



الاجتماع العالمي
الأول للإنفوسان
1 st GLOBAL MEETING
of **INFOSAN**

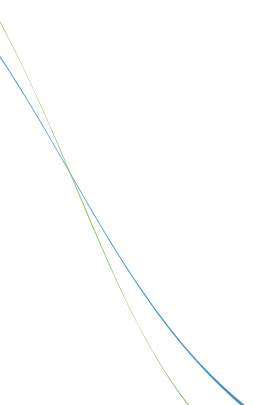
أبوظبي ١٤ - ١٦ ديسمبر ٢٠١٠
ABU DHABI 14-16 DEC 2010

REPORT OF THE FIRST GLOBAL MEETING OF THE INTERNATIONAL FOOD SAFETY AUTHORITIES NETWORK (INFOSAN), Abu Dhabi, UAE



World Health
Organization







الاجتماع العالمي
الأول للإنفوسان

1 st GLOBAL MEETING
of **INFOSAN**

أبوظبي ١٤ - ١٦ ديسمبر ٢٠١٠
ABU DHABI 14-16 DEC 2010

REPORT OF THE FIRST GLOBAL MEETING OF THE INTERNATIONAL FOOD SAFETY AUTHORITIES NETWORK (INFOSAN), Abu Dhabi, UAE



World Health
Organization



Report of the first global meeting of the International Food Safety Authorities Network (INFOSAN), Abu Dhabi, United Arab Emirates, 14–16 December 2010.

1. Food contamination - prevention and control. 2. Consumer product safety. 3. Food supply - standards. 4. Food analysis - standards. 5. International cooperation. I. World Health Organization. II. Food and Agriculture Organization of the United Nations.

ISBN 978 92 4 150210 8

(NLM classification: WA 701)

© FAO and WHO, 2011

All rights reserved. Reproduction and dissemination of material in this information product for educational or other non-commercial purposes are authorized without any prior written permission from the copyright holders provided the source is fully acknowledged. Reproduction of material in this information product for resale or other commercial purposes is prohibited without written permission of the copyright holders. Applications for such permission should be addressed to:

Chief, Electronic Publishing Policy and Support Branch
Communication Division
Food and Agriculture Organization of the United Nations (FAO)
Viale delle Terme di Caracalla
00153 Rome, Italy
E-mail: copyright@fao.org

or
WHO Press
World Health Organization
20 Avenue Appia
1211 Geneva 27, Switzerland
Fax +41 22 7914806

Requests for permission to reproduce or translate WHO publications – whether for sale or for noncommercial distribution – should be addressed to WHO Press through the WHO web site (http://www.who.int/about/licensing/copyright_form/en/index.html).

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations or of the World Health Organization concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO or WHO in preference to others of a similar nature that are not mentioned.

All reasonable precautions have been taken by the World Health Organization and the Food and Agriculture Organization of the United Nations to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either expressed or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization or the Food and Agriculture Organization of the United Nations be liable for damages arising from its use.

This report contains the collective views of an international group of experts and does not necessarily represent the decisions or the stated policy of FAO or of WHO.

Printed in Switzerland.





الاجتماع العالمي الأول للإنفوسان
1st GLOBAL MEETING OF INFOSAN
ADU DHAHRA 14-16 SEP 2010

Acknowledgements

On behalf of the Nutrition and Consumer Protection Division at the Food and Agriculture Organization of the United Nations (FAO) and the Department of Food Safety and Zoonoses at the World Health Organization (WHO), the Secretariat of the International Food Safety Authorities Network (INFOSAN) wishes to express its sincere thanks to all those who contributed to the success of this meeting.

In particular, we wish to express our deepest gratitude to His Excellency Rashid Mohamed Al Shariqi, Director General of the Abu Dhabi Food Control Authority (ADFCA), for sponsoring the meeting and for the generous hospitality offered during the meeting. Our gratitude is extended to the large team of staff at the ADFCA who worked tirelessly on various planning committees in preparation for the meeting. The names of these individuals have been included in Annex 1.

We also wish to express our thanks to all participants and presenters for their valuable technical input, contributions and collegiality during the meeting. Finally, many thanks to Mr Carmen Joseph Savelli for acting as Rapporteur during the meeting, and for compiling this report.

All photographs included are the copyright of the ADFCA.

Acronyms

ADFCA	Abu Dhabi Food Control Authority
BTSF	Better Training for Safer Food
CDC	Center for Disease Prevention and Control
CFIA	Canadian Food Inspection Agency
CNP	Central Notification Point
Codex	Codex Alimentarius Commission
EC	European Commission
ECDC	European Centre for Disease Control
EFSA	European Food Safety Authority
EMPRES	Emergency Prevention System
EON IMS	Emergency Operations Network Incident Management System
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FCC	Food Chain Crisis Management Framework
FDAAA	Food and Drug Administration Amendments Act of 2007
FOS	Department of Food Safety and Zoonoses
FSANZ	Food Standards Australia New Zealand
GLEWS	Global Early Warning System for Major Animal Diseases, including Zoonoses
HAV	Hepatitis A Virus
IHR	International Health Regulations
INFOSAN	International Food Safety Authorities Network
IT	Information Technology
JRC	The European Commission's Joint Research Centre
MOU	Memorandum of Understanding
OIE	World Organisation for Animal Health
RASFF	Rapid Alert System for Food and Feed
UAE	United Arab Emirates
UN	United Nations
US FDA	United States Food and Drug Administration
WHA	World Health Assembly
WHO	World Health Organization

Executive summary

Introduction

INFOSAN is a joint programme of the FAO and WHO, which aims to prevent the international spread of contaminated food and foodborne disease and strengthen food safety systems globally. In the past, most interactions among Network members have occurred electronically or by telephone, never in the context of a “face-to-face” meeting. In May 2010, the World Health Assembly (WHA) adopted a resolution on advancing food safety initiatives,¹ which re-enforced the importance of INFOSAN. It was recognized that in order to meet expectations, members of the Network would need to come together to discuss current approaches and existing mechanisms, as well as potential improvements and future needs of the Network. With the generous support of the ADFCA, the first global meeting of INFOSAN was held on 14–16 December 2010 in Abu Dhabi, United Arab Emirates (UAE).

Purpose

The overall purpose of the meeting was to provide a forum for members to discuss the requirements of the Network, to develop a plan to enhance INFOSAN and to strengthen members’ capacity to participate in the Network.

Keynote address

The keynote address was delivered by Professor Alan Reilly of the Food Safety Authority of Ireland. Participants were reminded that quality and safe food sustains life; however, quality information sustains food safety. Professor Reilly also emphasized the importance of INFOSAN members to share food safety information and draw from the experiences of others in order to make food safer for people everywhere.

Plenary sessions

During the plenary sessions, food safety experts from around the globe shared their expertise on a variety of food safety topics. Dr Andrea Ellis presented highlights of INFOSAN activities, recognizing that the Network has been utilized for a great many food safety events since its inception in 2004. During a facilitated discussion by Dr Masami Takeuchi, meeting participants provided feedback on the proposed content of the new INFOSAN Members’ Guide and the process for its revision. Dr Tobin Robinson discussed the development of a process for the identification of emerging risks in the food chain, including lessons learnt and requirements for international networking. During the subsequent discussion, it was noted that work being carried out by the European Food Safety Authority (EFSA) can be used as a model for Member States when implementing systems for risk analysis. Dr Andrea Ellis described the International Health Regulations (IHR 2005) and their role in food safety events. It was suggested that stronger links between INFOSAN Emergency Contact Points and IHR National Focal Points could enhance communication during such events. Dr Jean-Michel Poirson explained how the Emergency Prevention System (EMPRES) Food Safety Programme will complement and strengthen the existing INFOSAN event-identification activities through horizon-scanning and the analysis of low-key signals and indicators of food safety threats. Dr Karim Ben Jebara explained the aim of the Global Early Warning System for Major Animal Diseases, including Zoonoses (GLEWS) and that through collaboration, FAO, WHO and the World Organisation for Animal Health (OIE) are better able to cover a wider range of outbreaks and exceptional epidemiological events with the provision of a multidisciplinary range of expertise.

Regional breakout sessions

In order to identify region-specific opportunities and challenges for collaboration and communication among INFOSAN members, participants were divided into groups relating to their respective region. The groups then participated in facilitated discussions. Within each group, facilitators led discussions on: 1) communication between countries during food safety issues or emergencies; 2) the sharing of experiences of colleagues from other countries; and 3) areas requiring strengthening in order to participate fully in INFOSAN. The outcomes from the facilitated discussion groups were brought together and presented by Dr Jørgen Schlundt.

Sharing challenges and best practices

One of the roles of INFOSAN is to ensure that lessons learnt from past food safety events are shared widely so they can be applied in the future. Five sessions were presented to illustrate the challenges and best practices related to the management of food safety events. Dr Barbara Butow and Dr Paul Brent discussed the importance of developing national response protocols and the application of such protocols during the management of food incidents in Australia. Ms Francoise Fontannaz and Ms Penny Campbell discussed health promotion in food safety, and described how synergies can be created by sharing best practices, experiences, and tested solutions. Regional and national

1 - Resolution WHA63.3. Advancing food safety initiatives. In: Sixty-third World Health Assembly, Geneva, 17–21 May 2010. Geneva, World Health Organization, 2010 (http://apps.who.int/gb/ebwha/pdf_files/WHA63/A63_R3-en.pdf, accessed 10 December 2010).

alerting systems were discussed by Dr José Luis De Felipe and Ms Ellen Morrison, who described, respectively, the European Rapid Alert System for Food and Feed (RASFF), and the United States Food and Drug Administration (US FDA) Emergency Operations Network Incident Management System (EON IMS). Dr Jørgen Schlundt facilitated a panel discussion with representatives from China, Canada and WHO on the melamine contamination incident of 2008. Dr Jean-Michel Poirson facilitated a panel discussion with representatives from Australia, the Netherlands and Turkey on the link between an outbreak of hepatitis A infections and semi-dried tomatoes. Each of the sessions discussing challenges and best practices provided elements applicable to other countries. It was reaffirmed that INFOSAN will continue to coordinate support for Network members during food safety events and encourage proactive international information sharing. In addition, INFOSAN will identify and address capacity-building requirements for the analytical and coordination aspects of emergency management, as well as event identification and early warning.

The way forward

The outcomes of the meeting included an improved sense of community among Network members, practical recommendations to enhance communication and collaboration within the Network, and the identification of opportunities to strengthen core capacity at country and regional levels which will promote participation in INFOSAN. Moving forward, the INFOSAN Secretariat will:

- revise the current Members' Guide;
- identify capacity-building needs and link with partners to meet those needs;
- formalize agreements with other international networks and programmes;
- improve the web-based communication platform for all Network members;
- develop regionally-based strategies for enhancing participation in INFOSAN activities; and
- develop a resource mobilization plan to ensure sustainability.

1. Introduction

1.1 Meeting background

The joint FAO/WHO INFOSAN programme aims to prevent the international spread of contaminated food and foodborne disease and strengthen food safety systems globally, by:

- promoting the rapid exchange of information during food safety-related events;
- sharing information on important food safety-related issues of global interest;
- promoting partnership and collaboration between countries; and
- helping countries strengthen their capacity to manage food safety risks.

In the past, most interactions between Network members have occurred electronically or by telephone, but never in the context of a "face-to-face" meeting. With continually expanding global food trade, food safety emergencies with an international scope are being identified with increasing frequency, posing new challenges to food safety authorities everywhere (see Box 1).

In May 2010, the WHA adopted resolution WHA 63.3 on advancing food safety initiatives, which re-enforced the importance of INFOSAN. The resolution encourages participation of all Member States in INFOSAN and its related activities. It calls for further development of INFOSAN and promotes communication and technical exchange of risk assessments and best practices among Network members. The resolution also supports the strengthening of the emergency functions of INFOSAN, highlighting the Network as a critical component of WHO's preventive and emergency operations related to food safety.

