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Highlights

Highlights of [GAO-08-821T](#), a testimony before the Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, House of Representatives

Why GAO Did This Study

DHS is proposing to move foot-and-mouth disease (FMD) research from its current location at the Plum Island Animal Disease Center—located on a federally owned island off the northern tip of Long Island, New York—and potentially onto the United States mainland.

FMD is the most highly infectious animal disease that is known. Nearly 100 percent of exposed animals become infected. A single outbreak of FMD on the U.S. mainland could have significant economic consequences. Concerns have been raised about moving FMD research off its island location and onto the U.S. mainland—where it would be in closer proximity to susceptible animal populations—as opposed to building a new facility on the island.

GAO was asked to evaluate the evidence DHS used to support its decision that FMD work can be done safely on the U.S. mainland, whether an island location provides any additional protection over and above that provided by modern high containment laboratories on the mainland, and the economic consequences of an FMD outbreak on the U.S. mainland.

In preparing this testimony, GAO interviewed officials from DHS and USDA, talked with experts in FMD and high-containment laboratories worldwide, and reviewed studies on FMD, high-containment laboratories, and the economic consequences of FMD outbreaks. GAO also visited the Plum Island Animal Disease Center and other animal biocontainment laboratories in other countries.

To view the full product, including the scope and methodology, click on [GAO-08-821T](#). For more information, contact Nancy Kingsbury at (202) 512-2700 or kingsbury@gao.gov.

HIGH-CONTAINMENT BIOSAFETY LABORATORIES

DHS Lacks Evidence to Conclude That Foot-and-Mouth Disease Research Can Be Done Safely on the U.S. Mainland

What GAO Found

GAO found that the Department of Homeland Security (DHS) has neither conducted nor commissioned any study to determine whether work on foot-and-mouth disease (FMD) can be done safely on the U.S. mainland. Instead, in deciding that work with FMD can be done safely on the mainland, DHS relied on a 2002 U.S. Department of Agriculture (USDA) study that addressed a different question. The study did not assess the past history of releases of FMD virus or other dangerous pathogens in the United States or elsewhere. It did not address in detail the issues of containment related to large animal work in BSL-3 Ag facilities. It was inaccurate in comparing other countries' FMD work experience with that of the United States. Therefore, GAO believes DHS does not have evidence to conclude that FMD work can be done safely on the U.S. mainland.

While location, in general, confers no advantage in preventing a release, location can help prevent the spread of pathogens and, thus, a resulting disease outbreak if there is a release. Given that there is always some risk of a release from any biocontainment facility, most experts GAO spoke with said that an island location can provide additional protection. An island location can help prevent the spread of FMD virus along terrestrial routes, such as from vehicles splashed with contaminated mud, and may also reduce airborne transmission. Some other countries besides the United States have historically seen the benefit of an island location, with its remoteness from susceptible species and permanent water barriers. A recent release from the Pirbright facility—located in a farming community on the mainland of the United Kingdom—highlights the risks of a release from a laboratory that is in close proximity to the susceptible animals and provides the best evidence in favor of an island location.

Figure 1: The Plum Island Animal Disease Center



Source: DHS.

FMD has no health implications for humans, but it can have significant economic consequences, as recent outbreaks in the United Kingdom have demonstrated. The economic effects of an FMD outbreak in the United States, however, would depend on the characteristics of the outbreak and how producers, consumers, and the government responded to it. Although estimates vary, experts agree that the economic consequences of an FMD outbreak on the U.S. mainland could be significant, especially for red meat producers whose animals would be at risk for diseases, depending on how and where such an outbreak occurred.