



INTERNATIONAL FOOD SAFETY
AUTHORITIES NETWORK

Enhancing INFOSAN in Asia and Implementation of Regional Food Safety Strategies

Meeting Report



Seoul, Republic of Korea
27–30 November 2012



World Health
Organization



FOOD AND AGRICULTURE
ORGANIZATION OF THE
UNITED NATIONS

In collaboration with and support from the Korea Food and Drug Administration



Meeting Report

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Convened by:

THE WORLD HEALTH ORGANIZATION

and

THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS

In collaboration with and support from the Korea Food and Drug Administration

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Summary

Enhancing INFOSAN in Asia and Implementation of Regional Food Safety Strategies was convened by the Food and Agriculture Organization of the United Nations (FAO) and WHO from 27 to 30 November 2012 in Seoul, the Republic of Korea, in collaboration with and support from the Korea Food and Drug Administration (KFDA).

A total of 33 participants were drawn from 12 countries across Asia and four temporary advisers came from within and outside of the region. The participants were country-nominated members of the International Food Safety Authorities Network (INFOSAN) from different national agencies involved in food control. Where a second INFOSAN person was not available, the responsible officer leading the food control system or involved in the Association of Southeast Asian Nations (ASEAN) Rapid Alert System for Feed and Food attended. The temporary advisers were experts from Food Standards Australia New Zealand (FSANZ), the Centre for Food Safety (Hong Kong (China)), the National Institute of Public Health (Japan) and the Food Safety Authority of Ireland. In addition, several observers from the KFDA and the National Food Safety Information Service (NFSI) took part in the meeting.

The objectives of the meeting were to:

- (1) formulate an Asia-based strategy to enhance participation in INFOSAN;
- (2) strengthen INFOSAN by facilitating active participation in this network by the countries present through the development of in-country notification systems and risk analysis capacities for emergency situations; and
- (3) discuss the implementation of regional food safety strategies, including the Western Pacific Food Safety Strategy 2011–2015, identify priorities and assess countries' status against the defined indicators.

The three objectives were met through presentations, discussions and group work. The meeting concluded that INFOSAN is a critical tool in the modern world of international food trade and travel and enhancing participation in this network by the Asian region will be achieved through the implementation of the agreed Asia-based strategy.

Abbreviations

ARASFF : ASEAN Rapid Alert System for Feed and Food

ASEAN : Association of Southeast Asian Nations

EMPRES (Food Safety) : FAO Emergency Prevention System for Food Safety

FAO : Food and Agriculture Organization of the United Nations

FSER : Food Safety Emergency Response

GEMS/Food : WHO Global Environment Monitoring System – Food Monitoring and Assessment Programme

IHR (2005) : International Health Regulations (2005)

INFOSAN : International Food Safety Authorities Network

JECFA : Joint FAO/WHO Expert Committee on Food Additives

JMPR : Joint FAO/WHO Meeting on Pesticide Residues

NFP : National Focal Point (appointed under the International Health Regulations (2005))

RASFF : European Commission's Rapid Alert System for Food and Feed

WTO : World Trade Organization

1. Introduction

Foodborne disease and food contamination continue to be significant public health issues in the Asian region in both lower- and higher-income countries and areas. Unsafe food causes many acute and lifelong diseases, ranging from gastroenteric illnesses to various forms of cancer, with more than 200 diseases being spread through contaminated food. Additionally, micronutrient deficiencies and dietary-related noncommunicable diseases continue to have extensive public health and socioeconomic consequences.

National governments aim to have in place effective national food control systems covering the entire food chain to ensure that safe food is produced. Such systems include coordination mechanisms among national authorities involved in food safety control, risk-based regulatory frameworks, laboratory and surveillance capacities, food inspection services, consumer education and systems to respond to food safety emergencies when such systems fail. Many Member States across Asia have yet to fully develop national food control systems and, therefore, foodborne disease continues to be a major public health concern.

The spread of unsafe food across national borders means that foodborne disease threatens global public health security. In the Asian region, as in other regions of the world, there have been several food safety emergencies demonstrating the impact of increasing international trade in food and also travel. Examples from the past five years include pesticide residue poisoning, melamine contamination of infant formula and related dairy products, Ebola Reston virus in pigs, excessively high levels of iodine in soy milk products, fish poisoning, hepatitis A associated with semi-dried tomatoes, chloropropanol contamination of soy sauce and, most recently, radionuclide contamination of food and bis(2-ethylhexyl)phthalate (DEHP) from packaging material.

To manage such international food safety emergencies and to improve food safety information-sharing among countries, INFOSAN was established in 2004 to promote the rapid exchange of information during food safety-related events; to share information on important food safety-related issues of global interest; to encourage partnership and collaboration among countries; and to help countries strengthen their capacity to manage food safety risks. INFOSAN involves various national agencies because food safety is a multisectoral issue and is therefore managed by a number of different national agencies in each country. This helps to ensure a multisectoral approach to food safety information-sharing and also helps to facilitate food control coordination at a national level.

The 63rd World Health Assembly adopted Resolution WHA63.3 in 2010 recognizing, among other key points, the serious public health threat of foodborne disease; the increasing global trade of food; the need for closer collaboration among health and other sectors at international and national levels across the food production chain; and the importance of an international agreement on the global management of food safety regarding the application of scientific principles in finding solutions and an efficient exchange of data and practical experience.

Following this recognition, Member States were urged, among other key aspects, to further develop and implement their core capacities as defined in Annex 1 of the International Health Regulations (2005) (IHR) and those required for participation in INFOSAN, including the creation of systems for surveillance for foodborne disease and food contamination; risk assessment, risk management and risk communications; food safety emergency response; product tracing and recall; and food analysis.

The 62nd session of the Western Pacific Regional Committee meeting endorsed the Western Pacific Food Safety Strategy 2011–2015 in 2011 and urged Member States to use the strategy to strengthen national food control systems to protect public health, prevent fraud, avoid food adulteration and facilitate safe and healthy food.

The first global meeting of INFOSAN (held in 2010) agreed to work out regionally-based strategies for enhancing



participation in INFOSAN. Building on this agreement and further discussions held during the 2011 meeting in Seoul by the KFDA, with support from WHO and the FAO, the opportunity of a regionally-based strategy for enhancing participation in INFOSAN across Asia was discussed.

1.1 Objectives

- (1) To formulate an Asia-based strategy to enhance participation in INFOSAN.
- (2) To strengthen INFOSAN by facilitating active participation in this network by the countries present through the development of in-country notification systems and risk analysis capacities for emergency situations.
- (3) To discuss the implementation of regional food safety strategies, including the Western Pacific Food Safety Strategy 2011–2015, identify priorities and assess countries' status against the defined indicators.

1.2 Opening remarks



Hee-Sung Lee

Hee-Sung Lee, Commissioner, KFDA, welcomed participants, observers, temporary advisers and the Secretariat. He noted that the meeting will aim to draw up a regionally agreed strategy for enhancing food safety information-sharing among countries in Asia and explore ways to become better equipped with efficient emergency response systems. He also noted that he believed that the meeting would further consolidate food safety cooperation among countries under the umbrella of INFOSAN and consequently contribute to improved food safety and public health in the region.

Angelika Tritscher, Acting Director, Department of Food Safety and Zoonoses, WHO, gave opening remarks via video on behalf of WHO and the FAO. She outlined the importance of food safety and that a safe and secure food supply is an important element for global health security. The role of the IHR (2005) and INFOSAN were introduced as a key element of global health security. Tritscher also emphasized the strategy for enhancing INFOSAN in Asia, which was to be further developed at this meeting. Lastly, she apologized for not being able to be present and thanked the Government of the Republic of Korea, the Commissioner of the KFDA and Dr Hyo-Min Lee for hosting this meeting and those who helped organize it.



Angelika Tritscher

1.3 Meeting structure and organization

The meeting was facilitated by Jenny Bishop, acting Technical Team Leader and Technical Officer (Food Safety), Western Pacific Regional Office; Peter Ben Embarek, Scientist, WHO; Alan Reilly, Chief Executive, Food Safety Authority of Ireland; Caroline Merten, Emergency Prevention System (EMPRES) Food Safety Officer, FAO; Hyo-Min Lee, Director, KFDA; and Carmen Savelli, Project Officer, WHO. Bishop, Ben Embarek, Savelli and Sang-Tae Han, Senior Research, NFSI, acted as Rapporteurs.

Annex 1 provides a full list of participants, temporary advisers, observers and Secretariat members.

The meeting programme (Annex 2) was adopted at the opening session. The responsible officer gave an overview of the background and objectives of the meeting and outlined the different sessions. The excellent organization and support to the meeting from KFDA was also gratefully acknowledged, noting the exceptional inputs from: Hyo-Min Lee, Esther Lee, Seonhee Choi, Hyuni Sung, Chanwoong Choi, Chongju Lee, Kihong Kim, Bora Ryu and Minsu Kim.

Technical presentations by participants, temporary advisers and representatives of international organizations were provided in support of the working group and plenary activities and discussions.

Special mention was made on the sudden passing of Catherine Cruz, friend, respected colleague and INFOSAN Focal Point from the Philippines.



2. Proceedings

2.1 Overview of INFOSAN



Peter Ben Embarek

P. Ben Embarek noted that resolutions of the World Health Assembly in 2000 and 2002 called for improved communication among Member States with respect to food safety issues and for WHO to coordinate the identification and response to food safety emergencies. A specific request came from the Codex Alimentarius Commission in 2004 asking WHO to create a network for the exchange of information during food safety emergencies. INFOSAN subsequently was launched by WHO in collaboration with the FAO to address this need.

Today, INFOSAN is a voluntary network of national food safety authorities from 178 countries and is jointly managed by the FAO and WHO. INFOSAN aims to prevent the international spread of contaminated food and foodborne diseases and strengthen food safety systems globally by promoting the rapid exchange of information during food safety events; sharing information on important food safety issues of global interest; promoting partnership and collaboration among countries and helping countries strengthen their capacity to manage food safety risks.

INFOSAN members include Emergency Contact Points (from national authorities responsible for coordinating a national food safety emergency response) as well as Focal Points (from other national authorities with a stake in food safety). Other members of the network include Advisory Group Members, WHO regional food safety advisers, FAO regional food safety officers and regional food safety authorities).

Each country is encouraged to designate one Emergency Contact Point and several Focal Points, depending on the structure of the national food control system. Routine activities carried out by the INFOSAN Secretariat include the development of INFOSAN Information Notes, guidelines, surveys, risk assessments, etc. INFOSAN members aid routine in-country sharing of information to strengthen the national food control system and are also engaged by the Secretariat to gather information on emerging issues.

During food emergency situations, the INFOSAN Secretariat also identifies, verifies and shares information on food safety-related events that involve contaminated foods in international commerce and foodborne illness outbreaks that are not limited to one country. The Secretariat can provide technical assistance to national governments in managing food safety and food production-related events or emergencies. The Secretariat also coordinates information exchanges among countries and will facilitate technical assistance in the field, if requested.

Recent trends have indicated that food safety events are becoming increasingly international in scope, reaffirming the need for coordination at the international level. In some countries, an INFOSAN Emergency Contact Point or Focal Point may have the dual role of being their country's IHR (2005) National Focal Point (NFP). In countries where this is not the case, it is important for the INFOSAN Emergency Contact Point and the IHR (2005) NFP to have contact with each other to ensure that food safety emergencies that also constitute public health emergencies of international concern are reported through the appropriate channels as required by the IHR (2005).

The new INFOSAN Community Website, launched in 2012, marks a major milestone for INFOSAN and will continue to strengthen collaboration among members. By actively participating in INFOSAN, members can collectively help to make food safer around the world.

