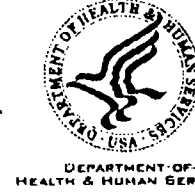
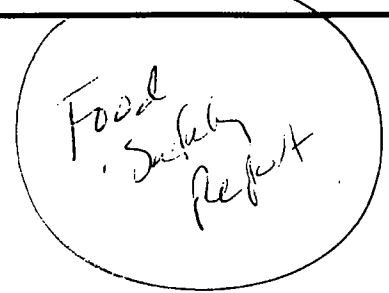




PRESIDENT'S COUNCIL ON FOOD SAFETY



MAR 15 1999



The President
The White House
Washington, DC 20500

Dear Mr. President:

As co-chairs of your Council on Food Safety, we are pleased to submit to you the Council's assessment of the National Academy of Sciences (NAS) report *Ensuring Safe Food from Production to Consumption*. The NAS report provided the Council with valuable insight into the strengths and weaknesses of the current federal food safety system. The Council finds the NAS report to be a constructive contribution to improving the effectiveness of the federal food safety system through sound science and risk assessment, strategic planning, and better federal integration with state and local governments. The Council will consider the report's advice as it moves forward with the development of the comprehensive strategic plan as specified in Executive Order 13100.

Respectfully,

NEAL LANE
Assistant to the President
For
Science and Technology

DONNA E. SHALALA
Secretary of
Health and Human Services

DANIEL GLICKMAN
Secretary of
Agriculture

**President's Council
on
Food Safety**

Assessment of the NAS Report

Ensuring Safe Food from Production to Consumption

March 1999

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President's Council on Food Safety
Assessment of the NAS Report
Ensuring Safe Food from Production to Consumption

Americans have one of the world's safest food supplies. This is largely a result of sustained regulatory and education programs along the farm to table continuum as well as surveillance and research efforts. The federal food safety system, comprised of multiple agencies, is authorized by a diverse set of statutes and is supported by numerous key partnerships with state, local, and tribal governments. Together these agencies have created a system that has given U.S. consumers confidence in the safety of their food purchases.

As good as the nation's food safety system is, there is room for improvement. Illnesses and deaths due to contaminated food, while preventable, continue to cause considerable human suffering and economic loss. That is why, at the very beginning of his first term, President Clinton set a course to strengthen the nation's food safety system. Under the President's leadership, surveillance and research have dramatically increased, programs are better coordinated, and regulations are more prevention-oriented and science-based. But this is only the beginning. The Council on Food Safety, with the help of the public, will continue to identify problems and promote solutions.

The Council welcomes the findings and recommendations provided by the National Academy of Sciences in its August 1998 report *Ensuring Safe Food From Production to Consumption*. This report lays out a clear rationale for a national food safety plan, one that is based on science and risk assessment.

- The Council supports **NAS recommendation I**, which states that the food safety system should be based on science. In its assessment of the NAS report, the Council provides numerous examples in which this is already the case and examples of areas that need to be strengthened.
- The Council supports **NAS recommendation IIa**, which calls for federal statutes to be based on scientifically supportable assessments of risk to public health. In this regard, the Council will conduct a thorough review of existing statutes and determine what can be accomplished with existing regulatory flexibility and what improvements will require statutory changes.
- The Council supports **NAS recommendation IIb**, which calls for the production of a comprehensive national food safety plan. In fact, the development of such a plan is already underway and is one of the primary functions of the Council as specified in Executive Order 13100. One component of the plan will be exploring methods to assess the comparative health risks to the nation's food supply.
- The Council supports the goal of **NAS recommendation IIIa**. Here, the NAS calls for a new statute that establishes a unified framework for food safety

programs with a single official with control over all federal food safety resources. The report acknowledges that there may be many organizational approaches to achieving the goal of a “single voice” for federal food safety activities. The Council will conduct an assessment of structural models and other mechanisms that could strengthen the federal food safety system through better coordination, planning, and resource allocation, keeping in mind that the primary goal is food safety and public health.

- The Council supports **NAS recommendation IIIb**. This recommendation argues that agencies should have the legal authority and other tools needed to work more effectively with our partners in state, tribal, and local governments. Federal food safety agencies already have many of the tools identified by the NAS and have used them to establish extensive partnerships with state, tribal, and local governments. However, some tools are missing and much more needs to be done to better coordinate the federal government’s interactions with other levels of government. The Council agrees that the roles of state, tribal, and local governments in the food safety system are critical and that their efforts deserve the formal recognition that partnership in a national food safety system conveys.

President's Council on Food Safety Assessment of the NAS Report: *Ensuring Safe Food from Production to Consumption*

At the request of Congress, the National Academy of Sciences (NAS) conducted a study of the current food safety system to: (1) determine the scientific basis of an effective food safety system; (2) assess the effectiveness of the current system; (3) identify scientific and organizational needs and gaps at the federal level; and (4) provide recommendations on scientific and organizational changes needed to ensure an effective food safety system. To conduct this study, the NAS established a committee and obtained input from federal agencies and other stakeholders of the federal food safety system. The NAS issued its report on August 20, 1998.

On August 25, 1998, through Executive Order 13100, the President established the Council on Food Safety and charged it to develop a comprehensive strategic plan for federal food safety activities and to make recommendations to the President on how to implement the plan. Also on August 25, 1998, the President directed the Council to provide him with an assessment of the NAS report in 180 days. Specifically, the President directed:

“...the Council to review and respond to this report as one of its first orders of business. After providing opportunity for public comment, including public meetings, the Council shall report back to me within 180 days with its views on the NAS's recommendations. In developing its report, the Council should take into account the comprehensive strategic federal food safety plan that it will be developing.”

In response to the President's directive, the Council established a task force consisting of representatives from the following departments and agencies: Departments of Agriculture (USDA), Health and Human Services (HHS), and Commerce (DOC), Environmental Protection Agency (EPA), Office of Science and Technology Policy (OSTP), and Office of Management and Budget (OMB). The task force benefited from valuable input obtained at four public meetings (Arlington, VA; Sacramento, CA; Chicago, IL; and Dallas, TX) and from public comment dockets maintained by EPA, USDA/Food Safety and Inspection Service (FSIS), and the HHS/Food and Drug Administration (FDA).

In general, the Council finds the NAS report a constructive contribution to efforts to improve the effectiveness of the federal food safety system through strengthening science and risk assessment, strategic planning, and better federal integration with state and local governments. In particular, the NAS places appropriate weight throughout its report on applying science to the management of government food safety efforts. Science must be advanced within the context of these competing interests. The NAS report recommends that priorities of the nation's food safety system should be based on risk. The Council agrees with the report's thesis that a

food safety system that includes regulation, research and development, education, inspection and enforcement, and surveillance should be based on science and should use various risk analyses including quantitative and qualitative risk assessments and risk management principles to achieve such a system.

The Council recognizes that a food safety system comprised of multiple agencies with differing missions and statutory authority may increase the potential for uneven adoption and inconsistent application of science-based regulatory philosophies. While different applications may provide useful information to policy makers relative to the effectiveness of various approaches, the Council's strategic plan (including its assessment of existing statutes and structures) will result in more consistent regulatory measures and philosophies. The Council is committed to identifying further improvements that would result in a seamless, science-based food safety system.

Recommendation I

Base the food safety system on science.

The NAS report recognizes that the United States has enjoyed notable successes in improving food safety and that with increasing knowledge, many rational, science-based regulatory philosophies have been adopted. The report suggests, however, that adoption of these regulatory philosophies has been uneven given the fragmentation of food safety activities, and the differing missions of the various agencies responsible for specific components of food safety. The greatest strides in ensuring future food safety from production to consumption, the NAS argued, can be made through a scientific, risk-based system that ensures surveillance, regulatory, research, and educational resources are allocated to maximize effectiveness.

Council Assessment

The Council strongly endorses this recommendation. Many federal food safety programs are already, or are being modified to be, science-based. The Council recognizes that scientifically robust programs will result in better identification of public health needs, and determination of the most effective means of reducing public health risk, including the most cost-effective opportunities for improvement, and improved priority setting.

The scientific information generated through surveillance, research, and risk assessment efforts will result in improved food safety only if there is a commensurate strong effort to translate that scientific information into practical, usable information at the working level, e.g., through guidance or education. This means there must be education for all those involved in producing, manufacturing, transporting, and preparing food as well as for those persons involved in government food safety regulatory activities.

The Council's goal is to ensure that science- and risk-based decision making are central to the Administration's on-going efforts and its strategic plan. Considerable improvements have been made over the past several years. The strong scientific underpinnings of the President's Food Safety Initiative, enactment of the Food Quality Protection Act (FQPA), restructuring of food safety agencies within USDA, and many individual agency activities such as implementation of Hazard Analysis and Critical Control Points (HACCP) programs for meat, poultry, and seafood, have strengthened the overall science base of the food safety system.

