



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS



WORLD
HEALTH
ORGANIZATION

E

Agenda Item 5.1

Conference Room Document 58

English only

SECOND FAO/WHO GLOBAL FORUM OF FOOD SAFETY REGULATORS

Bangkok, Thailand, 12-14 October 2004

FOOD-BORNE DISEASE SURVEILLANCE SYSTEM IN KOREA

(Prepared by the Republic of Korea)

I. Introduction

In the Food Sanitation Act, food poisoning is defined as infectious or toxic diseases caused by microorganisms or toxic agents that enter the body through the ingestion of food. Also, any doctor who has made a diagnosis of patient poisoned or suspected to be poisoned by foods or has made an autopsy on his remains, shall report it without delay to the head of the competent public health centre, the Mayor/Province governor and the Minister of Health and Welfare/Commissioner of the KFDA step by step. The Food Surveillance Division and Food Microbiology Division take charge of food poisoning control in the KFDA. Although food poisoning is described in the Food Sanitation Act as the definition of WHO, it is interpreted in a narrow sense in Korea. In fact, diseases through the ingestion of food are controlled by the Food Sanitation Act and the Infectious Diseases Prevention Act. Contagiousness is the main difference between two acts. For example, such as salmonellosis and listeriosis are controlled by the Food Sanitation Act, but hepatitis, shigellosis, Enterohaemorrhagic *E. coli* are managed by the Infectious Diseases Prevention Act. The KFDA is a main body to control and prevent national food poisoning in Korea and the Korea Center for Disease Control and Prevention (KCDC) is an agency to control contagious diseases. The KCDC is a new organization belonging to the Ministry of Health and Welfare that has launched in this year by expansion and remodel of former Korea National Institute of Health.

II. Food-borne Disease Surveillance System

For epidemiologic investigation of food poisoning outbreaks, KFDA is operating a Central Food Poisoning Headquarter which is made up of experts from KFDA, KCDC and MOE (Ministry of Education and Human Resources Development). The responsibilities of it are, among others, establishment of national food poisoning control plan, administration of statistics, development of food poisoning manual, support of Local Food Poisoning Investigation Teams, and education and public relations. There also are Local Food Poisoning Investigation Teams composed of personnel from KFDA, public health center and local governments. Once food poisoning outbreaks occur, the Local Food Poisoning Investigation Teams conduct the actual epidemiologic investigation and report the results to Central Food Poisoning Headquarter.

In these days, food poisoning outbreaks showed different patterns in compared to the past in Korea. First, inversely proportional to the improvement of food hygiene and food safety level, the numbers of outbreaks and patients have increased continuously (Table 1). Secondly, Korea has distinctive four seasons so that food poisoning has typically happened in summer (May ~ September).

Recently, however, it tends to occur steadily irrelevant to seasons or temperatures. It is assumed on account of global warming and constant temperature maintaining inside buildings by social development. Thirdly, outbreaks occurring in group and school meals have increased tremendously which resulted in the increase of patients. School meal program has been obligated in full-scale in Korea from 1998 and large scaled food poisoning outbreaks have happened frequently since then. Development of the food service or restaurant industry is also a cause. Control and improvement of hygienic condition for group meal is the most important field in the prevention of food poisoning in Korea at present. Lastly, major microorganisms causing food poisoning are changing (Table 2). *Salmonella* spp, *Staphylococcus aureus*, *Vibrio parahaemolyticus* are the three major food poisoning bacteria in Korea for a long time. Meanwhile, in addition to these bacteria, virus (Norovirus) is emerging as an important agent recently. Also, failure rates of identifying causative agents from outbreaks or epidemiologic investigations keeps increasing and it makes KFDA difficult to carry out its food poisoning control or preventative plan efficiently.

Table 1. Food poisoning outbreaks and patients in Korea

Year	1996	1998	2000	2002	2003
Outbreak	81	119	104	78	135
Patients	2,797	4,577	7,269	2,980	7,909

Table 2. Major causative agents of food poisoning outbreaks in Korea (2003)

	<i>Salmonella</i>	<i>S. aureus</i>	<i>V. parahaemolyticus</i>	Norovirus	Unknown
No.	416	808	732	1,442	2,180
Rate	5.3%	10.2%	9.3%	18.2%	27.6%

III. Conclusion

KFDA devotes its all strength to prevent and control food poisoning in Korea. Major efforts, among others, are:

- Development of HACCP model for group and school meal
- Intensive surveillance or food hygiene inspection to large scaled restaurants, food suppliers, group meal places and frequently consumed food products of concern
- Attempt to conversion of food poisoning definition to food-borne disease concept
- Upgrade and improve food poisoning report, statistics and epidemiologic investigation system
- Reinforcement of education and public relations
- Operation of hot-line for food poisoning report and consultation
- Strengthening of penalty or fine for regulation violators in Food Sanitation Act

In the globalization era, food poisoning is no longer a sole issue in a country or region. To improve the public health and secure the food safety in global aspect, every country should try its efforts to control its own food safety. Exchange and share of food poisoning statistics, epidemiologic investigation results and food safety information are very important factors for this purpose.