2.1.2 INFOSAN at a country level

In preparation for the meeting, delegates from each country were asked to draw up a presentation outlining the following points:

- (1) National INFOSAN membership and the interaction among members.
- (2) Examples of food safety information-sharing.
- (3) The current status of the national food safety emergency response plan.
- (4) Challenges in participating in INFOSAN and sharing food safety information with other countries.
- (5) Suggestions for improving INFOSAN at national, regional and international levels.

Delegates from each country provided a summary of the current status of INFOSAN in their countries, including the above points. The following provides a summary highlights from the country reports.

Australia



Melanie Fisher

- Australia has been a member of INFOSAN since 2004, with an Emergency Contact Point designated at FSANZ and Focal Points designated in the Department of Agriculture, Forestry and Fisheries and the Department of Health and Ageing (OzFoodNet).

- Australia actively participates in INFOSAN by sharing information with the INFOSAN Secretariat to inform INFOSAN Alerts (i.e. food recall data, epidemiologic information, risk assessments, etc.).

- The National Food Incident Pro-

protocol is used to address food safety events and the current focus is on formulating memorandums of understanding and protocols to align incident response arrangements and improve international links.

- Some challenges faced in Australia include the ability to access required information rapidly (i.e. early enough to inform quick risk management decisions), confidentiality issues which impact the ability to provide information outside of Australia and an incomplete understanding of what kind of information would be beneficial to others.

- There was a suggestion for a “buddy system” to be established which would link a country with more capacity to others with fewer resources to assist with risk profiling, assessments or provide advice regarding testing methodology, etc.



Brunei Darussalam



Mahani Muhammad

- Brunei Darussalam has gained many benefits from INFOSAN by sharing and exchanging information and networking since joining in 2007.

- The Ministry of Health through the Department of Health Services is the responsible agency for INFOSAN activity in Brunei Darussalam.

- Brunei Darussalam is in the process of drawing up a Food Safety Emergency Response (FSER) plan and has identified committee members from the Ministry of Health, the Department of Agriculture and

Agri-food, the Department of Fisheries and the Department of Religious Affairs.

- Being a major importing country with limited technical expertise and capabilities, Brunei Darussalam continues to face many food safety challenges. Efforts are continuing to recruit more technical experts, strengthen the food control system (including food recall and traceability capabilities) and increase food safety awareness programmes and actively participate in INFOSAN.

Cambodia

- Cambodia participates in INFOSAN with members from both the Communicable Disease Control Department and the Department of Drugs and Food at the Ministry of Health.

- The early warning and response system in Cambodia operates using both case-based and event-based surveillance information. Case-based surveillance data is collected, analysed and interpreted and event-based reports are captured, filtered and verified. When the information collected suggests that a public health response is warranted, a public health alert may be issued and control measures implemented. Once an issue has been resolved, post-outbreak evaluation activities are undertaken in order to evaluate the response and suggest improvements to the system.

- Many challenges exist with respect to the identification and response to food safety issues in Cambodia, including a lack of human resources; limited laboratory capacity; an inability to identify hazards; and financial barriers to implementing food outbreak response.



Aing Hoksrun

China



Songtao Liu

- China participates in INFOSAN with members designated by the Ministry of Health from the Department of International Cooperation and the Institute of Food Safety Control and Inspection.

- China's food safety emergency system includes legal provisions (food safety law) and its implementing regulations for public health emergency response.

- Major measures according to food safety law include requirements for governments at all levels to draw up food safety incident emergency

plans and for institutions that accept patients and other national departments to report to the national health department.

- The Chinese Center for Disease Control and Prevention supports the Ministry of Health and other relevant departments in carrying out epidemiological surveys to determine the cause of food safety incidents.

- In the event of a significant food safety incident, government authorities at or above the county level shall immediately establish the food safety incident response plan, trigger the emergency plan and take actions accordingly.

- Challenges in China include the fact that food safety involves many departments and creating an information bulletin requires time to coordinate. There needs to be improved communication between INFOSAN and IHR (2005) functions at WHO Headquarters and information to be shared should be standardized.

- To improve INFOSAN, information on the Community Website should be updated more regularly, capacity-building activities need to be conducted in Member States and clear information standards to dictate what should be shared need to be outlined.

Hong Kong (China)

- The INFOSAN Emergency Contact Point has been designated at the Food and Environmental Hygiene Department and is responsible for food control and coordination throughout the food chain.

- The NFP has been designated at the Department of Health and coordinated



Samuel Yeung

activities between the Department of Health and the Food and Environmental Hygiene Department facilitate communication.

- Hong Kong (China) follows guidelines for handling food safety incidents that include actions for both routine and emergency situations.
- Challenges include difficulties in assessing whether food safety events are of potential international significance and providing the INFOSAN Secretariat with information in a timely manner. Factors affecting this include the time it takes to verify information as well as potential legal implications.
- To improve INFOSAN, it would be helpful to receive officially translated documents and supporting documents such as laboratory reports and testing methods.

Indonesia

- The Emergency Contact Point has been designated at the National Agency for Drug and Food Control and Focal Points have been designated at numerous other national agencies that have a stake in food safety.

- Indonesia uses a rapid alert system for food and feed at the national level and the integrated food safety system uses three specialized networks—the food information network, the food control network and the food safety promotion network.



Halim Nababan

- Food safety is grounded in a specific regulation for food safety, quality and nutrition.
- Activities in Indonesia are undertaken to follow up on Alerts and Notices posted on the INFOSAN Community Website and respond to requests at the international and national levels. Food safety information is also forwarded to relevant national stakeholders and food safety information is produced based on identified international or national issues.
- Because there are so many agencies involved with food safety in Indonesia, coordination can pose a challenge during efforts to ensure that reports from the Emergency Contact Point accurately reflect the national view.

Japan

- The Emergency Contact Point has been designated at the Ministry of Health, Labour and Welfare and Focal Points have been designated at the Food Safety Commission, the Ministry of Agriculture, Forestry and Fisheries and the National Institute of Public Health.
- Japan takes an active role in information-sharing with the INFOSAN Secretariat and provides food safety surveillance data and information pertaining to food safety events with potential international implications.

- Japan faces challenges in sharing unconfirmed information with other countries in a timely manner and needs to be balanced with the goal of taking action promptly in the face of a food safety emergency. In addition, language poses a challenge since it is often difficult to translate important information because of limited human resources, especially during an emergency.



Manabu Sumi

- To improve INFOSAN, active participation needs to be promoted, clarifying the clear merits of participation at regional and international levels. Sharing useful information in a timely manner that can be used by other INFOSAN members is the most important merit.
- Capacity-building activities should be undertaken, especially in the area of foodborne disease surveillance, and funding should be allocated for INFOSAN activities at each level (i.e. nationally, regionally and internationally).

The Lao People's Democratic Republic



Sivilay Naphayvong

- INFOSAN members have been designated at the Ministry of Health in the Hygiene and Prevention Department (Emergency Contact Point) and the Food and Drug Department (Focal Point).
- Other agencies have not been involved because of a lack of understanding of INFOSAN and the limited number of food safety staff in other agencies. Additionally, the facilities to access information are also limited and language barriers prevent timely interpretation and sharing of information.
- At the national level, efforts are being made to improve how national agencies can rapidly access and exchange food safety information.
- There is no system in place for INFOSAN members to collaborate with the NFP.
- INFOSAN is used as the source of information for strengthening food safety control in order to protect public health from foodborne hazards.
- A national food safety emergency response (FSER) plan was formulated in 2008 but has not yet



been endorsed.

- Challenges to participation in INFOSAN are linked to the lack of human resources and experts in food safety in the Lao People's Democratic Republic, limited funding, limited laboratory capacity and language barriers.
- To improve INFOSAN, additional Focal Points should be designated from other relevant agencies, the national FSER plan should be revised and endorsed, food safety legislation and standards need to be drawn up and there needs to be a mechanism for national food safety data collection.

Mongolia



Bolorchimeg Bold

- Mongolia has been a member of INFOSAN since 2004, with the Emergency Contact Point in the Ministry of Health and Focal Points in the Ministry of Foreign Affairs, the Ministry of Food, Agriculture and Light Industry and the National Emergency Management Authority.

- The Ministry of Health coordinates INFOSAN activities in Mongolia and, in addition to information dissemination activities, also undertakes translation of important food safety information from INFOSAN and public delivery of food safety education materials. An article on

the regulation of INFOSAN activities was reflected in the draft law on food safety of raw materials and products.

- A draft national FSER plan was formulated and discussed and referred to in the draft law concerning the food supply (currently being revised and renewed). A national coordinating committee on food safety will be established and will be responsible for coordination of the national FSER plan.
- Challenges to participation in INFOSAN in Mongolia are linked to language barriers and a lack of resources for translation, a lack of food safety experts, inadequate laboratory capacity and managing the high turnover of INFOSAN members when organizational structures change.
- To improve INFOSAN, partnership and collaboration between lower- and higher-income countries and international organizations should be strengthened; sustainable funding needs to be identified; and online space for sharing documents among INFOSAN members in Mongolia should be created.

Myanmar

- The Emergency Contact Point has been designated at the Food and Drug Administration of the Ministry of Health.
- Routine information is shared through the Food and Drug Supervisory Committee and with other concerned departments and agencies on an ad hoc basis during emergency situations. Legislative support is provided according to the National Drug Law and the National Food Law.

- The NFP has been designated at the International Health Division of the Ministry of Health and communication with the INFOSAN Emergency Contact Point occurs when food safety issues are identified.

- Myanmar does not have a national FSER plan but response to food safety emergencies falls under the Disaster Management Committee formed under the Ministry of Social Welfare, Relief and Resettlement.



Khin Saw Hla

- One of the main challenges is linked to a lack of information technology capacity.

- To improve participation in INFOSAN, an online space for sharing food safety information among national INFOSAN members should be developed, existing infrastructure should be expanded and additional national agencies should designate INFOSAN Focal Points to improve collaboration at the national level.

The Philippines



Vito Roque, Jr.

- The Emergency Contact Point has been designated at the Department of Health and a Focal Point has been designated at the Bureau of Fisheries and Aquatic Resources. No operational network or formal mechanism for coordinating activities between national agencies exists.

- The Philippine Food Safety Bill was expected to be endorsed soon.

- Active collaboration continues among countries involved in the ASEAN Food Safety Improvement Plan and the ASEAN Expert Group on Food Safety.

- Challenges to participating in INFOSAN are linked to a lack of coordination and communication among national authorities and limited human resource competence. Additionally, risk-based inspection has not yet been implemented fully or institutionalized.

- INFOSAN could be improved in the Philippines through additional training and capacity-building (for outbreak investigation, risk assessment, risk management, risk communication, effectiveness



checks, traceback and recall) and a clear delineation of functions in relation to food safety control, including the development of operational plans for food safety event response.

The Republic of Korea



Hyo-Min Lee

- The Emergency Contact Point has been designated at the KFDA and Focal Points have been designated at the Ministry of Health and Welfare, the Ministry for Food, Agriculture, Forestry and Fisheries and the NFSI.
- Collaborative partnerships have been worked out in the Republic of Korea with food safety-related government agencies, local and regional authorities, academia, industries and research institutions for effective sharing of information, including information received through INFOSAN.

- The national FSER plan dictates how risk information is collected and analysed and the subsequent actions for risk management and communication and follow-up.

- Challenges to participating in INFOSAN are related to differences between national standards and recall guidance from one country to another, misconceptions caused by unbalanced information-sharing and concerns for negative effects on international relations when sharing information about noncompliant foods.

- To improve INFOSAN, a scientific committee could be established among Asian countries, each country could have its own group on the INFOSAN Community Website for exchanging information at the national level, guidelines need to be clarified for information exchange among INFOSAN members, and training programmes need to be delivered to Asian countries to improve capacity.

