

## **Consequence Management System (CMS)**

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### **Abstract**

This presentation will describe and demonstrate the progress of the evolution Consequence Management System (CMS). The CMS is a predictive model that is designed to assist government and industry to rapidly and effectively respond to intentional and unintentional contaminations of the food supply. The model depicts the evolution in time and space of the pathway of a food outbreak involving a selected combination of food product and contaminating agent. The pathway starts with the movement of the food product from the farm through outlet channels to the various points of consumption. It then continues by showing the health effects of the contamination including the rate at which illness would occur, and the way that the patient would seek medical care; and continues to model the pathway through to the health outcomes.

The outputs of the system include estimates of consumer exposure, morbidity and mortality, the impact of the event on public health infrastructure, and estimates of the economic impact of an event on individual consumers, the food industry, and the public health system. Since the public health system is one of the first lines of defense in a food contamination event, the model allows the exploration of various public health detection processes and timelines as well as the impact of various intervention strategies on the economic and human health outcomes of the event.