CHANGE AND OPPORTUNITY: HARNESSING INNOVATION TO IMPROVE THE SAFETY OF THE FOOD SUPPLY

MICHAEL R. TAYLOR
ADMINISTRATOR
FOOD SAFETY AND INSPECTION SERVICE
U.S. DEPARTMENT OF AGRICULTURE

1994 AMERICAN MEAT INSTITUTE ANNUAL CONVENTION
SAN FRANCISCO, CALIFORNIA
SEPTEMBER 29, 1994

CHANGE AND OPPORTUNITY: HARNESSING INNOVATION TO IMPROVE THE SAFETY OF THE FOOD SUPPLY

I am here today to talk about change: change in what the public expects when it comes to food safety, change in how we at the Food Safety and Inspection Service (FSIS) are approaching our job, and change in the demands being placed on all those who produce, process and market meat and poultry for American consumers.

I am here today to talk also about opportunity: the very real opportunity -- and obligation -- we have to address an important public health issue in our country. And the opportunity we have -- and must embrace -- to move beyond the politics of food safety to a collective search for real solutions to the problem of food safety.

But, as I make my first, formal public address as administrator of FSIS, just six weeks into my tenure, I want to say at the outset how fortunate I feel to be a part of this Agency. I have spent much of my time these last six weeks talking with FSIS employees -- with senior managers, scientists, leaders of our employee organizations, and inspectors and supervisors working on the front lines.

Throughout our Agency, we are blessed with employees who care deeply about our consumer protection mission, employees who are fully committed to the goal of protecting public health, employees who are eager to embrace the changes and opportunities that will take us where we need to go.

I find an FSIS that is ready for the future.

I also want to say that I find it fitting to be here before this audience to talk about change and opportunity. I have great respect for what you and the agricultural producers of this country do to provide the nation with an abundant and economical food supply. I also respect and appreciate the contribution this association and many in the meat and poultry industries have made to improving the safety of the food supply.

I believe our goal is the same: a food supply that is as safe as the modern tools of science and technology can make it. I know that much of the burden of change that is needed to meet this goal will fall on companies such as those represented here today. But the opportunity is yours as well. You know from your daily experience that improving food safety serves us all.

Public Expectations

Our agenda for change at FSIS is grounded in the expectations of the American public when it comes to the safety of the food supply.

Public expectations about food safety have always been high. Perhaps this is because food is the most fundamentally important and sensitive commodity we rely on the commercial marketplace to provide. Food provides the sustenance we need to survive; we share it in intimate family settings; we provide it to our children so they can grow and thrive.

People know very well that the safety of their food is not an absolute. But they expect -- and I believe they have a right to expect -- that those who offer food for sale in the commercial marketplace, and we in government who oversee the safety of the food supply, have done everything it is reasonably possible to do to ensure its safety.

That is the public's expectation, and, in our free and open society, the public has ample means to hold us accountable for meeting it, through their choices in the marketplace, through their elected officials, and through the media.

In one critical respect, our inspection program at FSIS does not currently meet the public expectation. There is a gap in our system, which has been recognized at least since 1985, when the National Academy of Sciences issued its report, Meat and Poultry Inspection, the Scientific Basis of the Nation's Program.

The fact is we do not deal directly enough and scientifically enough with the microbial pathogens that can make people sick. We do not take full advantage of the tools of microbiology to ensure that preventive controls are in place to reduce the risk of harmful contamination and to verify that those controls are working.

I know that many companies are moving in this direction, that microbial testing and other tools are being used by individual companies. But the public rightfully expects today that the tools of microbiology be built into the system of government oversight, that the FSIS inspection program target and take effective action to reduce or eliminate the bacteria that can make people sick.

That is a fair expectation for people to have of us. It is an expectation we intend to meet.

Meeting this expectation requires real change in how we approach our job. And I mean change at both the broad, philosophical level and at the day-to-day operational level.

Public Health Goals

Let me illustrate the kind of change I'm talking about. At the most fundamental, philosophical level, we need to change our approach by defining our goals when it comes to the safety of meat and poultry products, and by establishing goals that are driven by the protection of public health.