It was recognized that in order to meet expectations, Network members need to come together to discuss the current approaches and existing mechanisms of INFOSAN, as well as potential improvements and future needs. With the generous support of the Abu Dhabi Food Control Authority, the first global meeting of INFOSAN was organized to take place in Abu Dhabi, UAE.

Box 1 - Food Safety Authorities

Food safety is seldom dealt with by a single agency in any given country. The operational definition for food safety authorities, therefore, includes those authorities across the farm-to-fork continuum involved in food legislation, risk assessment, food control and management, food inspection services, foodborne disease surveillance and response, laboratory services for monitoring and surveillance of foods and foodborne diseases, and food safety information, education and communication.

1.2 Meeting composition

The first global meeting of INFOSAN was held on 14–16 December 2010 in Abu Dhabi, UAE. The meeting was a closed, technical meeting consisting of INFOSAN Emergency Contact Points, INFOSAN Focal Points, and Advisory Group members, FAO and WHO Regional Food Safety Advisors, and individuals from several government agencies in the UAE. The participants are listed in Annex 2.

1.3 Opening remarks

The meeting was opened by His Excellency Dr Rashid Ahmed Bin Fahad, UAE Minister of Environment and Water, under the patronage of His Highness Sheikh Mansour Bin Zayed Al-Nahyan, Deputy Prime Minister of the UAE, Minister of Presidential Affairs and Chairman of the ADFCA. A welcoming address was also given by Dr Hussein A. Gezairy, Regional Director, WHO, Regional Office for the Eastern Mediterranean and Mr Saad A. Al-Otaibi, Assistant Director General, FAO, Regional Representative for the Near East. Dr Andrea Ellis, INFOSAN Secretariat, WHO, presented the agenda for the meeting (see Annex 3) and explained the meeting objectives and expected outcomes. Dr Maged Younes, Director, Department of Food Safety and Zoonoses, WHO and Dr Jean-Michel Poirson, Senior Officer, Nutrition and Consumer Protection Division at FAO, were the Co-chairs of the meeting and Mr Carmen Joseph Savelli, Technical Consultant at WHO, acted as Rapporteur.

1.4 Meeting objectives and expected outcomes

The objectives of the meeting were to:

- seek input to improve the structure and function of INFOSAN;
- discuss the challenges of identifying emerging foodborne hazards and assessing food safety risks of global importance;
- clarify the interaction between INFOSAN Emergency Contact Points and IHR National Focal Points;
- demonstrate how INFOSAN works with partner initiatives in FAO and OIE;
- review several case studies to identify ways to enhance coordination and information sharing; and
- identify ways to improve information-sharing mechanisms (e.g. the password-protected online platform).

The expected outcomes of the meeting were:

- an improved sense of community among INFOSAN members;
- practical recommendations to enhance communication and collaboration among INFOSAN members; and
- the identification of opportunities to strengthen core capacity at country and regional levels which would promote participation in INFOSAN.

It was suggested that INFOSAN represents a Community of Practice in which all members can learn from each other to strengthen their food safety systems (see Box 2).



Box 2 - INFOSAN as a Community of Practice

- A Community of Practice is a group of people who are active practitioners in a given profession or field.²
- The group is created with the goal of building and exchanging knowledge related to their field.
- A Community of Practice provides a means for practitioners to share information, experiences and advice, to ask questions of their colleagues, and to provide mutual support.
- Through the process of sharing, group members can 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.

2. Keynote address

Food safety in a global market: sharing information to protect consumers
Professor Alan Reilly, Food Safety Authority of Ireland



Professor Alan Reilly

The global nature and growing complexity of the food chain means that risks posed by unsafe foods have the potential to quickly evolve from a local problem to an international incident in a short period of time. In actual fact, the food chain exists as more of a complex maze without a clear line-of-sight throughout the farm-to-fork continuum. While global trade of foods brings many benefits to consumers and contributes significantly to economic development, fresh challenges are presented to food authorities around the world. Experience over past years shows that with the increased volume of foods traded globally, comes an increased risk of the spread of foodborne pathogens and contaminants across national borders. This consequently creates new challenges for food authorities, and necessitates a more efficient global sharing of food safety information.

As an example, in 2003, authorities discovered that imported chilli powder from India had been contaminated with Sudan red dye. It was determined that the brokers who traded the powder had never seen the product, and treated the transaction as if it involved any other commodity. Considerations for food safety were not made. This event involved over 200 companies, and resulted in more than 700 product recalls in many countries around the world.

This exemplifies the growing need for food authorities to be able to identify and respond to food safety incidents and to communicate food safety information to all stakeholders. We have seen many examples of food safety emergencies in the past, and they will continue to happen in the future. There is a delicate balance between protecting consumers' health and interfering with trade. The

key to success is establishing a mechanism for sharing information that protects food safety without leading to discrimination or a disguised restriction on international trade.

In order to strengthen the network of food safety authorities there is a need to improve collaboration among such authorities at national and international levels. Similarly, there is a need to develop agreements and protocols for response and the rapid exchange of information on risks posed by food or feed, and on measures to be taken, or not to be taken, to counter such risks.

The most effective response to a food safety event will involve the following key elements:

- science-based risk assessment;
- structured surveillance and traceability systems;
- agreed upon response structures;
- quality information (e.g. food consumption data, levels of contamination, etc.); and
- global food safety "friends".

The need to build closer links among food safety authorities internationally is well recognized by FAO and WHO. The establishment of INFOSAN has provided an important platform for the rapid exchange of information in the case of food safety crises and for sharing data on both routine and emerging food safety issues.

INFOSAN benefits its members in a number of ways by:

- providing alerts about food safety risks and hazards;
- identifying food contamination sources;
- linking members to knowledge and resources;
- providing assistance with recalls during food safety events;
- implementing and developing codes of best practice and protocols; and
- protecting consumer safety.

INFOSAN similarly benefits from its members in that:

- active participation creates a rich pool of resources for others to utilize;
- data sharing facilitates international response to food safety events;
- contributions to science are made by publishing and sharing new knowledge;
- assistance with recalls occurs when new information is shared;
- identification of emerging risks may be of international importance; and
- capacity building among members and within one's organization contributes to the overall strengthening of the Network.

Summary points

- Quality and safe food sustains life; quality information sustains food safety.
- INFOSAN was established for the purpose of exchanging high-quality information among food safety experts around the world.
- When faced with an urgent issue, the ability to draw on the experiences of others is a major asset.
- By actively participating in INFOSAN, members, collectively, can help make food safer for people around the world.

3. Plenary sessions

3.1 Highlights of INFOSAN activities

Dr Andrea Ellis, INFOSAN Secretariat, WHO

The INFOSAN Secretariat has recently published a Progress Report,³ which reviews the mandate and development of INFOSAN and its current membership, and highlights its activities between 2004 and 2010. The report also identifies some of the current challenges and future directions for strengthening the Network.

Summary points

- INFOSAN has been active in numerous food safety events since its inception in 2004.
- INFOSAN provides rapid access to food safety contact points in 177 countries (as of the time of the meeting).
- INFOSAN provides a confidential mechanism for information sharing through the use of a secure online platform.
- INFOSAN facilitates the sharing of lessons learnt and the exchange of new knowledge related to food safety and foodborne illness.
- INFOSAN has published 35 Information Notes⁴ on a broad range of food safety topics which are made publicly available on the WHO website in six different languages.
- INFOSAN has partnered numerous international groups to strengthen the Network and enhance collaborative activities.
- INFOSAN continues to be cited in published literature and is recognized as an important source of food safety information.



Dr Andrea Ellis

3 - The International Food Safety Authorities Network (INFOSAN) progress report 2004–2010, Geneva, World Health Organization, 2010 (http://whqlibdoc.who.int/publications/2011/9789241501286_eng.pdf, accessed 22 April 2011).

4 - The INFOSAN Information Note Archive can be accessed at: http://www.who.int/foodsafety/fs_management/infosan_archives/en/

3.2 Members' Guide update

Dr Masami Takeuchi, INFOSAN FAO Focal Point

The INFOSAN Members' Guide is currently being updated and will replace that which was developed in 2006. The new guide will be a resource for those interested in the functions and activities of INFOSAN. It describes the roles and responsibilities of members in the Network including the INFOSAN management group (FAO/WHO), INFOSAN Emergency Contact Points, INFOSAN Focal Points, and the Advisory Group. The guide also details the different types of communication within the Network during both urgent and non-urgent events. During the discussion on the proposed content of the guide and the process of its revision, meeting participants put forward the following suggestions and responses:

- The process of the Members' Guide update needs to be a consultative process. In this way the changes can be made based on input from INFOSAN members. A revision plan will be shared by the INFOSAN management group (FAO/WHO).
- It would be useful if the guide included a section suggesting ways to strengthen in-country intersectoral collaboration and partnerships. A section to reference tools and useful resources to assist national authorities on this point will be included in the annex of the guide.
- The guide needs to have clearly defined reporting criteria.
- When defining reporting criteria, the IHR reporting criteria need to be consulted in order to avoid a reporting burden. INFOSAN should focus on large-scale events with an international scope.
- The introduction of a standard template for reporting food safety events of potential international concern should be considered.
- Members are encouraged to formalize or improve communication between the INFOSAN Emergency Contact Point and National IHR Focal Point.
- The introduction of various levels of INFOSAN Alerts in order to delineate the relative importance of some issues over others needs to be discussed further with a small working group of interested members.



Dr Masami Takeuchi

3.3 The development of a process for the identification of emerging risks in the food chain: lessons learnt and a need for international networking

Dr Tobin Robinson, European Food Safety Authority (EFSA)

The EFSA provides scientific advice to the risk manager at both European and Member State levels for the identification of risks present in the food chain. Through the identification of drivers of emerging risks, EFSA also intends to anticipate future risks derived from changes in current food/feed production practices, or factors impinging on food/feed production, or changes in human exposure through food consumption.

An emerging risk, as defined by the Scientific Committee at EFSA, is a risk resulting from a newly identified hazard to which a significant exposure may occur, or from an unexpected new or increased significant exposure and/or susceptibility to a known hazard.

EFSA is establishing a data-monitoring capacity, data-litering methodology and networking structures to identify emerging risks, and drivers of emerging risks. This is carried out in a timely fashion which is then communicated to the risk manager. Three principle



Dr Tobin Robinson

sources of information which include data have been identified and assessed: 1) the Rapid Alert System for Food and Feed (RASFF); 2) media monitoring (e.g. MediSys); and, 3) trade data (volumes of commodities imported and exported obtained through routine monitoring). In addition, scientific literature has been monitored. Results of the assessment suggest that:

- 1) RASFF data deals almost exclusively with known hazards, and so the direct signals relate to re-emerging risks. However, these data may provide useful indirect signals of other changes in the food chain. Overall, RASFF data are most powerful when combined with other data, particularly trade data.
- 2) MediSys was originally developed to monitor medical information, and is therefore not well adapted to foodborne risks, meaning that many signals are produced, but with little value. Ongoing work with the European Commission's Joint Research Centre (JRC) will address this limitation through the definition of food and food-related hazard categories and search terms. Due to the perceived low reliability of the data sources, these signals are often given little weight by experts. A process for combining data from sources of different quality or reliability needs to be developed.
- 3) Trade data from Eurostat and UN Comtrade have identified trade trends and new trading partners and commodities, especially when combined with RASFF data. Interpretation requires broad expertise, and future initiatives will attempt to semi-automate the monitoring process.

While the current data sources monitored are limited, they have been sufficient to enable the elaboration of the procedures for the next steps in the emerging risks-identification process.

