




DEPARTMENT OF DEFENSE AND INTELLIGENCE COMMUNITY PREPAREDNESS FOR BIOLOGICAL THREATS

RELEVANT GAO WORK

GAO has reported on emerging biological threats, the role of the National Center for Medical Intelligence (NCMI) in producing and disseminating medical intelligence, and Department of Defense (DOD) and Intelligence Community (IC) efforts to mitigate the risks posed by China's collection and use of U.S. genetic data. GAO found, in its report on emerging biological threats, that DOD is coordinating research and development efforts of a range of internal and external stakeholders—including DOD research laboratories, academia, and private industry partners—to respond to emerging biological threats. However, GAO also found that DOD does not have full knowledge of the entire range of its biodefense capabilities or related gaps.

In addition, GAO found in its report on the role of NCMI in producing and disseminating medical intelligence, that NCMI lacks clear roles and responsibilities for the distribution and coordination of medical intelligence among its customers. GAO also found that NCMI has established a limited number of formal and documented relationships with its customers and instead often relies on ad hoc communications and existing relationships between officials. Further, GAO's work on DOD and IC efforts to mitigate the risks posed by China's collection and use of genetic data found that China's intent and ability to access and exploit U.S. genetic data presents several risks that could threaten U.S. national security. In these three separate GAO reports issued in early 2022, GAO made recommendations that, if implemented, would help DOD and the IC take steps to enhance preparedness for biological threats. However, as of September 2022, DOD and the IC have not yet implemented these recommendations. (See fig. 1.)

Figure 1: Related GAO Recommendations as of September 2022

 <p>Biodefense GAO-22-104367SU</p>	<p>The Department of Defense (DOD) conducts a range of efforts to assess, prevent, prepare for, and respond to biological threats, but it needs to take actions to strengthen its preparation for responding to these emerging threats.</p> <p>► GAO made three recommendations to the Secretary of Defense:</p> <ul style="list-style-type: none"> • Develop an integrated and comprehensive biodefense strategy. • Assess biodefense capabilities and gaps. • Provide guidance on how biological threats should be included and prioritized in joint exercises.
 <p>Medical intelligence GAO-22-104623C</p>	<p>The Defense Intelligence Agency's National Center for Medical Intelligence (NCMI) is tasked with producing and disseminating medical intelligence for DOD, but formalizing responsibilities and outreach could improve its ability to share its intelligence products.</p> <p>► GAO made three recommendations to the Secretary of Defense:</p> <ul style="list-style-type: none"> • Clarify roles and responsibilities to improve coordination. • Review whether additional guidance is needed to coordinate the sharing of medical intelligence. • Establish procedures for conducting outreach to share medical intelligence.
 <p>Genetic data GAO-22-104735C</p>	<p>DOD and the Intelligence Community have identified China as a top national security threat. China's intent and ability to access and exploit U.S. genetic data may present several risks that could threaten the national security of the United States.</p> <p>► GAO made three recommendations to the Director of National Intelligence:</p> <ul style="list-style-type: none"> • Two of these recommendations involve coordination with the Secretary of Defense. • Additional details regarding these recommendations are classified and therefore are excluded from this product.

Source: GAO. | GAO-23-106066



THE BIG PICTURE

The COVID-19 pandemic has demonstrated how emerging biological threats can cause catastrophic loss of life, sustained damage to the economy, societal instability, and global insecurity. Biological threats can include naturally-occurring outbreaks of pathogens, such as Ebola; biotechnology, such as gene modification and genetic data; and bioweapons, such as anthrax. (See fig. 2.)

Figure 2: Examples of Biological Threats



PATHOGENS

Pathogens are naturally-occurring organisms like Ebola, pictured above. Pathogens are found all over the world, in the environment, and in humans and laboratories.



BIOTECHNOLOGY

Biotechnology is the use of engineering to edit genetic information, such as deoxyribonucleic acid pictured above. Editing genetic information allows for modification of features and functions of organisms.



BIOWEAPONS

Bioweapons, such as anthrax pictured above, are developed by humans to target adversaries.