Thailand

- The Emergency Contact Point is designated from the Bureau of Food Safety Extension and Support and Focal Points have been designated at all other national agencies with a stake in food safety.

- Food safety information-sharing is coordinated at the national level through the National INFOSAN Committee.



Jongkolnee Vithayarungrangsri

- Standard operating procedures guide how food safety risk analysis and response is conducted and when the FSER plan is executed, including follow-up reporting and evaluation activities.
- Future plans to strengthen the FSER include the implementation of emergency response at the provincial public health office level and expand information-sharing into private sector.
- To improve INFOSAN participation in Thailand, the roles of INFOSAN Focal Points need to be strengthened and coordination among participating departments and ministries needs to be tightened.

Viet Nam

- The ministries involved in food safety management include the Viet Nam Food Administration at the Ministry of Health, the National Agro-Forestry-Fisheries Quality Assurance Department at the Ministry of Agriculture and Rural Development and the Department of Science and Technology at the Ministry of Industry and Trade.



Nguyen Thi Hong Mai

- Coordination among ministries is outlined in the national food safety law, introduced in 2010, and other subsidiary legal documents.
- A national FSER plan is under development.
- Challenges in Viet Nam include the lack of an FSER plan to outline operating procedures during food safety events and the lack of capacity for foodborne outbreak investigations, leading to incomplete data collection to inform alerts and notifications.
- To improve INFOSAN, a coordination mechanism at the national level needs to be worked out among members, regular meetings for sharing experiences and best practices needs to be held at the regional level, information needs to be shared consistently among all INFOSAN members on the Community Website and support from the INFOSAN Secretariat needs to be provided to develop the national food alert system and risk analysis activities.

2.2 New Members' Guide

P. Ben Embarek and C. Savelli provided an overview of the new INFOSAN Members' Guide. It was explained that the publication is meant to serve as a functional guide for INFOSAN members that addresses both organizational and practical information about INFOSAN and member participation. The guide has two parts:

- Part A gives an overview of the INFOSAN structure, governance, services for members and the roles and responsibilities of members.

- Part B describes the operational aspects for communication during international food safety events.

Sources of communication are described in the guide along with step-by-step instructions for reporting food safety events to the INFOSAN Secretariat. Details about the INFOSAN Community Website and instructions for the designation and registration of new members are also outlined.

The main information products provided by the INFOSAN Secretariat include Alerts, Notices and Information Notes. Alerts are drafted by the INFOSAN Secretariat in close collaboration with the relevant INFOSAN Emergency Contact Points. INFOSAN Alerts generally will describe one of two types of events: a microbiological, chemical, physical or other food contamination event or a health event associated with the consumption of contaminated food.

The INFOSAN Secretariat may need to raise awareness with the Network about current food safety issues and INFOSAN Notices are used to share such information. INFOSAN Information Notes are developed in collaboration with relevant international partners to provide key information on emergent and/or topical food safety issues. They are intended to promote awareness and, in some cases, action (such as long-term risk management strategies). INFOSAN members are encouraged to suggest topics and collaborate in the development of INFOSAN Information Notes that they feel would be of interest to other food safety authorities.

The key activity of INFOSAN is to facilitate information exchange and the new Members' Guide describes how communications may flow among Network members, between the INFOSAN Secretariat and a member or to the entire Network. With respect to communications, the most important aspect to highlight is the requirement to share information early. Such information may relate to the following:

- A food recall associated with an imported or exported food product, with or without associated cases of human illness.
- Cases of human illness associated with a food product, pending test results and subsequent risk management (e.g. no recall under way yet or unable to recall product).

Confidentiality issues relating to what information should be shared across the Network are a concern for all countries. Information provided to INFOSAN and from the INFOSAN Secretariat is treated as confidential within the Network and is communicated only to relevant country contacts. Even though there may be confidentially concerns (e.g. regarding specific company trade information), it may be crucial to an importing country to inform it of a potential food safety issue. In this case, de-identified or modified information would be preferable to an absence of communication.

When reporting a food safety event to the INFOSAN Secretariat, the following details need to be supplied (where possible) to enable assessment and analysis to be undertaken by the Secretariat:

- details of the food and hazard (suspected or confirmed);
- a brief summary of the food safety or foodborne disease event;
- the source of the information; and
- the list of countries that have (or may have) received or exported the affected product or, alternatively, clarification that distribution cannot be confirmed.

Criteria to consider when reporting a food safety event includes public health impact, the risk of international spread, the risk of trade restrictions, the implications for food safety regulators and media attention.

After a consultative process with INFOSAN members in which we used the INFOSAN Community Website to solicit feedback and suggestions, the new guide will be finalized and shared with INFOSAN members.

2.2.1 Use of the INFOSAN Community Website

C. Savelli introduced the new INFOSAN Community Website and noted that it has been completely redesigned and built from scratch, taking into account the feedback received from INFOSAN members at the first global INFOSAN meeting. The new website is more user-friendly and some of the new features include:

- Unique pages for each INFOSAN member to easily share information from its food safety authority with the Network.
- An online reporting form for notifying the INFOSAN Secretariat of food safety events.
- Dynamic contact lists of INFOSAN members that are updated automatically when users update their contact details.
- A discussion forum for collaborating with other INFOSAN members.
- The ability of INFOSAN members to create subgroups for holding discussions, collaborating on documents, etc., with a targeted audience.



Carmen Savelli

The Groups within the INFOSAN Community Website are flexible and their purpose and membership can be customized according to the needs of INFOSAN members. Creating a Group makes it easy to share documents and hold discussions with a subset of INFOSAN members (i.e. all INFOSAN members from a specific country or region). Group content is easily accessible and securely stored on the INFOSAN Community Website and makes online collaboration simple.

For example, if INFOSAN members were working on a joint document, they could collaborate within a Group and reduce the need for sending large files via e-mail.

Groups also serve as e-mail lists and a member's own e-mail client easily can be populated with all Group members' e-mail addresses by simply clicking a button. The Group function is an important component to be used in order to strengthen INFOSAN in Asia.

The new website provides a platform to strengthen the community among INFOSAN members by sharing information, experiences and advice and to ask questions of colleagues and provide mutual support. Through this sharing process, we hope that INFOSAN members will learn from each other and develop professionally. The INFOSAN Secretariat will continue to foster this community of practice and provide the support required for members to apply their expertise effectively.

The User Manual (available online) provides detailed instructions for navigating the INFOSAN Community Website. If members have questions about how to use the website, additional support can be requested from the INFOSAN Secretariat (infosan@who.int).

2.3 Session three: Linking INFOSAN with other networks

2.3.1 Interaction between INFOSAN and other initiatives



Alan Reilly

A. Reilly explained that INFOSAN is positioned in an environment in which closer interaction, interdependence and the need for a rapid exchange of information is growing. The session focused on discussing the main networks and initiatives that INFOSAN should link to and collaborate with.

The main networks and initiatives identified were the IHR (2005), the Asia Pacific Economic Cooperation (APEC) Food Safety Incident Network (FSIN), Asia FoodNet, the Global Early Warning System for Major Animal Diseases, including

Zoonoses (GLEWS), the Global Foodborne Infections Network (GFN), The FAO Emergency Prevention System for Food Safety (EMPRES), WHO's Global Outbreak Alert and Response Network (GOARN), PulseNet International and the Rapid Alert System for Feed and Food (RASFF), with the latter two establishing regional groupings.

Several participants expressed the need to better clarify the roles and responsibilities of members of IHR (2005) and members of INFOSAN. While recognizing that the complexity of some events could be confused in terms of reporting mechanisms to WHO and the international community, it was agreed that as a rule of thumb, events related to food safety or foodborne illness should be reported to INFOSAN and that events that included a public health impact not related to food should be reported to IHR (2005).

It was noted that copying each other ((IHR) (2005) NFP and INFOSAN Emergency Contact Point) in the communication exchanges would be a good practice. IHR (2005) uses a decision tree to help the NFP to decide if WHO should be notified of an event. The decision tree should be well known to INFOSAN Emergency Contact Points.

It was noted that the APEC initiative to establish a FSIN has been moving forward in collaboration with input from the INFOSAN Secretariat and is not intended to duplicate the work and efforts of INFOSAN. It was agreed that it would be worth exploring the possibility of establishing a group within the INFOSAN Community Website to host the activities of the APEC FSIN. Both the APEC FSIN Secretariat and the INFOSAN Secretariat are working together to ensure that the INFOSAN Emergency Contact Points are considered as members of the APEC FSIN. Having a similar membership when possible will assist in integrating the work of this APEC initiative within an INFOSAN framework.

PulseNet International provides a common platform for the exchange of laboratory work results during outbreak investigations. The network is considering adopting and integrating new tools such as whole genome sequencing to replace the current pulsed-field gel electrophoresis (PFGE) profile method used across the network. This network complements the work of INFOSAN. Closer collaboration should be sought from the INFOSAN Secretariat with PulseNet International.

The European Commission's RASFF is also creating regional groupings. A discussion on the ASEAN part of RASFF showed that this regional grouping is not yet operational and active. In Europe, where RASFF is operational, RASFF member countries are also members of INFOSAN. This will improve collaboration and mutual

benefit. Increasingly over the past year, collaboration between the two networks has become stronger and allowed better use of the respective networks' strengths and comparative advantages.

2.3.2 Integrating Asia FoodNet into a regionally-based strategy for enhancing participation in INFOSAN in Asia



Hajime Toyofuku

Hajime Toyofuku, National Institute of Public Health, Japan, provided an overview on the status and activities of the Asia FoodNet network, which was created in 2007 in response to a recommendation made during a food safety conference held in Asia. He explained that this group has not become operational for a number of reasons, including limited resources and unclear terms of reference.

The possibility of including the members of the Asia FoodNet network into INFOSAN as INFOSAN Focal Points was discussed by the

meeting participants. H. Toyofuku suggested that if this occurs, there could be information-sharing on experiences of risk-based regulatory frameworks, risk-based imported food control, foodborne disease data, outbreak data, human reported cases of major enteric diseases, prevalence data of major zoonotic diseases in animals produced for food, the development of a food laboratories network and a network of risk assessment bodies. The food laboratories could share information derived from test results (e.g. an increase in a specific serotype of Salmonella), facilitate questions and answers on analytical methodologies and share manuals and other information relating to typing (e.g. phage type, antimicrobial resistance information and pathogenicities).

2.4 Session four: Developing a regionally-agreed strategy for enhancing participation in INFOSAN across Asia

2.4.1 Regional information-sharing among INFOSAN members in Asia: current status, challenges and the way forward

H. Lee noted that it is important to identify ways of improving collaboration among Asian countries because food trade volume among them is gradually increasing and because global food safety issues require cooperation. In response, the objectives of the 2011 meeting on "Enhancing Food Safety Information Exchange and Emergency Response Capacity to Support Participation in INFOSAN" that was held in Seoul, the Republic of Korea, were to improve the exchange of food safety information and to share and learn from food safety management experiences and strategies and to activate existing networks with INFOSAN members.

This was achieved by sharing experiences in food safety strategies and activities of international organizations, such as WHO and the FAO, and information about the current status of national food safety management with about 180 experts, including representatives from the food industry and academia.

Sharing experiences in food safety information in each country also was undertaken and the new INFOSAN Community Website operating plan was introduced. The meeting recognized the necessity of an information-sharing network in the Asia region under the umbrella of INFOSAN. Also under discussion was organizing a working group to develop information-sharing using the INFOSAN Community Website for the Asia region.



Since the 2011 meeting, the KFDA, With The Western Pacific Regional Office, has been working to assist with setting up food safety information exchange in Asia by providing a short-term secondee to the Western Pacific Regional Office, and by Submitting a proposal to The Korea International Cooperation Agency (KOICA) for funding to assist With The Western Pacific Regional Office's capacity-building in Countries of the Region. The KFDA is Also Continuing to work With The Western Pacific Regional Office to Provide a long-term (one to two years) technical secondee to the Western Pacific Regional Office.