The process for identifying risks involves three levels of filtering: 1) the EFSA's Scientific Panels and Scientific Committee (made up of around 210 experts); 2) a network of European Union (EU) member states; and 3) the advisory forum. Other stakeholders may also be consulted for gathering further information. To support these activities EFSA currently runs two working groups. One of the working groups is dedicated to improving the methodology and decision-making processes at each step to ensure that they are of high quality and can be reproduced. This group is also charged with proposing a validation system for the entire framework. The second working group is dedicated to identifying potential data sources for emerging risk identification, and the criteria for prioritizing which to monitor. These activities help to further ensure that quality data are available.

As more data sources become accessible, the process will become more effective. In particular, networking with stakeholders, the EU and other countries and international agencies is seen as a key step in developing effectiveness and structures for carrying this out.

Summary points

- EFSA is aware that Europe exports globally and is not concerned solely with risks imported to Europe.
- One recommendation raised at the recent EFSA Scientific Colloquium on Emerging Risks in Food was the ability to access available resources to exchange existing knowledge. This would include INFOSAN.
- During the subsequent group discussion, it was highlighted that the work carried out at EFSA can be used as a model for other countries when implementing systems for risk analysis.

3.4 The International Health Regulations (2005) and food safety events

Dr Andrea Ellis, INFOSAN Secretariat, WHO

The WHO International Health Regulations (2005), (IHR (2005))⁵ form the global, legally-binding framework against the international spread of a wide range of diseases, including those of biological or chemical nature and transmissible by persons, goods (e.g. food), animals, vectors or the environment. The scope of the IHR is sufficiently broad to include many foodborne and food safety health risks.

The IHR were adopted by the WHO WHA in May 2005 and entered into legal force globally in June 2007. They are legally binding on all WHO Member States (and all INFOSAN members). Since the regulations have been in operation there have been 11 food safety events reported under them.

While many aspects of the IHR are applicable to foodborne disease risks, particularly relevant provisions include:

Reporting: All WHO Member States are required to notify, report or verify to WHO a range of public health events with potentially significant international implications, including some which may involve foodborne risks and imported or exported contaminated goods (e.g. food). For example, the IHR specify that relevant contexts for notifying WHO can include instances where the disease source is suspected to be a food product or other good that might be contaminated and has been imported or exported.

5 - International Health Regulations (2005). Geneva, World Health Organization, 2008 (http://whqlibdoc.who.int/publications/2008/9789241580410_eng.pdf, accessed 22 April 2011). The International Health Regulations (2005) can be downloaded in the six official WHO language versions, at <http://www.who.int/ihr/9789241596664/en/index.html>.

Regulation of international trade: The IHR provide specific rights and obligations concerning the application of health and sanitary measures to the international movement of goods or cargo (including, potentially, food or related products), conveyances (aircraft, ships, other vehicles), and travellers. WHO Member States are authorized to inspect internationally-shipped goods (including food products) for public health purposes and are responsible for supervising removal and safe disposal of any contaminated water or food at points of entry into the country.

National core public health capacities: All WHO Member States are obligated to develop minimum public health capacities for surveillance and response concerning important public health events or risks, including capacities related to food safety.

National IHR Focal Point: All WHO Member States must designate or establish a National IHR Focal Point whose functions include being available at all times for urgent IHR communications with WHO, and for coordinating and communicating, domestically, with all sectors relevant for surveillance or response to public health events under the IHR - such as agriculture and livestock, food safety and others.

WHO public health surveillance: Under the IHR, WHO is mandated to conduct global public health surveillance and coordinate and collaborate with Member States in assessing and responding to public health events as necessary.

WHO sharing of information on urgent events: Under the IHR, WHO is mandated to communicate necessary information on urgent international public health events to Member States so that they can prepare and respond to the public health risk.

Collaboration with international organizations and bodies: Under the IHR, WHO is mandated to cooperate and collaborate with other competent international bodies and organizations, including the FAO, OIE, and other UN and non-UN agencies, in implementing the IHR.

Summary points

- The IHR form a legal reporting framework, whereas INFOSAN is a voluntary technical network.
- The IHR apply to all public health risks including those concerning food safety.
- Development of core national capacities concerning food safety is a key requirement for intersectoral collaboration at national level.
- Strong links need to be established between INFOSAN Emergency Contact Points and IHR National Focal Points to enhance communication during food safety events.

3.5 INFOSAN's work with other programmes

A) Emergency Prevention System (EMPRES) Food Safety programme

Dr Jean-Michel Poirson, EMPRES Food Safety, FAO

EMPRES Food Safety is a multidisciplinary programme of FAO which is focused on the prevention of, and response to, food safety emergencies at the global level. The three pillars of EMPRES Food Safety include: 1) Early warning; 2) Emergency prevention; and 3) Rapid response. These pillars complement FAO's well-established EMPRES systems in animal and plant health as a component of FAO's Food Chain Crisis Management Framework (FCC) (See Box 3).

- 1) **Early warning:** EMPRES Food Safety engages with INFOSAN and provides a complement to public health information with production-oriented information related to foods implicated in foodborne disease or food contamination incidents. Through horizon-scanning and trend analysis, EMPRES Food Safety can detect and analyse possible low-key signals that could suggest a food safety threat at food production and processing levels. INFOSAN can be used to provide early warnings from EMPRES to food safety authorities around the world.
- 2) **Emergency prevention:** Through the provision of scientific advice and recommendations, EMPRES can prevent the escalation of imminent threats. In addition, by identifying knowledge gaps, long-term strategies for prevention can be developed and implemented at country level. Providing tools and guidance for preparedness, and delivering training on implementation, can also contribute to prevention activities.



Dr Jean-Michel Poirson

- 3) **Rapid response:** During a food safety emergency, EMPRES can support rapid response upon request from national authorities. Supporting the response activities may include activities such as the mobilization of international experts and the rapid assessment and provision of technical advice.

All activities of EMPRES Food Safety will be conducted in partnership with other UN or international agencies, national and regional government bodies, universities, research institutes and stakeholder groups.

Summary points

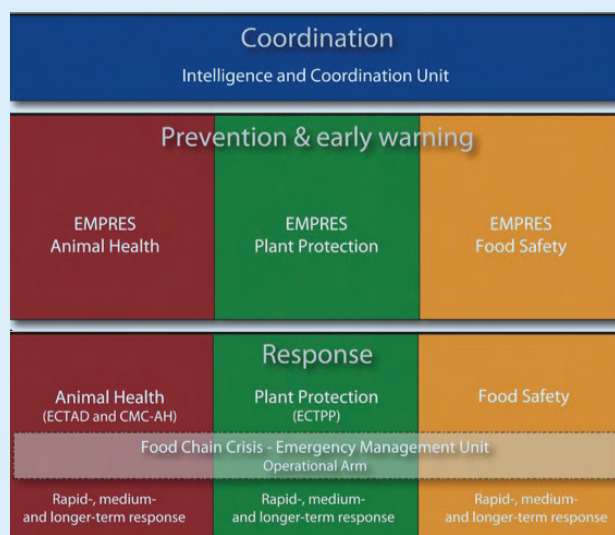
- EMPRES Food Safety will complement and strengthen the existing INFOSAN event identification activities through horizon-scanning and analysis of low-key signals and indicators of food safety threats.
- EMPRES Food Safety will assist Member States in addressing imminent food safety threats and prevent occurrence, escalation, or recurrence by providing consultation and scientific advice.
- EMPRES Food Safety will provide timely response to identified food safety emergencies by conducting urgent appraisals and mobilizing experts.
- INFOSAN will be instrumental in disseminating information generated by EMPRES Food Safety, especially with early warning activities.
- INFOSAN has been incorporated into the EMPRES Food Safety strategic plan, and EMPRES will be incorporated into the next version of the INFOSAN strategic plan to describe the interaction between the two programmes.
- Improving the INFOSAN web-based information-sharing platform should enhance coordination between EMPRES Food Safety and INFOSAN.

Box 3 - The FCC: FAO's interdisciplinary approach to address threats to the food chain

To address threats to the food chain, a comprehensive and interdisciplinary approach is essential. The FCC is FAO's instrument for action in support of FAO member countries in the global governance of threats to the human food chain at all stages from production to consumption.

The FCC interdisciplinary approach has led to the development of a comprehensive, integrated structure that covers animal health, plant protection and food safety.

- The Intelligence and Coordination Unit within FAO ensures coordination within the various constituents of the FCC.
- EMPRES addresses prevention and early warning across the entire food chain.
- Rapid-, medium-, and long-term response ensures adequate coverage for verified or potential threats through the technical and operational capacities of FAO.



B) The World Organisation for Animal Health (OIE) and the Global Early Warning System for Major Animal Diseases, including Zoonoses (GLEWS)

Dr Karim Ben Jebara, OIE



Dr Karim Ben Jebara

The OIE is an intergovernmental organization. Founded in 1924 by 28 countries, the organization today counts 177 members. It is recognized by the World Trade Organization as a reference organization for international standards. OIE members have to report situations on 118 animal diseases that include foodborne pathogens. GLEWS is a unique joint mechanism that builds on the added value of combining and coordinating the alert mechanisms of FAO, WHO and OIE for the international community and alerts member countries to institute prevention measures. GLEWS has been growing in its capacity and ability to perform as a global early warning of major animal diseases and zoonotic disease events. FAO, WHO and OIE are sharing information on a daily basis with regard to data and rumour-tracking. Information is screened, shared, and when needed, verified through various channels, including with the official national representative (official information) and contacts in the field. Disease intelligence is also a key component of GLEWS in identifying risk factors and drivers of priority animal diseases. These analyses go beyond the animal health status reported officially by countries and include agro-ecological practices and conditions (e.g. land use, agriculture, climate, demographics and economic data). GLEWS is an INFOSAN partner, linking public health and veterinary networks for early warning and information exchange and improving the risk assessment along the farm-to-fork continuum.

Summary points

- The overriding aim of GLEWS is to improve the early warning and response capacity of FAO, WHO and OIE to animal disease threats for the benefit of the international community.
- The desired outcome of GLEWS is the timely triggering of appropriate, information-driven action within FAO, WHO and OIE to reduce global zoonotic disease burden while transmitting coherent messages to stakeholders.
- Information sharing and validation is performed through the appropriate organizations; GLEWS links with INFOSAN to ensure food safety events are managed along the farm-to-fork continuum.
- Multidisciplinary disease analysis provides added value to global early warning of zoonotic disease.
- Through collaboration, the three organizations – FAO, WHO and OIE – are able to cover a wider range of outbreaks and exceptional epidemiological events with the provision of a wider range of expertise.

4. Breakout discussion groups: challenges to and opportunities for full participation in INFOSAN

The resolution on advancing food safety initiatives, adopted by the WHA in May 2010, urges each WHO Member State to “participate fully as a member of the International Food Safety Authorities Network in its activities, including supporting the timely transmission of data, information and knowledge about food-safety emergencies through the Network in a transparent manner”.

In order to identify region-specific opportunities and challenges for collaboration and communication among INFOSAN members, participants were divided into groups relating to their respective regions for each facilitated discussion. Regional groups and respective facilitators are listed in Table 1.

Regional breakout groups and facilitators:

Region	Facilitators
African Region	Andries Pretorius Françoise Fontannaz
Region of the Americas	Bashir Manji Michael DeShield
Eastern Mediterranean Region	Haifa Madi Mohamed Elmi Fatima Hachem Soren Madsen
European Region	Hilde Kruse Eleonora Dupouy Maged Younes
South East Asian Region	Jean-Michel Poirson Nick Tomlinson
Western Pacific Region	Paul Brent Alan Reilly Noraini Mohd-Othman

Within each group, facilitators led discussions answering the following three questions:

- 1) How do countries currently communicate with other countries in the case of a food safety emergency or issue?
- 2) How do countries share experiences or expertise with colleagues from other countries?
- 3) What areas require strengthening within countries or regions to enable full participation in INFOSAN?