We say that our inspection system is intended to ensure that meat and poultry products are safe and wholesome, but we need to define more carefully what we mean by that. This is especially critical when it comes to the contamination of meat and poultry products with microbial pathogens.

If we don't understand what our public health goals are, we can't judge the adequacy of our efforts to achieve them. If we do clearly define and articulate our public health goals, we can harness the innovative capacities of the industry, the scientific community, and government to reach them.

Industry - Government Relationship

This new approach -- defining public health goals to stimulate innovation -- will bring about an important shift in the relationship between FSIS and the industries we regulate.

The tendency in the past has been for innovation in the inspection program to follow innovation in the industry. We have maintained a carcass-by-carcass inspection program that keeps up with rapid productivity gains in the industry. Make no mistake, productivity gains have value for consumers because they help provide an abundant, economical food supply.

But it's time for a shift. It's time to expand the impetus for innovation. It's time that innovation in the industry and in the inspection system be driven as much by public health goals as by productivity concerns.

Let me illustrate how this approach can work by talking briefly about one of our most critical food safety concerns, namely the contamination of ground beef with E.coli 0157:H7. The frequency of such contamination is relatively low compared to other pathogens. We estimate, based on a recent FSIS survey, that a fraction of one percent of all beef carcasses may be contaminated with 0157:H7, while another FSIS survey indicates that 25 percent or more of broiler carcasses may be contaminated with salmonella.

0157:H7 contamination of ground beef is, nevertheless, a significant public health problem. Based on data from prospective, population-based surveys, it is likely that there are at least 10,000 cases per year in this country. The presence of less than one hundred organisms is enough to cause serious illness and even death, especially among children and the elderly. And ground beef is a staple of the American diet that, in our society, has traditionally been cooked by many people in a manner that does not destroy the organism.

Consumer education about proper cooking of ground beef clearly plays a critical role in disease prevention -- and we will continue to emphasize the importance of such education.

But, we cannot escape our public health responsibility to reduce the risk of disease by relying solely on this last line of defense.

We need to act to protect public health.

In the case of 0157:H7 and raw ground beef, the only satisfactory public health goal is to eliminate contamination. That is the goal we must work toward.

We recognize that the ultimate achievement of this goal requires a long-term commitment. Achieving it -- or coming as close as it is scientifically and technologically feasible to come -- will likely require preventive measures at multiple steps in the process of producing and distributing ground beef.

We must look for ways to reduce the likelihood that contaminated animals will enter the stream of commerce, the risk that any pathogenic bacteria present in the intestinal tract will contaminate the meat during the slaughter process, and the potential for subsequent growth of any organism that may be present.

Industry Innovation

In short, technological innovation in production, slaughter and processing must be harnessed and applied aggressively if we are to move effectively toward our public health goal.

Many examples of possible interventions that could move us toward this goal and reduce the risk of illness are described in the National Livestock and Meat Board's recent report on 0157:H7, titled A Blueprint For Industry Action.

We applaud the Board for the forthright approach taken in the report, and for the report's explicit recognition that beef safety is the meat industry's responsibility. I know that the American Meat Institute shares that view.

When it comes to the possible contamination of ground beef with E.coli 0157:H7, this responsibility means taking concrete action now to reduce risk. It means every company examining its processes, from the slaughter floor through the processing plant, and into the marketplace. And it means building in preventive measures that eliminate or reduce to the maximum extent possible the risk that a raw ground beef product will be contaminated when it leaves that company's premises.

I know many companies are taking these steps. All companies should take them.

I also know that when the product leaves the processing plant, it is still vulnerable to contamination or abuse that can contribute to the risk of foodborne illness. Those who transport the product and those who further handle it at retail have the same responsibility to take preventive measures to reduce risk.

Again, I know the Food Marketing Institute and the National Restaurant Association support this approach and that many companies are taking the initiative to do this.

I especially applaud the efforts of some of our largest restaurant chains to require their suppliers to establish preventive controls. These preventive measures, including finished product testing as a check on the systems' controls, are designed to reduce the risk that the ground beef they purchase is contaminated with E.coli 0157:H7.

I intend to meet with these organizations to strongly encourage their continued efforts and cooperation with us in this endeavor.

Initiatives like these will make food safer, and I call upon the meat industry to continue and expand them.