Lastly, H. Lee provided a summary of food safety information shared since the last meeting in response to issues of regional interest.

Three suggestions were provided to enable strengthened food safety information-sharing: organize and implement a scientific advisory committee under the Western Pacific Regional Office and INFOSAN for an effective exchange of information among countries in Asia, share information on national food standards and policies using the INFOSAN Community Website and formulate clear guidelines for information-sharing with other countries through INFOSAN.

2.4.2 Practical suggestions for enhancing the exchange of information among INFOSAN members in Asia

Cherl-Ho Lee, KFDA Adviser, Emeritus Professor (Korea University), the Republic of Korea, provided examples of collaboration in the region, including the International Life Sciences Institute's BeSeTo (Beijing-Seoul-Tokyo) meeting on food safety at which food safety issues from the three countries, risk assessments and possible areas of collaboration were discussed.

C. Lee then outlined several areas of collaboration in Asian countries, including a communication channel on emerging food safety issues.

They included collaboration between governmental and private sectors; a risk assessment framework of Asian foods; a harmonization of regulations of interest in Asian countries; a harmonization of labelling standards (e.g. genetically modified foods, irradiated foods, light nutrition labelling, etc.); collaboration and investigation of commodity food standards and analytical methods in Asia; and more discussion on Asian food standards in Codex Alimentarius.

For enhancing participation in INFOSAN in Asia, C. Lee noted the importance of establishing regular and active communication channels; setting up a rapid evaluation system for emerging food safety issues; creating an expert pool for food safety among Asian countries and close collaboration between government and private sectors (including food industries, academia and consumers).

The following discussion noted the need to consider establishing a regional grouping of scientific experts that could help with the evaluation of food safety issues related to the region. This was perceived as an important element to help members in to better understand and act on food safety events affecting their region and to be in a better position to coordinate actions at the international level when events move beyond it. Since this work would require different expertise from inside and outside the region, it was felt that using the existing FAO/WHO mechanism for the selection for experts for the provision of scientific advice would be appropriate.



Cherl-Ho Lee

Similarly, a discussion on how to best address the current restrictions in the work on consumption data collection in Asia concluded that using the INFOSAN in Asia Group of the INFOSAN Community Website probably would be a useful tool to advance this discussion.

2.4.3 Summary of feedback from INFOSAN members

Jang Hwan Bae, Senior Researcher, Division of Communication and Networking, NFSI, provided a summary of the findings of the questionnaire on “Enhancing INFOSAN in Asia: Member Participation and Capacity Building”.

The questionnaire, drawn up by the Western Pacific Regional Office with input from WHO Headquarters, the FAO and food safety experts was sent to 26 participants. A total of 17 replied to the survey by the requested due date. The questionnaire provides feedback on INFOSAN membership, participation and coordination; food safety information preferences, readiness and production; capacity-building; and collaboration and information-sharing. Suggestions on how to improve participation in INFOSAN and food safety emergency management in the region also were included.



Jang Hwan Bae

2.4.4 Overview of draft strategy



Jenny Bishop

J. Bishop explained that, based on the feedback gained through the questionnaire process, a draft strategy on Enhancing INFOSAN in Asia was developed by WHO and partners.

She said that enhancing INFOSAN in Asia will strengthen INFOSAN globally through unprompted and timely reporting of food safety events of international concern in Asia and increased sharing of information related to managing such events; facilitate the identification of food safety events of international concern through the food safety

information exchange in Asia; facilitate national food control system development in Asia through the sharing of information, experiences and best practices among countries; and improve the capacity of members to better fulfil their roles and responsibilities in the network.

The strategy outlines four themes to achieve the above through regional-based coordinated and collaborative action:

Theme 1: INFOSAN Community Development



Theme 2: Capacity-Building and Education

Theme 3: Responding Effectively to Food Safety Emergencies

Theme 4: Global Issues to be Supported by Asian Countries

J. Bishop outlined each of the themes for discussion, review and further development by participants in a group work session. She also reminded participants to reflect on the information provided in the country report sessions to ensure that this important feedback is also considered in the draft strategy.

2.4.5 Group work and plenary discussion: Developing a regionally-based strategy for enhancing participation in INFOSAN across Asia

Participants were organized into four groups to review the draft strategy and provide feedback to further work on the document.

Each group provided a summary of comments on the draft and the Secretariat, with Manabu Sumi, Director, Office of International Food Safety, Ministry of Health, Labour and Welfare, Japan, revised the strategy to include these comments.



2.5 Session five: Food safety emergency identification, assessment, management and communication

2.5.1 Introduction to using risk analysis in emergencies and food safety emergency resources from the FAO and WHO



Caroline Merten

C. Merten presented the series of guidance documents drawn up by the FAO and WHO to facilitate at national levels the development of the different elements of an FSER system. It includes the establishment of national food safety emergency response plans, the development of national food recall systems and the application of risk analysis principles and procedures during food safety emergencies¹.

She introduced the participants to the principles of risk analysis in a food safety emergency situation.

¹ FAO/WHO framework for developing national food safety emergency response plans:

http://www.who.int/foodsafety/publications/fs_management/emergency_response/en/index.html

FAO/WHO guide for application of risk analysis principles and procedures during food safety emergencies:

http://www.who.int/foodsafety/publications/fs_management/risk_analysis/en/index.html

FAO/WHO guide for developing and improving national food recall systems

http://www.who.int/foodsafety/publications/fs_management/recall/en/index.html

There was a consensus that risk analysis during emergencies follows the same principles as a risk analysis conducted in a nonemergency situation but that the factors that affect the decision-making are different. These special conditions include time constraint, data gaps and stakeholder pressure. The importance of preparedness to address these special conditions at each single step during the risk analysis process was emphasized.

2.5.2 Food safety emergency response in the Republic of Korea

Mun-Gi Sohn, Director General, Food Safety Bureau, KFDA, provided an overview of the food safety emergency response system in the Republic of Korea. M. Sohn gave a summary of the food control system of the Republic of Korea and the history of the KFDA. He noted that the Republic of Korea, a country with a population of 49 million, has 1 million food establishments. The management of food safety is undertaken by central government authorities, including the Ministry of Health and Welfare, the KFDA (including six regional offices) and the Ministry of Food, Agriculture, Forestry and Fisheries (for meat and poultry products). There are more than 3000 food inspectors across the 16 municipal provinces.



Mun-Gi Sohn

The preparedness component of the FSER system includes an elevated level of daily action to ensure a prompt response, extensive information collection and analysis to identify possible food safety incidents (including daily monitoring and dissemination of relevant global information), data and pattern analysis on global information to identify future problems and pre-emptive measures and education and training for FSERs.

There was an explanation of a series of technological measures to facilitate faster food recalls and early warning, including an automated system to block the sale of recalled food at affiliated stores, mobile phone applications for consumers to use to identify food products of concern and a system to provide schools and local government and education authorities with information on early warning information related to schools, retailers and violation records.

An overview of the e-Food Safety Control System also was provided. This system facilitates national monitoring and surveillance, including national surveillance (i.e. consumer complaints, sampling information), onsite inspection information and early warning information.

Risk communication activities include press releases, daily newspapers, the KFDA website and blogs, food safety classes for children and consumers, educational publications, television advertisements and short message service (SMS) and applications for mobile phones.

H. Lee presented the role of information analysis in timely and accurate decision-making. The role of the Risk Information Division of the KFDA is to collect and analyse global food safety information in real time and rapidly share this information with relevant government agencies so that they can make appropriate decisions.

The division has just over 20 people designated to undertake this task. The division works with NFSI, contact persons overseas (known as overseas monitoring reporters), Korean embassies, seconded officers to other agencies and an advisory committee to gather information. The division then undertakes an accuracy

review, classifies the information, identifies priority issues, undertakes a rapid information assessment and then drafts key messages outlining public health concerns. This information is then rapidly distributed to relevant divisions and agencies and saved to a risk information database. Databases on imported food, food standards, toxicity and raw materials and information analysis are used in the information analysis process.

Eun-Sook Moon, President, NFSI, provided an overview of the work by NFSI in support of the emergency response activities by the KFDA. NFSI implements a food safety information-gathering and dissemination system. It includes monitoring information from governments, laboratories, nongovernmental organizations and media from 48 countries in seven languages on a continuing basis. The type of food safety information gathered includes food product noncompliance and recalls, incidents, regulation changes and consumer complaints. This information is sorted



Eun-Sook Moon

and stored in a database to assist in the analysis and dissemination of the information, including to the KFDA, for assessment and management.

2.5.3 Event identification and verification

A. Reilly explained that the process of event identification and verification is critical to determine if an event is an issue of concern and what level of action is required. He shared his experiences in this process and clarified that these decisions usually are made with limited time and under pressure from internal and external sources such as politicians, media, industry, consumers, etc. The tools to determine the presence of a food safety emergency include experience, developed systems and human networks.

Through experience, one can consider the validity of where the information is coming from, if it is scientifically based, if the information requires further verification, the likelihood of human injury and also if key elements of information are missing.

The presence of local, regional and global networks is another key component to effectively identify and verify events. Local systems should be developed to collect information from the site of the event, local hospitals and clinics, the media, national surveillance and local doctors.

Information also can be acquired from other countries to identify and verify events through INFOSAN, at a regional level through networks like RASFF and through other food agency networks.

Human networks are a vital component in the process of event identification and verification. Without such contacts, it is difficult to access information until it is in the public domain. Networks, including experts in various fields, also assist in acquiring quality information early and also in understanding the information.

Using multiple sources to verify information assists with improving effectiveness and timeliness.

The dioxin contamination of Irish pork, which occurred in 2008, was given as an example to illustrate identification and verification processes.

2.5.4 Undertaking a chemical risk assessment and management in an urgent situation

Melanie Fisher, Deputy Chief Executive Officer, FSANZ, provided an overview of risk assessment and risk management procedures during an urgent food safety situation involving chemical contamination.

Using a previous situation in which sibutramine was being used in weight loss products, M. Fisher explained the key steps of preparedness, event identification, verification and activation, risk assessment, risk management and risk communication.

A National Food Incident Response Protocol² is in place in Australia and is regularly reviewed and improved following a debriefing process after each incident. Pre-developed and agreed standard operating procedures, templates, decision trees and standard reporting formats assist with information-gathering and initial risk assessment and management procedures.

The risk assessment steps include the formulation of risk assessment questions, the preparation of a draft emergency risk profile, the consultation and review and finalization of a risk profile, consideration of possible extensive risk assessment, revision of the profile as additional data becomes available and documentation of any uncertainties.

The risk management steps were explained and included the identification of risk categories and the identification of potential risk management options, including communication needs and the identification of implementation approaches. When selecting risk management options, several factors are considered, including the capacity to implement the risk management option; any uncertainties; public expectations; legal concerns; industry considerations and international considerations (including the need to inform INFOSAN).

2.5.5 Undertaking a microbiological risk assessment and management in an urgent situation


H. Toyofuku provided an overview of risk assessment and risk management procedures during an urgent food safety situation involving microbiological contamination. In Japan, the Food Sanitation Commission is responsible for risk assessment. Risk management is undertaken by the Ministry of Health, Labour and Welfare and the Ministry of Agriculture, Forestry and Fisheries.

Using the 2011 E. coli O111 outbreak in Toyama Prefecture, Japan, as a case study, H. Toyofuku explained that a risk assessment was requested in order to develop microbiological and processing criteria. Based on the risk assessment, an Acceptable Level of Protection (ALOP), a Food Safety Objective (FSO), a Performance Objective (PO), Performance Criteria (PC) and Microbiological Criteria (MC) were established.

