levels of government, nongovernmental organizations, and the private sector. At the federal level, HHS is the federal agency with primary responsibility for disease surveillance in humans. The Department of Agriculture (USDA) is the primary federal agency with responsibility for pest and disease surveillance in animals and plants as well as safety of meat, poultry, and processed egg products.² As the agency with lead responsibility for protecting against and responding to threats and hazards to the nation, the Department of Homeland Security (DHS) is concerned with the prevention of bioterrorist attacks as well as preparing the nation to

¹See GAO, *Influenza Pandemic: Lessons from the H1N1 Pandemic Should Be Incorporated Into Future Planning*, [GAO-11-632](#) (Washington, D.C.: June 27, 2011).

²Although USDA's Food Safety and Inspection Service is responsible for ensuring the safety of meat, poultry, and processed egg products, HHS's Food and Drug Administration is responsible for ensuring the safety of virtually all other food. For more information on efforts needed to improve federal oversight of food safety, see GAO, *High-Risk Series: An Update*, [GAO-15-290](#) (Washington, D.C.: Feb. 11, 2015).

Select Worldwide Disease Occurrence: Avian Influenza

According to the Department of Agriculture, since mid-December 2014, there have been several ongoing highly pathogenic avian influenza incidents along the Pacific, Central, and Mississippi Flyways, impacting about 50 million wild birds and poultry. The Centers for Disease Control and Prevention considers the risk to people from the current outbreak to be low and no human infections have been detected as of June 2015. However, similar viruses have infected people. For example, beginning in the early 2000s, an outbreak of avian influenza spread from China to nearly 60 countries, reaching a peak in 2006. Nearly 500 human cases were reported for this outbreak, with almost 300 fatalities. The outbreak also resulted in the death and destruction of millions of wild and domestic birds throughout Asia, Europe, Africa, and the Middle East.



Source: GAO, Department of Agriculture, and Centers for Disease Control and Prevention (photo) | GAO-15-664T

respond to biological events in order to minimize human and economic losses. The responsibility and capacity for collecting most biosurveillance information and carrying out most health-monitoring activities reside within state and local jurisdictions or with private sector entities—such as hospitals and other private health care providers.

Since 2010, we have issued a number of reports that discussed the importance of conducting biosurveillance across the human, animal, and plant domains. This statement describes the status of our prior recommendations related to (1) federal, state, and local biosurveillance efforts, and (2) efforts related to food and agriculture disease surveillance. This statement is based on GAO's prior work issued from June 2010 through May 2013 on various biosurveillance efforts, along with selected updates conducted from November 2014 through June 2015.³ To conduct our prior work, we reviewed relevant presidential directives, laws, regulations, policies, and strategic plans; surveyed states; and interviewed federal, state, and industry officials, among others. More information on our scope and methodology can be found in each of the reports cited throughout this statement. To conduct our updates, we reviewed agency responses and documents provided in response to our recommendation follow-up efforts, such as the July 2012 *National Strategy for Biosurveillance*.

The work upon which this testimony is based was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

³GAO, *Biosurveillance: Efforts to Develop a National Biosurveillance Capability Need a National Strategy and a Designated Leader*, [GAO-10-645](#) (Washington, D.C.: June 30, 2010); *Homeland Security: Actions Needed to Improve Response to Potential Terrorist Attacks and Natural Disasters Affecting Food and Agriculture*, [GAO-11-652](#) (Washington, D.C.: Aug. 19, 2011); *Biosurveillance: Nonfederal Capabilities Should Be Considered in Creating a National Biosurveillance Strategy*, [GAO-12-55](#) (Washington, D.C.: Oct 31, 2011); and *Homeland Security: An Overall Strategy Is Needed to Strengthen Disease Surveillance in Livestock and Poultry*, [GAO-13-424](#) (Washington, D.C.: May 21, 2013.)

