

## FDA

### Foodborne illness can be reduced via "decision tools," new report says

Understanding more about how various food/pathogen combinations contribute to foodborne illness is one key to ranking foodborne illness risks and prioritizing ways to reduce those risks, according to a new report.

Issued by Resources for the Future, a member of the Food Safety Research Consortium, the study critiques the U.S. food safety system and suggests ways to move the current system toward a more science- and risk-based approach to reduce the rate of foodborne illness in the United States.

The report said that, while the current food regulatory scheme enjoys "generally high credibility," factors such as changed eating patterns, an aging population, an increased shift to food imports carrying "exotic" pathogens, and new food technologies have created the need for a more targeted system.

The report said programs like HACCP for meat, poultry, seafood and juice are a step in the right direction, but stressed that much more needs to be done.

It also claimed that regulators haven't been able to allocate resources effectively to cut foodborne illness rates because they lack the tools for ranking foodborne illness risks and prioritizing opportunities to reduce those risks.

In order to make the current food safety system more risk-based, the report said policy makers need three main "decision tools," consisting of:

- *A risk ranking model:* to rank the public health impact of foodborne pathogens, chemical contaminants and intentional threats.
- *Models that prioritize opportunities to reduce risk:* to assess each regulatory intervention's feasibility, cost, and effectiveness.
- *Resource allocation models:* should begin with risk ranking and prioritizing opportunities, then incorporate legislative mandates, other public health priorities such as bioterrorism and contingencies for unplanned events.

To develop the risk ranking model, the report said, regulators should build on the wealth of data it says is already available by:

- Learning more about how specific pathogen/food combinations contribute to foodborne illness.
- Developing ways to compare chemical versus microbial food safety risks.
- Determining how to compare diverse health outcomes associated with the "broad universe" of food safety hazards, based on incidence and severity of each outcome.
- Determining each outcome's economic impact, in terms of health cost and lost productivity, and societal impacts, such as effects of children.

The model for prioritizing risk-reducing opportunities won't be as easy to construct due to the lack of available information, the report added, but said the key will be coming up with a way to "compare the feasibility, effectiveness and cost of interventions along the farm-to-table spectrum, in the context of the factors that contribute to...foodborne illness."

The building blocks for this model would include data on the relative contributions of specific foods and food/pathogen combinations to illness risk, as well as an understanding of the risks avoided by current premarket approval and inspection systems.

The main challenge in devising the resource allocation model will be to identify and allow for the factors that have the biggest impact on allocation decisions, including unexpected events and legislative mandates, the report said. It stressed that such a model wouldn't give policy makers a single "right answer" for divvying up scarce resources, but would provide them a way to consider a variety of factors, such as health outcomes, in a "methodical manner."

Once these models are in place, policy makers can use them to:

- Prioritize food safety research and choose regulatory interventions based on those most likely to maximize risk reduction.
- Identify the best private sector programs and private/public collaborations for reducing risk.