2.5.6 Group work and plenary discussion: Undertaking risk assessments and management in urgent situations



² <http://www.health.gov.au/internet/main/publishing.nsf/Content/foodsecretariat-isc-food.htm>



To give a taste of the challenges of having to deal with food safety emergencies, the participants were split into groups and were given case studies of possible food safety event scenarios (see the scenarios in Annex 3). The scenarios covered both chemical- and biological-based events. The participants were asked to analyse an event, assemble a risk assessment team with the appropriate membership, develop a rapid risk assessment and identify appropriate management decisions.

These scenarios allowed the participants to experience the difficulties posed by having imperfect information and data and having to make occasionally difficult decisions to minimize the impact of a particular event. The exercise illustrated the need for and the importance of preparedness. Building systems and procedures and gaining experiences during peacetime is viewed as crucial in the efficient management of food safety events during emergencies.

2.5.7 Risk communication in urgent situations

Samuel Yeung, Principle Medical Officer, Centre for Food Safety, Food and Environmental Hygiene Department, provided an overview of risk communication, starting with the Codex definition for risk communication.

He emphasized the importance of building partnerships with various sectors to be used for both routine and emergency communication. In Hong Kong (China), a Trade Consultation Forum was established to collect views and feedback from food businesses on risk management options, risk assessment findings and risk communication programmes. Similarly, a Consumer Liaison Group also was established to understand the public's knowledge, beliefs and risk perception and to pretest and tailor risk communication messages.

S. Yeung noted that given that trust is established through transparency, it is important that regular committee or stakeholder meetings are held, risk assessment reports are readily accessible, findings and recommendations are presented in different forms to assist with improved understanding and a close working relationship with the media is created.

He also explained that different communication mechanisms have been developed, including Food Alerts and e-news for publicity and food safety education materials. In addition, a Rapid Alert System (RAS) for food safety incidents with a possible local impact is in place to provide information and advice to food businesses. Food Incident Post is another tool that alerts individuals who might be in possession of affected products through e-trade, travel or other personal reasons. Other publications, such as Food Safety Focus, GM Food Newsletter and Food Safety Express, are also produced.

The importance of communicating clearly and with compassion also was stressed, including the use of concise and easily understood language.

Lastly, S. Yeung explained the risk communication activities associated with the 2008 melamine incident and the lessons learnt, including the importance of timely and updated information; expressing sympathy early; the consistency of messages supported by science; credible and transparent information; and collaboration with stakeholders.

He also noted that being able to communicate openly and efficiently during an emergency was recognized as a key element of a well-managed event. Building consumer trust with respect to food safety is something that often takes many years of good communication practices. If the trust is there, it will facilitate communication with the public and assist the work of a national food safety agency during the management of an event.

2.5.8 Managing communication to INFOSAN and IHR (2005)

A. Reilly provided a summary of how Ireland manages communication to INFOSAN and IHR (2005). A. Reilly introduced the IHR (2005) and clarified that food safety events with international implications are covered under the IHR (2005). There has been a paradigm shift from the previous IHR (1969) to the new IHR (2005),

which were formulated in 2005 and adopted in 2007. The paradigm shift has included a move from control at borders to containment at the source, from a list of specific diseases to all public health threats and from preset measures to adapted responses.

In Ireland, the INFOSAN Emergency Contact is based in the Food Safety Authority of Ireland and the IHR (2005) NFP is based in the Health Protection Surveillance Centre. A memorandum of understanding is in place to facilitate collaboration and avoid overlaps and duplication between the two agencies. The memorandum of understanding includes information on the role of each agency, contact persons, agreed areas of collaboration, details on when and how to share information and an annual meeting to review and evaluate the processes covered by the memorandum.

A. Reilly emphasized the importance of science-based risk assessment, systems for surveillance and traceability, agreed response structures, quality information and having food safety officials around the world who can be contacted in times of crisis as important aspects in being prepared for an emergency. The memorandum of understanding has been included as a sample in the new INFOSAN Members' Guide (with specific national details removed). Participants were encouraged to consider adopting a similar approach in their countries and to also implement the memorandum of understanding with common training for staff and to share and understand the crisis management plans in place in the involved agencies.

A. Reilly discussed the role of social media during food safety emergencies. The power of social media allows for millions of people to be reached in seconds. This can be positive in terms of ensuring that people are aware of an issue, but it also can be negative because any message sent could be from a nonscientific source and spread incorrect information. Food safety authorities are now challenged to upgrade their risk communication processes and recognize the need to manage a food safety crisis and the media simultaneously.

2.6 Session six: Agreeing on a regionally-agreed strategy for enhancing participation in INFOSAN in Asia

H. Lee and A. Reilly presented the revised strategy, which was updated to include the findings of the group work undertaken in Session 4. The revised strategy was reviewed paragraph by paragraph to gain agreement on the content. The final strategy is attached as Annex 4.

2.7 Session seven: Discussion on regional food safety strategies

A. Reilly facilitated a session on reviewing the current status of national food control systems and challenges following the six themes of the Western Pacific Regional Food Safety Strategy 2011–2015, including:

- Improved Food Control and Coordination Throughout the Food Chain Continuum and Adequate Funding;
- Risk-based Regulatory Frameworks;
- Improved Availability of Food Safety Data to Better Guide Policy and Risk Analysis;
- Inspections Services;
- Food Safety Training and Education; and
- Capacity to Detect, Assess and Manage Food Safety Incidents and Emergencies

A summary of the Western Pacific Regional Office country information will be available at: www.wpro.who.int/entity/foodsafety/en/.



2.8 Session eight: Future directions with links to INFOSAN

2.8.1 Whole genome sequencing



Jørgen Schlundt

Jørgen Schlundt, Director, National Food Institute, Denmark, provided a pre-recorded presentation. He noted that it is important to apply a “farm-to-table” approach in order to mitigate risks from hazards in food. Actions should be anchored in a risk analysis framework with risk assessments based on relevant scientific data. Such data differ significantly from traditional food control data, highlighting the need for very specific surveillance and scientific systems that can function in real-time scenarios. When responding to an acute food safety risk involving a microbiological hazard, current traditional methods for identification require the isolation of a pure culture followed by typing methods which can take up to several weeks and require different expertise and systems, depending on the microorganism.

Looking to the future, it could be possible to reduce the time for microbiological analysis and interpretation to a few hours by using whole genome sequencing as a typing method. The same methodology could be applied for all microorganisms, including viruses, parasites, bacteria, etc., and for all microbiological samples of human, animal or environmental origin. Different systems would not be required across different sectors because they inherently would be the same. This could result in the transfer of knowledge across the different sectors and the introduction of a system that worked in near real time. Epidemiological investigations into the spread of different infectious diseases could be monitored globally if you had one major database or several linked databases that used this typing method.

The introduction of one global system would enable two major lines of action:

- (1) Simple identification of all microorganisms in clinical (or other) settings, making existing systems redundant and enabling a reduction in total time for characterization of the typical time needed to obtain the original isolate.
- (2) A single database of relevant microbiological strains globally, enabling real time global surveillance of disease and pathogen developments.

Research within this field is continuing among experts in bioinformatics and will contribute to the shift from traditional microbiological characterization systems to systems using bioinformatics in which genetic characteristics can be viewed in more holistic ways. The shift also likely will create links among traditionally separate research areas, including clinical microbiology, laboratory science, epidemiology, risk assessment, systemic biology, food microbiology, etc.

In order to ensure the success of such a system, it must be web-based and accessible, users need to be convinced of its merit and the added value provided, support and development must be global and plans for long-term sustainability need to be implemented. Each of these present challenges that must be met and overcome, and building a global partnership to do so will be the only way forward. Various international meetings scheduled over the next year will continue discussions in this regard.

A prototype for such a system is being developed in Denmark. Other systems using similar technology for storing and exchanging large amounts of data exist and can provide models as the development of this system continues. Creating one global system is important in order to avoid creating multiple smaller systems that are not compatible with one another.

This endeavour has far-reaching implications for the advancement of infectious disease diagnostics and surveillance, food safety systems and environmental contaminant characterization around the globe.

2.8.2 Horizon scanning

A. Reilly presented an overview on horizon scanning. Anticipating emerging risks to food safety through horizon scanning is a critical component for preventing serious food safety emergencies and responding to such events if they do occur. Within the European Union (EU), the European Food Safety Authority (EFSA) undertakes actions to identify and characterize emerging risks.

An emerging risk can be defined as any one of the following: A new hazard with a significant exposure; a known hazard with a new significant exposure; and a known hazard plus increased susceptibility plus significant exposure. It is important to differentiate between activities involved with the identification of emerging risks and the provision of early warning because these two activities require completely separate systems.

Identifying emerging risks means making active predictions for various scenarios that might happen and their potential consequences. In contrast, early warning systems provide information about events that have occurred or are impending. Such early warning systems for food safety include INFOSAN as well as RASFF.

Identifying emerging risks to food safety is challenging because of the expansive range of threats to be considered (i.e. chemical, biological, animal health, plant health and genetically modified foods (GMO) issues), as well as the numerous drivers for emerging risks, which include:

- (1) climate change;
- (2) changing food consumption behaviour;
- (3) globalization of the food chain;
- (4) environmental contamination;
- (5) new technologies (i.e. nanotechnology in food processing, synthetic biology, bioenergy crops, novel food ingredients, plasticizers, etc.); and
- (6) growing global populations and changing demographics.

Old systems may not be efficient or effective for the identification of emerging risks and additional work is needed to adapt new solutions. Collecting data is an important first step, but most important is to ensure that the data are of high quality if they are to inform effectively about horizon scanning activities.

In summary, emerging risks to food safety are a real and present danger and constant active surveillance is required in addition to effective data evaluation systems and close cooperation between stakeholders. INFOSAN can play a key role in connecting the various food safety authorities conducting horizon scanning. By sharing horizon scanning information proactively, it can provide an opportunity for food safety risk assessors and risk managers to conduct their investigative work and make decisions earlier, allowing for preventative measures to be implemented earlier with the goal of protecting food safety and public health.

2.8.3 FOSCOLLAB

Tim Corrigan, Project Officer, Department of Food Safety and Zoonoses, WHO, had a prerecorded presentation and was available for questions via telephone. He outlined that one of the key requirements for ensuring global food safety is the sharing of data from food monitoring and other sources to better inform the development of preventive control strategies and risk-based approaches to food safety.





Tim Corrigan

FOSCOLLAB, a new online platform to support this need, is under development. The platform will extract and present globally available food safety data and information into a single, interactive and user-friendly access point online. It is being designed with food safety professionals in mind to be the first place to go when having to assess a risk or make a decision and will bring together data and information from multiple sectors.

The data and information linked together will come from established and reliable sources from WHO and has the potential to expand to other sources from agencies such as the FAO, the World Organisation for Animal Health (OIE) and national governments. Linked databases initially will include Global Environment Monitoring System—Food Contamination Monitoring and Assessment Programme (GEMS/Food); the Joint FAO/WHO Expert Committee on Food Additives (JECFA) Evaluations database; the Joint FAO/WHO Meeting on Pesticide Residues (JMPR) pesticide evaluations inventory; INFOSAN; and WHO Collaborating Centres Database & Portal.

The FOSCOLLAB user interface, or dashboard, can be customized to suit individual users' needs as well as provide facilitated access to the source data in alternate formats (.csv, .pdf, etc.). Users also will be encouraged to visit the individual source programmes for further details. The software that will be used by FOSCOLLAB is a business intelligence (BI) software developed by InetSoft. WHO uses it on other in-house initiatives and has experts trained to implement IT solutions through this BI platform.

