



IVAN PARKIN LECTURE

It's All About People, Isn't It?

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In recent years, there have been some major and notable foodborne outbreaks and product defects resulting in national recalls of a wide variety of food products that were contaminated with biological, chemical or physical hazards and affected many people. When these incidents were analyzed, they were often found to be caused by failures of Good Manufacturing Practices (GMPs) and were rarely caused by true food system failures. Yes, GMPs, problems with people performing their tasks correctly. Consider some high profile events such as a major foodborne outbreak where *Salmonella*-contaminated product was shipped despite knowing that it was contaminated, food allergen recalls where product and package mismatches occurred, or recalls related to physical hazards like plastic, glass or metal pieces being found in processed food products. Recalls that are easily preventable by empowered employees taking action when a potential problem might threaten the safety of a product.

Organizations normally address these, as well as other challenging situations, by allocating a variety of resources, including monetary resources, technological innovations and personnel. Of these, personnel is often the one resource that may not receive as much attention as the others, since a company workforce is already in place. So let's talk about people. People are the major asset of any organization. Think about it...how can a company or organization prosper and advance without a well-trained, strong, knowledgeable workforce, dedicated to company values and mission, working toward a common goal of producing, processing, transporting, distributing, preparing or merchandising safe foods? Those employees need to perform their job responsibilities in food safety and quality with consistency, each and every time they perform them. Many companies have on-boarding training, refresher training, on-the-job training and many other kinds of programs designed to provide employees with more information about their job tasks. But, are these programs working and are they effective?

The answer to this question begins with thoughts about the common characteristics (core values) of world-class food companies. These core values frequently set the organization apart from the competition and give employees an understanding of the fundamental beliefs of the company. One of these core values, a culture of learning, can and does have a profound influence on the behaviors of employees throughout every department and job function within the company. People are unique and different from each other, so their perceptions, beliefs, attitudes, values, principles, practices and behaviors toward food safety and quality in an organization are crucial to them performing their tasks correctly, competently and consistently. Think about the evolution of a learning culture within an organization...from the very traditional, "basic" training (the minimum amount of information needed to do one's job), to actually creating a learning environment that empowers people to build upon their knowledge and skills and gives them new, updated information and practices to do their work at a higher level of proficiency.

It's about providing new ideas, innovative thinking, exciting and meaningful engagement in teaching and learning, to create behavioral changes in the workforce. A culture of learning is learner centered, performance based and focused on results. It is creating an organization workforce of individuals who have reached the stage where they are "unconsciously competent." Employees who perform their tasks regularly, routinely, capably, knowledgeable and proficiently! Each and every time! Several companies that have a learning culture and achieved success in the marketplace will be highlighted.



JOHN H. SILLIKER LECTURE

We All are Working on the Same Puzzle

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I am honored and humbled to present the John H. Silliker Lecture. Dr. Silliker was a pioneer and a visionary when it comes to *Salmonella*, so it seems fitting to present on the pathogen we are all still at war with. Each year we attend the IAFP Annual Meeting to learn the latest and greatest scientific information on food safety. I have personally attended many presentations on *Salmonella*, focusing on poultry to produce – on-farm to processing. There are many sessions this year dedicated to the topic. Yet the CDC's Surveillance for Foodborne Disease Outbreaks United States, 2017: Annual Report reports: *The pathogen-food category pairs responsible for the most illnesses in outbreaks with a single confirmed etiologic agent were Salmonella in turkey (580 illnesses), Salmonella in fruits (421), and Salmonella in chicken (299).*¹

Why are the pieces to this particular puzzle so hard to put together?

Having had the opportunity to wear the hat of a regulator, consultant, industry representative and member of a consumer education organization, I will attempt to examine the efforts taken to reduce *Salmonella* contamination and to ponder what the next steps may be.

The Food Safety and Inspection Service (FSIS) implemented performance standards for raw meat and poultry products in 1996. The performance standards have continued to evolve over the past twenty plus years. FSIS data demonstrates that establishments have met the standards and reduced *Salmonella* contamination in products over time.²

FSIS, CDC, and industry are all using newer laboratory methods. We have genetic sequencing, quantification and enumeration and other laboratory tools being developed.

Industry (beef, pork, and poultry alike) has been working through their respective trade organizations. I am speaking broadly for industry, not for any one company, plant or commodity. My observations have been that there has been sharing of best practices, research projects, and even multi-species task force formation. The trade groups have worked closely with FSIS, the Agricultural Research Service and the Centers for Diseases Control to exchange information and ideas. The poultry industry has shared learnings with the beef and pork industry and vice-versa. The industry is working aggressively to address this as a holistic concern.

The food safety education community has made efforts to continue to improve their tools. There has been information added to recipe cards to educate on handwashing and thermometer usage. There are biennial food safety education conferences to help participants gain insights into how to change consumer behavior to improve food safety practices. FSIS hosted their own food safety education conference in 2020.

The research community is actively engaged in *Salmonella* research. There are projects taking place on quantification methodology and highly pathogenic serotypes. There are on-going projects attempting to compare what comes from a farm or ranch to what is observed at a processing plant.

Having worn all these different hats, I feel I can speak with confidence when I say that when it comes to looking for the solution and fighting this pathogen – everyone is “all in.” I used to think that each group was engaged in working on their own puzzle. I have come to realize we are all working on a different part of the same puzzle, but perhaps sometimes we are working too far apart to see how the pieces fit together. Perhaps this has prevented us from successfully completing the entirety of the complex puzzle laid before us.

Attending conferences like IAFP where we take off our “day job hat” and listen to the latest science – each through our own lens – provides one of the greatest opportunities for us to work together to find answers. I feel strongly there are answers to this challenge, and if we all look together using science-based, data-driven approaches, we are most likely to complete this frustrating puzzle that has long been challenging us all.

1. https://www.cdc.gov/fdoss/pdf/2017_FoodBorneOutbreaks_508.pdf

2. <https://www.fsis.usda.gov/wps/portal/fsis/topics/data-collection-and-reports/microbiology/quarterly-reports-salmonella>