Background

Selected Worldwide Disease Occurrence: Foot-and-Mouth Disease

According to the Department of Agriculture, a 2001 outbreak of foot-and-mouth disease in the United Kingdom resulted in the slaughter and disposal of millions of animals and economic losses conservatively estimated at \$14.7 billion.

Foot-and-mouth disease is a highly contagious viral disease of cloven-hoofed animals such as cattle, swine, and sheep, and does not have human health implications.



Source: GAO, Department of Agriculture (photo) | GAO-15-664T

Homeland security presidential directives (HSPD) have called for HHS, USDA, DHS, and other federal agencies to take action to strengthen biosurveillance, including food and agriculture disease surveillance. For example, *HSPD-9: Defense of United States Agriculture and Food*, issued in January 2004, directed HHS and USDA, among others, to develop robust, comprehensive, and fully coordinated biosurveillance and monitoring systems for animals, plants, wildlife, food, human health, and water.⁴ Further, DHS was to lead, integrate, and coordinate implementation efforts among federal departments and agencies to protect critical infrastructure, including agriculture. *HSPD-10: Biodefense for the 21st Century*, issued in April 2004, established the four pillars of biodefense: (1) threat awareness, (2) prevention and protection, (3) surveillance and detection, and (4) response and recovery.⁵

Pursuant to these presidential directives, as well as federal laws, many federal departments and agencies pursue missions and manage programs that contribute to a national biosurveillance capability. Table 1 describes selected federal departments and agencies with surveillance-related responsibilities.

⁴The White House, *Homeland Security Presidential Directive 9: Defense of United States Agriculture and Food* (Washington, D.C.: Jan. 30, 2004).

⁵The White House, *Homeland Security Presidential Directive 10: Biodefense for the 21st Century* (Washington, D.C.: Apr. 28, 2004).

Table 1: Selected Federal Departments and Components with Surveillance-Related Responsibilities

Department	Component	Surveillance-related responsibilities
Department of Health and Human Services	Centers for Disease Control and Prevention (CDC)	CDC is the lead federal agency for human health surveillance and develops strategies for conducting surveillance of diseases in humans, including coordinating with other agencies to monitor zoonotic diseases, which can be transferred between animals and humans.
Department of Agriculture	Animal and Plant Health Inspection Service (APHIS)	APHIS is responsible for implementing and conducting national measures to detect, control, or eradicate certain livestock and poultry diseases (such as diagnostic testing), including in animals at slaughterhouses, stockyards, or other points of concentration. APHIS is also responsible for emergency response to an economically devastating or highly contagious animal disease—for example, by determining the veterinary and other expertise needed to respond. ^a
Department of Homeland Security	Office of Health Affairs (OHA)	As the lead agency for national biosurveillance coordination, OHA provides medical, public health, and scientific expertise in support of the Department of Homeland Security’s mission to prepare for, respond to, and recover from all threats.
Department of the Interior	National Wildlife Health Center (NWHC)	The NWHC, a science center of the United States Geological Survey, was founded in 1975 to provide the technical assistance necessary to identify, control, and prevent wildlife losses from diseases as well as conduct research to understand the impact of diseases on wildlife populations, and devise methods to more effectively manage these disease threats.

Source: GAO analysis and NWHC Strategic Plan | GAO-15-664T

^aFor further information, see GAO, *Federal Veterinarians: Efforts Needed to Improve Workforce Planning*, [GAO-15-495](#) (Washington, D.C.: May 26, 2015).

There are two White House councils that provide oversight over the development and implementation of policy related to biosurveillance. The National Security Council was established by the National Security Act of 1947 and serves as the President’s principal forum for considering national security and foreign policy matters with senior national security advisers and cabinet officials.⁶ The Homeland Security Council was established following the terrorist attacks of September 11, 2001, by executive order in October 2001 to ensure coordination of the homeland security–related activities of executive departments and agencies, as well as effective development and implementation of homeland security

⁶50 U.S.C. § 402.