Unlike traditional BI platforms, it does not require specialized BI skills or consultants to implement or use, meaning that end users can dynamically assemble and transform data easily. The platform is highly visual and enables information to be displayed interactively, with the possibility of drilling down and exporting reports in other data formats.

Because FOSCOLLAB is only as strong as the sources that it draws from, INFOSAN members are encouraged to ensure that government agencies from their respective countries are already contributing to the source databases (i.e. GEMS, INFOSAN, etc.). Although use of FOSCOLLAB is not exclusive to INFOSAN members, special considerations have been made during the development of the INFOSAN Community Website to facilitate integration and compatibility. Dashboards within FOSCOLLAB can be designed exclusively for INFOSAN members directly within the INFOSAN Community Website. INFOSAN members are a key user group, both as data providers and data users.

As the platform is still under development, input and suggestions are welcomed and encouraged from INFOSAN members, who can do so using the discussion forum on the INFOSAN Community Website.

3. Conclusions

The main conclusions of the meeting were as follows:

3.1 General

INFOSAN is a critical network in the modern world of international travel and food trade. It is also recognized as an important mechanism to share information to strengthen national food control systems.

The launch of the new INFOSAN Community Website and the availability of a new Members' Guide will facilitate increased participation in INFOSAN, including improved food safety information-sharing.

There have been several initiatives undertaken at the country level to strengthen in-country networks and sharing these activities has been a useful process for countries. Several suggestions to improve INFOSAN generally were integrated into the development of the regionally-based Strategy (Annex 4).

Following the presentations and discussions, it was recommended that:

(1) Countries and areas may want to review national membership to ensure up-to-date representation from national agencies involved in food control from farm to table and check that members are registered on the Community Website.

(2) Countries and areas may want to hold a national INFOSAN meeting (sharing the information from this meeting and the Members' Guide) and formulate an action plan, including the development of standard operating procedures to strengthen participation in INFOSAN. The meeting should involve the IHR (2005) NFP to ensure collaboration between IHR (2005) and INFOSAN and include discussing the development of a written agreement on the interface between these mechanisms at a national level. This meeting also needs to discuss how to raise the profile of INFOSAN (or be used as one possible means of doing this).

(3) All partners may consider the development of mentoring or buddy systems to enable improved understanding of INFOSAN (both for the country or area and the Secretariat).

3.2 Linking INFOSAN with other networks

Given the many food safety-related networks, it is important that INFOSAN continues to establish agreements with other networks to avoid duplication and concentrate on building synergies.

The interface between INFOSAN and IHR (2005) at national, regional and international levels needs to be better developed and communicated.

Given the similar objectives of Asia FoodNet and INFOSAN, the former should be integrated into the INFOSAN membership.

Following the presentations and discussions, it was recommended that:

(1) The INFOSAN Secretariat continues to formulate agreements with other food safety networks to prevent duplication and develop synergies among the networks.

(2) The INFOSAN Secretariat works to strengthen information in the Members' Guide on the interface between INFOSAN and the IHR (2005) and use various means to communicate and disseminate this information.

(3) The Western Pacific Regional Office, with the INFOSAN Secretariat and partners, integrates Asia FoodNet into the INFOSAN membership.

(4) The INFOSAN and APEC FSIN Secretariats need to explore the possibility of establishing a group within the INFOSAN Community Website to host the activities of APEC FSIN.

3.3 Regional strategy for enhancing participation in INFOSAN across Asia

Sharing food safety information can be sensitive given the trade and social implications of food safety concerns, therefore improving the sharing of information on personal relationships among INFOSAN members across the region. These relationships are best developed by providing forums like this meeting, actively using the Community Website with functions that allow discussion and sharing of information and capacity-building within countries to build confidence within agencies on how to manage information and to also identify information. The regionally-based strategy on Enhancing INFOSAN in Asia reflects these critical issues. The countries and areas present in the meeting reviewed, strengthened and agreed to this strategy.

Following the presentations and discussions, it was recommended that:

(1) Annual forums on INFOSAN continue for countries and areas of Asia. The Republic of Korea agreed to host the 2013 meeting, with the aim of finding another country to continue this initiative in 2014.

(2) The countries and areas taking part in the meeting implement relevant components of the strategy on Enhancing INFOSAN in Asia and share progress made via the INFOSAN in Asia Group on the INFOSAN Community Website.

(3) The strategy on Enhancing INFOSAN in Asia is shared with countries and areas in the Asian region that were not at the meeting. The aim will be to determine if they agree to the strategy and if they wish to implement the relevant aspects.

(4) The INFOSAN Secretariat works to implement relevant sections of the strategy, including improving the "Groups" functions on the INFOSAN Community Website and strengthening requirements to better manage confidentiality in the Members' Guide.

(5) The Western Pacific Regional Office, with partners, is to draw up a list of experts available in the Asian region to assist in emergency and routine food safety issues. This should be undertaken in collaboration with the FAO/WHO Coordinating Committee for Asia (CCASIA) Regional Coordinator, if possible. Also to be considered is creating a scientific regional committee, using some of the identified experts and others, to assist with evaluating and managing regional food safety issues.

(6) Countries and areas are to review the possible topics for information-sharing on the INFOSAN in Asia Group on the secure site, add additional ideas, actively contribute information and identify any INFOSAN member who wishes to act as a "Regional Champion" to further one of the topic areas.

(7) The INFOSAN Secretariat is to share the experience of the meeting and the strategy development with other regions.

(8) The FAO and WHO are to explore the need and feasibility of establishing a group on the Community Website to discuss food consumption data collection.

3.4 Food safety emergency identification, assessment, management and communication

Effective identification, assessment, management and communication of food safety emergencies rely on

the development of response systems, effective information-sharing networks and the application of the risk analysis principles.

Countries that have built capacities to identify, assess, manage and communicate food safety emergencies are more likely to share this information with other countries and areas as they have information to share, have the confidence to understand the public health impact and required intervention and to manage communication challenges.

Following the presentations and discussions, it was recommended that:

(1) The Western Pacific Regional Office should partner with countries and other agencies to formulate a food safety emergency capacity development workplan for 2013 and to liaise with the KFDA about potential funding to assist with this work from the KOICA.

(2) The Western Pacific Regional Office should work with interested countries to create a list of accredited laboratories in the region.

(3) The INFOSAN Secretariat should initiate teleconferences during emergencies with affected countries and areas to facilitate improved information exchange and reduce language challenges.

3.5 Regional food safety strategies

National food control systems of countries and areas of Asia are at various stages of development. The sharing of information on the current stage of development, new initiatives under way and future plans was a useful process.

Following the presentations and discussions, it was recommended that:

(1) The Western Pacific Regional Office, with partners, should facilitate future meetings for information exchanges on national food control development.

3.6 Future directions with links to INFOSAN

Sharing information on new food safety initiatives is important for food safety officials.

Following the presentations and discussions, it was recommended that:

(1) The INFOSAN Secretariat, in partnership with experts, continues to update the membership of new food safety initiatives.







4. Annex 1

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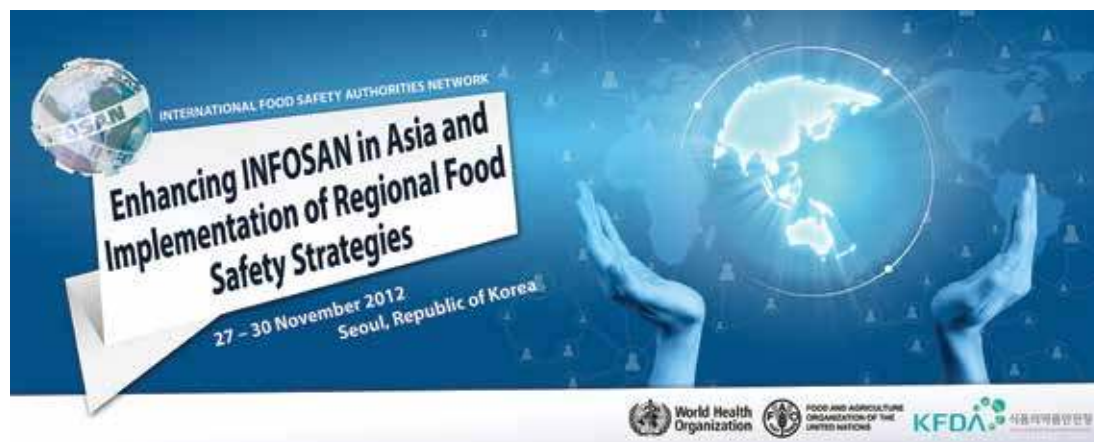
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5. Annex 2

PROGRAMME OF ACTIVITIES



Tuesday, 27 November 2012

08:15-08:30	Registration
Session one: Opening ceremony	
08:30-08:45	KFDA opening remarks (H.Lee, KFDA commissioner) FAO/WHO opening remarks (A.Tritscher via video link)
08:45-09:00	Photo
09:00-09:40	In memoriam of Catherine Cruz Round of Introductions (all) Objectives of meeting (J.Bishop)
09:40-10:00	Break
Session two: Current status of INFOSAN (facilitated by J.Bishop)	
10:00-10:30	Overview of INFOSAN (P. Ben Embarek)
10:30-12:15	INFOSAN at a country level (all countries)
12:15-13:00	Lunch
13:00-13:30	INFOSAN at a country level (continued) (all countries)
13:30-14:00	Group discussion- summary of current situation, sharing best practices, and identifying improvements needed (including working tea break)
14:00-14:30	New Members Guide (P. Ben Embarek and C.Savelli)
14:30-15:00	Use of the INFOSAN community website (C.Savelli)
15:00-16:00	Hands-on use of the INFOSAN community website (all participants – please bring your laptops)
16:00-16:30	Group discussion on improving the use of the INFOSAN community website
18:00	Welcome dinner



Wednesday, 28 November 2012

Session three: Linking INFOSAN with other networks (facilitated by P. Ben Embarek)	
08:30-09:10	Interaction between INFOSAN and other initiatives (A. Reilly)
09:10-09:40	Integrating Asia FoodNet into a regional based Strategy for enhancing participation in INFOSAN in Asia (H. Toyofuku)
09:40-10:00	Plenary discussion
10:00-10:30	Break
Session four: Developing a regionally agreed strategy for enhancing participation in INFOSAN across Asia (facilitated by A. Reilly)	
10:30-10:50	Regional information sharing among INFOSAN member states in Asia: current status, challenges and the way forward (H. Lee)
10:50-11:10	Practical suggestions for enhancing exchange of information among INFOSAN members in Asia (C. Lee)
11:10-11:30	Summary of feedback from INFOSAN members (J. Bae)
11:30-12:00	Overview of draft Strategy (J. Bishop)
12:00-12:10	Introduction to group work (A. Reilly)
12:10-13:00	Lunch
13:00-14:30	Group work: Developing a regionally agreed strategy for enhancing participation in INFOSAN across Asia.
14:30-15:30	Plenary discussion: Developing a regionally agreed strategy for enhancing participation in INFOSAN across Asia and agreed next step
Session five: Food safety emergency identification, assessment, management and communication (facilitated by C.Merten and P. Ben Embarek)	
15:30-15:45	Introduction to using risk analysis in emergencies and food safety emergency resources from FAO and WHO (C. Merten)
15:45-17:15	Food safety emergency response in Republic of Korea: <ul style="list-style-type: none"> • Food safety emergency response system in Republic of Korea (M. Sohn, 40mins) • Decision-making support based on timely and accurate information analysis (H. Lee, 25mins) • Worldwide real-time food safety information monitoring, collection, and sharing in support of KFDA (E. Moon, 25mins)



Thursday, 29 November 2012

Session five: Food safety emergency identification, assessment, management and communication (facilitated by C. Merten and P. Ben Embarek) (continued)