Government's Role

You will not be alone. We at FSIS are acting as well.

Secretary Espy has asked Congress to build into our statutory mandate an explicit charge to directly target microbial pathogens and to incorporate the science of microbiology into our inspection system. Prompt enactment of the Pathogen Reduction Act of 1994 will put the full weight of Congress behind our effort to address microbial pathogens.

We also are proceeding through our regulatory processes. We are working hard to enforce the requirements that clean meat be produced in a sanitary environment.

And we plan to publish this fall proposed regulations to require that every meat and poultry plant establish science-based systems -- the HACCP system, Hazard Analysis and Critical Control Points -- to reduce the risk of foodborne illness.

HACCP is the conceptual framework for the future of food safety. If implemented properly, it is a powerful tool for targeting and preventing significant foodborne hazards, such as those posed by microbial pathogens.

Through the HACCP rulemaking, we will address and invite public comment on what our public health goals should be regarding specific microbial pathogens in raw meat and poultry products. We will address, but not limit ourselves to, E.coli 0157:H7.

For example, salmonella contamination of raw poultry contributes to hundreds of thousands of cases of foodborne illness annually, through cross contamination, incomplete cooking, or other means. We believe that 25 percent or more of all broiler carcasses may be contaminated when they leave FSIS-inspected facilities. While there is some evidence the incidence of contamination has declined over the last decade, 25 percent is simply not good enough as a national average when we know that some plants are achieving rates well below 10 percent using technologies that are available today.

We need to enlist those technologies to bring the salmonella contamination incidence down across the board. And we need to address as a nation what the appropriate public health goals are for reducing the frequency and levels of salmonella contamination in poultry.

The questions we will be asking about microbial pathogens are difficult scientifically, and some of the desired public health goals may be achievable only in stages over a period of time. But, if we don't know where we are going, we can't possibly determine how to get there.

We also plan to begin this fall the rulemaking process required to determine how mandatory in-plant microbial testing can best be incorporated into our inspection program. Many companies are already using this tool for various purposes. It's time to begin establishing how this tool can be used by all companies to improve the safety of their products.

These changes in our inspection program and in the expectations our system will place on meat and poultry plants will go a long way toward reducing the risk of foodborne illness. But they will take time to develop. That's why industry innovation today toward the goal of reduced risk is so important.

It is also why FSIS must deal aggressively with the public health challenges we face today.

Regulatory Policy on E.coli

To this end, I want to be sure our regulatory policy on E.coli 0157:H7 is crystal clear. Let me state it here. First, raw ground beef contaminated with E.coli 0157:H7 poses a serious risk to public health, and contaminated lots should be excluded from commerce.

Second, we recognize that due to the low incidence of contamination and the non-uniform distribution of contamination, no finished product testing program will detect all contaminated product. But when FSIS encounters a contaminated lot, we will detain it and require its destruction or reprocessing in a manner that kills the organism.

Third, we expect companies who encounter contaminated lots of raw ground beef at any stage of the process from production and processing to the retail store to take similar action. We also expect them to notify FSIS so that we can take whatever additional measures are appropriate to protect public health.

Fourth, to clarify an important legal point, we consider raw ground beef that is contaminated with E.coli 0157:H7 to be adulterated within the meaning of the Federal Meat Inspection Act. We are prepared to use the Act's enforcement tools, as necessary, to exclude adulterated product from commerce.

Finally, we plan to conduct targeted sampling and testing of raw ground beef at plants and in the marketplace for possible contamination with E.coli 0157:H7.

This sampling program is not by itself likely to detect a significant number of contaminated lots and will not by itself significantly reduce the likelihood of future outbreaks of foodborne illness attributed to 0157:H7. It is intended to build our knowledge and experience regarding sampling and testing for this pathogen. It also will serve as an example and an incentive for those commercial enterprises that produce, process and market raw ground beef to control their processes and conduct their own tests.

We know that the ultimate solution to the 0157:H7 problem lies not in comprehensive end-product testing but rather in the development and implementation of science-based preventive controls, with product testing to verify process control. Nevertheless, as these systems develop, we have to do what we can now to detect and exclude from commerce contaminated lots of raw ground beef. Any lot that we detect or that you detect is one less lot that could cause an outbreak of illness due to E.coli 0157:H7.