The discussions identified region-specific issues with many common themes. The outcomes of the discussion groups were brought together and presented by Dr Jørgen Schlundt.

- 1) Communication between countries during food safety issues and emergencies
 - While countries use INFOSAN to receive information, few use INFOSAN to share information with other countries.
 - Many countries communicate food safety events to neighbouring countries bilaterally, through personal channels.
 - Some countries use diplomatic channels to share food safety-event information. However, efficiency of such channels is estimated to be low due to a lack of timely action following reporting.
 - A number of regional networks present very efficient vehicles for information sharing (e.g. the Gulf Cooperation Council (GCC), South-East European Network, Association of Southeast Asian Nations (ASEAN), CDC and ECDC links).
 - Many countries suggest that one of the values of INFOSAN is the credibility it brings to information.
 - One of the barriers to sharing information outside a country is when information is not shared well inside the country. INFOSAN could help this situation by sharing best practices on how to improve information sharing within countries.

2) Sharing of experiences between colleagues from other countries

- Many countries reported a lack of sharing of experiences between colleagues from other countries due to:
 - a) political constraints and a lack of independence of food safety agencies;
 - b) a lack of coordination and collaboration between sectors at national level; and
 - c) a lack of trust between unfamiliar authorities.
- Although many cases of “informal” sharing of information were reported (often through personal connections), it was suggested that informal sharing is not sharing because it does not provide a transparent record of a situation.
- Sharing resources at regional level was mentioned by many countries as a significant, potential way forward to improve capacity. (An inventory or analysis of regional resources was suggested.)
- The introduction of workshops at regional level should be considered, to determine processes for defining confidentiality agreements (bilateral or multilateral) at national level.
- The INFOSAN Secure Website needs to be improved to facilitate navigation and encourage the sharing of experiences.
- INFOSAN could investigate the capacity of Member States to communicate and report into the system by encouraging self-assessment. This could lead to a realization of potential means for improvement (e.g. by determining if sectors collaborate and what regulatory frameworks exist, etc.)

3) Areas requiring strengthening in order to participate fully in INFOSAN

- INFOSAN needs to continue to disseminate quick, reliable statements during food crises.
- Contact information for INFOSAN Emergency Contact Points and Focal Points needs to be kept up to date and easily accessible.
- It is important to be able to map the laboratory capacity for analysis of samples during crises.
- Capacity needs to be improved within countries at national level in many cases before full participation in INFOSAN can be achieved. This includes the need for workshops on how to use INFOSAN during an emergency.
- Communication between the IHR Focal Point and INFOSAN Emergency Contact Points needs to be strengthened.
- More INFOSAN Information Notes should be produced with more involvement from members in this process.
- There is a widespread need for food safety risk assessment training and the use of INFOSAN during emergencies.
- Many countries have expressed a need for clear criteria on when and how to notify INFOSAN of a food safety event (e.g. consider the introduction of a general template for notification, protocols, and codes of best practice for sharing information).
- The online information-sharing platform needs to be improved to allow for easy navigation and the ability to moderate smaller regional groups, etc.

5. Sharing challenges and best practices

One of the roles of INFOSAN is to ensure that lessons learnt from past food safety events are shared widely so they can be applied in the future. Five sessions were presented to illustrate the challenges and best practices related to the management of food safety events. The application of lessons learnt can improve response capacity during food safety events. The details of each session are described below.

5.1 Managing food incidents in Australia

Dr Paul Brent, Food Standards Australia New Zealand (FSANZ)

Dr Barbara Butow, Food Standards Australia New Zealand (FSANZ)



Dr Paul Brent



Dr Barbara Butow

Food incidents can not only result in public health and safety risks among consumers but can also result in widespread consumer concern and significant disruption to domestic and international trade. While some food incidents may be limited to a single jurisdiction, the modern nature of food distribution increases the possibility that a food incident will impact a number of jurisdictions.

In Australia, response to national food incidents is coordinated by Food Standards Australia New Zealand (FSANZ) under the National Food Incident Response Protocol (the Protocol), which received government endorsement in 2007. The purpose of the Protocol is to provide clear guidance to government agencies for responding to a range of national food incidents in a timely, appropriate, consistent and coordinated manner. The Protocol formalizes current arrangements between these agencies for responding to national food incidents linked to microbiological, chemical, radiological, physical or unknown hazards. In the case of outbreaks of foodborne illness, health authorities are responsible for managing the outbreak investigation, while the Protocol aids in the response of food regulatory agencies during those incidents where there has been a potential or confirmed link to food.

Australia's Protocol organizes response into three phases: 1) Alert, 2) Action, and 3) Stand Down (see Fig. 1). During the Alert phase, the notifying agency will correspond with a Central Notification Point (CNP) at FSANZ. The CNP will circulate a Food Incident Notification to all partners concerned, including the National Incident Room (as per obligations of the IHR (2005)). During the Action phase, actions may be restricted to the notifying agency or a affected jurisdiction during minor incidents. For other incidents, broader coordination may be required in order to notify a affected agencies. At this point, roles and responsibilities are allocated and the National Food Incident Coordinator and Lead Agency is nominated. Response activities are unique to each incident, however general activities include: analysis and evaluation of risk; consultation with industry; and response actions (e.g. recalls, public communication,

surveys, etc.). Actions will be decided upon in a consultative way with all affected partners, and when participating agencies agree that a nationally-coordinated response is no longer required, the response enters the Stand-down phase. This phase includes debriefing activities with all participating agencies. The outcomes of the debrief will be considered by an Incident Response Working Group, who may make recommendations for amendments to the Protocol.

Since Government endorsement of this approach in 2007, 15 food incidents have been managed under the Protocol. Some of the lessons learnt which have been put into practice are:

- early risk profiling, enabling action at the border by the Australian Quarantine and Inspection Service;
- coordinated media releases among affected jurisdictions and agencies;
- enhanced international communication (e.g. IHR, INFOSAN, etc.); and
- early involvement of the Food Surveillance Network.

Changes made to the Protocol following incident debriefs include:

- annexes related to: environmentally consistent principles for foodborne illness; environmental investigations; chemical contaminants in food; and zoonoses;
- reference to the Food Surveillance Network; and
- updates to roles and responsibilities.

For other countries considering the development and implementation of a National Food Incident Protocol, preliminary steps should include:

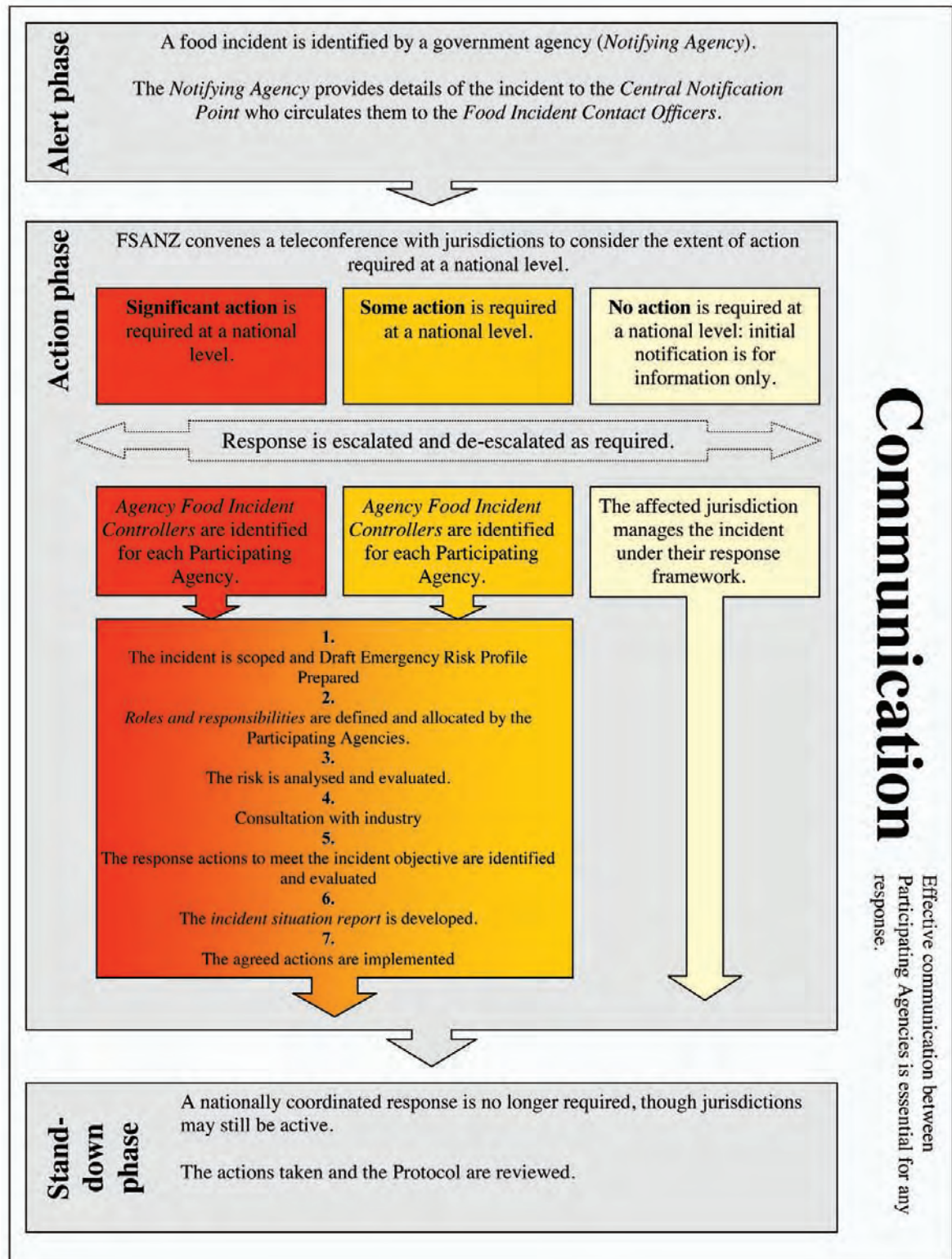
- obtaining high-level support (in order to enshrine governance arrangements for foodborne illness incidents into legislation, etc.);
- identifying key partners (various jurisdictions, agencies, organizations, etc.); and
- establishing a planning group consisting of food safety officials (members may later form a working group to monitor and review the protocol after implementation).

Summary points

- Past experiences of food regulatory agencies in responding to national food incidents have highlighted the importance of both coordination among various agencies and sectors and gaining consensus on the appropriate response (e.g. level and extent of food recall).
- Inconsistencies in the response by various agencies and sectors on the same issue could render all jurisdictions vulnerable to criticism and scrutiny.
- National food incident response protocols can: ensure response and communication is timely, consistent, appropriate, and coordinated; formalize current arrangements and links with various agencies and sectors' and jurisdictions' protocols; and manage incidents for widely distributed foods.
- National food incident response protocols should: build upon existing individual organization's protocols; describe the operating procedures, coordination details, and communication processes between agencies and jurisdictions; illustrate the different roles and responsibilities; describe the response phases and activities within each; and embody the principles of emergency management.