**Selected Worldwide Disease Occurrence:
Salmonella, United States, 2008**

In 2008, a salmonella outbreak occurred in 43 states and the District of Columbia, with 1,500 persons reportedly ill with the outbreak strain. The initial investigations identified tomatoes as the likely source. As the outbreak continued, additional investigations showed much of the outbreak was due to jalapeno and Serrano peppers grown and packed in Mexico and distributed in the United States. According to the Department of Agriculture's *Rural Cooperative*, the tomato industry sustained an estimated loss of \$100 million or more.



Source: GAO | GAO-15-664T

**Selected Worldwide Disease Occurrence:
Anthrax**

In 2001, anthrax was intentionally spread through the postal system by sending letters with powder containing anthrax to the U.S. Capitol. Of the 22 infected persons, 5 died. The Environmental Protection Agency spent \$27 million for clean up of Capitol Hill and the U.S. Postal Service was appropriated hundreds of millions of dollars to clean up affected facilities.



Source: Environmental Protection Agency | GAO-15-664T

policies.⁷ In May 2009, the staff serving the Homeland Security Council and National Security Council were merged as the National Security Council Staff, but both councils continue to exist by statute. The Homeland Security Council was maintained as the principal venue for interagency deliberations on issues that affect the security of the homeland, such a biosurveillance.

We have previously reported that in an era of rapid transit and global trade, the public health and agricultural industries, as well as natural ecosystems including native plants and wildlife, face increased threats of naturally occurring outbreaks of infectious disease and accidental exposure to biological threats.⁸ Some diseases, such as some strains of influenza, are known as zoonotic diseases and can be transferred between animals and humans.⁹ Influenza pandemics occur when a new influenza virus emerges and spreads around the world, and most people do not have immunity. Although human influenza pandemics have been rare in the United States, they have had devastating effects. For example, as we reported in 2011 and 2013, HHS estimated that the 2009 H1N1 pandemic in the U.S. led to as many as 403,000 hospitalizations and 18,300 deaths from April 2009 to April 2010, and HHS had over \$6 billion available for influenza pandemic activities from a 2009 supplemental appropriation.¹⁰

⁷See Exec. Order No. 13,228, 66 Fed. Reg. 51,812 (Oct. 10, 2001). The establishment of the Homeland Security Council was subsequently codified in statute with the enactment of the Homeland Security Act of 2002. Pub. L. No. 107-296, § 901, 116 Stat. 2135, 2258 (codified at 6 U.S.C. § 491).

⁸GAO-10-645.

⁹For more on avian influenza, see GAO, *Avian Influenza: USDA Has Taken Important Steps to Prepare for Outbreaks, but Better Planning Could Improve Response*, GAO-07-652 (Washington, D.C.: June 11, 2007).

¹⁰See Pub. L. No. 111-32, 123 Stat. 1859, 1882-86 (2009). The United Nations' World Health Organization declared the H1N1 influenza outbreak to be a pandemic in June 2009, which was the first such declaration in over four decades. See GAO-11-632 and GAO, *Influenza: Progress Made in Responding to Seasonal and Pandemic Outbreaks*, GAO-13-374T (Washington, D.C.: Feb. 13, 2013).

The White House Has Developed a National Biosurveillance Strategy, but More Action Is Needed to Enhance Federal and Nonfederal Capabilities

The National Biosurveillance Strategy Does Not Yet Identify Resource and Investment Needs

Although the White House developed the *National Strategy for Biosurveillance* in July 2012, this strategy does not include information that identifies resource and investment needs as we previously recommended.¹¹ In June 2010, we found that there was no integrated approach to help ensure an effective national biosurveillance capability and to provide a framework to help identify and prioritize investments. Without a unifying framework; structure; and an entity with the authority, resources, time, and responsibility for guiding its implementation, we concluded that it would be very difficult to create an integrated approach to building and sustaining a national biosurveillance capability. National and agency strategies note that coordination is important because a national biosurveillance capability relies on the ability of a complex interagency and intergovernmental network to work together and meet an ever-evolving threat. Specifically, we found there was neither a comprehensive national strategy nor a designated focal point with the authority and resources to guide the effort to develop a national biosurveillance capability. We have previously found that developing effective national strategies and establishing a focal point with sufficient responsibility, authority, and resources can help ensure successful implementation of complex interagency and intergovernmental undertakings, such as providing a national biosurveillance capability.¹²

¹¹[GAO-10-645](#).

