

US unprepared for dangers posed by zoonotic diseases, new analysis concludes

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The United States, the largest importer of wildlife in the world, is not prepared for future spread of animal-borne, or zoonotic, diseases due to gaps among governmental agencies designed to combat these threats,

concludes a new analysis by researchers at Harvard Law School and New York University. The authors call for a "One Health" approach, integrating multiple agencies in order to better govern human-animal interactions.

The editorial, "Blind spots in biodefense," which appears in the journal *Science*, is authored by Ann Linder, a research fellow at Harvard Law School's Brooks McCormick Jr. Animal Law & Policy Program, and Dale Jamieson, a professor at New York University's Center for Environmental and Animal Protection in the Department of Environmental Studies.

Linder and Jamieson note that the Biden administration's recent release of its National Biodefense Strategy (NBS-22), the first update since the COVID-19 pandemic began, frames threats as largely external to the United States.

"NBS-22 focuses primarily on bioterrorism and laboratory accidents, neglecting threats posed by routine practices of animal use and production inside the United States," they write.

This oversight is significant, Linder and Jamieson observe, given the United States' past and present when it comes to human-animal interface:

- More [zoonotic diseases](#) originated in the United States than in any other country during the second half of the 20th century.
- In 2022, the U.S. processed more than 10 billion livestock, the largest number ever recorded and an increase of 204 million over 2021.
- The ongoing H5N1 avian influenza outbreak has left 58 million animals dead in backyard chicken coops and industrial farms in the U.S.

- Since 2011, the U.S. has recorded more swine-origin influenza infections than any other country. Most occurred at state and county fairs, which attract 150 million visitors each year and where an estimated 18% of swine have tested positive.

Moreover, they add, the current patchwork of siloed agencies and authorities is marked by a lack of coordination, leaving significant gaps and areas of underregulation. In fact, of the many agencies that govern food animal production, the U.S. Department of Agriculture is the most important, but it has no authority to regulate on-farm animal production.

The authors call for rebuilding from the ground up the U.S. regulatory system in order to combat zoonotic disease risk.

"What is needed is not simply for agencies to do their jobs better or to paper over the gaps, but a fundamental restructuring of the way that human–animal interfaces are governed," Linder and Jamieson urge. "A One Health approach, which NBS-22 claims as its guiding principle, would take the health of other living things not merely as the occasional means or obstacles to human health, but as continuous with it. The first step in implementing such an approach would be to create a high-level process for integrating the broken mosaic of multiple agencies, with their unclear and sometimes competing mandates, into an effective, comprehensive regime."

The [editorial](#) is based on research from the [Live Animal Markets Project](#), which is examining global policy responses to animal markets and their role in zoonotic disease transmission. The project includes 15 individual country case studies involving local collaborators, partner institutions, and members of the core research team. The project aims to provide a comprehensive assessment that will aid policymakers, contribute to public education about zoonotic risks, and support the human health and animal protection communities.

More information: Ann Linder et al, Blindspots in biodefense, *Science* (2023). DOI: [10.1126/science.adg9237](https://doi.org/10.1126/science.adg9237).
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