The Council believes that the necessary elements of a science-based program—surveillance, outbreak response, risk assessment, research, regulation, inspection, and education—are largely in place, and that improvements planned for the next 5-10 years will enhance food safety significantly. The Council will consider in its strategic plan the following elements of a science-based food safety system:

- *Surveillance.* Food safety agencies will continue to develop more effective ways to achieve surveillance goals and to monitor the safety of the food supply. Although FoodNet (foodborne disease surveillance system), PulseNet (foodborne pathogen DNA fingerprinting system), and the National Antibiotic Resistance Monitoring System (NARMS) provide information never before available in the United States on foodborne illnesses and the occurrence of antibiotic resistant pathogens, enhanced quantitative data on the entire range of infectious and non-infectious foodborne hazards will require additional efforts.
- *Risk Assessment.* Risk assessment is a valuable tool for setting priorities, allocating resources, and making regulatory decisions and must be continually improved. For example, EPA will continue to refine its risk assessment methods to determine acceptable levels of pesticides residues. Under FQPA, this approach has been strengthened to further protect all consumers, especially children, from the risks of pesticides in their diet. As currently is done for chemical hazards, the federal government needs to create and use a national microbial risk assessment capability as a means of identifying hazards and quantifying risk and assist in creating similar capacities internationally.
- *Research.* Through the Joint Institute for Food Safety Research, a research infrastructure has been established to improve and coordinate food safety research activities across the federal government. The Institute will continue a critical review of the federally supported food safety research that was begun through the National Science and Technology Council. Future goals in the area of research include: coordination of research planning; budget development and prioritization; scientific support of food safety guidance, policy, and regulation; enhanced communication and links among federal agencies; and enhanced communication and links with industry and academic partners through use of public-private partnerships and technology transfer mechanisms.
- *Education.* Food safety agencies will expand science-based education and training programs for producers, processors, distributors, food service and public health workers, health care providers, food scientists, and consumers as well as

those involved in regulatory activities. It is essential to include in these programs new scientific information on foodborne hazards and their control and effective food safety management strategies.

- *Inspection/Preventive Controls.* FSIS and FDA will further improve and evaluate the effectiveness of inspections of domestically and internationally produced food and will continue to develop and implement science-based preventive controls such as HACCP systems and the Good Agricultural Practices. Where necessary, regulatory requirements will be established, such as additional performance standards for pathogen reduction that can be developed as more monitoring and surveillance data become available.
- *Consistency of Science-Based Standards.* FSIS, FDA, and EPA will work toward clear food safety standards nationally and internationally. The Conference for Food Protection brings together all 50 states for purposes of regulating retail establishments, and the model Food Code is gaining wider adoption among the states. Internationally, the Codex Alimentarius Commission (CAC) is the primary mechanism through which these activities will take place. U.S. food safety agencies should also become more active in providing technical assistance to developing countries.
- *Private Sector Incentives.* The federal and state regulatory agencies will work with the private sector to develop new technologies to further food safety and to encourage commercial scale-up applicable in large and small companies, and industry adoption. Research efforts with industry, consumer, academic, and government participation could develop and validate new technologies.
- *Evaluation.* Evaluating the effectiveness of science based regulatory programs continues to be critical. For example, *Salmonella* data from the first year of HACCP implementation in poultry facilities show a trend toward fewer contaminated products. Also, by providing important information on trends in the incidence of infections with foodborne pathogens, FoodNet assists in the evaluation of the effect of preventive controls. The effect of preventive controls implemented by the processed food industry on the reduction of the number of cases of listeriosis was readily apparent in the Centers for Disease Control and Prevention (HHS/CDC)-conducted surveillance effort that was a forerunner of FoodNet.

A general challenge for the food safety agencies is that while they must be guided primarily by science, the agencies must also consider other factors such as technical limitations, statutory mandates, policy considerations, budget constraints, practicality, and consumer and societal preferences.

Scientific Challenges

The Council faces a number of challenges in improving the scientific base of the food safety system. The following are a few examples of challenges that must be met to strengthen the scientific underpinnings of federal food safety efforts:

- New data are required to address the occurrence of emerging pathogens, changes in domestic food habits, a global food supply, and changes in demographics. Specific data needs are difficult to predict and obtain in a timely way. An example is the impact of *E. coli* O157:H7, which was unknown as a foodborne pathogen 20 years ago, but has been responsible for major outbreaks of foodborne illness in recent years.
- Gaps exist in our knowledge of microbial pathogens and in our ability to measure their impact on human health. For example, there are gaps in knowledge about the pathogens associated with fresh fruits and vegetables and the routes of contamination.
- Assessment of the total impact on health of multiple chemicals from multiple sources presents a major scientific challenge. Implementation of the new FQPA standards for pesticide residues requires EPA to assess aggregate risk from food, water, and residential exposure to a single pesticide as well as cumulative risk from multiple pesticides.
- Gaps exist in our knowledge of effective interventions, prevention, and alternatives that minimize contamination of food. For example, the existing limited body of knowledge about microbial contamination limits the ability to develop on-farm preventive controls and systems of testing. Similarly, with the advent of FQPA, more research is also needed to develop safer pesticide alternatives or crop production techniques in order to promote transition from older pest control techniques that may pose risks to newer, safer ones.
- Insufficient data exist on the entire range of infectious and non-infectious foodborne hazards. Even with the improvements made through FoodNet and PulseNet, enhancement of quantitative data on the entire range of infectious and non-infectious foodborne hazards will strengthen monitoring and surveillance programs for prevention, early identification, and prediction of emerging food safety problems.

Recent Changes that Strengthen the Federal Food Safety System Scientific Base

- USDA 1994 reorganization (separated public health from marketing functions)
- HACCP implementation (12/97 seafood and 1/98 meat and poultry)
- FQPA enactment and implementation
- FoodNet/PulseNet established
- FDA Fresh Produce Guidelines released
- Joint Institute for Food Safety Research created
- Research funding increased
- Food Safety Research Database initiated
- Annual Food Safety Research Conference held
- Interagency Risk Assessment Consortium established

Recommendation IIa

Congress should change federal statutes so that inspection, enforcement, and research efforts can be based on scientifically supportable assessments of risks to public health.

The NAS report identifies a need for a “national food law that is clear, rational, and comprehensive, as well as scientifically based on risk” as a major component of a model food safety system. The report concludes it is necessary to revise the current statutes on food safety to create a comprehensive national food law under which:

- Inspection, enforcement, and research efforts can be based on a scientifically supportable assessment of risks to public health. This means eliminating the continuous inspection system for meat and poultry and replacing it with a science-based approach that is capable of detecting hazards of concern.
- There is a single set of flexible science-based regulations for all foods that allows resources to be assigned based on risk, that permits coordination of federal and state resources, and that makes it possible to address all risks from farm to table.
- All imported foods come only from countries with food safety standards equivalent to U.S. standards.

The NAS report states that the laws, particularly what the report characterizes as the requirement that there be continuous inspection of meat and poultry production through sight, smell, and touch (“organoleptic”) inspection, create inefficiencies, do not allow resource use to reflect the risks involved, and inhibit the use of scientific decision-making in activities related to food safety, including the monitoring of imported food.

Council Assessment

The report’s recommendation that federal statutes provide agencies with authority to make decisions based on scientific assessments of risks to the public health is sound. Decisions based on public health risk assessments allow agencies to make effective use of science to set food safety priorities, allocate resources to higher risk areas, and instill consumer confidence that high-risk hazards are being addressed.

Since the federal food safety regulatory agencies operate under very different legislative authorities, the Council will conduct a full assessment of these statutes and evaluate the degree of regulatory flexibility that already exists. The Council has decided that this legislative review will be undertaken as part of the strategic planning process. The purpose of the review will be to: 1) examine the similarities and differences in federal food safety statutes; 2) identify the “best” statutory approaches for reducing foodborne illness; and 3) assess both gaps and statutory barriers to implementation of the plan. The need for statutory changes could then be determined, and, if necessary, legislative principles developed which would form the basis for discussions with stakeholders and Congress. For example, given the recent

overhaul of pesticide legislation, the Council believes that further statutory changes may not be needed for pesticides at this time.

In some cases, the NAS report misinterprets existing statutory requirements. For example, the report concludes that the statutes require the current method of organoleptic inspection of all carcasses. Even though the current law requires continuous inspection, it does not specify how this inspection mandate is to be carried out. The statutes do require appropriate inspection of animals prior to slaughter and inspection post-slaughter at all official slaughter and processing facilities. Among other significant food safety purposes, this continuous inspection requirement ensures use of the best sanitary dressing processes, prevention of fecal contamination, and prevention of meat from diseased animals from entering the food supply. Under the statutory flexibility that already exists, USDA has begun to develop and test a more risk-based inspection system, including adopting regulations requiring that HACCP be implemented in all slaughter and processing plants. In addition, USDA is studying how best to effect further improvements in the inspection of meat and poultry.

The food safety agencies have achieved and can continue to accomplish significant science-based improvements in their food safety programs under current authorities. However, new authorities that would improve the federal food safety system have been proposed by the President and are waiting action by Congress. Further analysis of the statutes may result in additional proposed statutory modifications.

Current Legislative Challenges

As part of its review of food safety statutes, the Council will focus on areas where regulatory jurisdiction is split between agencies and where resources could be more effectively shared between agencies. The Administration will work with Congress to pass:

- the Food Safety Enforcement Enhancement Act, forwarded by the Clinton Administration and introduced during the last Congress to increase the enforcement capabilities of FSIS; and
- legislation that gives FDA increased authority to effectively assure the safety of food imports.

Recent Advances in Applying Scientific Assessments Of Public Health Risks to Food Safety

- HACCP implemented for meat, poultry, and seafood
- FQPA tolerance reassessment based on aggregate exposure, cumulative risk, and vulnerable subpopulations.
- Single, risk-based pesticide standard for raw and processed food established
- Tolerance reassessment focusing on the riskiest pesticides first
- Priority registration given to “safer” pesticides
- Risk Assessment Consortium established
- FoodNet/PulseNet established
- Good Agricultural Practices guidance for fresh produce established
- Unpasteurized juice warning labels required

Recommendation IIb

Congress and the Administration should require development of a comprehensive national food safety plan. Funds appropriated for food safety programs (including research and education programs) should be allocated in accordance with science-based assessments of risk and potential benefit.

