

Food Safety Research Consortium

A MULTI-DISCIPLINARY COLLABORATION TO IMPROVE PUBLIC HEALTH

Backgrounder on a New FSRC Project

Prioritizing Opportunities to Reduce Foodborne Disease

The Food Safety Research Consortium has begun work on a new project titled *Prioritizing Opportunities to Reduce Foodborne Disease*. The project is funded by the U.S. Department of Agriculture's Cooperative State Research, Education, and Extension Service (CSREES).

Project Background

The Food Safety Research Consortium (FSRC) is a multi-disciplinary group of researchers from leading food safety research institutions. Its mission is to reduce the burden of foodborne disease through collaborative research that builds an integrated "systems" understanding of foodborne illness and the decision tools needed for a more science- and risk-based food safety system.

A key to such a system is the ability to prioritize opportunities to reduce risk across the food supply, taking into account the public health impact of particular hazards and the feasibility, effectiveness, and cost of interventions to minimize such hazards and their associated risks. With funding from The Robert Wood Johnson Foundation, the FSRC has developed a prototype computer-based model for ranking the public impact of specific hazards and is working to make that model operational.

In 2003, six FSRC institutions – Iowa State University, University of California at Davis, University of Georgia, University of

Massachusetts, University of Maryland, and Resources for the Future (RFF) – were awarded a grant under CSREES' Integrated Food Safety Initiative to begin the next major phase of FSRC's work.

In this CSREES-funded project, the FSRC will develop a conceptual framework for prioritizing opportunities to reduce risk based on an integrated, systems understanding of all the factors (and the interaction of factors) across the food system that contribute to the causation and prevention of illness. The framework will include approaches to evaluating the cost and effectiveness of interventions and measuring the benefits of risk reduction interventions. The framework developed in this project will provide the necessary background for future data collection and the development of priority-setting decision tools for use by food safety and public health officials, as well as private sector participants in the food system.

Objectives

The five major objectives of the project are to:

- Develop a framework for building an integrated approach to analyzing hazards and prioritizing opportunities for reducing food safety risk across the U.S. food system;
- Identify criteria that can be used to evaluate risks and risk-control

processes across an integrated food safety system;

- Evaluate different predictive modeling approaches and their applicability for use in a risk-based food safety decision system;
- Identify available data sources (and data gaps) needed to design and build a model to prioritize opportunities for reducing risk; and
- Educate stakeholders and build greater understanding among private industry and public policymakers about using an integrated, systemwide approach to establishing risk-based priorities for reducing foodborne illness and improving risk management.

Key Project Elements

The project team has prepared a draft framework paper as a starting point for the project. This paper is available on the FSRC website at <http://www.rff.org/fsrc/fsrc.htm>. Comments are welcomed. As the project proceeds, this paper will evolve into a final report that describes in detail the conceptual framework for prioritizing opportunities to reduce risk.

The framework will include the design of an approach to modeling the interaction of all the factors that are relevant to prioritizing risk reduction opportunities. The lead for designing the modeling approach is shared by the University of Maryland, Iowa State University and RFF.

The design of the modeling approach will be informed by three regional workshops, as follows:

- Workshop 1 (Spring 2004) – *Risk modeling approaches and case studies*. This workshop, to be convened jointly by Iowa State and UC-Davis and held in Davis, CA, will review alternative risk assessment and predictive modeling methods and use case studies to examine the systems and interventions used in selected food product production and marketing systems.
- Workshop 2 (Fall 2004). *Economic measures of interventions*. This workshop, to be held at the University of Massachusetts, will focus on measuring the costs and benefits of interventions and identifying ways to integrate economic information into the food safety priority setting tools.
- Workshop 3 (Spring 2005). *Post-hoc evaluative tools*. This workshop, to be held at the University of Georgia, will focus on how disease surveillance and other tools can contribute to understanding risk and the effectiveness of efforts to reduce risk, thereby better linking priority setting and intervention strategies to relevant health outcomes.

In the Summer of 2005, a National Conference will be convened at RFF in Washington, D.C., to present the results of the workshops and the proposed priority-setting framework to a national stakeholder and expert audience for discussion and feedback. Input from the conference will be considered in preparing the final report, which will be completed by the close of the project on at the end of August 2005.

Communication and Outreach

On February 6, 2004, the project team will convene a video conference, with invited experts and stakeholders included to review and refine the plans for the project. Prior to that, stakeholder briefings on the project will be held at Iowa State University (January 22, 2004) and RFF (February 2, 2004). Throughout the project, the use of working groups, state-of-the-art evaluation and critique, and consensus-building workshops will help provide output that is responsive to the reality of all food system participants. Dissemination through the FSRC website (<http://www.rff.org/fsrc/fsrc.htm>) of background papers for each workshop, workshop outputs, *Issue Briefs*, and the national conference will help assure ongoing input and involvement of food system leaders, participants, and policymakers.

Collaborators

The project director is **Helen H. Jensen**, Iowa State University (ISU). Co-principal include:

- **Julie A. Caswell**, Resource Economics, University of Massachusetts;
- **Michael P. Doyle**, Center for Food Safety, University of Georgia;
- **Jerry R. Gillespie**, Western Institute for Food Safety and Security, University of California, Davis;
- **J. Glenn Morris**, Epidemiology and Preventive Medicine, School of Medicine, University of Maryland;
- **Michael R. Taylor**, RFF; and
- **Catherine F. Woteki** and **James S. Dickson**, ISU.

Information

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FSRC Website

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