08:00-08:30	Event identification and verification (A. Reilly)
08:30-09:30	Undertaking a chemical risk assessment and management in an urgent situation (M. Fisher)
09:30-10:00	Break
10:00-11:00	Undertaking a microbiological risk assessment and management in an urgent situation (H. Toyofuku)
11:00-11:10	Introduction to group work (C. Merten)
11:10-12:00	Group work: Undertaking risk assessments and management in urgent situations
12:00-13:00	Working lunch – lunch box provided (Group work continued: Undertaking risk assessments and management in urgent situations)
13:00-13:30	Plenary: Undertaking risk assessments and management in urgent situations
13:30-14:00	Risk communication in urgent situations (S. Yeung)
14:00-14:30	Plenary discussion on the current challenges in implementing risk communication in urgent situations (including working tea break)
14:30-15:00	Managing communication to INFOSAN and IHR (A. Reilly)
15:00-15:30	Plenary discussion on the interface between INFOSAN and IHR and ways forward
15:30-18:30	Group excursion (3hrs)

Friday, 30 November 2012

Session six: Agreeing on a regionally agreed strategy for enhancing participation in INFOSAN in Asia (facilitated by H. Lee and A. Reilly)

08:30-10:30	Review and discussion the revised strategy for enhancing participation in INFOSAN across Asia and agreed next steps
10:30-11:00	Break

Session seven: Discussion on regional food safety strategies (facilitated by J. Bishop and A. Reilly and P. Ben Embarek)

11:00-12:30	Review of Western Pacific Regional Strategy 2011-2015 <ul style="list-style-type: none"> • Current status of countries • Agreement of next years priorities
12:30-13:10	Lunch
13:10-14:30	Review of Western Pacific Regional Strategy 2011-2015 (continued) <ul style="list-style-type: none"> • Current status of countries • Agreement of next years priorities

Session eight: Future directions with links to INFOSAN (facilitated by C. Savelli)

14:30-15:00	Whole genome sequencing (J. Schlundt via video)
15:00-15:30	Horizon scanning (A. Reilly)
15:30-16:00	FOSCOLLAB (T. Corrigan via video)



6. Annex 3

Undertaking risk assessment and management in urgent situations

The scenarios provided to the 4 working groups include:

- 1) An unknown illness which was then identified as clenbuterol poisoning associated with pig liver
- 2) Mevinphos in rice
- 3) *Listeria monocytogenes* in Smoked Chicken
- 4) *Clostridium botulinum* toxin in imported canned olives

The following worksheet provides prompts for the key information points and may be used as a checklist or template for conducting risk assessment and guiding risk management decision making in food safety events, incidents or emergency situations. Regulators may incorporate this worksheet into, or use it as a basis for, operational procedures. This worksheet was utilised by the participants to assess and manage the scenarios provided.

The full scenarios and completed worksheets are available on the INFOSAN Community Website.

Risk Assessment¹ and Risk Management Worksheet

(Interim and incomplete in nature)

Date Notified: _____

Incident No: [INSERT NUMBER]	
[NAME OF INCIDENT/EMERGENCY]	
Contributors:	Time/Date Meeting: [INSERT DATE] Version:
Information and background available:	
Hazard identification - the identification of known or potential health effects associated with a particular agent	
1. Details of Hazard <input type="checkbox"/> Microbiological contamination <input type="checkbox"/> Chemical contamination <input type="checkbox"/> Foreign matter <input type="checkbox"/> Undeclared allergen <input type="checkbox"/> Labelling incorrect <input type="checkbox"/> Other Is it a known hazard or an emerging hazard?	<i>Provide specific details of the microbiological, chemical or physical agent of concern</i>

¹ Note: This risk assessment should not be regarded as setting a precedent or used as a basis for any other decision making outside the current incident or for later in the same incident if further information makes previous decisions obsolete or inappropriate.

<p>2. Product Information Food Type(s)/Brand(s)/Product Name(s)? What batch(es) is suspected? Are batches before and after affected? Quantity of product Product size Use-by or best before date?</p>	
<p>3. Strength of association of hazard with product</p>	
<p>4. Consumer/Medical Reporting Have there been consumer complaints relating to this product? Any reports of illness?</p>	
<p>5. Expert Opinion Note experts consulted, and results of consultation</p>	
<p>Hazard Characterization: the qualitative and/or quantitative evaluation of the nature of the adverse health effects associated with biological, chemical and physical agents which may be present in food. For chemical agents, a dose-response assessment should be performed. For biological or physical agents, a dose-response assessment should be performed if the data are obtainable</p>	
<p>6. Dose-Response Information Are levels sufficient that acute effects are likely?</p>	
<p>7. Health Consequences Severity, immediate or long-range, reversible or irreversible?</p>	
<p>8. Expert Opinion Note experts consulted, and results of consultation</p>	
<p>Exposure Assessment: The qualitative and/or quantitative evaluation of the likely intake of biological, chemical, and physical agents via food as well as exposures from other sources if relevant</p>	
<p>9. Distribution Data Where is product sold? Has product entered the retail chain? Approximately how much product has been sold? Has product been imported/exported (if yes, where from/to)?</p>	
<p>10. Consumption Information How is this product commonly used (e.g eaten immediately, stored for a few days, stored for a long period of time in freezer/pantry)? How much of this product is eaten and how often? Is it Ready-To-Eat?</p>	
<p>11. Expert Opinion Note experts consulted, and results of consultation</p>	
<p>Risk Characterisation: The qualitative and/or quantitative estimation, including attendant uncertainties, of the probability of occurrence and severity of known or potential adverse health effects in a given population based on hazard identification, hazard characterization and exposure assessment</p>	
<p>12. Estimation of Risk</p>	
<p>13. Peer Review Note reviewer's name(s) and any comments</p>	

Risk Management: The process, distinct from risk assessment, of weighing policy alternatives, in consultation with all interested parties, considering risk assessment and other factors relevant for the health protection of consumers and for the promotion of fair trade practices, and, if needed, selecting appropriate prevention and control options

14. Risk Management Options	<i>List all options under consideration</i>
<p>15. Influencing factors This section should be used to record anything that influences the risk management decision. E.g. practicality, cost, societal values (such as risk adversity of the population), acceptability to business, trade implications, proportionality to risk</p>	
<p>16. International notification and reporting Consideration to the following criteria is given (two of the four must be met):</p> <ul style="list-style-type: none"> I. Is the public health impact of the event serious? II. Is the event unusual or unexpected? IV. Is there a significant risk of international spread? IV. Is there a significant risk of international travel or trade restrictions? 	<i>This process should be undertaken as information is gained with regard to the four criteria</i>
<p>Final risk management decision(s) and key reasons:</p>	



7. Annex 4 - Strategy for Enhancing INFOSAN in Asia

Foodborne disease and food contamination are significant public health issues. Member States aim to strengthen national food control systems to protect public health through the production and marketing of safe food. While the primary responsibility for producing safe food remains that of the food industry¹, national food control systems need to ensure that food businesses comply with the law and that the appropriate standards of food safety apply. In addition, the international distribution of food and global travel means that unsafe food can threaten global health security. Therefore, food safety must be addressed not only at the national level but also regionally and internationally through close collaboration and sharing of information among national food control and public health authorities.

The International Food Safety Authorities Network (INFOSAN), a joint Food and Agriculture Organization of the United Nations (FAO) and World Health Organization (WHO) initiative, aims to promote the rapid exchange of information during food safety-related events; share information on important food safety-related issues of global interest; promote partnership and collaboration among Member States; and help Member States strengthen their capacity to manage food safety risks.

In the Asia region, as in other regions of the world, there have been several food safety emergencies in which the value of INFOSAN was demonstrated. They include, in the past five years, pesticide-residue poisonings, melamine contamination of infant formula and related dairy products, Ebola Reston virus in pigs, excessively high levels of iodine in soy milk products and, most recently, radionuclear contamination of food and bis(2-ethylhexyl)phthalate (DEHP) from packaging material. The public health and economic costs of food safety crises can be significant and can damage national reputations and lead to a loss of consumer confidence.

The first global meeting of INFOSAN, in 2010, agreed to the development of regionally-based strategies for enhancing participation in INFOSAN. Such regional-based strategies will address common issues faced by INFOSAN members within a region with the goal of strengthening the network globally.

Enhancing INFOSAN in Asia² will:

- i) Strengthen the network through unprompted and timely reporting of food safety events of international concern in Asia and increased sharing of information relating to managing such events.
- ii) Facilitate the identification of food safety events of international concern through a food safety information exchange in Asia.
- iii) Facilitate national food control system development in Asia through the sharing of information, experiences and best practices among Member States.
- iv) Improve the capacity of members to better fulfil their roles and responsibilities in the network.

The following strategy outlines four themes to achieve the above through regionally- based, coordinated and collaborative action:

Theme 1: INFOSAN Community Development

Theme 2: Capacity-Building and Education

Theme 3: Responding Effectively to Food Safety Emergencies

Theme 4: Support to Enhance the Global INFOSAN Network

This broad strategy will contribute to ensuring that all food safety events of international importance are identified and acted upon. It also will demonstrate the improved use of the network by a substantial increase in the

¹ "Food industry" includes all food businesses throughout the food chain continuum, from farm to table.

² For the purpose of this strategy, the Member States of Asia include Australia, Brunei Darussalam, Cambodia, China, Indonesia, Japan, the Lao People's Democratic Republic, Malaysia, Mongolia, Myanmar, the Philippines, the Republic of Korea, Thailand and Viet Nam.

exchange of information on relevant food safety events and assist members to cooperate and collaborate in addressing food safety incidents.

The strategy also will help members gain a full understanding of their roles and responsibilities under the International Health Regulations (IHR) (2005) and INFOSAN. In addition, it will enable a regional exchange of experience and collaborative solutions to respond to national outbreaks as well as support for the prevention of sporadic foodborne diseases.

The themes were developed in addition to the roles and responsibilities discussed in the INFOSAN Members' Guide and actions outlined in the Western Pacific Regional Food Safety Strategy (2011–2015).

Theme 1: INFOSAN Community Development

The key aspect of INFOSAN is food safety information exchange on emergency as well as nonurgent issues among national food safety authorities at national, regional and international levels. To date, INFOSAN communication on nonurgent issues has been led by the INFOSAN Secretariat focusing mainly on global issues and not specifically on those issues of particular relevance to Asian Member States. This kind of targeted communication is also limited by resources at the Secretariat. Therefore, it is recognized that INFOSAN members need to be empowered to communicate directly with other members without necessarily relying on the Secretariat. This strengthening of the INFOSAN community will facilitate an increase of information exchange that meets members' needs. Strengthening the network also will encourage multisectoral working in Member States between the agrifood sector and national IHR focal points.

The following actions can be undertaken across the region to build a stronger INFOSAN community among the Member States of Asia:

- To facilitate coordinated management by multiple agencies of a national food control system, all national authorities should be involved in INFOSAN through the nomination of one focal point per agency, as appropriate to the situation in the Member State. This national network of INFOSAN members should be recognized and empowered by their national governments to undertake their terms of reference as defined by the INFOSAN Members' Guide. Coordination of these INFOSAN focal points and the INFOSAN emergency contact point at a national level can be facilitated through using existing coordination mechanisms, regular meetings, agreed procedures for information dissemination, a rapid coordinated response to emergency issues and through the establishment of online groups using the INFOSAN community website.
- The components of risk analysis should be shared so that relevant information can be used by many Member States since many of them may be working on the same food safety issue at the same time. This would include the particularly challenging aspect of risk management in ensuring that social and cultural considerations are appropriately addressed without compromising public health goals.
- Nonurgent, regionally specific information should be shared through the group function of the INFOSAN community website with consideration for the following types of information to be shared at a regional vs. global level:
 - Foodborne disease surveillance information*
 - Food contamination data*
 - New food safety reports of regional interest
 - Documents associated with regulatory frameworks³ (current legislation and documents and also any proposed amendments)
 - Priority food hazard combinations of regional significance

³Regulatory framework includes: 1) Primary legislation that includes definitions, roles and responsibilities and also the principles of food control (i.e. Acts); 2) Food regulations and standards that define the rules that regulate the production, processing, storage, distribution, marketing, import-export and sale of food, reflecting food safety, noncommunicable diseases and micronutrient deficiency issues; and 3) Codes of Practice that assist food businesses in implementing the regulations and standards by identifying acceptable controls.



