Post-Response: Preventing Outbreaks



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The Food and Drug Administration (FDA) is working to ensure that this outbreak story will not have a sequel. FDA's Coordinated Outbreak Response and Evaluation Network's (CORE) Post-Response Team is dedicated to learning from outbreaks and using those lessons to prevent similar outbreaks from happening in the future.

"We work with the groups involved in the outbreak investigation to evaluate what worked and what didn't," says Brett Podoski, a supervisory consumer safety officer and leader of the Post-Response Team. These groups may include CORE, FDA district offices, FDA's Center for Veterinary Medicine (CVM) or



FDA photo by Michael Ermarth

CORE Team leaders from left: Jeffrey Brown (Signals and Surveillance Team), Carla Tuite (Response Team), Brett Podoski (Post-Response Team), Pamela LeBlanc (Response Team) and William Lanier (Response Team). For captioned photos and quotes from these CORE Team leaders, go to Flickr: www.flickr.com/photos/fdaphotos/7697419646/

About this Series

This is the last in a series of four Consumer Updates on FDA's CORE (Coordinated Outbreak Response and Evaluation) teams. The other articles are:

- CORE's First Year
- Signals and Surveillance: Finding the Outbreak
- **Response:** Stopping the Outbreak

For this article and links the other CORE Series articles online, go to www.fda.gov/ForConsumers/ConsumerUpdates/ucm315052.htm



Center for Food Safety and Applied Nutrition (CFSAN), state and local public health departments, and federal agencies, such as the Centers for Disease Control and Prevention (CDC) and the U.S. Department of Agriculture (USDA).

Captain Thomas Hill, U.S. Public Health Service (USPHS), an environmental health specialist on the team, uses this analogy: "Picture a stream, where people are floating by and you're diving in after each one to rescue them. Why not send someone upstream to find out why people are falling in?" he asks.

Podoski and the four Post-Response Team members have expertise in public and environmental health, epidemiology, food science, outbreak response, microbiology and veterinary medicine. They used their knowledge gained from the outbreak of *Listeria monocytogenes* in cantaloupes to make recommendations in these areas:

- Work processes for FDA staff.

 The team aims to improve how FDA staff works together before, during and after outbreaks. For example, the listeriosis outbreak highlighted the need to assemble a pool of FDA experts to perform environmental assessments during an outbreak. Having a list of experts at the outset would enable FDA to quickly dispatch commodity and environmental assessment experts to investigate the root cause of an outbreak.
- Communication to outside groups on final outbreak outcomes. The team is looking into better ways to keep state and local health officials, other federal agencies, and industry groups informed about CORE's work and final investigation summaries on outbreaks. One idea involves an internet "dashboard" that these groups can visit to keep abreast of outbreak outcomes, lessons learned and future plans.

• *Policy.* The team has contributed to updated guidance documents for inspectors and industry, and in the longer term, plans to provide input for the revision of current policies to modernize some FDA processes. The team also plans to lend its insight to implementation of the Food Safety Modernization Act, the new law that shifts FDA's focus to prevention of food safety problems.

According to team member and epidemiologist Captain Sheila Merriweather (USPHS), the team's findings may also be used to develop standard operating procedures for environmental assessments by FDA field inspectors, "so we're all walking down the same path" in preventing outbreaks.

Down on the Farm

A team comprised of members of the Post-Response Team, the FDA district office and state and local officials—with the cooperation of Jensen Farms—met at the farm to search for conditions that may have led to the outbreak. The team found several factors that may have contributed to the introduction of the bacterium *Listeria monocytogenes* into the packing house:

- There may have been low levels of the bacteria in the growing fields, which were brought inside the packing house.
- A truck hauling cantaloupe for cattle was parked near the plant, potentially bringing in bacteria from the cattle farm.
- The plant floor design enabled water to pool and made the floor difficult to clean.
- Packing equipment was previously used for another raw product and was not easily cleaned and sanitized.
- Moisture that formed on the cantaloupes when they were not

properly cooled before being transferred from the fields to cold storage may have enabled L. monocytogenes to grow.

These findings, and the resulting recommendations for reducing potential contamination, have been used to provide education and guidance to the cantaloupe industry. They have also spurred other commodity groups to look more closely at *Listeria* contamination.

A Global Perspective

The Post-Response Team has formed working groups with international partners to evaluate gaps in the import process. In September 2011, CORE worked with FDA's liaison to the European Food Safety Agency to investigate an outbreak of Salmonella enteriditis tied to Turkish pine nuts.

Health Canada and the Canadian Food Inspection Agency, the French Agency for Food, Environmental and Occupational Health and Safety (ANSES), and the United Kingdom's Food Standards Agency, have expressed interest in CORE's postresponse activities and outcomes, Podoski says. It's part of the team's goal of "being transparent and giving back to the public the information we've learned, with a focus on prevention efforts," he adds.

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