

조류독감과 식품안전

FOODBORNE DISEASES AND FOOD SAFETY SYSTEM IN THE UNITED STATES: AN OVERVIEW

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Infectious diseases spread through food or beverages are a common, distressing, and sometimes life-threatening problem for millions of people in the United States and around the world. The U.S. Centers for Disease Control and Prevention (CDC) estimates 76 million people suffer foodborne illnesses each year in the United States, accounting for 325,000 hospitalizations and more than 5,000 deaths.

Foodborne disease is extremely costly. Health experts estimate that the yearly cost of all foodborne diseases in this country is \$5 to \$6 billion in direct medical expenses and lost productivity. Infections with the bacteria *Salmonella* alone account for \$1 billion yearly in direct and indirect medical costs.

There are more than 250 known foodborne diseases. Bacteria cause most cases, followed by viruses and parasites. Many of the foodborne diseases are zoonosis. Natural and manufactured chemicals in food products also can make people sick. Some diseases are caused by toxins (poisons) from the disease-causing organism, others by bodily reactions to the organism itself. People infected with foodborne germs may have no symptoms or develop symptoms ranging from mild intestinal discomfort to severe dehydration and bloody diarrhea.

Recently, public health, agriculture, and environmental officials have expressed growing concern over keeping the nation's food and water

supply safe from terrorist acts. This bioterrorism threat is being studied by a number of U.S. agencies, including the Food and Drug Administration, Department of Agriculture, Centers for Disease Control and Prevention, Environmental Protection Agency, and National Institutes of Health.

Presented herein is an overview of foodborne diseases and food safety programs in the United States. Food safety education and regulation are the two main measures employed to improve food safety from farm to table. Public concern about foodborne pathogens and the adoption of HACCP and performance standards will increase incentives for producers and processors to adopt food safety practices at the respective levels. An essential regulatory component is poultry and red meat inspection by the USDA Food Safety and Inspection Service during processing, transportation, storage and retail sale. A regulatory control action permits inspection program personnel to identify regulatory noncompliance and prevent the movement of affected product or the use of unsanitary equipment or facilities until the noncompliance has been corrected. The inspection program personnel are held to a higher standard of professionalism, particularly of personal integrity and honesty.

Consumer education also is an integral part of food safety program in the U. S. Many consumer advice programs on food safety are readily available through various publications, mass media and internet.

Further information on food safety programs in the U. S. may be found in the following websites: www.foodsafety.gov; www.fsis.usda.gov.