¹²See GAO, *Combating Terrorism: Selected Challenges and Related Recommendations*, [GAO-01-822](#) (Washington, D.C.: Sept. 20, 2001), and *Combating Terrorism: Evaluation of Selected Characteristics in National Strategies Related to Terrorism*, [GAO-04-408T](#) (Washington, D.C.: Feb. 3, 2004).

We made two recommendations to the White House’s Homeland Security Council, which has taken some actions to address them, as shown in table 2.

Table 2: Recommendations from GAO-10-645, and Agency Actions Taken to Address Them

GAO’s recommendation	Agency actions taken to address recommendation	Status of recommendation and, if open, what remains to be done
The Homeland Security Council should direct the National Security Council Staff to establish a focal point to lead the development of a national biosurveillance strategy.	The National Security Council Staff convened an interagency policy group that guided the completion of the <i>National Strategy for Biosurveillance</i> in July 2012, which addresses the intent of our recommendation.	Status: Closed as implemented.
The Homeland Security Council should direct the National Security Council Staff to develop a national biosurveillance strategy that clarifies roles and responsibilities, provides goals and performance measures, and identifies resource and investment needs, among other elements.	In July 2012, the White House issued the <i>National Strategy for Biosurveillance</i> . However, our review of the strategy determined that the strategy alone did not fully meet the intent of our recommendation because, among other things, it did not provide the mechanism we recommended to identify resource and investment needs, including investment priorities. ^a The <i>National Strategy for Biosurveillance</i> stated that an implementation plan was to be completed within 120 days of the strategy’s issuance. However, as of June 2015, an implementation plan has not been released.	Status: Open To fully address this recommendation, the implementation plan would have to sufficiently address the need to help identify and prioritize resource and investment needs.

Sources: GAO-10-645 and GAO analysis of agency documents and information. | GAO-15-664T

^aSee GAO, *Biosurveillance: Observations on the Cancellation of BioWatch Gen-3 and Future Considerations for the Program*, GAO-14-267T (Washington, D.C.: June 10, 2014).

The National Biosurveillance Strategy Does Not Address Key Challenges for Nonfederal Efforts or the Need to Leverage Nonfederal Resources

The *National Strategy for Biosurveillance* also does not address issues we raised related to state and local biosurveillance efforts, and that we previously recommended. In October 2011, we reported that nonfederal capabilities should also be considered in creating a national biosurveillance strategy.¹³ Because the resources that constitute a national biosurveillance capability are largely owned by nonfederal entities, a national strategy that considers how to strengthen and leverage nonfederal partners could improve efforts to build and maintain a national biosurveillance capability. Moreover, efforts to build the capability would benefit from a framework that facilitates assessment of nonfederal jurisdictions’ baseline capabilities and critical gaps across the entire biosurveillance enterprise. In 2011, we found that although the federal government did provide some resources to help control disease in

¹³GAO-12-55.

humans and animals in tribal and insular areas, there were no specific efforts to ensure that states and local agencies can contribute to the national biosurveillance capability. In addition, we noted that the federal government had not conducted a comprehensive assessment of state and local jurisdictions' ability to contribute to a national biosurveillance capability. While the size, variability, and complexity of the biosurveillance enterprise makes an assessment difficult, we concluded that the federal government would lack key information about the baseline status, strengths, weaknesses, and gaps across the biosurveillance enterprise until it conducts an assessment of nonfederal biosurveillance capabilities.