This recommendation contains two parts. The first part recommends that Congress and the Administration require preparation of a comprehensive, national food safety plan. The NAS report lists several essential features of such a plan, including a unified food safety mission; integrated federal, state and local activities; adequate support for research and surveillance; and increased efforts to ensure the safety of imported foods. The second part of the recommendation stresses that resources should be allocated on the basis of science-based assessments of risk and potential benefits.

Council Assessment

The Council agrees that a comprehensive national food safety strategic plan should be developed and the development of such a plan is underway. In fact, the President's Food Safety Initiative was an initial step toward a national food safety plan. The 1997 *Farm to Table* report was a means of leveraging federal food safety resources through coordinated planning and cooperative work to meet common needs such as development of surveillance data, response to outbreaks, research into preventive interventions, development of risk assessment techniques particularly for microbial

risk assessments, and consumer education. This initial plan also took some steps toward extending food safety planning to the state and local level.

Strategic Planning

Picking up where the *Farm to Table* report left off, the Council will continue and expand the strategic planning process. One of the Council's primary purposes is to develop a comprehensive strategic plan for federal food safety activities that contains specific recommendations on needed changes, including goals with measurable outcomes. The plan's principal goal is to enhance the safety of the nation's food supply and protect public health through a seamless science- and risk-based food safety system. The plan will set priorities, improve coordination and efficiency, identify gaps in the current system and mechanisms to fill those gaps, continue to enhance and strengthen prevention strategies, and develop performance measures to show progress.

Preparation of the food safety strategic plan will be a public process, and will consider both short- and long-term issues including new and emerging threats and the special needs of vulnerable populations such as children and the elderly. Once the plan is sufficiently complete, the Council will advise agencies of priorities for investing in food safety and ensure that federal agencies annually submit coordinated food safety budgets to OMB to sustain and strengthen existing capacities. In short, the President's Council on Food Safety will develop a national food safety plan and make budget recommendations to agencies and OMB to accomplish what the NAS report recommends.

The Council has defined the scope of future federal level food safety strategic planning and a process for interagency planning and public participation. An interagency task force anticipates having a draft plan ready for public review and discussion in January 2000. Even while developing this plan, the task force intends to continue its consultations with stakeholders. The following is the draft vision statement for the Council's strategic plan:

"Consumers can be confident that food is safe, healthy, and affordable. We work within a seamless food safety system that uses farm-to-table preventive strategies and integrated research, surveillance, inspection, and enforcement. We are vigilant to new and emergent threats and consider the needs of vulnerable subpopulations. We use science- and risk-based approaches along with public/private partnerships. Food is safe because everyone understands and accepts their responsibilities."

The President's Council on Food Safety held four public meetings in the Fall of 1998 in Arlington, VA; Sacramento, CA; Chicago, IL; and Dallas, TX to solicit comments on this draft vision for food safety and to identify a strategic planning process, goals and critical steps as well as potential barriers to achieving that vision.

The Council's strategic planning task force is analyzing the transcripts of the 1998 public meetings and the input received through the notice and comment process to determine the major themes, issues, and subject areas. The task force will also consider the conclusions and recommendations of the NAS report, input from the federal, state, and local government integrated National Food Safety System Project, and input from the agencies involved.

The planning process will build upon common ground and provide the forum to tackle some of the difficult public health, resource, and management questions facing the federal food safety agencies and our state, tribal and local government partners. The plan will identify areas for enhanced coordination and efficiencies, determine whether legislative changes would be beneficial, and clarify federal, state, tribal, and local government roles and responsibilities in the national food safety system (see discussion under recommendation IIIb).

The strategic planning process will consider thoroughly the results of the legislative review outlined under the Council's assessment of NAS recommendation IIa. Examples of possible legislative proposals from such a review include:

- developing legislative proposals to eliminate current duplication of efforts by FDA and FSIS by reevaluating each agency's role in areas such as the regulation of eggs and egg products, game meats, food additives, animal drugs and biologics, and food products produced in plants under the jurisdiction of both agencies;
- modifying statutes to facilitate greater leveraging of agency resources;
- developing a legislative proposal giving FSIS explicit authority to enter into cooperative agreements for food safety risk assessment; and
- developing legislation that provides Performance Based Organization (PBO) authority for voluntary seafood inspection.

Allocation of Resources

The NAS report recommendation goes a step further than a national plan by urging that resources be allocated according to science-based assessments of risk and potential benefits. As stipulated in Executive Order 13100, the Council will ensure that agencies develop a coordinated food safety budget submission consistent with the strategic plan. The Council will develop guidance for food safety agencies to consider during the preparation of their individual budgets. The Council has created a budget task force that will:

- work with the strategic planning task force and review the draft and final strategic plans and Council budget guidance on priority areas for investment to identify budget data and other information that will be necessary to plan and coordinate agency budget submissions to OMB;
- design a uniform format for presenting food safety initiative budget components in the OMB budget process for use in both individual agencies and the unified budget submissions;

- develop necessary guidance to facilitate submission of a unified food safety initiative budget and any other food safety issues deemed appropriate by the Council;
- establish a timetable for developing coordinated food safety budget requests and for submitting information to the Council that accommodates the various agencies' budget planning processes; and
- consider the issue of whether to amend OMB Circular No. A-11 (OMB guidance to agencies on budget structure and reporting elements) to include food safety as a budget cross-cut.

Comparative Risk Assessment

An important part to both risk-based planning and resource allocation will be the development of a comprehensive comparative risk assessment of the food supply. The Council has requested the Interagency Food Safety Risk Assessment Consortium, which consists of HHS and USDA agencies and EPA, to consider how to develop a comparative risk analysis for food safety strategic planning. The Council will direct the Consortium to seek and consider public input in its analysis.

The Council believes that various steps may need to be taken to evaluate risks including: a ranking of foodborne pathogen risks based on surveillance and economic data; consideration of a broader range of food safety hazards including not only microbial risks, but also pesticides and chemicals; and finally, selection of highly ranked hazards, an evaluation of control measures, and an evaluation of net benefits. The Council must avoid applying risk assessment in a manner that is too strict, rigorous, or inflexible. Instead, the comparative risk assessment must be used to prioritize the known greatest risks at the current time, with the understanding that scientific risk estimates can, and will likely, change frequently over time.

Challenges in Planning

The Council faces the following challenges in developing a comprehensive food safety strategic plan and allocating resources based on risk:

- Developing and successfully implementing a national plan will require strong cooperation, coordination, and communication, since each federal, state, and local agency has unique mandates, authorities, history, culture, and operating procedures.
- The diversity of stakeholders in food safety is enormous. It will be difficult, but imperative, that all stakeholders are represented in the Council's planning process.

Progress in Strategic Planning

- President's 1997 Farm to Table Food Safety Initiative
- President's Fresh Produce and Imported Food Safety Initiative
- Establishment of the Joint Institute for Food Safety Research
- Establishment of the President's Council
- Input from the National Academy of Sciences, Council of Agricultural Science and Technology, and other organizations
- National Integrated Food Safety System project meetings
- Development of a draft vision statement
- Input from multiple public meetings and public comments

Recommendation IIIa

To implement a science-based system, Congress should establish by statute a unified and central framework for managing federal food safety programs, one that is headed by a single official and which has the responsibility and control of resources for all federal food safety activities, including outbreak management, standard-setting, inspection, monitoring, surveillance, risk assessment, enforcement, research, and education.

The NAS report finds that the existing regulatory structure for food safety in the United States is not well equipped to meet current challenges. Specifically, it points out that the system is facing tremendous pressures with regard to:

- emerging pathogens and ability to detect them;
- maintaining adequate inspection and monitoring of the increasing volume of imported foods, especially fruits and vegetables;
- maintaining adequate inspection of commercial food services and the increasing number of larger food processing plants; and
- the growing number of people at high risk for foodborne illnesses.

The report cites the strengths of the current food safety system, including the advent of FoodNet and PulseNet, HACCP implementation, and the Partnership for Food Safety Education. It also identifies deficiencies, which it attributes partly to "the fragmented nature of the system." The report attributes the fragmentation largely to a lack of adequate integration among the various federal agencies involved in the

implementation of the primary statutes that regulate food safety, and observes that this lack of adequate integration occurs also with state and local activities. The report notes that several federal agencies are involved in key food safety functions and references more than 50 memoranda of agreement between various agencies related to food safety.

The NAS report attributes the lack of adequate integration among federal, state and local food safety authorities in part to the absence of “focused leadership” that has the responsibility, the authority and the resources to address key food safety problems. The report presents several examples of possible organizational structures to create a single federal voice for food safety. These include:

- a Food Safety Council with representatives from the agencies with a central chair appointed by the President, reporting to Congress and having control of resources;
- designating one current agency as the lead agency and having the head of that agency be the responsible individual;
- a single agency reporting to one current cabinet-level secretary; and
- an independent single agency at cabinet level.

Although the report indicates that many of the NAS committee’s members believe that a single, unified agency headed by a single administrator is the most viable structure for implementing the “single voice” concept, the report recognizes that there may be many other models that would be workable.

Council Assessment

The Council agrees with the goal of the NAS recommendation--that there should be a fully integrated food safety system in the U.S. The food safety agencies are committed to this goal, and the Council is confident that its comprehensive strategic plan will be a major step toward creating a seamless food safety system. To ensure that the strategic plan achieves this goal, the Council will conduct an assessment of structural models and other mechanisms that could strengthen the federal food safety system through better coordination, planning, and resource allocation.

The Council’s strategic plan will bring agreement on the vision, goals, and actions needed to enhance the safety of the nation’s food supply and protect public health by reducing the annual incidence of acute and chronic foodborne illness. It will also clarify the roles and responsibilities of each food safety agency as well as their interactions with state, tribal, and local government partners.