Fig. 1

Australia's Protocol organizes response into three phases: 1) Alert; 2) Action; and 3) Stand Down



5.2 Health promotion in food safety

Ms Françoise Fontannaz, Department of Food Safety and Zoonoses, WHO

Ms Penny Campbell, Department of Health, South Africa



Ms Françoise Fontannaz



Ms Penny Campbell

Foodborne disease represents a serious threat to the health of millions of people in the world, particularly those in developing countries with poor nutritional status. In addition, many food handlers and consumers throughout the world have a limited knowledge of risks associated with handling and preparing food. As part of its global strategy to decrease the burden of foodborne diseases, WHO identified the need to communicate a simple global health message, rooted in scientific evidence, to educate all types of food handlers, including ordinary consumers. The Five Keys to Safer Food message (1. Keep clean; 2. Separate raw and cooked foods; 3. Cook thoroughly; 4. Keep food at safe temperatures; and 5. Use safe water and raw materials) and associated training materials were developed to provide countries with resources that are easy to use, reproduce and adapt to different target audiences. To date, 95 countries have adopted and adapted the Five Keys to Safer Food message and developed educational programmes and health promotion campaigns in various settings. Based on the success of the Five Keys to Safer Food, WHO extended the concept to offer broader advice to people to improve their health by providing simple messages on healthy diets and physical activity – The 3 Fives: Five keys to safer food, a healthy diet, and appropriate physical activity. After being launched for the first time in China during the 2008 Beijing Olympics, The 3 Fives concept was later adopted by the Department of Health of South Africa as part of their health promotion campaign during the FIFA World Cup in 2010 (See Fig. 2). This example illustrates the direct and positive benefits of sharing best practices, experiences, tested solutions, information, and new ideas about food safety between countries. In doing so, synergies can be created which encourage a shift from bilateral relationships to multilateral networks. By sharing their experiences, South Africa can now be looked to as a resource for advice when other food safety authorities plan health promotion campaigns.

Countries adapting the Five Keys to Safer Food or The 3 Fives are encouraged to share their products with INFOSAN so that others can benefit from their efforts (e.g. through the use of translated materials, etc.). In addition, any countries conducting formal evaluations of their implemented health promotion strategies using The 3 Fives or the Five Keys to Safer Food are encouraged to share these among INFOSAN members.

Fig. 2

The 3 Fives campaign initially launched at the 2008 Beijing Olympics was later adapted for use in South Africa during the 2010 FIFA World Cup.



Summary points

- In May 2010, the WHA urged Member States to continue to develop and maintain sustainable preventive measures, including food safety education programmes, aimed at reducing the burden of foodborne diseases.
- The Five Keys to Safer Food health promotion campaign developed by WHO has been adopted and adapted by countries all over the world.
- Utilizing INFOSAN to share experiences and tested solutions in health promotion can contribute to efficient and cost-effective implementation of educational activities to prevent foodborne diseases.
- Countries are encouraged to continue collaborating with one another and to seek inspiration for effective health promotion strategies based on the success of previously implemented programmes.
- The subsequent group discussion highlighted the importance of conducting evaluations of health promotion programmes; countries are encouraged to share the results of such evaluations with the Network.

5.3 Regional and national food safety alert systems

A) The European Rapid Alert System for Food and Feed (RASFF)

Dr José Luis De Felipe, European Commission (EC)



Dr José Luis De Felipe

Launched in 1979, the Rapid Alert System for Food and Feed (RASFF) is primarily a tool for exchange of information between competent authorities on consignments of food and feed in cases where a risk to human health has been identified and measures have been taken, such as withholding, recalling, seizure or rejection of the products concerned. This rapid exchange of information allows Member States to quickly verify whether they are also affected by the problem. Whenever the product is already on the market and should not be consumed, food safety authorities are able to take action accordingly.

Many challenges emerge when setting up and maintaining a regional alerting system such as RASFF. These include:

Variation in food safety standards between countries: This particular challenge was addressed by the European Union (EU) through the harmonization of food safety standards among EU countries. This was achieved with the legal support of Articles 50–52 of EC Regulation 178/2002 which describe the general principles and requirements of RASFF.

Internal cooperation (e.g. between the EC and European countries): National contact points need to be designated and subsequently responsible for effective communication between national food and feed authorities and the European Commission. The designated national contact should have an efficient communication

network in place with food and feed control and public health authorities. In addition, in case of an urgent notification outside of office hours all RASFF members have out-of-hours arrangements 24 hours a day, 7 days a week.

External cooperation (e.g. between the European Commission and non-European countries): The RASFF system is obliged by Article 50 of Regulation 178/2002 to inform countries outside Europe about risks originating from there and about hazardous products sent to those countries from Europe. Facilitating this type of external communication allows food safety authorities outside Europe to take appropriate actions, and offers exporters the opportunity to resolve potential problems that led to the notification, facilitating a return to normal trade. RASFF has recently implemented a new online database (RASFF Window) to transmit notifications to non-European countries. Information is published on the RASFF Window within 24 hours of notification. Access is restricted to registered contact points responsible for coordination of information within their country. There are currently 84 countries using the RASFF Window.

Training: Coordinating a regional alerting system requires all parties to understand their roles and responsibilities. The EC offers training and guidelines to ensure that all members are well versed in the operational procedures of the system. RASFF also offers seminars through the Better Training for Safer Food (BTSF) programme (see Box 4), with the goal of increasing the understanding of how RASFF operates in order to improve cooperation and information exchange with countries outside of the European region.

Transparency, confidentiality and reporting: Members are kept up to date using the online RASFF Portal database which recently replaced the public weekly summary. The RASFF Portal does not allow the identification of commercial products because the purpose is not to replace consumer recall pages or other information channels provided by national authorities or business operators. In the event of an incident involving food or feed, the RASFF guidelines require members to immediately inform the professional operators concerned, identify official channels for issuing public information regarding RASFF notifications, and provide specific information in the context of a public recall.

Information Technology (IT) tools: Utilizing new IT tools to facilitate online communication has proved effective within the RASFF system. The new IT platform allows for easy reporting with the use of standardized submission forms.

In addition, notifications are organized according to specific levels and groups. The platform aids the consolidation of information and allows members to work collaboratively.

Box 4 - Better Training for Safer Food

Better Training for Safer Food is a European Commission training initiative covering food and feed law, animal health and welfare and plant health rules. The initiative trains national authority staff, involved in official controls in these areas, from EU member states, developing countries and candidate countries.

Better Training for Safer Food aims to keep participants up to date with EU law in these areas and can help ensure more harmonized and efficient controls. Efficient controls are an essential factor in maintaining high levels of consumer protection, animal health and plant health. Harmonization of controls can help create a level playing field for food businesses.

Training is also organized specifically for participants from developing countries to familiarize them with EU requirements. This can help ease access to the EU market for products from developing countries.

Summary points

- The RASFF gains strength from the unified laws governing food safety standards among countries in the European Union (under the legal support of EC regulations).
- Many of the challenges that exist when setting up a regional network for food alerts can be overcome with training, establishment of guidelines, and improved communication facilitated by the utilization of collaborative web platforms.
- RASFF communicates with countries outside the EU when a hazardous product food from Europe is exported to or imported from a non-EU country. Notifications are transmitted through the RASFF Window.

B) National Food Safety Alert System: The US FDA Emergency Operations Network Incident Management System (EON IMS)

Ms Ellen Morrison, US FDA



Ms Ellen Morrison

The Food and Drug Administration Amendments Act of 2007 (FDAAA) required the Secretary of the United States Department of Health and Human Services to establish a reportable food registry within the US FDA to receive notification of instances of "reportable foods" via an electronic portal. A reportable food is defined in law as an article of food for which there is a reasonable probability that the use of, or exposure to, the article of food will cause serious adverse health consequences or death to humans or other animals. The FDAAA further required submissions from two potential sources: mandatory reports from industry, and voluntary reports submitted by other Federal, Tribal, State, or local health officials. Mandatory reporters are given 24 hours from the time they become aware of the situation to file the report electronically, requiring the portal to be available 24 hours a day, 7 days a week. Mandatory reporters are also required to provide distribution information related to the origin of the adulterated ingredient and its destination. Reports are shared electronically with federal and state counterpart agencies.

To meet these requirements, the US FDA modified an existing system, the Emergency Operations Network Incident Management System (EON IMS), to receive, store, triage and process reportable food reports submitted through the portal. One of the challenges associated with developing the Reportable Food Registry was related to seeking engagement from industry and the public. This was addressed by

conducting industry outreach, holding public meetings, distributing press releases, and disseminating promotional materials, such as magnets, flyers, etc, to constituents. Developing the registry on an accelerated schedule within a compressed timeframe was also a challenge. In addition, multiple system-development teams needed to be managed given the necessity for cross-cutting organizational components. During the development process, it was important to establish clearly defined requirements, and identify a designated leader with the authority to make decisions and allocate resources appropriately. Furthermore, effectively communicating with all development teams and stakeholders during development was critical.

After the initial rollout of the portal in September 2009, further enhancements were implemented, including mechanisms for enhanced data integrity and expanded functionality to provide automatic e-mail alerts to state public health officials.

Summary points

- When developing a national alerting system it is important to consider whether or not existing systems can be utilized and built upon to avoid duplication of efforts.
- Best practices related to the implementation of a national alerting system include: establishing clearly defined requirements; conducting constituent outreach; providing effective management support; and facilitating communication among all stakeholders.
- Plans for further expansion of the US FDA EON IMS include adding functions that will allow notification and tracking of all recalls so that international partners (including INFOSAN) can be notified when foreign distribution is involved for any US FDA regulated product being recalled before potentially causing serious injury or death.

5.4 Panel discussion: Melamine in food, 2008

Facilitator: Dr Jørgen Schlundt, National Food Institute (Denmark)
 Panelists: Dr Feng Yong, Ministry of Health (China)
 Dr Bashir Manji, Canadian Food Inspection Agency (Canada)
 Dr Maged Younes, Department of Food Safety and Zoonoses, WHO

The melamine event of 2008 was one the largest intentional food contamination incidents ever reported, having immediate global implications and potential for huge public health impact. This event illuminated the complexity and interconnectedness of our modern food supply, as food safety authorities worldwide struggled to identify potentially contaminated imported foods and food ingredients.



Presentation from Dr Feng Yong, Chinese delegate:

When doctors in China identified an unusually high number of cases of infants with kidney stones within a very short period of time, reports were made to local authorities. The subsequent epidemiologic investigation and the involvement of parents and the media played a significant role in attracting national attention, and prompted a national investigation. By September 2008, the Chinese government had implemented emergency measures and established a national meeting group to facilitate multisectoral collaboration. INFOSAN, with other countries, was informed of the emergency response activities, and a national press release was distributed. The national meeting group coordinated the national investigation. They also strengthened market supervision and product inspection and assisted with compensation cases for victims. As a follow-up to this event, the Chinese congress developed and passed a national food safety law in 2009. In addition, a national committee for food safety was established to coordinate food safety stakeholders and improve emergency response for food safety incidents in China. New ways to communicate with other countries have since been set up, enhancing international communication and cooperation during food safety events.

Presentation from Dr Bashir Manji, Canadian delegate:

In Canada, as in many countries, there was concern over the potential importation of melamine-contaminated products from China. When the Canadian media reported the incident, there was pressure for Canadian officials to respond. The first stage of the response focused on infant formula, and the Canadian Food Inspection Agency (CFIA) implemented a border lookout and testing regimen for imported casein, milk powder, whey protein, and infant formula from China. In the absence of detailed product information, the CFIA took a precautionary approach, and sampling was expanded to include imported products from 21 different countries. A communication plan was developed to inform the Canadian public of the situation. This proved challenging, in part because of the sheer volume of information (regarding recalled products, status of investigation in China, etc.). A further challenge emerged when product sampling started: the CFIA needed to rapidly develop standard laboratory testing methodology in order to determine the levels of melamine in food and establish import requirements for importers.