We further reported in October 2011 that state and local officials identified common challenges to developing and maintaining their biosurveillance capabilities such as (1) state policies in response to state budget constraints that restricted hiring, travel, and training; (2) obtaining and maintaining resources, such as adequate workforce, equipment, and systems; and (3) the lack of strategic planning and leadership to support long-term investment in crosscutting core capabilities, integrated biosurveillance, and effective partnerships. For example, state and local officials we surveyed had reported facing workforce shortages among skilled professionals—epidemiologists, informaticians, statisticians, laboratory staff, animal-health staff, or animal-disease specialists. Many of the challenges that state and local officials identified were similar to issues we reported regarding biosurveillance at the federal level. We noted that many of the challenges facing the biosurveillance enterprise were complex, inherent to building capabilities that cross traditional boundaries, and not easily resolved.

To address these issues, and building on our June 2010 recommendation to develop a national biosurveillance strategy, we called for such a strategy to also address the key challenges we identified in nonfederal biosurveillance, as shown in table 3.

Table 3: Recommendations from GAO-12-55, and Agency Actions Taken to Address Them

GAO recommendation	Agency actions taken to address recommendation	Status of recommendation and, if open, what remains to be done
<p>The Homeland Security Council should direct the National Security Council Staff to, as a part of its development of a national biosurveillance strategy, ensure that the strategy (1) incorporates a means to leverage existing efforts that support nonfederal biosurveillance capabilities, (2) considers challenges that nonfederal jurisdictions face, and (3) includes a framework to develop a baseline and gap assessment of nonfederal jurisdictions' capabilities.</p>	<p>In July 2012, the White House released the <i>National Strategy for Biosurveillance</i> and was also to complete a strategic implementation plan within 120 days of the strategy's issuance. However, from our review of the strategy, we determined that this strategy did not address the issues we raised related to state and local biosurveillance and did not meaningfully address the need to leverage nonfederal resources. As of June 2015, the implementation plan has not been released</p>	<p>Status: Open As with the issues we raised related to federal biosurveillance, it is possible that the implementation plan, when released, will meet the intent of our recommendation. However, until this plan is released, this recommendation remains not fully implemented.</p>

Sources: GAO-12-55 and GAO analysis of agency documents and information. | GAO 15-664T

More Oversight and Coordination Are Needed to Ensure That Federal Food and Agriculture Surveillance Efforts Align with National Policy

Federal Oversight and Coordination of the Nation's Food and Agriculture Defense Policy Could Be Enhanced

As part of the national biosurveillance capability, the maintenance of effective animal and plant surveillance systems is critical to detecting and enhancing the situational awareness of biological events that might disrupt agriculture and food production systems, such as highly pathogenic avian influenza. Although DHS, the White House's Homeland Security Council, and USDA have made efforts to improve the coordination and implementation of federal food and agriculture defense policy, additional actions are needed. In August 2011, we found that there was no centralized coordination to oversee the federal government's overall progress implementing HSPD-9 on the nation's food and

agriculture defense policy, responsibilities for which are distributed across several agencies.¹⁴ As we reported in 2011, these federal responsibilities include the development of surveillance and monitoring systems for animal, plant, and wildlife disease, food, public health, and water quality, as well as other responsibilities related to awareness and warning, vulnerability assessment, mitigation strategies, response and recovery, and research and development. Prior to 2011, the White House's Homeland Security Council had conducted some coordinated activities to oversee federal agencies' HSPD-9 implementation by gathering information from agencies about their progress. DHS supported these activities by coordinating agencies' responses to the White House on their progress. However, at the time of our 2011 review, the White House and DHS had discontinued their efforts.

Per HSPD-9, DHS is responsible for coordinating agencies' overall HSPD-9 implementation efforts. In addition, the White House's Homeland Security Council was established by executive order in 2001 to ensure the effective development and implementation of homeland security policies, including HSPD-9. Because there was no centralized coordination to oversee agencies' HSPD-9 implementation progress at the time of our 2011 review, it was unclear how effectively or efficiently agencies were using resources in implementing the nation's food and agriculture defense policy, including surveillance efforts. We concluded that without coordinated activities to oversee agencies' implementation efforts, the nation may not be assured that crosscutting agency efforts to protect agriculture and the food supply are well designed and effectively implemented in order to reduce vulnerability to, and the impact of, terrorist attacks, major disasters, and other emergencies.