While the Council recognizes that certain models of reorganization may improve coordination and allow for a better allocation of resources, any reorganization of food safety activities must consider the non-food-safety-related responsibilities of each agency and how these relate to the food safety responsibilities. Reorganization must not be done at the expense of these other responsibilities and activities. The Council is concerned that, if not done carefully, separating food safety from non-food safety

activities in each agency could act to weaken consumer and environmental protection overall.

The Council also recognizes that expertise and knowledge, particularly expertise in state-of-the-art science and technology, provides a resource to food safety activities. For example, analytical methods for detection and quantification of adulterants in foods may be adapted to detection of chemical contaminants that threaten public health. Expertise in non-food safety regulatory science and legal procedures are critical when warnings are required on food labels to assure safety. In addition, reorganizations must avoid interfering with the public health framework established to identify and respond to infectious and non-infectious public health threats whether they are foodborne or not, since many of the major foodborne pathogens also produce non-foodborne disease. Thus, in its strategic planning the Council will be cognizant of the interplay between the food safety and non-food safety activities of each agency and how they affect each other.

The Council believes that there are programs that can benefit from immediate reorganization. For example, during the last two years, FDA and NOAA have been developing a proposal to transfer the NOAA Seafood Inspection Program to FDA as a Performance Based Organization (PBO) in order to operate the voluntary Seafood Inspection Program on a more business-like basis. The PBO would be formed under the umbrella of FDA and would include all seafood inspection activities now carried out by NOAA. The fiscal year 2000 budget proposes to transfer the existing Seafood Inspection Program from NOAA to FDA. This action will fully consolidate federal seafood inspection activities within one agency thereby increasing the efficiency and effectiveness of seafood oversight. It will also enhance the overall safety and wholesomeness of seafood products. Funds are provided in the President's fiscal year 2000 budget to cover the costs of transition, including training and education activities.

Factors to Consider in Organizational Restructuring

The Council assessment of structural and organizational options must take into consideration factors such as:

- There are numerous instances in the existing food safety system where the division of regulatory responsibility is not optimal. For example, within the same plant, FSIS and FDA inspectors are often responsible for different foods. FDA and FSIS also share regulatory responsibility of eggs and egg products. Examples such as these create stakeholder confusion and inefficient allocation of resources. Any reorganization must consider areas where there is significant jurisdictional overlap.
- Many food safety issues would be difficult to resolve by a reorganization. For example, some issues like bovine spongiform encephalopathy are both animal health issues and human health issues. Foodborne disease problems may also be

waterborne disease problems. Other programs, particularly research and education programs for food safety often do not operate as separate activities within the agencies, but rather draw significant strength from one another. While some projects are entirely focused on food safety, the food safety research portfolio includes many other projects in such areas as animal health and animal genetics. Reorganization must also accommodate successful partnerships such as the Partnership for Food Safety Education.

Recent Steps Taken to Create a Unified Federal Food Safety System

- 1997 President's Food Safety Initiative implemented
- Interagency Risk Assessment Consortium created
- President's Fresh Produce plan implemented
- Federal/State Outbreak Response task force established
- Joint Institute for Food Safety Research created
- President's Council on Food Safety established
- Restructuring of seafood inspection proposed
- Partnership for Food Safety Education created

Recommendation IIIb

Congress should provide the agency responsible for food safety at the federal level with the tools necessary to integrate and unify the efforts of authorities at the state and local levels to enhance food safety.

The NAS report recommends that federal, state, and local governments function as an integrated enterprise, along with their partners in the private sector. The report identified five statutory tools required to integrate federal, state, and local food safety activities into an effective national system:

- authority to mandate adherence to minimal federal standards for products or processes;
- continued authority to deputize state and local officials to serve as enforcers of federal law;
- funding to support, in whole or in part, activities of state and local officials that are judged necessary or appropriate to enhance the safety of food;
- authority given to the Federal official responsible for food safety to direct action by other agencies with assessment and monitoring capabilities, and
- authority to convene working groups, create partnerships, and direct other forms and means of collaboration to achieve integrated protection of the food supply.

This recommendation acknowledges the “equally critical roles” of state, tribal, and local government entities with those of the federal government in ensuring food safety, and suggests that changes in federal authorizing and appropriating legislation may be necessary to achieve better integration of federal, state, tribal, and local activities. The report points out that the work of the states and localities in support of the federal food safety mission deserves “improved formal recognition and appropriate financial support.”

Council Assessment

The Council agrees that the roles of state, tribal, and local governments in the food safety system are critical and that their efforts deserve the formal recognition that partnership in a national food safety system conveys. Thus, the Council supports steps taken toward the development of a more fully integrated national food safety system. While more needs to be done to optimize and develop new partnerships, the federal food safety agencies have already established extensive interactions with state and local regulatory agencies. In fact, a critical factor for the Council to consider is the manner in which existing federal/state or local activities are integrated and coordinated. The Council believes that its strategic planning process provides a fresh opportunity for their non-federal partners to participate as primary and equal partners in the development of the future food safety system.

Some overlap occurs among federal, state, and local food safety efforts. Neither federal food safety agencies nor state and local agencies have sufficient resources to carry out a comprehensive food safety program, but all these agencies have expertise and resources that, when combined in an integrated program, would significantly enhance the impact of food safety programs.

The Council also agrees that the five statutory tools identified by the NAS are critical for ensuring good coordination between the federal government and state, tribal, and local agencies. Fortunately, the federal food safety regulatory agencies (FDA, FSIS, and EPA) already have most of the statutory tools recommended by NAS.

The Council recognizes and agrees with the report’s conclusion that the lack of integration among federal, state, and local authorities often complicates the administration of regulatory programs. We need to utilize available mechanisms to leverage resources and expertise from government, industry, academia, and consumers to expand the nation’s food safety capabilities beyond what any one group can accomplish. Increased awareness and knowledge of food safety in each segment of the food safety community should reduce the need for regulation of industry and decrease the incidence of contamination at every point in the food safety system in order to protect public health.

Integrated National Food Safety System (NFSS) Project

HHS, USDA, and EPA are working with state and local officials on an integrated National Food Safety System (NFSS) Project to identify appropriate roles and to develop mutually supporting common goals for all levels of government in the U.S. food safety system. This work is considered integral to the Council's strategic plan and coordinated budget recommendations and will be the basis for improved integration with state, tribal and local governments.

Under the leadership of the FDA, the Project is proceeding under existing federal, state, and local laws although all levels of government recognize that changes in some of the federal and state laws will be necessary to achieve an integrated system. The Project began with a meeting of state and local officials from public health and agriculture agencies and state laboratories representing all 50 states, Puerto Rico, and the District of Columbia, FDA, CDC, and FSIS in Kansas City in September 1998. In December 1998, six work groups and an 18 member Coordinating Committee composed of federal, state and local officials met in Baltimore, Maryland to begin to develop plans for implementing recommendations and overcoming the obstacles identified at the Kansas City meeting. Subsequent meetings will be held throughout 1999 to continue the planning process. The group estimates that a fully integrated federal/state/local food safety system will take up to 10 years to build. The Association of Food and Drug Officials, which is an organization of state and local public health officials and regulators, strongly endorses the concept of a NFSS.

The NFSS Project builds on existing systems of federal/state cooperation such as the FSIS long-term "equal to" meat and poultry system currently operating in 26 states with shared state and federal funding and EPA's delegation to states of various regulatory programs.

Challenges to Developing a National Food Safety System

The Council recognizes that the existing systems for federal, state, and local government regulation of food and pesticides have different histories and important distinguishing characteristics. The Council believes it is important to respect the nature and strengths of the existing systems and that integration must proceed in a coordinated fashion. There are numerous challenges to building an integrated food safety system:

- *Establishment of a clear framework for integration.* Such a framework would include the following: strong federal food safety standards, consistent training and competency of inspectors and other state/local officials, data sharing/exchange, federal oversight of state activities, and appropriate and effective enforcement. There needs to be public assurance that state and local activities are integrated with, and an extension of, the federal responsibility in order to assure consistency, accountability, and above all, enhanced consumer protection.

- *Responsiveness to stakeholder concerns.* Development of an integrated system needs to be responsive to stakeholder concerns to have credibility and obtain public support. For example, consumers are concerned that the economic interests of industry within states may be a source of conflict if those states have an expanded food safety role that includes activities thought to be primarily a federal responsibility. Moreover, industry is concerned that food safety regulation will be inconsistent among the states if systems are integrated without adequate preparation of the state agencies to step into an expanded food safety role.
- *Infrastructure and support.* There is a potential need for legislative change at the federal or state/local level to achieve uniformity and consistency in enforcement authorities and to permit the sharing of inspection and other resources.