Presentation from Dr Maged Younes, INFOSAN Secretariat, WHO:

The melamine event was truly global in scope, with 47 countries reporting to WHO the import of contaminated products. Within the first few days following the initial notification of the event, the INFOSAN Secretariat provided the international community with information on epidemiology and treatment, and suggested surveillance methods and case definitions for melamine intoxication. In addition, a preliminary risk assessment was made available, as well as recommended analytical methods for testing for melamine in food. Over the following three months, the INFOSAN Secretariat compiled a list of affected products and their possible distribution (which was continuously updated), and provided a list of laboratories with the capacity to test for melamine. They also provided information on acceptable limits for melamine set by different national authorities, and organized an international expert consultation to evaluate health risk and recommend risk management actions.

The INFOSAN Secretariat faced many challenges during response to this international food safety event. The media can help in bringing certain incidents to the attention of the Secretariat and identifying certain products of concern. However, ultimately, the information needs to be validated through verification requests at country level. The Secretariat also faced questions related to the reliability of analytic results, given the difference in methodologies in use at the time. Furthermore, some countries were engaged in different response activities due to differing regulatory limits for melamine in food, differing import restrictions, and differing interpretations of health consequences related to melamine intoxication. Traceability of products within and between countries also presented a challenge. The melamine event led to the identification of the need to distinguish between “background levels” and “adulteration”. However, this too can lead to scrutiny from the public, who may demand “zero-tolerance” even if this is not practical or necessary.

This incident highlighted INFOSAN as an important platform for information exchange which allowed for rapid reaction and response due to the close collaboration of members. With the support of Health Canada, a scientific expert consultation was rapidly organized, and the subsequent discussion led to international limits for melamine at the Codex level. This was the fastest Codex standard adopted in response to an international event, and was made possible through the direct support and leadership of Health Canada. The event also highlighted areas for improvement in the Network: the INFOSAN infrastructure is limited, and further support and direction need to be provided to members to ensure that all members know their roles and responsibilities and are able to respond in a timely manner to INFOSAN verification requests. In addition, there is a need for a global inventory of laboratory capacity so that countries know where they can seek support during such an event.

Summary points

- The melamine event resulted in international recognition of the importance of food safety and the significant role INFOSAN plays in coordinating responses to international food safety events.
- WHO, in collaboration with FAO, worked with partners to rapidly provide a risk assessment and recommend interim regulatory standards.
- The international community came together quickly to agree on Codex standards for melamine in food.
- The infrastructure of INFOSAN and the understanding of roles and responsibilities by members should be strengthened to improve timeliness of information sharing during food safety emergencies.
- Resources should be mapped (e.g. laboratory capacities) so that resource-poor countries can utilize the services of neighbouring countries during emergencies.
- During the group discussion, the INFOSAN Secretariat was encouraged to explore ways to strengthen communication between food safety authorities and industry.
- Another suggestion raised during the discussion was for the development of an international protocol for dealing with a totally new contamination crisis; the need for creating a standard protocol or guidance document for rapid risk assessment at international and national levels was mentioned.

5.5 Panel discussion: Hepatitis A linked to semi-dried tomatoes

Facilitator: Dr Jean-Michel Poirson, EMPRES Food Safety, FAO

Panelists: Dr Nilay Demir, Ministry of Agriculture & Rural Affairs (Turkey)

Dr Jan van Kooij, Ministry of Agriculture, Nature and Food Quality (The Netherlands)

Dr Barbara Butow, FSANZ (Australia)



In November 2009, Australia notified WHO through the IHR and INFOSAN of an ongoing outbreak of hepatitis A virus (HAV) affecting over 250 people. Case-control studies attributed the outbreak to the consumption of semi-dried tomatoes, and alerts were issued to INFOSAN members. In February 2010, INFOSAN learned of a similar HAV outbreak in France and the Netherlands, also epidemiologically linked to semi-dried tomatoes. Traceback investigations conducted in Australia and the Netherlands could not confirm the exact origin of the semi-dried tomatoes. In France, a partial traceback of the batch suspected to be contaminated was found to include product from a supplier in Turkey. The INFOSAN Secretariat coordinated information sharing among the countries involved to share findings to see if a common source could be found. In the end, the exact source of the problem could not be identified, but the outbreaks highlighted a number of issues around managing international food safety events and difficulties in detecting and preventing contamination of foods by viruses.

Presentation from Dr Barbara Butow, Australian delegate:

The first challenge was related to the semi-dried tomato industry in Australia which principally involves small, family-owned businesses. There is no national industry body representing semi-dried tomato producers and processors, and available products include: 1) locally-grown, dried, and dressed tomatoes; and 2) frozen semi-dried tomatoes purchased from Australian or imported sources which are dressed or distributed to other companies for dressing. This leads to the second challenge which was determining the level at which the source of contamination occurred (e.g. production, processing, post-production handling, etc.). In addition, semi-dried tomatoes have a complex production and distribution chain. There could be multiple farms within a single country that use different primary processors who then export to secondary processors in another country and then distribute to consumers at various levels (e.g. restaurants, retail stores, bulk distributors, etc.).

Another major challenge is related to the nature of the hazard itself: HAV is a picornavirus transmitted primarily through the faecal-oral route, with an incubation period that can range from 15 to 50 days (with an average of 30 days). Virus is shed in faeces before symptoms of illness begin, which can range from subclinical infection to severe hepatitis. Because of the long incubation period, traceback efforts become difficult due to cases forgetting the details of the foods they consumed. The next challenge was related to the detection and interpretation of laboratory results. Initially, Australian authorities did not have the laboratory capacity to identify HAV in samples, but were able to utilize the laboratory capacity in France. Interpretation of results from molecular detection methods was also a challenge because of the need to consider whether or not viral genetic material identified in a sample came from an infectious virus or not.

This experience demonstrated the value of having the National Food Incident Response Protocol in place and the importance of effective national and international communication throughout the incident. The event also highlighted the need to engage with industry early and understand the production and supply chain, which can assist in identifying risk factors and possible control measures and improve traceability. This incident further highlighted human enteric viruses as an emerging foodborne disease issue.

Presentation from Dr Jan van Kooij, Dutch delegate:

During the investigation in the Netherlands, a food consumption questionnaire had been undertaken with a special focus on semi-dried tomatoes. The results indicated that all patients had eaten one or more products containing semi-dried tomatoes during their incubation time. However the products were from many different purchasers and different types of products were involved. As in Australia, the traceback investigation was challenging because of multiple retailers, producers, and importers. The conclusion of the traceback investigation suggested that some products could be traced back to a specific region in Turkey. From other products it was not possible due to too many different steps in the chain. Laboratory analysis of samples from households, suppliers and retailers did not detect HAV. The case-control study concluded a relation between the HAV infections and consumption of semi-dried tomatoes. One of the lessons learnt from this event was that using molecular sequencing in a surveillance programme can be very efficient in detecting a cluster from isolated cases. In addition, the investigation demonstrated the value of good national cooperation between the relevant authorities. Finally, because traceback investigations are complex in an international market, systems like RASFF and INFOSAN are very necessary and should be promoted and utilized broadly.

Presentation from Dr Nilay Demir, Turkish delegate:

The Ministry of Agriculture and Rural Affairs ensures a farm-to-fork approach to food safety and has harmonized food standards with the EC and Codex Alimentarius guidelines. This means implementing risk based controls and inspection at all stages to protect consumers and ensure safety of the food supply. During the hepatitis A outbreak investigation, the HAV was not identified in tomato products exported from Turkey. The dried tomato industry in Turkey is large, with about 80 companies producing and exporting dried tomatoes. During the outbreak, there were no standard methods in place to identify HAV in food, but since August 2010, the National Reference Laboratory in Turkey has been able to conduct HAV analysis. A monitoring programme has been initiated in the provinces in which dried tomatoes are produced in large quantities. Turkey had an emergency plan drafted at the time of the investigation, but has since used the experience to make some revisions. In addition, this investigation illuminated viruses in food as a real challenge for food safety authorities globally, as well as the importance of sharing information and collaborating with relevant agencies.

INFOSAN Secretariat perspective:

During this investigation, INFOSAN validated information through consultation with relevant food safety authorities before any further dissemination. Consensus comes from understanding the information, and understanding the limitations of the information available from consultation with the competent authorities. INFOSAN employs a

precautionary approach to protect public health, but the methods by which this is done vary. Information may not need to be shared publicly until it is first shared within the Network in order to better understand the science of a situation. This includes an examination of the weight of evidence. During this particular investigation, INFOSAN did not conduct the studies or collect the data. The Network relied upon members to carry out reliable studies in order to fully understand the situation. Although the exact source of the hepatitis A outbreak could not be identified, this event highlighted the importance of INFOSAN in coordinating international food safety emergencies.

Summary points

- Traceback investigations for internationally-distributed foods are becoming increasingly complex, particularly cases with virus in food, and require coordinated communication among food safety authorities globally.
- INFOSAN is able to facilitate timely communication among food safety authorities during food safety events and facilitate the sharing of information.
- Certain countries are commissioning outbreak toolkits. The toolkits need to include an element for guidance for examining weight of evidence required to implicate a food product.
- Engaging with industry may help to better understand production processes and the supply chain. This can assist in identifying risk factors and possible control measures and improve traceability.
- The hepatitis A incident further highlighted human enteric viruses as an emerging foodborne disease issue.

5.6 Summary of challenges and best practices

Dr Jean-Michel Poirson, EMPRES Food Safety, FAO

Each of the presentations on challenges and best practices provide elements that can be applicable in other countries. The broad themes that emerged throughout these sessions are described below:

Policy and systems: In order to strengthen preparedness, it is important to develop and implement response protocols and seek high-level support from government authorities. These efforts can improve coordination within a complex institutional environment utilizing the multidisciplinary farm-to-fork approach. Emergency planning is also vital and needs to build on existing legislation. Areas such as surveillance, epidemiology and event-identification capacities that are lacking should be recognised and built upon with the support of regional and international experts.

Communication: Interagency and international exchange of information is prudent during both response to food safety emergencies and during routine activities, and can be facilitated by INFOSAN. Effective communication during an emergency should include a record of decisions and response actions to ensure a transparent process that can be reviewed later. In addition, utilizing INFOSAN to share experiences and communication strategies for health promotion can contribute to the efficient and cost-effective implementation of foodborne disease prevention efforts.

Tools: Utilizing online tools to facilitate communication can improve the reporting of food safety events through the use of standardized submission forms. In addition, these tools can aid in the consolidation of information in an effort to improve product recall abilities, traceback efforts, etc. INFOSAN can be used to connect members to a vast pool of international and regional technical support, allowing them to work together in a collaborative way. Delivering training is an important aspect to consider when introducing a new tool.

Science-based actions: Food safety authorities around the globe are constantly challenged with insufficient data and time constraints when assessing and managing risks, especially during emergencies. By sharing risk assessments internationally members can learn from one another and improve their capacity in this area. INFOSAN can be utilized to seek input regarding analytical results, interpret health consequences, access laboratory capacity regionally and beyond, etc.

INFOSAN will continue to coordinate support for Network members during food safety events and encourage proactive international information sharing. In addition, INFOSAN will identify and address capacity building requirements for the analytical, event identification, early warning, and coordination aspects of emergency management.

6. Seeking member input for improving INFOSAN Information Notes and the INFOSAN Secure Website

6.1 INFOSAN Notes

Dr Masami Takeuchi, INFOSAN FAO Focal Point

The INFOSAN Secretariat publishes INFOSAN Information Notes which are designed to support members by providing technical information on various food safety topics. Dissemination of the INFOSAN Information Notes at national level is a responsibility of INFOSAN Emergency Contact and INFOSAN Focal Points who receive them directly from the INFOSAN Secretariat. Since 2004, INFOSAN has published 35 INFOSAN Information Notes (approximately 5–6 each year) on a broad range of food safety topics.

The current development process involves FAO and WHO identifying, prioritizing, and then drafting an outline of topical issues that are of interest to national food safety authorities. INFOSAN Notes are then written and peer-reviewed by experts within or outside the FAO and WHO. Editing, translation and publication occur at WHO. Taking into account human resource aspects and translation, costs for the development process are substantial.