- National food safety incidents and emergencies that may be of interest to other INFOSAN members in Asia (including the associated risk analysis information)*
- Information and experiences in managing a specific issue and also identification of experts or outside resources
- Risk analysis resources and examples
- Discussion forums on topics of regional interest. Examples are included in Annex 1.

* Sharing this information during the investigation stage can help determine if the food safety event is relevant to more than one Member State. When it is determined that a food safety event may have international implications, then details always should be reported to the INFOSAN Secretariat.

- The regional food safety information exchange and discussion forums need to be supported by annual regional meetings to review, evaluate and improve on the information exchange processes and to assist in INFOSAN community development in Asia through stronger relationships. Alternative forums such as virtual meetings can be used between annual meetings. Additional tools such as guidance on the regional-specific information to be shared and associated “rules of engagement” will help this process.
- Noting the development of other food safety networks, INFOSAN will formulate agreements to ensure information-sharing among networks and to avoid duplication of functions. Such an approach can be led by the INFOSAN Secretariat but requires support by all INFOSAN members who are involved in other networks. This support can include facilitating information exchange among networks, assisting in educating members of other networks about the role of INFOSAN and involving other networks in INFOSAN meetings and vice versa.
- Information exchange relies on a moderator to facilitate discussions and determine best approaches for sharing information (i.e. templates, forms, etc.). Regional champions for different information areas should be agreed upon to undertake this critical function. A regional scientific committee, facilitated by the relevant regional offices of the FAO and WHO, can be established to help provide input and perform review functions to ensure that the information shared is science-based and reflects members’ needs. This may complement the work of the FAO/WHO Coordinating Committee for Asia (CCASIA), which is creating a database of scientific experts in the region.
- Language should not be a barrier to sharing information during a food safety emergency. If needed, WHO and the FAO can assist in the mobilization of resources for translation and facilitate teleconferences. However, countries need to continue to explore possible solutions to prevent language barriers and facilitate the sharing of nonurgent information.

Theme 2: Capacity-building and Education

The Asian region has a rich variety of diets and food cultures which are unique to the area. There is a strong tradition of regional trade in food commodities and similar food safety problems are faced by countries in the region. A sound understanding of the goal of INFOSAN, how it operates, the function of the INFOSAN Secretariat and the expectations its members need to fulfil, will increase the effectiveness of the network. It is also important for members to become comfortable using all of the functions available in the online environment of the new INFOSAN community website.

Additionally, to effectively participate in INFOSAN, Member States must have an ability to identify, assess, manage and communicate issues during a food safety event (discussed in Theme 3). These capacities are core capacities as defined by the IHR (2005) and are integral components of a national food control system. There are wider initiatives in place to assist in developing these capacities such as the FAO and WHO food safety capacity-building programmes and specific tools have been devised to assist Member States in managing food safety events⁴.

⁴ See <http://www.wpro.who.int/foodsafety/strategy/en/index5.html>

The actions outlined below can contribute to these wider initiatives to build such core capacities and aid national food control system development and increase members' understanding about INFOSAN so they can better participate:

- Information, tools and experiences on the various components of national food control system development, including IHR (2005) core capacities relating to food safety, can be shared through INFOSAN, as appropriate. INFOSAN members need to be aware of this and to inform their relevant agencies so that they are familiar with this mechanism that is available to assist in their work and to also be ready to contribute their expertise.
- An improved understanding of the function of INFOSAN, how it operates, the types of information exchanged, the roles and responsibilities of its members and its interface with the IHR (2005) should be facilitated through dissemination of the new INFOSAN Members' Guide, supplemented by educational activities using different media such as webinars and interactive training modules. Specific focused training initiatives on the criteria needed to report to the Secretariat and the use of the INFOSAN community website are also required.
- Authorize agreements to enable mentoring among countries to facilitate learning from each other. Member States can consider seconding INFOSAN members to the INFOSAN Secretariat to promote a better understanding of both global issues and those faced at the Member State level.

Theme 3: Responding Effectively to Food Safety Emergencies

The objective of a national food control system is to ensure that food business operators comply with the law and take primary responsibility for the safety of the food they produce. We have seen major food crises and emergencies in the past and are likely to see such events in the future. The scale of the emergency will depend on the severity of the illness, the extent of the distribution and/or volume of the contaminated food or the system's inability to effectively manage the situation. To limit the negative public health reaction and the economic and societal impacts of food safety emergencies, national governments across various sectors (i.e. health, agriculture, etc.) must be able to detect, assess, manage and communicate food safety emergencies in a coordinated way.

While we are working out a regional strategy, this does not change the reporting process to the INFOSAN Secretariat as described in the Members' Guide; food safety events identified at a regional level often can have global implications and require centralized coordination.

The following actions can be undertaken across the region to assist Member States in Asia to improve preparedness and to better respond to food safety emergencies through INFOSAN:

- Food safety issues with the potential to cause an emergency with regional or global implications should be identified through expert review, emerging risk identification and horizon-scanning exercises. Sharing information on foodborne disease surveillance, food contamination data and national food safety incidents and emergencies, which may be of interest to other INFOSAN Members in Asia (as discussed in Theme 1), also will assist with this.
- Regional and global resources that could be leveraged during a food safety emergency also should be identified (i.e. using laboratory resources within the region (including drawing up a list of accredited laboratories), establishing a regionally-accessible antitoxin stockpile, sharing risk assessments to promote science-based actions, sharing risk management and risk communication information and establishing a list of experts within the region on different specialized food safety issues, etc.).
- To ensure coordination between national IHR focal points and INFOSAN emergency contact points, agreements should be made to clarify respective roles and responsibilities during food safety emergencies. Similarly, coordination between IHR (2005) and INFOSAN within WHO should be strengthened.

- Strengthening INFOSAN processes at the national level by:
 - Developing standard operating procedures (SOPs) for reporting to INFOSAN during food safety emergencies and to actively engage all Member State collaborators as appropriate and to ensure rapid agreement nationally to communicate with INFOSAN.
 - Establishing a generic e-mail account for the INFOSAN emergency contact point that is always monitored by a rotation of people to ensure seamless coverage. (This concept should be part of a national food safety emergency response plan and not a stand-alone function for participation in INFOSAN.)
 - Advocate at a policy level the importance of Member States sharing information through INFOSAN in a timely and transparent manner.

- During an emergency situation, the INFOSAN Secretariat may consider convening a teleconference with the Member State or Member States concerned to discuss the situation and facilitate understanding and information-sharing.

Member States should share their experiences and tools created when undertaking the above actions.

Theme 4: Support to Enhance the Global INFOSAN Network

INFOSAN constantly is improving the way it operates and provides an enabling environment for its members. In this regard, members in Asia can play an important role in facilitating and championing some of these needed improvements and can help drive the operations of the network towards more efficient mechanisms. Some of the potential areas in which Member States of Asia could support the global network activities through their regional grouping and regional activities are described below:

Exploring the potential integration of public information from national authorities' websites into the INFOSAN community website. In particular, it should include information about outbreaks and recalls.

- Improved follow-up of events by reporting actions taken at national levels following the issuance of an INFOSAN Alert by Member State, regional and Secretariat levels. This also will help better shape future alerts and improve understanding if events included in alerts are appropriate and relevant in terms of national action.
- Monthly posting of a summary of recent INFOSAN activities in a newsletter or discussion forum. This would aim to help members get a better overview of what is happening in the network. A regional version can be drawn up for the Member States of Asia.
- The profile of INFOSAN could be raised in the media as a way of sharing the excellent work of the network. This also would assist in gaining high-level support among Member States for INFOSAN members' activities.
- Strengthen criteria about ensuring confidentiality in the Members' Guide.
- Raising the public and institutional profile of INFOSAN and the roles of its members also could help better integrate and promote the function of INFOSAN and its members in national agencies. This would include providing examples when INFOSAN has added value to the management of food safety events to protect consumer health by ensuring that unsafe food was removed from the market.
- Based on a template drawn up by the INFOSAN Secretariat in consultation with Member States, the Member States could be asked to post annual reports of their INFOSAN activities and status to help monitor and evaluate progress.
- Draw up a list of future INFOSAN initiatives and also features that could be integrated on the community

website. This list also could be used for resource mobilization.

- Members should consider and discuss potential additional features to be integrated onto the community website such as a chat function, integration of Short Message Service (SMS), etc. This will help prioritize which improvements should be made in the future.

Annex 1 – Examples of regional discussion forum topics

- a) Sharing system development resources such as Food Safety Emergency Response (FSER) Plans, Standard Operating Procedures and the arrangement of the national INFOSAN Emergency procedures in Member States.
- b) How to develop/utilize social media tools within INFOSAN (i.e. notifying Emergency Contact Points with Twitter, etc.)
- c) What are the barriers to reporting to INFOSAN without being prompted and have Member States solved these issues?
- d) What information would Members like to see posted on the INFOSAN Community Website?
- e) Sharing of food safety emergency scenarios for testing FSER Plans.
- f) Exploring options for engaging policy and decision makers to gain high-level support for INFOSAN.
- g) How countries can prevent port-shopping following-border rejection.
- h) Sharing information on strengthening risk communication systems, including developing relationships with industry and consumer groups.
- i) Management of the sale of food through the internet





The cover of the report features a teal background. At the top left, there is a small globe with 'INFOSAN' written on it. To its right, the text 'INTERNATIONAL FOOD SAFETY AUTHORITIES NETWORK' is written in a curved banner. The main title 'ACTION in Asia for a stronger INFOSAN' is prominently displayed in a white banner. Below the title, a pair of hands is shown holding a glowing globe. At the bottom, the logos of the World Health Organization and the Food and Agriculture Organization of the United Nations are displayed.

INTERNATIONAL FOOD SAFETY AUTHORITIES NETWORK

**ACTION in Asia
for a stronger INFOSAN**

 **World Health Organization**  **FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS**





INTERNATIONAL FOOD SAFETY AUTHORITIES NETWORK

The International Food Safety Authorities Network (INFOSAN), a joint Food and Agriculture Organization of the United Nations (FAO) and the World Health Organization (WHO) initiative, aims to promote the rapid exchange of information during food safety related events; share information on important food safety-related issues of global interest; promote partnership and collaboration among Member States; and help Member States strengthen their capacity to manage food safety risks.

The first global meeting of INFOSAN, in 2010, agreed to the development of regionally-based strategies for enhancing participation in INFOSAN. Such regional-based strategies will address common issues faced by INFOSAN members within a region with the goal of strengthening the network globally.

Countries in Asia acted on this recommendation and met in November 2012 to develop and agree on a Strategy to enhance INFOSAN in Asia.

During this meeting countries also strengthened INFOSAN by facilitating active participation in this network by the countries present through the development of in-country notification systems and risk analysis capacities for emergency situations. The meeting also discussed the implementation of regional food safety strategies, including the Western Pacific Food Safety Strategy 2011–2015, identified priorities and assessed countries' status against the defined indicators.



**World Health
Organization**



**FOOD AND AGRICULTURE
ORGANIZATION OF THE
UNITED NATIONS**

In collaboration with and support from the Korea Food and Drug Administration