Examples of Federal/State/Local Cooperation

- Milk Sanitation Program - Pasteurized Milk Ordinance
- Retail Food Safety Program - Food Code
- Integrated National Food Safety System Project
- Interstate Shellfish Sanitation Program
- States conduct 5,000 inspections of FDA-regulated plants
- FSIS oversee and supports 26 state "equal to" meat and poultry inspection programs
- FDA maintains more than 100 state partnerships
- Conference for Food Protection
- FoodNet/Emerging Infections Program
- PulseNet
- Epidemiology and Laboratory Cooperative Agreements
- Appropriate delegation of pesticide responsibility to states
- Partial funding of states for implementation of some pesticide programs and for most pesticide compliance programs
- State FIFRA Issues Research and Evaluation Group
- State and local government involvement in Foodborne Outbreak Response Coordination Group (FORC-G)
- States conduct inspections in 250 FSIS regulated plants
- FSIS supports animal production food safety outreach projects involving 11 states
- FSIS supports animal production food safety workshops
- HACCP based enhancement of state labs, computer capabilities, and state training
- Partnership for Food Safety Education "Fight BAC!" campaign



PRESIDENT'S COUNCIL
ON FOOD SAFETY



MAR 15 1999

The President
The White House
Washington, DC 20500

Dear Mr. President:

As co-chairs of your Council on Food Safety, we are pleased to submit to you the Council's assessment of the National Academy of Sciences (NAS) report *Ensuring Safe Food from Production to Consumption*. The NAS report provided the Council with valuable insight into the strengths and weaknesses of the current federal food safety system. The Council finds the NAS report to be a constructive contribution to improving the effectiveness of the federal food safety system through sound science and risk assessment, strategic planning, and better federal integration with state and local governments. The Council will consider the report's advice as it moves forward with the development of the comprehensive strategic plan as specified in Executive Order 13100.

Respectfully,

NEAL LANE
Assistant to the President
For
Science and Technology

DONNA E. SHALALA
Secretary of
Health and Human Services
DANIEL GLICKMAN
Secretary of
Agriculture

**President's Council
on
Food Safety**

Assessment of the NAS Report

Ensuring Safe Food from Production to Consumption

March 1999

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President's Council on Food Safety
Assessment of the NAS Report
Ensuring Safe Food from Production to Consumption

Americans have one of the world's safest food supplies. This is largely a result of sustained regulatory and education programs along the farm to table continuum as well as surveillance and research efforts. The federal food safety system, comprised of multiple agencies, is authorized by a diverse set of statutes and is supported by numerous key partnerships with state, local, and tribal governments. Together these agencies have created a system that has given U.S. consumers confidence in the safety of their food purchases.

As good as the nation's food safety system is, there is room for improvement. Illnesses and deaths due to contaminated food, while preventable, continue to cause considerable human suffering and economic loss. That is why, at the very beginning of his first term, President Clinton set a course to strengthen the nation's food safety system. Under the President's leadership, surveillance and research have dramatically increased, programs are better coordinated, and regulations are more prevention-oriented and science-based. But this is only the beginning. The Council on Food Safety, with the help of the public, will continue to identify problems and promote solutions.

The Council welcomes the findings and recommendations provided by the National Academy of Sciences in its August 1998 report *Ensuring Safe Food From Production to Consumption*. This report lays out a clear rationale for a national food safety plan, one that is based on science and risk assessment.

- The Council supports **NAS recommendation I**, which states that the food safety system should be based on science. In its assessment of the NAS report, the Council provides numerous examples in which this is already the case and examples of areas that need to be strengthened.
- The Council supports **NAS recommendation IIa**, which calls for federal statutes to be based on scientifically supportable assessments of risk to public health. In this regard, the Council will conduct a thorough review of existing statutes and determine what can be accomplished with existing regulatory flexibility and what improvements will require statutory changes.
- The Council supports **NAS recommendation IIb**, which calls for the production of a comprehensive national food safety plan. In fact, the development of such a plan is already underway and is one of the primary functions of the Council as specified in Executive Order 13100. One component of the plan will be exploring methods to assess the comparative health risks to the nation's food supply.
- The Council supports the goal of **NAS recommendation IIIa**. Here, the NAS calls for a new statute that establishes a unified framework for food safety

programs with a single official with control over all federal food safety resources. The report acknowledges that there may be many organizational approaches to achieving the goal of a “single voice” for federal food safety activities. The Council will conduct an assessment of structural models and other mechanisms that could strengthen the federal food safety system through better coordination, planning, and resource allocation, keeping in mind that the primary goal is food safety and public health.

- The Council supports **NAS recommendation IIIb**. This recommendation argues that agencies should have the legal authority and other tools needed to work more effectively with our partners in state, tribal, and local governments. Federal food safety agencies already have many of the tools identified by the NAS and have used them to establish extensive partnerships with state, tribal, and local governments. However, some tools are missing and much more needs to be done to better coordinate the federal government’s interactions with other levels of government. The Council agrees that the roles of state, tribal, and local governments in the food safety system are critical and that their efforts deserve the formal recognition that partnership in a national food safety system conveys.

President's Council on Food Safety Assessment of the NAS Report: *Ensuring Safe Food from Production to Consumption*

At the request of Congress, the National Academy of Sciences (NAS) conducted a study of the current food safety system to: (1) determine the scientific basis of an effective food safety system; (2) assess the effectiveness of the current system; (3) identify scientific and organizational needs and gaps at the federal level; and (4) provide recommendations on scientific and organizational changes needed to ensure an effective food safety system. To conduct this study, the NAS established a committee and obtained input from federal agencies and other stakeholders of the federal food safety system. The NAS issued its report on August 20, 1998.

On August 25, 1998, through Executive Order 13100, the President established the Council on Food Safety and charged it to develop a comprehensive strategic plan for federal food safety activities and to make recommendations to the President on how to implement the plan. Also on August 25, 1998, the President directed the Council to provide him with an assessment of the NAS report in 180 days. Specifically, the President directed:

“...the Council to review and respond to this report as one of its first orders of business. After providing opportunity for public comment, including public meetings, the Council shall report back to me within 180 days with its views on the NAS's recommendations. In developing its report, the Council should take into account the comprehensive strategic federal food safety plan that it will be developing.”

In response to the President's directive, the Council established a task force consisting of representatives from the following departments and agencies: Departments of Agriculture (USDA), Health and Human Services (HHS), and Commerce (DOC), Environmental Protection Agency (EPA), Office of Science and Technology Policy (OSTP), and Office of Management and Budget (OMB). The task force benefited from valuable input obtained at four public meetings (Arlington, VA; Sacramento, CA; Chicago, IL; and Dallas, TX) and from public comment dockets maintained by EPA, USDA/Food Safety and Inspection Service (FSIS), and the HHS/Food and Drug Administration (FDA).

In general, the Council finds the NAS report a constructive contribution to efforts to improve the effectiveness of the federal food safety system through strengthening science and risk assessment, strategic planning, and better federal integration with state and local governments. In particular, the NAS places appropriate weight throughout its report on applying science to the management of government food safety efforts. Science must be advanced within the context of these competing interests. The NAS report recommends that priorities of the nation's food safety system should be based on risk. The Council agrees with the report's thesis that a

food safety system that includes regulation, research and development, education, inspection and enforcement, and surveillance should be based on science and should use various risk analyses including quantitative and qualitative risk assessments and risk management principles to achieve such a system.

The Council recognizes that a food safety system comprised of multiple agencies with differing missions and statutory authority may increase the potential for uneven adoption and inconsistent application of science-based regulatory philosophies. While different applications may provide useful information to policy makers relative to the effectiveness of various approaches, the Council's strategic plan (including its assessment of existing statutes and structures) will result in more consistent regulatory measures and philosophies. The Council is committed to identifying further improvements that would result in a seamless, science-based food safety system.

Recommendation I

Base the food safety system on science.

The NAS report recognizes that the United States has enjoyed notable successes in improving food safety and that with increasing knowledge, many rational, science-based regulatory philosophies have been adopted. The report suggests, however, that adoption of these regulatory philosophies has been uneven given the fragmentation of food safety activities, and the differing missions of the various agencies responsible for specific components of food safety. The greatest strides in ensuring future food safety from production to consumption, the NAS argued, can be made through a scientific, risk-based system that ensures surveillance, regulatory, research, and educational resources are allocated to maximize effectiveness.

Council Assessment

The Council strongly endorses this recommendation. Many federal food safety programs are already, or are being modified to be, science-based. The Council recognizes that scientifically robust programs will result in better identification of public health needs, and determination of the most effective means of reducing public health risk, including the most cost-effective opportunities for improvement, and improved priority setting.

The scientific information generated through surveillance, research, and risk assessment efforts will result in improved food safety only if there is a commensurate strong effort to translate that scientific information into practical, usable information at the working level, e.g., through guidance or education. This means there must be education for all those involved in producing, manufacturing, transporting, and preparing food as well as for those persons involved in government food safety regulatory activities.

The Council's goal is to ensure that science- and risk-based decision making are central to the Administration's on-going efforts and its strategic plan. Considerable improvements have been made over the past several years. The strong scientific underpinnings of the President's Food Safety Initiative, enactment of the Food Quality Protection Act (FQPA), restructuring of food safety agencies within USDA, and many individual agency activities such as implementation of Hazard Analysis and Critical Control Points (HACCP) programs for meat, poultry, and seafood, have strengthened the overall science base of the food safety system.

The Council believes that the necessary elements of a science-based program—surveillance, outbreak response, risk assessment, research, regulation, inspection, and education—are largely in place, and that improvements planned for the next 5-10 years will enhance food safety significantly. The Council will consider in its strategic plan the following elements of a science-based food safety system:

- *Surveillance.* Food safety agencies will continue to develop more effective ways to achieve surveillance goals and to monitor the safety of the food supply. Although FoodNet (foodborne disease surveillance system), PulseNet (foodborne pathogen DNA fingerprinting system), and the National Antibiotic Resistance Monitoring System (NARMS) provide information never before available in the United States on foodborne illnesses and the occurrence of antibiotic resistant pathogens, enhanced quantitative data on the entire range of infectious and non-infectious foodborne hazards will require additional efforts.
- *Risk Assessment.* Risk assessment is a valuable tool for setting priorities, allocating resources, and making regulatory decisions and must be continually improved. For example, EPA will continue to refine its risk assessment methods to determine acceptable levels of pesticides residues. Under FQPA, this approach has been strengthened to further protect all consumers, especially children, from the risks of pesticides in their diet. As currently is done for chemical hazards, the federal government needs to create and use a national microbial risk assessment capability as a means of identifying hazards and quantifying risk and assist in creating similar capacities internationally.
- *Research.* Through the Joint Institute for Food Safety Research, a research infrastructure has been established to improve and coordinate food safety research activities across the federal government. The Institute will continue a critical review of the federally supported food safety research that was begun through the National Science and Technology Council. Future goals in the area of research include: coordination of research planning; budget development and prioritization; scientific support of food safety guidance, policy, and regulation; enhanced communication and links among federal agencies; and enhanced communication and links with industry and academic partners through use of public-private partnerships and technology transfer mechanisms.
- *Education.* Food safety agencies will expand science-based education and training programs for producers, processors, distributors, food service and public health workers, health care providers, food scientists, and consumers as well as

those involved in regulatory activities. It is essential to include in these programs new scientific information on foodborne hazards and their control and effective food safety management strategies.

