

Preparedness Investments versus Response Expenditures for Animal Disease Mitigation *

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The Department of Homeland Security's National Center for Foreign Animal and Zoonotic Disease Defense (FAZD Center) has been examining issues related to outbreaks of animal disease. One such issue involves the appropriate degree of preparedness for a disease possibility versus response to outbreak events. Following 9/11 events, many segments of the economy were judged vulnerable and many clamored for money being spent on protection from possible terror events. The budget exposure of the suggestions for prevention far exceeded any reasonable amount that could be expended. In addition, one needs to recognize that prevention of disease events involves expenditures that are incurred whether or not an event ever would have occurred. For example, an expensive animal inspection system that is designed to catch an exotic foreign animal disease before it can spread incurs the cost of animal inspections whether or not the disease ever enters the country. The question then in such a setting is what are the characteristics of disease events that merit protection. A set of FAZD Center activities have addressed this preparedness-protection/response balance issue in the context of animal disease.

In particular an economic study was done regarding the types of characteristics of disease event consequences that swing the balance toward prevention. The types of characteristics identified that make prevention investments more desirable are

- The conditions leading to a disease outbreak are highly likely to occur
- The prevention activity has multiple benefits that will be realized even if the disease outbreak does not occur
- The prevention activity is highly likely to actually prevent the outbreak
- The prevention activity is inexpensive
- The response activity is very costly
- The disease spreads rapidly
- The consequences of an outbreak are costly.
- A very valuable segment of the livestock industry is the target of the disease.
- An outbreak scares consumers and trade partners causing a large reduction in commodity demand for some time
- Human health can be compromised by the disease outbreak in a large way

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Such characteristics explain the great concern over foot and mouth disease and the lesser expenditures and planning surrounding BSE.

FAZD Center activities continue to address this balance in an attempt to provide improved economical strategic approaches to disease management.