We also reported in August 2011 that USDA's component agencies had taken steps to implement the department's HSPD-9 responsibilities, but USDA did not have a department-wide strategy for implementing its numerous HSPD-9 responsibilities. For example, component agencies had taken steps to implement the four HSPD-9 response and recovery efforts for which USDA has lead responsibility, such as APHIS's development of the National Veterinary Stockpile. However, according to USDA officials, the department assigned HSPD-9 responsibilities to its component agencies based on their statutory authority and expertise and

¹⁴[GAO-11-652](#).

allowed individual agencies to determine their implementation and budget priorities.

To address these issues, we made four recommendations to DHS, the White House’s Homeland Security Council, and USDA, and each agency generally concurred with its respective recommendations. Since we made these recommendations, in August 2011, these entities have taken some actions to address them, as shown in table 4.

Table 4: Select Recommendations From GAO-11-652, and Agency Actions Taken to Address Them

GAO recommendation	Agency actions taken to address recommendation	Status of recommendation and, if open, what remains to be done
The Department of Homeland Security (DHS) should resume its efforts to coordinate agencies’ overall Homeland Security Presidential Directive (HSPD)-9 implementation efforts.	DHS officials stated in May 2015 that DHS is in the process of finalizing a report on agencies’ efforts to implement HSPD-9. Officials indicated that the report is going through an interagency review process and will likely be finalized by late summer 2015. Further, officials added that there are several DHS interagency working groups that meet regularly and discuss topics related to HSPD-9. Although participation in these groups helps to keep DHS aware of related efforts, they do not comprehensively coordinate agencies’ overall HSPD-9 implementation efforts.	Status: Open To fully address this recommendation, DHS should finalize its report on agencies’ efforts to implement HSPD-9, which we believe will provide federal decision makers with critical information needed to assess how well the nation is prepared for major emergencies.
The Homeland Security Council should direct the National Security Council Staff to establish an interagency process that would provide oversight of agencies’ implementation of HSPD-9.	National Security Council Staff officials stated in December 2013 that they, along with the White House’s Office of Science and Technology Policy, have cohosted meetings of an interagency working group that is chaired by DHS. The officials stated that they plan to continue to oversee agencies’ implementation of HSPD-9 through this working group. These actions address the intent of our recommendation.	Status: Closed as implemented.
The Homeland Security Council should direct the National Security Council Staff to encourage agencies to participate in and contribute information to DHS’s efforts to coordinate agencies’ implementation of HSPD-9.	National Security Council Staff officials stated that they also used the interagency working group to encourage agencies to participate in and contribute information to DHS’s efforts. DHS officials stated in November 2013 that, throughout the previous 18 months, the National Security Council Staff had invested effort and expressed interest in the interagency working group and have been involved in discussions about DHS’s assessment of agencies’ implementation of HSPD-9. These actions address the intent of our recommendation.	Status: Closed as implemented.

GAO recommendation	Agency actions taken to address recommendation	Status of recommendation and, if open, what remains to be done
The Department of Agriculture (USDA) should develop a department-wide strategy for implementing its HSPD-9 responsibilities. Such a strategy would include an overarching framework for setting priorities, as well as allocating resources.	USDA officials stated in 2012 that the department intended to develop a comprehensive homeland security strategy to oversee its agencies' implementation of homeland security activities, including responsibilities outlined in HSPD-9. However, USDA officials told us in November 2013 that, because of limited staffing and resources and competing priorities, they were not able to develop a strategy in 2013. In February 2015, USDA officials stated that they had conducted a gap analysis with USDA's component agencies to determine USDA's successes and challenges with HSPD-9 implementation.	Status: Open We continue to believe that until it completes a department-wide strategy for implementing its HSPD-9 responsibilities, USDA cannot be reasonably assured that its agencies' efforts align with departmental priorities, that it has effectively allocated resources, and it is fulfilling its HSPD-9 responsibilities.