- *Inspection/Preventive Controls.* FSIS and FDA will further improve and evaluate the effectiveness of inspections of domestically and internationally produced food and will continue to develop and implement science-based preventive controls such as HACCP systems and the Good Agricultural Practices. Where necessary, regulatory requirements will be established, such as additional performance standards for pathogen reduction that can be developed as more monitoring and surveillance data become available.
- *Consistency of Science-Based Standards.* FSIS, FDA, and EPA will work toward clear food safety standards nationally and internationally. The Conference for Food Protection brings together all 50 states for purposes of regulating retail establishments, and the model Food Code is gaining wider adoption among the states. Internationally, the Codex Alimentarius Commission (CAC) is the primary mechanism through which these activities will take place. U.S. food safety agencies should also become more active in providing technical assistance to developing countries.
- *Private Sector Incentives.* The federal and state regulatory agencies will work with the private sector to develop new technologies to further food safety and to encourage commercial scale-up applicable in large and small companies, and industry adoption. Research efforts with industry, consumer, academic, and government participation could develop and validate new technologies.
- *Evaluation.* Evaluating the effectiveness of science based regulatory programs continues to be critical. For example, *Salmonella* data from the first year of HACCP implementation in poultry facilities show a trend toward fewer contaminated products. Also, by providing important information on trends in the incidence of infections with foodborne pathogens, FoodNet assists in the evaluation of the effect of preventive controls. The effect of preventive controls implemented by the processed food industry on the reduction of the number of cases of listeriosis was readily apparent in the Centers for Disease Control and Prevention (HHS/CDC)-conducted surveillance effort that was a forerunner of FoodNet.

A general challenge for the food safety agencies is that while they must be guided primarily by science, the agencies must also consider other factors such as technical limitations, statutory mandates, policy considerations, budget constraints, practicality, and consumer and societal preferences.

Scientific Challenges

The Council faces a number of challenges in improving the scientific base of the food safety system. The following are a few examples of challenges that must be met to strengthen the scientific underpinnings of federal food safety efforts:

- New data are required to address the occurrence of emerging pathogens, changes in domestic food habits, a global food supply, and changes in demographics. Specific data needs are difficult to predict and obtain in a timely way. An example is the impact of *E. coli* O157:H7, which was unknown as a foodborne pathogen 20 years ago, but has been responsible for major outbreaks of foodborne illness in recent years.
- Gaps exist in our knowledge of microbial pathogens and in our ability to measure their impact on human health. For example, there are gaps in knowledge about the pathogens associated with fresh fruits and vegetables and the routes of contamination.
- Assessment of the total impact on health of multiple chemicals from multiple sources presents a major scientific challenge. Implementation of the new FQPA standards for pesticide residues requires EPA to assess aggregate risk from food, water, and residential exposure to a single pesticide as well as cumulative risk from multiple pesticides.
- Gaps exist in our knowledge of effective interventions, prevention, and alternatives that minimize contamination of food. For example, the existing limited body of knowledge about microbial contamination limits the ability to develop on-farm preventive controls and systems of testing. Similarly, with the advent of FQPA, more research is also needed to develop safer pesticide alternatives or crop production techniques in order to promote transition from older pest control techniques that may pose risks to newer, safer ones.
- Insufficient data exist on the entire range of infectious and non-infectious foodborne hazards. Even with the improvements made through FoodNet and PulseNet, enhancement of quantitative data on the entire range of infectious and non-infectious foodborne hazards will strengthen monitoring and surveillance programs for prevention, early identification, and prediction of emerging food safety problems.

Recent Changes that Strengthen the Federal Food Safety System Scientific Base

- USDA 1994 reorganization (separated public health from marketing functions)
- HACCP implementation (12/97 seafood and 1/98 meat and poultry)
- FQPA enactment and implementation
- FoodNet/PulseNet established
- FDA Fresh Produce Guidelines released
- Joint Institute for Food Safety Research created
- Research funding increased
- Food Safety Research Database initiated
- Annual Food Safety Research Conference held
- Interagency Risk Assessment Consortium established

Recommendation IIa

Congress should change federal statutes so that inspection, enforcement, and research efforts can be based on scientifically supportable assessments of risks to public health.

The NAS report identifies a need for a “national food law that is clear, rational, and comprehensive, as well as scientifically based on risk” as a major component of a model food safety system. The report concludes it is necessary to revise the current statutes on food safety to create a comprehensive national food law under which:

- Inspection, enforcement, and research efforts can be based on a scientifically supportable assessment of risks to public health. This means eliminating the continuous inspection system for meat and poultry and replacing it with a science-based approach that is capable of detecting hazards of concern.
- There is a single set of flexible science-based regulations for all foods that allows resources to be assigned based on risk, that permits coordination of federal and state resources, and that makes it possible to address all risks from farm to table.
- All imported foods come only from countries with food safety standards equivalent to U.S. standards.

The NAS report states that the laws, particularly what the report characterizes as the requirement that there be continuous inspection of meat and poultry production through sight, smell, and touch (“organoleptic”) inspection, create inefficiencies, do not allow resource use to reflect the risks involved, and inhibit the use of scientific decision-making in activities related to food safety, including the monitoring of imported food.

Council Assessment

The report’s recommendation that federal statutes provide agencies with authority to make decisions based on scientific assessments of risks to the public health is sound. Decisions based on public health risk assessments allow agencies to make effective use of science to set food safety priorities, allocate resources to higher risk areas, and instill consumer confidence that high-risk hazards are being addressed.

Since the federal food safety regulatory agencies operate under very different legislative authorities, the Council will conduct a full assessment of these statutes and evaluate the degree of regulatory flexibility that already exists. The Council has decided that this legislative review will be undertaken as part of the strategic planning process. The purpose of the review will be to: 1) examine the similarities and differences in federal food safety statutes; 2) identify the “best” statutory approaches for reducing foodborne illness; and 3) assess both gaps and statutory barriers to implementation of the plan. The need for statutory changes could then be determined, and, if necessary, legislative principles developed which would form the basis for discussions with stakeholders and Congress. For example, given the recent

overhaul of pesticide legislation, the Council believes that further statutory changes may not be needed for pesticides at this time.

In some cases, the NAS report misinterprets existing statutory requirements. For example, the report concludes that the statutes require the current method of organoleptic inspection of all carcasses. Even though the current law requires continuous inspection, it does not specify how this inspection mandate is to be carried out. The statutes do require appropriate inspection of animals prior to slaughter and inspection post-slaughter at all official slaughter and processing facilities. Among other significant food safety purposes, this continuous inspection requirement ensures use of the best sanitary dressing processes, prevention of fecal contamination, and prevention of meat from diseased animals from entering the food supply. Under the statutory flexibility that already exists, USDA has begun to develop and test a more risk-based inspection system, including adopting regulations requiring that HACCP be implemented in all slaughter and processing plants. In addition, USDA is studying how best to effect further improvements in the inspection of meat and poultry.

The food safety agencies have achieved and can continue to accomplish significant science-based improvements in their food safety programs under current authorities. However, new authorities that would improve the federal food safety system have been proposed by the President and are waiting action by Congress. Further analysis of the statutes may result in additional proposed statutory modifications.

Current Legislative Challenges

As part of its review of food safety statutes, the Council will focus on areas where regulatory jurisdiction is split between agencies and where resources could be more effectively shared between agencies. The Administration will work with Congress to pass:

- the Food Safety Enforcement Enhancement Act, forwarded by the Clinton Administration and introduced during the last Congress to increase the enforcement capabilities of FSIS; and
- legislation that gives FDA increased authority to effectively assure the safety of food imports.

Recent Advances in Applying Scientific Assessments Of Public Health Risks to Food Safety

- HACCP implemented for meat, poultry, and seafood
- FQPA tolerance reassessment based on aggregate exposure, cumulative risk, and vulnerable subpopulations.
- Single, risk-based pesticide standard for raw and processed food established
- Tolerance reassessment focusing on the riskiest pesticides first
- Priority registration given to “safer” pesticides
- Risk Assessment Consortium established
- FoodNet/PulseNet established
- Good Agricultural Practices guidance for fresh produce established
- Unpasteurized juice warning labels required

Recommendation IIb

Congress and the Administration should require development of a comprehensive national food safety plan. Funds appropriated for food safety programs (including research and education programs) should be allocated in accordance with science-based assessments of risk and potential benefit.

This recommendation contains two parts. The first part recommends that Congress and the Administration require preparation of a comprehensive, national food safety plan. The NAS report lists several essential features of such a plan, including a unified food safety mission; integrated federal, state and local activities; adequate support for research and surveillance; and increased efforts to ensure the safety of imported foods. The second part of the recommendation stresses that resources should be allocated on the basis of science-based assessments of risk and potential benefits.

