The Future of Food Safety: Understanding the True Burden

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Food Safety is a Global Public Good

- Critical to food security, nutrition.
- Serious public health issue.
  - 600 million illnesses/year
  - Children bear most of burden
  - Associated with long-term health outcomes
- Significant economic impact.
  - Medical costs, lost productivity
  - Loss of consumer confidence
  - Reduced market access
  - Increased food loss and waste
A Complex Food System

The Well-Traveled Salad.
Do You Know Where Your Food Has Been?

As consumers, many of us fail to recognize that even our domestic and local food supplies are part of a global network. The daily activity of consuming food directly links our health as humans to the health of crops and produce, food animals, and the environments in which they are produced.
A Risk-Based Approach

- Proactive and data-driven
- Grounded in risk analysis
- Systematic and transparent
- Ranks risks based on public health impact
- Prioritizes allocation of resources to manage risk most effectively
- Considers other factors in decision-making (i.e. perception, cost, environmental/market impacts)
- Evaluates efficacy of risk management on continuous basis
- Involves all stakeholders

Source:
Assessing and Ranking the Risks
The Population Burden

Every year foodborne diseases cause:

- almost in 10 people to fall ill
- 33 million healthy life years lost

Foodborne diseases can be deadly, especially in children <5

- 420,000 deaths
- Children account for almost 1/3 of deaths from foodborne diseases

For more information: [www.who.int/foodsafety](http://www.who.int/foodsafety) #SafeFood

The Individual Burden – A Personal Story

Mike, Barb, Kevin and Megan – July 2001
The Impact of Foodborne Illness

Kevin Michael Kowalcyk, age 2 1/2
12/10/98 - 8/11/01
One of Many

Grayson, age 2  
August 15, 2016

Reese, age 5  
May 1, 2015
Long-term Health Outcomes

Ryan

Matthew & Mariah

Ashley
Food Safety is a Wicked Problem

Wicked Problems

- Seemingly intractable with chronic policy failure
- Difficult to Define
- Interdependent and multi-causal
- Sit astride organizational boundaries and responsibilities
- Solutions can lead to unforeseen consequences
- Involve changing behavior
- Socially complex
- No clear solutions
An integrated, holistic, systems approach to food…

- proactive, preventive and anticipatory;
- addresses human, animal and environmental health needs (One Health); and
- delivers sufficient, safe and nutritious food to all.
The Purpose is the People

Abby  
Died, Age 7  
E. coli O157:H7

Ruby  
Died, Age 81  
E. coli O157:H7

Grayson  
Died, Age 2  
E. coli O157:H7

Kevin  
Died, Age 2  
E. coli O157:H7

Reese  
Died, Age 5  
E. coli O157:H7

Joseph  
Died, Age 8  
E. coli O157:H7

Kayla  
Died, Age 14  
E. coli O111

Ryan  
Salmonella  
E. coli O157:H7

Ashley  
E. coli O157:H7

Tammy  
Salmonella

Matthew & Mariah  
E. coli O157:H7

Jake  
Salmonella

Chris  
E. coli O157:H7
“As for the future, your task is not to foresee it, but to enable it.”

- Antoine de Saint-Exupery
French Writer, 1900-1944

Thank You!
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- Guiseppe Arcimboldo