

ONE HUNDRED SIXTEENTH CONGRESS  
**Congress of the United States**  
**House of Representatives**  
COMMITTEE ON ENERGY AND COMMERCE  
2125 RAYBURN HOUSE OFFICE BUILDING  
WASHINGTON, DC 20515-6115  
Majority (202) 225-2927  
Minority (202) 225-3641  
August 7, 2019

The Honorable Gene Dodaro  
Comptroller General of the United States  
U.S. Government Accountability Office  
441 G Street, N.W.  
Washington, D.C. 20548

Dear Mr. Dodaro:

We write to request that the Government Accountability Office (GAO) examine the Department of Homeland Security's (DHS) deployment of a new biodetection technology system called BioDetection 21 (BD21) to replace BioWatch, and the status of the DHS's implementation of GAO's prior recommendations concerning BioWatch as presented in GAO-16-99. Concerns about BD21 were recently raised in the February 15, 2019, article in the *Los Angeles Times*, "Homeland Security replacing troubled biodefense system with another flawed approach."<sup>1</sup>

This Committee has an ongoing bipartisan interest in biosurveillance programs that involve the Centers for Disease Control and Prevention (CDC), and the state and local public health laboratories that are members of the CDC Laboratory Response Network.<sup>2</sup> In 2013, the Committee investigated the effectiveness and efficiency of BioWatch, an early warning system designed to detect a large-scale, covert attack that releases anthrax or other agents of bioterrorism in the air. At that time, concerns were raised about the BioWatch system generating false positive results, i.e., indicating the potential occurrence of a terrorist attack when none had

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<sup>1</sup> *Homeland Security replacing troubled biodefense system with another flawed approach*, L.A. Times (Feb. 15, 2019).

<sup>2</sup> Letter from Rep. Fred Upton, Chairman, House Committee on Energy and Commerce and Rep. Cliff Stearns, Chairman, Subcommittee on Oversight and Investigations, to Dr. Thomas Frieden, Director, Centers for Disease Control and Prevention (July 19, 2012); Letter from Rep. Fred Upton, Chairman, House Committee on Energy and Commerce and Rep. Cliff Stearns, Chairman, Subcommittee on Oversight and Investigations, to Janet Napolitano, Secretary, U.S. Department of Homeland Security (July 19, 2012).

occurred. On June 18, 2013, the Committee's Subcommittee on Oversight and Investigations held a hearing to examine these concerns and other issues related to BioWatch.<sup>3</sup>

The Committee then followed up with a bipartisan request, along with bipartisan Senate requesters, to GAO to review the technical capabilities of the deployed BioWatch system as well as the testing efforts for an upgraded system and characteristics of an autonomous detection to replace BioWatch.<sup>4</sup> GAO found that DHS lacked reliable information about BioWatch Gen-2's (the deployed system) technical capabilities to detect a biological attack and therefore lacked the basis for informed cost-benefit decisions about upgrades to the system.<sup>5</sup> GAO recommended DHS not pursue upgrades or enhancements for Gen-2 until it reliably established the system's current capabilities.<sup>6</sup> GAO also recommended that DHS incorporate best practices for testing in conducting any system upgrades.<sup>7</sup> DHS generally concurred with GAO's recommendations.<sup>8</sup>

The February 15, 2019, *Los Angeles Times* article raises serious questions and concerns about whether DHS is following through on the GAO recommendations. The new BD21 system reportedly will depend on so-called trigger devices that use fluorescent light to identify potentially dangerous biological agents in the air. Once the devices trigger a warning, officials would seek confirmation with handheld equipment. However, a report commissioned by DHS found that the trigger devices "have clear limitations . . . for detection of smaller particles and some biological threat categories."<sup>9</sup> According to the *Los Angeles Times*, the report showed that the four trigger devices failed in testing to detect anthrax spores, and only correctly detected small particles of viral material in just eight of 168 attempts, or less than five percent. The report also recommended against using the handheld devices. If this information is correct, this would raise concerns that DHS would be replacing BioWatch with an even less reliable system, with the risk of state and local authorities being burdened with responding to more false positive results.

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<sup>3</sup> House Committee on Energy and Commerce, *Hearing on Continuing Concerns Over BioWatch and Surveillance of Bioterrorism*, 113th Cong. (June 18, 2013).

<sup>4</sup> Letter from Rep. Fred Upton, Chairman, House Committee on Energy and Commerce, Rep. Henry Waxman, Ranking Member, House Committee on Energy and Commerce, Rep. Tim Murphy, Chairman, Subcommittee on Oversight and Investigations, and Rep. Diana DeGette, Ranking Member, Subcommittee on Oversight and Investigations, to Gene Dodaro, Comptroller General, U.S. Government Accountability Office (Aug. 2, 2013).

<sup>5</sup> U.S. Government Accountability Office, *Biosurveillance: DHS Should Not Pursue BioWatch Upgrades or Enhancements Until System Capabilities Are Established* (Oct. 2015) (GAO-16-99).

<sup>6</sup> *Id.*

<sup>7</sup> *Id.*

<sup>8</sup> *Id.*

<sup>9</sup> See note 1.


In response to the Committee's request, DHS provided a briefing on May 17, 2019.<sup>10</sup> At this briefing, DHS clarified that the deployment of BD21 was under the auspices of a pilot program. Further, DHS stated that the test results reported in the *Los Angeles Times* article were part of a different program called Biodetection Technology Enhancement (BTE), not BD21. However, some of the same products discussed in the report are being used in the pilot program.

Given the Committee's interest in the adequacy of the science of biodetection technology, we request that the GAO review the following:

1. To what extent has DHS implemented the GAO recommendations from the 2015 report on reliably establishing the capabilities of BioWatch?
2. What are DHS's requirements for the acquisition of a technology and to what extent has BD21 followed those requirements?
3. What is the technical maturity of the critical technology elements of BD21? How robust are the DHS test and evaluation plans to de-risk operational deployment of the critical technology elements of BD21 sufficiently, and what do the results, if any, show to date?

We appreciate your attention to this matter. If you have any questions, please contact Kevin Barstow of the Majority Committee staff at (202) 225-2927 and Alan Slobodin of the Minority Committee staff at (202) 225-3641.

Sincerely,

  
Frank Pallone, Jr.  
Chairman

  
Diana DeGette  
Chair  
Subcommittee on Oversight  
and Investigations

  
Greg Walden  
Ranking Member  
  
Brett Guthrie  
Ranking Member  
Subcommittee on Oversight  
and Investigations

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<sup>10</sup> Letter from Rep. Frank Pallone, Chairman, House Committee on Energy and Commerce, Rep. Greg Walden, Ranking Member, House Committee on Energy and Commerce, Rep. Diana DeGette, Chair, Subcommittee on Oversight and Investigations, and Rep. Brett Guthrie, Ranking Member, Subcommittee on Oversight and Investigations to Kevin McAleenan, Acting Secretary, U.S. Department of Homeland Security (April 12, 2019).