Council Assessment

The Council agrees that a comprehensive national food safety strategic plan should be developed and the development of such a plan is underway. In fact, the President's Food Safety Initiative was an initial step toward a national food safety plan. The 1997 *Farm to Table* report was a means of leveraging federal food safety resources through coordinated planning and cooperative work to meet common needs such as development of surveillance data, response to outbreaks, research into preventive interventions, development of risk assessment techniques particularly for microbial

risk assessments, and consumer education. This initial plan also took some steps toward extending food safety planning to the state and local level.

Strategic Planning

Picking up where the *Farm to Table* report left off, the Council will continue and expand the strategic planning process. One of the Council's primary purposes is to develop a comprehensive strategic plan for federal food safety activities that contains specific recommendations on needed changes, including goals with measurable outcomes. The plan's principal goal is to enhance the safety of the nation's food supply and protect public health through a seamless science- and risk-based food safety system. The plan will set priorities, improve coordination and efficiency, identify gaps in the current system and mechanisms to fill those gaps, continue to enhance and strengthen prevention strategies, and develop performance measures to show progress.

Preparation of the food safety strategic plan will be a public process, and will consider both short- and long-term issues including new and emerging threats and the special needs of vulnerable populations such as children and the elderly. Once the plan is sufficiently complete, the Council will advise agencies of priorities for investing in food safety and ensure that federal agencies annually submit coordinated food safety budgets to OMB to sustain and strengthen existing capacities. In short, the President's Council on Food Safety will develop a national food safety plan and make budget recommendations to agencies and OMB to accomplish what the NAS report recommends.

The Council has defined the scope of future federal level food safety strategic planning and a process for interagency planning and public participation. An interagency task force anticipates having a draft plan ready for public review and discussion in January 2000. Even while developing this plan, the task force intends to continue its consultations with stakeholders. The following is the draft vision statement for the Council's strategic plan:

"Consumers can be confident that food is safe, healthy, and affordable. We work within a seamless food safety system that uses farm-to-table preventive strategies and integrated research, surveillance, inspection, and enforcement. We are vigilant to new and emergent threats and consider the needs of vulnerable subpopulations. We use science- and risk-based approaches along with public/private partnerships. Food is safe because everyone understands and accepts their responsibilities."

The President's Council on Food Safety held four public meetings in the Fall of 1998 in Arlington, VA; Sacramento, CA; Chicago, IL; and Dallas, TX to solicit comments on this draft vision for food safety and to identify a strategic planning process, goals and critical steps as well as potential barriers to achieving that vision.

The Council's strategic planning task force is analyzing the transcripts of the 1998 public meetings and the input received through the notice and comment process to determine the major themes, issues, and subject areas. The task force will also consider the conclusions and recommendations of the NAS report, input from the federal, state, and local government integrated National Food Safety System Project, and input from the agencies involved.

The planning process will build upon common ground and provide the forum to tackle some of the difficult public health, resource, and management questions facing the federal food safety agencies and our state, tribal and local government partners. The plan will identify areas for enhanced coordination and efficiencies, determine whether legislative changes would be beneficial, and clarify federal, state, tribal, and local government roles and responsibilities in the national food safety system (see discussion under recommendation IIIb).

The strategic planning process will consider thoroughly the results of the legislative review outlined under the Council's assessment of NAS recommendation IIa. Examples of possible legislative proposals from such a review include:

- developing legislative proposals to eliminate current duplication of efforts by FDA and FSIS by reevaluating each agency's role in areas such as the regulation of eggs and egg products, game meats, food additives, animal drugs and biologics, and food products produced in plants under the jurisdiction of both agencies;
- modifying statutes to facilitate greater leveraging of agency resources;
- developing a legislative proposal giving FSIS explicit authority to enter into cooperative agreements for food safety risk assessment; and
- developing legislation that provides Performance Based Organization (PBO) authority for voluntary seafood inspection.

Allocation of Resources

The NAS report recommendation goes a step further than a national plan by urging that resources be allocated according to science-based assessments of risk and potential benefits. As stipulated in Executive Order 13100, the Council will ensure that agencies develop a coordinated food safety budget submission consistent with the strategic plan. The Council will develop guidance for food safety agencies to consider during the preparation of their individual budgets. The Council has created a budget task force that will:

- work with the strategic planning task force and review the draft and final strategic plans and Council budget guidance on priority areas for investment to identify budget data and other information that will be necessary to plan and coordinate agency budget submissions to OMB;
- design a uniform format for presenting food safety initiative budget components in the OMB budget process for use in both individual agencies and the unified budget submissions;

- develop necessary guidance to facilitate submission of a unified food safety initiative budget and any other food safety issues deemed appropriate by the Council;
- establish a timetable for developing coordinated food safety budget requests and for submitting information to the Council that accommodates the various agencies' budget planning processes; and
- consider the issue of whether to amend OMB Circular No. A-11 (OMB guidance to agencies on budget structure and reporting elements) to include food safety as a budget cross-cut.

Comparative Risk Assessment

An important part to both risk-based planning and resource allocation will be the development of a comprehensive comparative risk assessment of the food supply. The Council has requested the Interagency Food Safety Risk Assessment Consortium, which consists of HHS and USDA agencies and EPA, to consider how to develop a comparative risk analysis for food safety strategic planning. The Council will direct the Consortium to seek and consider public input in its analysis.

The Council believes that various steps may need to be taken to evaluate risks including: a ranking of foodborne pathogen risks based on surveillance and economic data; consideration of a broader range of food safety hazards including not only microbial risks, but also pesticides and chemicals; and finally, selection of highly ranked hazards, an evaluation of control measures, and an evaluation of net benefits. The Council must avoid applying risk assessment in a manner that is too strict, rigorous, or inflexible. Instead, the comparative risk assessment must be used to prioritize the known greatest risks at the current time, with the understanding that scientific risk estimates can, and will likely, change frequently over time.

Challenges in Planning

The Council faces the following challenges in developing a comprehensive food safety strategic plan and allocating resources based on risk:

- Developing and successfully implementing a national plan will require strong cooperation, coordination, and communication, since each federal, state, and local agency has unique mandates, authorities, history, culture, and operating procedures.
- The diversity of stakeholders in food safety is enormous. It will be difficult, but imperative, that all stakeholders are represented in the Council's planning process.

Progress in Strategic Planning

- President's 1997 Farm to Table Food Safety Initiative
- President's Fresh Produce and Imported Food Safety Initiative
- Establishment of the Joint Institute for Food Safety Research
- Establishment of the President's Council
- Input from the National Academy of Sciences, Council of Agricultural Science and Technology, and other organizations
- National Integrated Food Safety System project meetings
- Development of a draft vision statement
- Input from multiple public meetings and public comments

Recommendation IIIa

To implement a science-based system, Congress should establish by statute a unified and central framework for managing federal food safety programs, one that is headed by a single official and which has the responsibility and control of resources for all federal food safety activities, including outbreak management, standard-setting, inspection, monitoring, surveillance, risk assessment, enforcement, research, and education.

The NAS report finds that the existing regulatory structure for food safety in the United States is not well equipped to meet current challenges. Specifically, it points out that the system is facing tremendous pressures with regard to:

- emerging pathogens and ability to detect them;
- maintaining adequate inspection and monitoring of the increasing volume of imported foods, especially fruits and vegetables;
- maintaining adequate inspection of commercial food services and the increasing number of larger food processing plants; and
- the growing number of people at high risk for foodborne illnesses.

The report cites the strengths of the current food safety system, including the advent of FoodNet and PulseNet, HACCP implementation, and the Partnership for Food Safety Education. It also identifies deficiencies, which it attributes partly to "the fragmented nature of the system." The report attributes the fragmentation largely to a lack of adequate integration among the various federal agencies involved in the

implementation of the primary statutes that regulate food safety, and observes that this lack of adequate integration occurs also with state and local activities. The report notes that several federal agencies are involved in key food safety functions and references more than 50 memoranda of agreement between various agencies related to food safety.

The NAS report attributes the lack of adequate integration among federal, state and local food safety authorities in part to the absence of “focused leadership” that has the responsibility, the authority and the resources to address key food safety problems. The report presents several examples of possible organizational structures to create a single federal voice for food safety. These include:

- a Food Safety Council with representatives from the agencies with a central chair appointed by the President, reporting to Congress and having control of resources;
- designating one current agency as the lead agency and having the head of that agency be the responsible individual;
- a single agency reporting to one current cabinet-level secretary; and
- an independent single agency at cabinet level.

Although the report indicates that many of the NAS committee’s members believe that a single, unified agency headed by a single administrator is the most viable structure for implementing the “single voice” concept, the report recognizes that there may be many other models that would be workable.

Council Assessment

The Council agrees with the goal of the NAS recommendation--that there should be a fully integrated food safety system in the U.S. The food safety agencies are committed to this goal, and the Council is confident that its comprehensive strategic plan will be a major step toward creating a seamless food safety system. To ensure that the strategic plan achieves this goal, the Council will conduct an assessment of structural models and other mechanisms that could strengthen the federal food safety system through better coordination, planning, and resource allocation.

The Council’s strategic plan will bring agreement on the vision, goals, and actions needed to enhance the safety of the nation’s food supply and protect public health by reducing the annual incidence of acute and chronic foodborne illness. It will also clarify the roles and responsibilities of each food safety agency as well as their interactions with state, tribal, and local government partners.