Sources: [GAO-11-652](#) and GAO analysis of agency documents and information. | GAO 15-664T

APHIS Developed a New Approach for Livestock and Poultry Surveillance, but Has Not Integrated These Efforts into an Overall Strategy with Performance Measures

We reported in May 2013 that APHIS had developed a new approach for its livestock and poultry surveillance activities, but had not yet integrated these efforts into an overall strategy with goals and performance measures aligned with the nation's larger biosurveillance policy.¹⁵ Under its prior approach, APHIS focused its disease surveillance programs on preventing the introduction of certain foreign animal diseases and monitoring, detecting, and eradicating other reportable diseases already present in domestic herds. Under this previous approach, information about nonreportable diseases, including those that are new or reemerging, was not always captured by the agency's disease surveillance efforts. We reported in 2013 that under its new approach APHIS had begun to broaden its approach by monitoring the overall health of livestock and poultry and using additional sources and types of data to better detect and control new or reemerging diseases. For example, APHIS has been monitoring for the presence of pseudorabies—a viral swine disease that may cause respiratory illness and death—at slaughter facilities, but under the new approach, it has proposed monitoring these facilities for a range of other diseases as well.

Although APHIS had a vision for its new approach, we found that it had not yet integrated that vision into an overall strategy with associated goals and performance measures aligned with the nation's larger biosurveillance efforts. At the time of our 2013 review, APHIS had developed a number of planning documents related to the agency's

¹⁵[GAO-13-424](#).

capabilities for disease surveillance in livestock and poultry, but these documents did not specifically address outcomes the agency seeks to accomplish or have associated performance measures. Moreover, none of APHIS's surveillance plans indicated how they individually or collectively supported national homeland security efforts called for in HSPD-9 or other national policies to defend the nation's food and agricultural systems against terrorist attacks, major disasters, and other emergencies. We concluded that without integrating its new approach to livestock and poultry surveillance activities into an overall strategy with goals and measures aligned with broader national homeland security efforts to detect biological threats, APHIS may not be ideally positioned to support national efforts to address the next threat to animal and human health. To address this issue, we made a recommendation to APHIS, with which APHIS concurred and is taking action to address, as described in table 5.

Table 5: Recommendations from GAO-13-424, and Agency Actions Taken to Address Them

GAO recommendation	Agency actions taken to address recommendation	Status of recommendations and, if open, what remains to be done
As the Animal and Plant Health Inspection Service (APHIS) develops goals and measures for its new approach to disease surveillance in livestock and poultry, the agency should integrate the agency's vision into an overall strategy that guides how its new approach will support national homeland security efforts to enhance the detection of biological threats.	APHIS has begun to develop measures to assess surveillance efforts for critical diseases affecting food, animals, and agriculture, and has begun to integrate surveillance activities with other national biosurveillance efforts. For example, officials stated in June 2015 that APHIS has begun to integrate agency efforts with those of the Department of Homeland Security, the U.S. Department of Agriculture's Food Safety and Inspection Service, and the National Animal Health Laboratory Network, a consortium of state-funded testing and diagnostic veterinary laboratories. Activities include sharing personnel, jointly carrying out pilot projects, and signing collaboration agreements. However, officials also reported that resource constraints obstruct APHIS's efforts to electronically integrate various sources of surveillance information and that constrained funding would further limit APHIS's ability to assess its new approach to animal disease surveillance.	Status: Open We continue to believe that integrating its new approach to livestock and poultry surveillance activities into an overall strategy aligned with broader national homeland security efforts will better position APHIS to support national efforts to address threats to animal and human health.

Sources: GAO-13-424 and GAO analysis of agency documents and information. | GAO 15-664T

Chairman Johnson, Ranking Member Carper, and members of the committee, this completes our prepared statement. We would be pleased to respond to any questions that you may have at this time.

GAO Contact and Staff Acknowledgments

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