Source: Executive Office of the President, GAO, Gryphon Scientific and Rhodium Group, and National Academies of Sciences, Engineering, and Medicine. | GAO-23-106066

CHALLENGES TO U.S. NATIONAL SECURITY

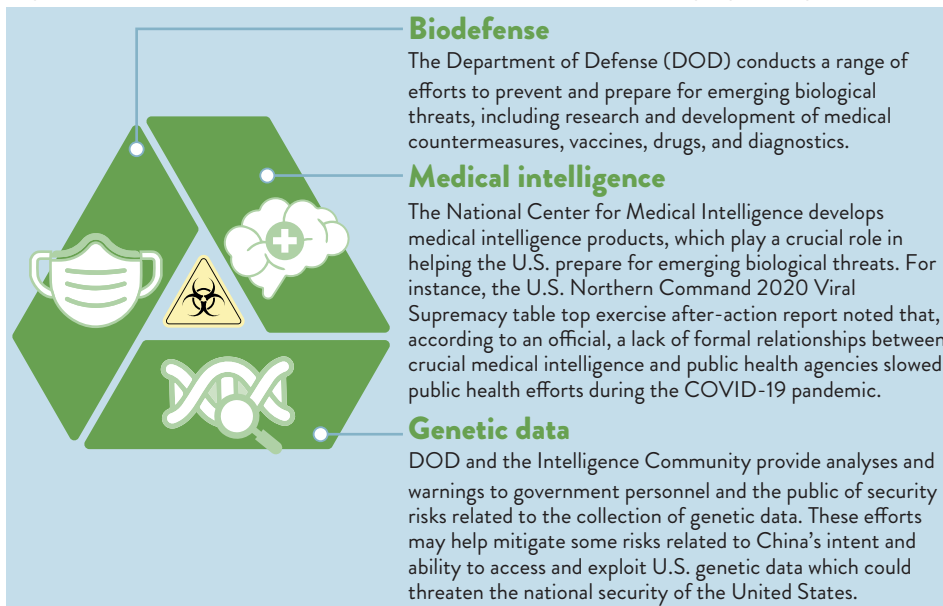
Biological threats are one of the most serious national security challenges facing the United States and the international community, as stated in the 2018 *National Biodefense Strategy* (strategy). In many countries around the world, pathogens are stored in laboratories that lack appropriate biosafety or biosecurity measures, according to the strategy. The lack of appropriate safety and security measures increases the risk of either an outbreak through an accidental pathogen release or diversion of a pathogen by actors such as terrorist organizations—either of which, among other factors, could increase the risk that another public health emergency like COVID-19 occurs.

Going forward, the COVID-19 pandemic and other biological threats may present new risks for which federal agencies that have a role in responding to biological threats, including DOD and the IC, will need to prepare. For example, Chinese companies are gaining access to global health data by establishing laboratories intended to support COVID-19 testing. The analysis of large genetic data sets from diverse populations can help foster new medical discoveries and cures. However, in the hands of the Chinese government, this genetic information could pose national security consequences and risks to the joint force and mission of DOD and the IC. Medical intelligence—the collection, evaluation, and analysis of health threats and issues—is critical for managing these types of risks of global health threats and plays a key role in helping the United States prepare for such threats.

DOD AND IC ROLES AND RESPONSIBILITIES

Figure 3 below highlights select DOD and IC roles and responsibilities to prepare for and respond to emerging biological threats.

Figure 3: Select DOD/IC Roles and Responsibilities on Emerging Biological Threats



Source: GAO. | GAO-23-106066

CONCLUSIONS

The ongoing effect of the COVID-19 pandemic has highlighted the need for an increased emphasis on monitoring and warning of threats from infectious diseases and other global health risks. Further, the promise of genetic data comes with national security risks, especially if U.S. genetic data is obtained by the Chinese government or foreign intelligence entities. Moving forward, medical intelligence will continue to be of great importance both to DOD operations and for informing policy makers in the areas of public health and national security.

While NCMI has processes in place to produce and distribute its growing number of medical intelligence products, GAO identified gaps in NCMI's guidance and processes that limited NCMI's ability to appropriately share these products with some customers. In addition, DOD is rethinking its strategic approach to biodefense and is taking a number of positive steps. However, GAO identified a number of needed actions, such as developing an integrated and comprehensive DOD-wide biodefense strategy that, for example, identifies where biodefense resources and investments should be targeted. GAO also identified actions needed to better mitigate risks associated with genetic data.

For the United States to be prepared to respond to challenges posed by biological threats in the future, DOD and the IC will need to implement a number of actions GAO has identified that would help DOD and the IC make progress, including those in figure 1. Implementing these actions would better position DOD and the IC to respond to emerging biological threats.

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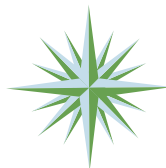
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GAO-23-106066 National Security