While the Council recognizes that certain models of reorganization may improve coordination and allow for a better allocation of resources, any reorganization of food safety activities must consider the non-food-safety-related responsibilities of each agency and how these relate to the food safety responsibilities. Reorganization must not be done at the expense of these other responsibilities and activities. The Council is concerned that, if not done carefully, separating food safety from non-food safety

activities in each agency could act to weaken consumer and environmental protection overall.

The Council also recognizes that expertise and knowledge, particularly expertise in state-of-the-art science and technology, provides a resource to food safety activities. For example, analytical methods for detection and quantification of adulterants in foods may be adapted to detection of chemical contaminants that threaten public health. Expertise in non-food safety regulatory science and legal procedures are critical when warnings are required on food labels to assure safety. In addition, reorganizations must avoid interfering with the public health framework established to identify and respond to infectious and non-infectious public health threats whether they are foodborne or not, since many of the major foodborne pathogens also produce non-foodborne disease. Thus, in its strategic planning the Council will be cognizant of the interplay between the food safety and non-food safety activities of each agency and how they affect each other.

The Council believes that there are programs that can benefit from immediate reorganization. For example, during the last two years, FDA and NOAA have been developing a proposal to transfer the NOAA Seafood Inspection Program to FDA as a Performance Based Organization (PBO) in order to operate the voluntary Seafood Inspection Program on a more business-like basis. The PBO would be formed under the umbrella of FDA and would include all seafood inspection activities now carried out by NOAA. The fiscal year 2000 budget proposes to transfer the existing Seafood Inspection Program from NOAA to FDA. This action will fully consolidate federal seafood inspection activities within one agency thereby increasing the efficiency and effectiveness of seafood oversight. It will also enhance the overall safety and wholesomeness of seafood products. Funds are provided in the President's fiscal year 2000 budget to cover the costs of transition, including training and education activities.

Factors to Consider in Organizational Restructuring

The Council assessment of structural and organizational options must take into consideration factors such as:

- There are numerous instances in the existing food safety system where the division of regulatory responsibility is not optimal. For example, within the same plant, FSIS and FDA inspectors are often responsible for different foods. FDA and FSIS also share regulatory responsibility of eggs and egg products. Examples such as these create stakeholder confusion and inefficient allocation of resources. Any reorganization must consider areas where there is significant jurisdictional overlap.
- Many food safety issues would be difficult to resolve by a reorganization. For example, some issues like bovine spongiform encephalopathy are both animal health issues and human health issues. Foodborne disease problems may also be

waterborne disease problems. Other programs, particularly research and education programs for food safety often do not operate as separate activities within the agencies, but rather draw significant strength from one another. While some projects are entirely focused on food safety, the food safety research portfolio includes many other projects in such areas as animal health and animal genetics. Reorganization must also accommodate successful partnerships such as the Partnership for Food Safety Education.

Recent Steps Taken to Create a Unified Federal Food Safety System

- 1997 President's Food Safety Initiative implemented
- Interagency Risk Assessment Consortium created
- President's Fresh Produce plan implemented
- Federal/State Outbreak Response task force established
- Joint Institute for Food Safety Research created
- President's Council on Food Safety established
- Restructuring of seafood inspection proposed
- Partnership for Food Safety Education created

Recommendation IIIb

Congress should provide the agency responsible for food safety at the federal level with the tools necessary to integrate and unify the efforts of authorities at the state and local levels to enhance food safety.

The NAS report recommends that federal, state, and local governments function as an integrated enterprise, along with their partners in the private sector. The report identified five statutory tools required to integrate federal, state, and local food safety activities into an effective national system:

- authority to mandate adherence to minimal federal standards for products or processes;
- continued authority to deputize state and local officials to serve as enforcers of federal law;
- funding to support, in whole or in part, activities of state and local officials that are judged necessary or appropriate to enhance the safety of food;
- authority given to the Federal official responsible for food safety to direct action by other agencies with assessment and monitoring capabilities; and
- authority to convene working groups, create partnerships, and direct other forms and means of collaboration to achieve integrated protection of the food supply.

This recommendation acknowledges the “equally critical roles” of state, tribal, and local government entities with those of the federal government in ensuring food safety, and suggests that changes in federal authorizing and appropriating legislation may be necessary to achieve better integration of federal, state, tribal, and local activities. The report points out that the work of the states and localities in support of the federal food safety mission deserves “improved formal recognition and appropriate financial support.”

Council Assessment

The Council agrees that the roles of state, tribal, and local governments in the food safety system are critical and that their efforts deserve the formal recognition that partnership in a national food safety system conveys. Thus, the Council supports steps taken toward the development of a more fully integrated national food safety system. While more needs to be done to optimize and develop new partnerships, the federal food safety agencies have already established extensive interactions with state and local regulatory agencies. In fact, a critical factor for the Council to consider is the manner in which existing federal/state or local activities are integrated and coordinated. The Council believes that its strategic planning process provides a fresh opportunity for their non-federal partners to participate as primary and equal partners in the development of the future food safety system.

Some overlap occurs among federal, state, and local food safety efforts. Neither federal food safety agencies nor state and local agencies have sufficient resources to carry out a comprehensive food safety program, but all these agencies have expertise and resources that, when combined in an integrated program, would significantly enhance the impact of food safety programs.

The Council also agrees that the five statutory tools identified by the NAS are critical for ensuring good coordination between the federal government and state, tribal, and local agencies. Fortunately, the federal food safety regulatory agencies (FDA, FSIS, and EPA) already have most of the statutory tools recommended by NAS.

The Council recognizes and agrees with the report’s conclusion that the lack of integration among federal, state, and local authorities often complicates the administration of regulatory programs. We need to utilize available mechanisms to leverage resources and expertise from government, industry, academia, and consumers to expand the nation’s food safety capabilities beyond what any one group can accomplish. Increased awareness and knowledge of food safety in each segment of the food safety community should reduce the need for regulation of industry and decrease the incidence of contamination at every point in the food safety system in order to protect public health.

Integrated National Food Safety System (NFSS) Project

HHS, USDA, and EPA are working with state and local officials on an integrated National Food Safety System (NFSS) Project to identify appropriate roles and to develop mutually supporting common goals for all levels of government in the U.S. food safety system. This work is considered integral to the Council's strategic plan and coordinated budget recommendations and will be the basis for improved integration with state, tribal and local governments.

Under the leadership of the FDA, the Project is proceeding under existing federal, state, and local laws although all levels of government recognize that changes in some of the federal and state laws will be necessary to achieve an integrated system. The Project began with a meeting of state and local officials from public health and agriculture agencies and state laboratories representing all 50 states, Puerto Rico, and the District of Columbia, FDA, CDC, and FSIS in Kansas City in September 1998. In December 1998, six work groups and an 18 member Coordinating Committee composed of federal, state and local officials met in Baltimore, Maryland to begin to develop plans for implementing recommendations and overcoming the obstacles identified at the Kansas City meeting. Subsequent meetings will be held throughout 1999 to continue the planning process. The group estimates that a fully integrated federal/state/local food safety system will take up to 10 years to build. The Association of Food and Drug Officials, which is an organization of state and local public health officials and regulators, strongly endorses the concept of a NFSS.

The NFSS Project builds on existing systems of federal/state cooperation such as the FSIS long-term "equal to" meat and poultry system currently operating in 26 states with shared state and federal funding and EPA's delegation to states of various regulatory programs.

Challenges to Developing a National Food Safety System

The Council recognizes that the existing systems for federal, state, and local government regulation of food and pesticides have different histories and important distinguishing characteristics. The Council believes it is important to respect the nature and strengths of the existing systems and that integration must proceed in a coordinated fashion. There are numerous challenges to building an integrated food safety system:

- *Establishment of a clear framework for integration.* Such a framework would include the following: strong federal food safety standards, consistent training and competency of inspectors and other state/local officials, data sharing/exchange, federal oversight of state activities, and appropriate and effective enforcement. There needs to be public assurance that state and local activities are integrated with, and an extension of, the federal responsibility in order to assure consistency, accountability, and above all, enhanced consumer protection.

- *Responsiveness to stakeholder concerns.* Development of an integrated system needs to be responsive to stakeholder concerns to have credibility and obtain public support. For example, consumers are concerned that the economic interests of industry within states may be a source of conflict if those states have an expanded food safety role that includes activities thought to be primarily a federal responsibility. Moreover, industry is concerned that food safety regulation will be inconsistent among the states if systems are integrated without adequate preparation of the state agencies to step into an expanded food safety role.
- *Infrastructure and support.* There is a potential need for legislative change at the federal or state/local level to achieve uniformity and consistency in enforcement authorities and to permit the sharing of inspection and other resources.

Examples of Federal/State/Local Cooperation

- Milk Sanitation Program - Pasteurized Milk Ordinance
- Retail Food Safety Program - Food Code
- Integrated National Food Safety System Project
- Interstate Shellfish Sanitation Program
- States conduct 5,000 inspections of FDA-regulated plants
- FSIS oversee and supports 26 state "equal to" meat and poultry inspection programs
- FDA maintains more than 100 state partnerships
- Conference for Food Protection
- FoodNet/Emerging Infections Program
- PulseNet
- Epidemiology and Laboratory Cooperative Agreements
- Appropriate delegation of pesticide responsibility to states
- Partial funding of states for implementation of some pesticide programs and for most pesticide compliance programs
- State FIFRA Issues Research and Evaluation Group
- State and local government involvement in Foodborne Outbreak Response Coordination Group (FORC-G)
- States conduct inspections in 250 FSIS regulated plants
- FSIS supports animal production food safety outreach projects involving 11 states
- FSIS supports animal production food safety workshops
- HACCP based enhancement of state labs, computer capabilities, and state training
- Partnership for Food Safety Education "Fight BAC!" campaign