If we aggressively apply the preventive technologies we have and take strong measures to exclude contaminated ground beef from the stream of commerce, we will be on the road toward meeting the public's fair expectations and carrying out our public health responsibility when it comes to E.coli 0157:H7.

Plant Sanitation

Let me turn briefly to another topic to illustrate how we need to change our approach to achieving even our most basic and longstanding goals. The topic is plant sanitation.

Good sanitation is the foundation upon which safe food production and processing rests. Insanitary facilities and equipment and poor personal hygiene practices among employees create an environment in which pathogens can flourish. They are an indicator that a facility is not under a level of control essential to produce safe food.

Good sanitation is also one of the public's fundamental expectations. People simply want their food produced under conditions of reasonable cleanliness. Congress has made good sanitation one of the standards that plants must meet to operate under FSIS inspection.

The keys to good sanitation are obvious: a strong commitment on the part of plant management and sustained effort every day to keep the plant clean. Many plants do very well on sanitation because they have the commitment and make the effort.

Other plants do not do as well. In our ongoing unannounced reviews of 1,000 plants, including both slaughter and processing operations, the serious deficiencies we are observing involve sanitation more than any other category of deficiency.

Perhaps the management commitment is not there in some of these plants. Perhaps the facility is old and difficult to maintain. Perhaps the investment has not been made in equipment that can make good sanitation easier to achieve.

There are no doubt many reasons for sanitation problems. Maintaining a high level of sanitation consistently, every day, is a real challenge.

We at FSIS know that we have a role to play in meeting this challenge, and there is room for improvement -- indeed a need for change -- in how we play that role. Most fundamentally, we need to clarify what our role and responsibility is in relation to the role and responsibility of plant management.

Our current sanitation regulations spell out various general standards concerning cleanliness of plant and equipment. It is implicit in these regulations -- and well understood by many companies -- that the plant's management is responsible for seeing that these requirements are met every day before operations commence. Responsible companies typically have standard operating procedures that their employees must follow every day to ensure good sanitation.

Other companies do not take the same affirmative approach to establishing and managing a real sanitation program. In some plants, we find a tendency to rely too heavily on the FSIS inspector to find problems and require their correction.

Our goal is to be sure that <u>all</u> plant managers understand and accept their responsibility for good sanitation and have in place basic procedures designed to produce good sanitation. This will in turn enhance the ability of the FSIS inspector to perform his or her proper role regarding sanitation, which is to verify that the plant has met its sanitation responsibility.

In pursuit of this, we will review our sanitation regulations and consider whether the responsibility of plant management for sanitation should be made more explicit.

It is not the job of FSIS to mandate in detail how good sanitation is to be achieved in every plant we inspect. But, we do need to consider spelling out such basic responsibilities as having in place a sanitation plan for the plant, having supervisory personnel who are trained adequately to carry out the plan, and conducting sufficient pre-operational checks to verify that the plan is working.

We also need to update the technical guidance we provide to plants on how good sanitation can be achieved. This is especially important for small plants who may lack the resources to stay up to date themselves on advances in sanitation procedures and technology. Before the end of the year, we plan to issue an updated version of our Sanitation Handbook, which we expect will be a valuable resource for both inspectors and plants.

Good sanitation is an objective the meat industry and FSIS share. It is a topic that deserves and requires steady attention to achieve and maintain good results.

I want to emphasize that, as we step up our focus on microbial pathogens, we will not lose sight of the basic need for good sanitation.

Conclusion

I've talked today about two of our most critical program goals -- safe food and clean plants -- and about the change underway in our program as we pursue these goals.

I have not talked about how we will be changing and expanding our interaction with the scientific community, improving our coordination with other food safety regulatory authorities, and reexamining some important labeling policies.

Yes, the agenda for change at FSIS is ambitious. Your involvement and support will be important to our success. We welcome your support. We invite your support. And I know that on the goal of improving food safety by bringing the science of microbiology into our inspection program, we have your support.

The agenda for change is ambitious, but the opportunity for progress is great. By embracing change and innovation in how you produce, process, and market your products and in how we conduct our inspection program, we can together improve protection of public health in this country and earn the confidence of the American consumer in what we do.

Thank you.