INFOSAN members are invited to participate in any aspect of the development process, including suggesting topics, preparing drafts, peer-reviewing, assisting with translation and disseminating notes to a broader audience.

Summary points

- INFOSAN Information Notes provide members with technical information on various current food safety topics.
- INFOSAN Information Notes have been widely cited in academic literature, and have prompted international partnerships, including the link between the food safety authority in South Africa and WHO in preparation of health promotion activities for the 2010 FIFA World Cup.
- There is an opportunity for Network members to become more involved at each stage of the development process.
- Given the high cost associated with producing each of the INFOSAN Information Notes, the use of members' capacity and resources for translation of the Notes should be explored.
- Given the extent of the expertise existing within the Network, members are encouraged to assist in the development of INFOSAN Information Notes.
- Future INFOSAN Information Notes can be used to address "lessons learnt" from past food safety events from a country perspective. Producing the Information Notes may highlight the benefits of collaborations of INFOSAN members.

6.2 INFOSAN Secure Website

Dr Andrea Ellis, INFOSAN Secretariat, WHO

When managing food safety events, there is a practical requirement to access confidential or sensitive information with ease. There is also a need to share this information rapidly with colleagues around the globe. As updated event-related information becomes available, there needs to be a simple way to provide these updates to all involved. E-mail is often the standard default, however there can be several drawbacks:

- 1) Inboxes can become full quickly (because of large attachments, volume of data, etc.).
- 2) Sensitive information can be forwarded to an audience wider than is appropriate.
- 3) Important stakeholders can be missed on e-mail distribution lists (e.g. if someone is covering for a colleague).

To address these issues, the INFOSAN Secure Website (password protected) was developed and launched in November 2007. The website provides a secure, online repository for INFOSAN Alerts and up-to-date food safety event-related information. The lists of Emergency Contact Points and INFOSAN Focal Points are also kept updated on the website and can be accessed by Network members for direct communication between countries. In addition to providing a secure place to store documents, the website is also intended to provide a place for Network members to discuss significant food safety issues of global interest, and promote partnership and collaboration between countries to help strengthen their capacity to manage food safety risks. Although the website has a built-in discussion forum, this is not being sufficiently utilized by members.



After administering a survey to participants at the first global meeting of INFOSAN, the following feedback was obtained for the development of a new secure website for INFOSAN:

- Improve user interface to make navigation more intuitive.
- Enhance search features.
- Introduce web-based data entry forms for collection of standard data elements related to food safety events.
- Include links to the IHR events where applicable.
- Improve message board functionality.
- Allow users to receive e-mail notifications when new information is posted to the site.
- Ensure information is kept up to date.
- Allow for user-defined groups and discussion boards (e.g. for regional discussions, working groups, etc.).
- Deliver training to members.

Summary points

- Active participation in INFOSAN by Network members with more frequent access to the INFOSAN Secure Website is essential for members to fully engage in all the Network activities (e.g. to view alerts, access contact details of other members, contribute to discussions, etc.).
- The new INFOSAN Secure Website will improve the sense of community and knowledge transfer through the sharing of experiences between members.
- The new INFOSAN Secure Website will be more user-friendly, taking into account feedback from the survey of meeting participants.
- The new website design should be "light" in view of its operating requirements, recognising that not all members have reliable access to high-speed internet.
- INFOSAN Secretariat will consider using a web platform that is also mobile and smart phone compatible so that users can log in using their Blackberry, iPhone, etc.
- Training should be delivered to members using e-learning modules or online webinars once the new website is launched.

7. The way forward

Dr Maged Younes, WHO

With 177 member countries in the Network, 65 of which were represented at the first global INFOSAN meeting, members are primed to better engage in making INFOSAN a viable network. Members have demonstrated clearly their desire to share experiences, learn from each other, and contribute to global food safety. With many proven benefits both during emergency and non-emergency contexts, INFOSAN can only become stronger in the future. There are, however, fundamental issues remaining which need clarification. These relate to: 1) the designation process for new members; 2) the reporting process (e.g. what to report to the INFOSAN Secretariat, and how); 3) the best ways to interact; and 4) ways to effectively interface with other global networks.

Moving forward, the INFOSAN Secretariat will continue to foster a Community of Practice among INFOSAN members to ensure a user-engaged network. Support and suggestions will be provided to improve national coordination which will enhance contributions to global efforts. The INFOSAN Secretariat will also strive for seamless interactions with other global networks and initiatives and the implementation of effective methods for rapidly exchanging ideas in a secure environment.



Dr Maged Younes

To achieve these goals, the INFOSAN Secretariat will:

- Revise the current Members' Guide using a two-tiered strategy to delineate the administrative issues from the technical issues (with the technical aspects being addressed in a consultative process with members).
- Identify capacity-building needs and link with partners to meet those needs.
- Formalize agreements with other international networks and programmes.
- Improve the web-based communication platform to include user-defined functionality.
- Develop regionally-based strategies for enhancing participation in INFOSAN.
- Develop a resource mobilization plan to ensure sustainability as the INFOSAN Secretariat currently lacks the critical mass to meet the operational requirements of the Network.

8. Closing remarks

Dr Mariam Harib Sultan Al Yousuf, ADFCA

The meeting was closed by Dr Mariam Harib Sultan Al Yousuf, Executive Director, Policy and Regulation Sector, ADFCA, on behalf of His Excellency Rashid Mohamed Al Shariqi, Director General, ADFCA.

Summary points

- The first global meeting of INFOSAN highlighted the various efforts made by members to improve knowledge exchange and strengthen communication between food safety authorities.
- The themes of discussion included the common challenges faced by different food safety authorities and the best practices to address them.
- By sharing experiences and practical recommendations for managing food safety events, participants have strengthened the sense of community within the Network.
- The meeting fostered a global vision for safer food and has identified opportunities to strengthen capacity both nationally and regionally, and promote full participation in INFOSAN.



Dr Mariam Harib Sultan Al Yousuf

Annex 1. ADFCA INFOSAN Meeting Committee Members

INFOSAN Supervisory Committee

- | | |
|----------------------------------|--|
| - Mariam Hareb Sultan Al-Yousuf, | Executive Director of Policy and Regulation Sector |
| - Mohamed Jalal Al Reyaysa, | Director of PR & Communication Office |
| - Nasser Mohamed Aljunaibi, | Finance Director |
| - Ali Omar Abdulla Belfaqeh, | Director of Regulation & Standards Division |
| - Rima Zumot, | Consultant |
| - Mubarak Aylan Al Muhairi, | Administrative Service Director |

INFOSAN Organizational Working Team

- | | |
|------------------------------|---|
| - Ali Omar Abdulla Belfaqeh, | Director of Regulation & Standards Division |
| - Mohamed Jalal Al Reyaysa, | Director of PR & Communication Office |
| - Rima Zumot, | Consultant |
| - Sa'ada Khouri, | Manager of Support Services Section |
| - Ahmad Tawfiq Al Fahoum, | Agri-Food Risk Management Analyst |

INFOSAN Managerial and Financial Working Team

- | | |
|---------------------------------|---|
| - Nasser Mohamed Aljunaibi, | Finance Director |
| - Saeed Jasim Mohamed, | Manager of Awareness Team |
| - Mohamed Abdulla Al Fardan, | Manager of Publication and Media production |
| - Hamad Al Marzouqi, | Manager of Management Account Section |
| - Husain Ali Al Shamisi, | Senior Admin Officer |
| - Ghunaim Salem Faraj Altamimi, | Coordinator, Communication and Community Service Division |

INFOSAN Meeting Graphic Designer

- Mohamed Dahab Abdon



Annex 2. Participants

	Name	Organization	Country
1	Maria Antonia Sanazenge	Ministerio da Saude-Instituto Nacional de Saude Publica	Angola
2	Levon Tukhikyan	Ministry of Health, Department of Hygiene and Epidemiology	Armenia
3	Paul Brent	Food Standards Australia New Zealand	Australia
4	Barbara Butow	Food Standards Australia New Zealand	Australia
5	José Luis De Felipe	Directorate Health and Consumers - European Commission	Belgium
6	Michael DeShield	Belize Agricultural Health Authority	Belize
7	John Bodden	Ministry of Health	Belize
8	Pemba Yangchen	Ministry of Health	Bhutan
9	Dzemil Hajric	Food Safety Agency	Bosnia and Herzegovina
10	Daniela Beatriz de Castro Gomes	Anvisa - National Sanitary Surveillance Agency	Brazil
11	Rahmah Said	Ministry of Health	Brunei Darussalam
12	Mahani Muhammad	Ministry of Health	Brunei Darussalam
13	Zainon Mohd Taha	Minsitry of Health	Brunei Darussalam
14	Neliaya Mikushinska	Ministry of Health	Bulgaria
15	Aing Hoksrun	Ministry of Health	Cambodia
16	Bashir Manji	Canadian Food Inspection Agency	Canada
17	Hugo Schenone	Ministry of Health	Chile
18	Feng Yong	Ministry of Health	China
19	Zhang Feng	Ministry of Health	China
20	Yu Wenjun	General Administration of Quality Supervision, Inspection & Quarantine	China
21	Lu Jiang	National Center for Health Inspection and Supervision, Ministry of Health	China
22	Shu Bo-yee	Centre for Food Safety, Food & Env Hygiene Department, Hong Kong	China
23	Karima Abdérémane	Ministry of Health	Comoros
24	Rangiau Fariu	Ministry of Health	Cook Islands
25	Krunoslav Capak	Croatian Institute for Public Health	Croatia
26	Darja Sokoli -Mihalak	Croatian Food Agency	Croatia
27	Christos Christou	Ministry of Health	Cyprus
28	Jorgen Schlundt	National Food Institute	Denmark
29	Annick Lenglet	European Centre for Disease Prevention and Control	ECDC
30	Haifa Madi	World Health Organization, EMRO	Egypt
31	Mohamed Elmi	World Health Organization, EMRO	Egypt
32	Fatima Hachem	Food and Agriculture Organization of the United Nations	Egypt
33	María Jacqueline Villatoro Rugamas	Ministerio de Salud	El Salvador
34	Tobin Robinson	European Food Safety Authority	EFSA
35	Masami Takeuchi	Food and Agriculture Organization of the United Nations	FAO
36	Jean-Michel Poirson	Food and Agriculture Organization of the United Nations	FAO
37	Eleonora Dupouy	Food and Agriculture Organization of the United Nations	FAO

	Name	Organization	Country
79	Thouraya Annabi Attia	ANCSEP - Agence Sanitaire de Contrôle Sanitaire et Environnemental des Produits	Tunisia
80	Nilay Demir	Ministry of Agriculture and Rural Affairs	Turkey
81	Agaba Edson Friday	National Drug Authority	Uganda
82	Nick Tomlinson	Department of Health	United Kingdom
83	Abdalla Juma Al Junaibi	Abu Dhabi Food Control Authority	United Arab Emirates
84	Abdallah Omar	Abu Dhabi Food Control Authority	United Arab Emirates
85	Abdullah Siddiqui	Abu Dhabi Food Control Authority	United Arab Emirates
86	Abdulmonem Al Marshoodi	Abu Dhabi Food Control Authority	United Arab Emirates
87	Adel Al Mansouri	Abu Dhabi Food Control Authority	United Arab Emirates
88	Adel Khalfan Al Zaabi	Abu Dhabi Food Control Authority	United Arab Emirates
89	Ahmad Balkaila Al Amri	Abu Dhabi Food Control Authority	United Arab Emirates
90	Ahmed Kulaib	Abu Dhabi Food Control Authority	United Arab Emirates
91	Ali Omar Abdulla Belfaqeh	Abu Dhabi Food Control Authority	United Arab Emirates
92	Ambra M Bravo	Abu Dhabi Food Control Authority	United Arab Emirates
93	Beppe Di Giulilo	Abu Dhabi Food Control Authority	United Arab Emirates
94	Dr Adnan Alsamarrie	Abu Dhabi Food Control Authority	United Arab Emirates
95	Dr Eunice Taylor	Abu Dhabi Food Control Authority	United Arab Emirates
96	Dr Mariam Hareb Sultan Al-Yousuf	Abu Dhabi Food Control Authority	United Arab Emirates
97	Dr Mustafa Al Ghazali	Abu Dhabi Food Control Authority	United Arab Emirates
98	Dr Tareq Al Ameri	Abu Dhabi Food Control Authority	United Arab Emirates
99	Dr Alaa N A Joma	Abu Dhabi Food Control Authority	United Arab Emirates
100	Fadi Al Natour	Abu Dhabi Food Control Authority	United Arab Emirates
101	Eng Ahmad Tawq Al Fahoum	Abu Dhabi Food Control Authority	United Arab Emirates
102	Eng Rima H Zu'mot	Abu Dhabi Food Control Authority	United Arab Emirates
103	Ghunaim Al Tamimi	Abu Dhabi Food Control Authority	United Arab Emirates
104	Husain Ali Al Shamisi	Abu Dhabi Food Control Authority	United Arab Emirates
105	Khaled Abdullah Al Marzouqi	Abu Dhabi Food Control Authority	United Arab Emirates
106	Khalifa Ahmed Khalfan Al Ali	Abu Dhabi Food Control Authority	United Arab Emirates
107	Leon Pretorius	Abu Dhabi Food Control Authority	United Arab Emirates
108	Moanis Mohamed Abdel Faraj	Abu Dhabi Food Control Authority	United Arab Emirates
109	Mohamed Abdulla Al Fardan	Abu Dhabi Food Control Authority	United Arab Emirates
110	Mohamed Jalal Al Reyaysa	Abu Dhabi Food Control Authority	United Arab Emirates
111	Mohammad Farsi	Abu Dhabi Food Control Authority	United Arab Emirates
112	Mohammed Saeed Al Nuaimi	Abu Dhabi Food Control Authority	United Arab Emirates
113	Mubarak Ali Al Qusaili Al Mansouri	Abu Dhabi Food Control Authority	United Arab Emirates
114	Naseer Ghulam	Abu Dhabi Food Control Authority	United Arab Emirates
115	Rashed Al Shariqi	Abu Dhabi Food Control Authority	United Arab Emirates
116	Sabry Hassan	Abu Dhabi Food Control Authority	United Arab Emirates

	Name	Organization	Country
117	Thamer Rashed Mohamed Al Qasemi	Abu Dhabi Food Control Authority	United Arab Emirates
118	Su an Othman	Dubai Health Authority	United Arab Emirates
119	Adana Al Jalaf	Dubai Municipality	United Arab Emirates
120	Asia Murad	Dubai Municipality	United Arab Emirates
121	Basheer Yousef	Dubai Municipality	United Arab Emirates
122	Khaled Sharif Al Awadi	Dubai Municipality	United Arab Emirates
123	Arwa Mudwahi	Health Authority Abu Dhabi	United Arab Emirates
124	Maryam Al Matroushi	Ministry of Health	United Arab Emirates
125	Najwa Boor	Ministry of Health	United Arab Emirates
126	Dawood Salam Joul	Ras Khaimah Municipality	United Arab Emirates
127	Saoud Abdel Aziz Al Hamar	Ras Khaimah Municipality	United Arab Emirates
128	Afaf Kamal Al Deen	UAE University	United Arab Emirates
129	Aisha Abu Sheliabi	UAE University	United Arab Emirates
130	Marwan Shibeka	Abu Dhabi Chamber of Commerce and Industry	United Arab Emirates
131	Mohammed AlMarzouqi	Abu Dhabi Municipality	United Arab Emirates
132	Najdat Nour	Abu Dhabi Municipality	United Arab Emirates
133	Eman Alshamsi	Ministry of Environment and Water	United Arab Emirates
134	Mohamad Hamdan	Ministry of Environment and Water	United Arab Emirates
135	Ahmad Nasser Al Nadfaa'	National Emergency & Crisis Management Authority	United Arab Emirates
136	Khalifah Mohammed Al Hassani	National Emergency & Crisis Management Authority	United Arab Emirates
137	Ellen F Morrison	Food and Drug Administration	USA
138	Arthur Liang	The Centers for Disease Control & Prevention	USA
139	Peter Gerner-Smidt	The Centers for Disease Control & Prevention	USA
140	Sharipova Natalya	Ministry of Health	Uzbekistan
141	Tran Viet Nga	Viet Nam Food Administration	Viet Nam
142	Maged Younes	World Health Organization, Director, Food Safety and Zoonoses	WHO
143	Andrea Ellis	World Health Organization, INFOSAN Secretariat	WHO
144	Carmen Joseph Savelli	World Health Organization, INFOSAN Secretariat	WHO
145	Francoise Fontannaz	World Health Organization	WHO
146	Soren Bo Madsen	World Health Organization, Eastern Mediterranean Regional Office	WHO
147	Hussein Gezairy	World Health Organization, Eastern Mediterranean Regional Office	WHO
148	Hilde Kruse	World Health Organization, Europe Regional Office	WHO
149	Luck Matanhike	Government Analyst Laboratory	Zimbabwe

Annex 3. Agenda

Agenda

*Day 1: 14th Dec 2010

Time	Topic	Presenter(s)
09:00-10:00	Opening Ceremony	<ul style="list-style-type: none"> • UAE Patronage Representative • Hussein A. Gezairy, Regional Director, WHO Regional Office for the Eastern Mediterranean • Saad A. Al-Otaibi, ADG/FAO Regional Representative for the Near East • Andrea Ellis INFOSAN Secretariat, WHO
10:00-10:30	Opening Keynote Speech - Food safety in a global market: Sharing information to protect consumers	Alan Reilly Food Safety Authority of Ireland
10:30-11:00	Coffee Break	
11:00-11:45	Plenary Session 1 - Highlights of INFOSAN's Activities (2004-2010) Q&A	Andrea Ellis INFOSAN Secretariat, WHO
11:45-12:30	Plenary Session 2 - Revised INFOSAN Members Guide Q&A	Masami Takeuchi FAO INFOSAN Focal Point, FAO
12:30-14:00	Lunch – Hosted by ADFCA	
14:00-14:45	Plenary Session 3 - The development of a process for the identification of emerging risks in the food chain: Lessons learnt and a need for international networking Q&A	Tobin Robinson European Food Safety Authority
14:45-15:30	Plenary Session 4: The International Health Regulations (2005) and food safety events Q&A	Andrea Ellis
15:30-16:00	Coffee Break	

*Gala Dinner, Yas Hotel - Hosted by ADFCA

Time	Topic	Presenter(s)
16:00-17:30	Interactive Session 1: In regional groups of 20-40 people, a guided discussion of the challenges and opportunities in fully participating in INFOSAN	Led by Regional Food Safety Advisors

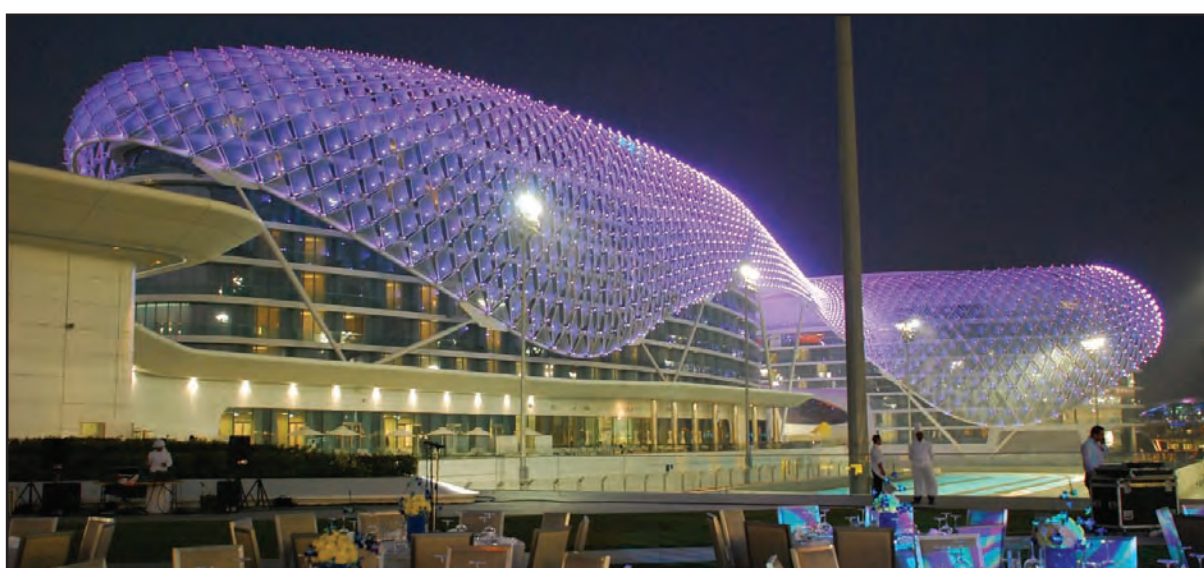
****Day 2: 15th Dec 2010**

Time	Topic	Presenter(s)
9:00-9:30	Feedback from Regional Discussions	Facilitator - Jorgen Schlundt
9:30-10:30	Plenary Session 5 - INFOSAN's work with other networks/ programs: 1. EMPRES Food Safety 2. GLEWS and other OIE programs	Jean Michel Poirson EMPRES Food Safety, FAO Karim Ben Jebara - OIE Q&A
10:30-11:00	Coffee Break	
11:00-11:45	Sharing challenges and best practices Session 1 - Managing food incidents in Australia	Paul Brent and Barbara Butow Food Standards Australia New Zealand
11:45-12:30	Sharing challenges and best practices Session 2 - Health Promotion in Food Safety	Penny Campbell, Emergency Contact Point Department of Health, South Africa Françoise Fontannaz Headquarters, WHO
12:30-14:00	Lunch – Hosted by ADFCA	
14:00-14:45	Sharing challenges and best practices Session 3 - Regional and national food safety alert systems	José Luis De Filipe - Rapid Alert System for Food and Feed, EC, EU Ellen Morrison - US Food and Drug Administration 15-minute discussion
14:45-15:30	Sharing challenges and best practices Session 4 - Panel discussion "Melamine in food 2008"	Facilitator - Jorgen Schlundt
15:30-16:00	Coffee Break	

Time	Topic	Presenter(s)
16:00-16:45	Sharing challenges and best practices Session 5 - Panel discussion Hepatitis A linked to semi dried tomatoes	Facilitator - Jean Michel Poirson

Day 3: 16th Dec 2010

Time	Topic	Presenter(s)
9:00-9:30	Feedback from sessions on sharing best practices	Jean-Michel Poirson
9:30-10:00	INFOSAN Notes - How they are used and how to improve them	Masami Takeuchi FAO INFOSAN Focal Point, FAO
10:00-10:30	INFOSAN Secure Website - How to make it more useful	Andrea Ellis INFOSAN Secretariat, WHO
10:30-11:00	Coffee Break	
11:00-11:45	Plenary Speech – The way forward for INFOSAN	Maged Younes - WHO
11:45-12:15	Closing Note	H.E. Rashid Shariqi Director General Abu Dhabi Food Control Authority
12:30-14:00	Lunch – Hosted by ADFCA	





الاجتماع العالمي الأول للإنفوسان
1st GLOBAL MEETING of INFOSAN
19-23 OCT 2010 11 Avenue 17th Century



9 789241 502108