FAO/WHO develop a new resource for improving risk communication capability in food safety

Background
Global, regional and national food-borne disease outbreaks and frequently associated large food recalls have significant impacts on public health, agri-food production and trade, and economies. They can also affect consumer confidence in the safety of the food supply. Lessons-learned analysis of such events has highlighted a need for more effective risk communication. As the use of Internet and social media technologies increases both in developed and developing countries, the public’s demand for greater transparency and more salient food safety risk information can be expected, confirming the importance of effective risk communication strategies in food safety and the broader public health sector.

Risk communication is an essential part of the “risk analysis” framework that has been adopted by many national and regional food safety authorities around the world. Risk communication is defined as the exchange of information and opinions concerning risk and risk-related factors among risk assessors, risk managers, consumers and other interested parties. The main goal of food safety risk communication is to increase the understanding of various stakeholders about the rationale behind decisions that are taken to assess food safety hazards and manage their risks. Risk communication helps people to make more informed judgments about the food safety hazards and risks they face in their lives, and it helps risk managers to understand the likely impact and effects of their different decisions. Food safety risk communication is often an on-going activity (e.g. promotion of hygiene practices) and should always be inclusive, engaging relevant stakeholder groups (government, consumers, industry, and others).

Rationale for new training programme
Due to global trends such as urbanization, globalization, and climate change, countries worldwide must increasingly anticipate and respond to new and unexpected food safety hazards and risks. It is important for countries to be prepared to not only identify, prevent, and mitigate such threats, but to also appropriately communicate risks to stakeholders in the food chain. The FAO and WHO have recognized a global need to develop guidance for countries in food safety risk communication. They have therefore jointly developed a new training programme to build global risk communication capacity for food safety.
The training programme encourages countries to develop and assess their existing risk communication plans and practices applied to food safety and to learn from their own and other countries’ previous experiences. The training programme is in its final stages of publication approval, and will be posted online in the near future. It includes introductory, semi-advanced and advanced modules that can be easily tailored to different targeted audiences and country settings, as well as a comprehensive guidance handbook.

**Training overview**

The purpose of the new training is to support countries, national food safety authorities and food chain stakeholders in establishing or enhancing risk communication practices and capacity in the food safety sector. Targeted audiences are national food safety authorities, managers, policy makers and specialists that are involved in food safety risk analysis, including both agri-food (including veterinary) and public health departments and agencies, which frequently share governmental national and regional responsibilities for food safety.

The new training focuses on practical principles and best practices of risk communication to support risk management of adverse food safety (including quality) events associated with biological, chemical or physical hazards. The focus of the training is on the use of risk communication in the process of risk analysis to manage both emergency food safety risks (e.g. foodborne illness outbreaks) and more enduring food safety issues (e.g. food safety and health promotion campaigns).

**Development of the training handbook and programme**

FAO and WHO used a structured, transparent, and participatory process to identify and integrate risk communication principles and practices from existing guides and training materials to ensure that the guidance handbook and training programme would be useful for a wide range of countries and regions, with a focus on the needs of low and middle income countries. Insights from an international expert meeting (Rome, August, 2013) were also captured and integrated to help frame the structure of the training resource. This included provision of case-studies based on real-life situations. The training programme was then pre-tested at two FAO regional workshops; one in Budapest, Hungary (June, 2014), and the other in Bangkok, Thailand (May, 2015). The handbook and final programme were then peer-reviewed by several international experts and stakeholders.
Short overview of the training handbook

The primary resource included in the training programme is a comprehensive guidance handbook. The handbook includes four main chapters:

1. What is risk communication and why is it important?
2. Principles of good risk communication
3. Key factors to consider before communicating about food safety risks
4. Putting food safety risk communication into action

Throughout the handbook tips are provided and examples from different countries and regions are described to illustrate principles and practices of effective food safety risk communication and lessons learned from real-life case studies. The handbook also provides a series of tools that countries can use to support their risk communication efforts, including a stakeholder mapping tool, a self-checklist to assess national risk communication capacity, and a decision-making aid about when to communicate about food safety risks. A short overview of each chapter is provided below.

What is risk communication and why is it important?

The first chapter introduces the key goals and concepts of risk communication, including the key factors that may influence its success. Elaboration is provided on the application and uses of risk communication in food safety, stakeholder dialogue and engagement, a risk-benefit communication approach, and the importance of considering risk perceptions for effective risk communication. Key challenges are described, as well as the advantages and benefits of developing an effective and inclusive risk communication strategy.

Principles of good risk communication

The second chapter introduces the importance of trust in information and governing institutions for effective food safety risk communication. The key risk communication principles of transparency, openness, responsiveness and timeliness are described, which all contribute to the development and maintenance of trust. The role of adequate planning to enable organizations to develop a timely, well-coordinated and effective response to food safety risks is also described.

Key factors to consider before communicating about food safety risks

The third chapter describes key factors that should be considered when selecting the most feasible approaches and practices for communicating risk information on a particular food safety issue. This includes the importance of understanding the nature of the food safety issue and the target audiences, including their cultural and socio-economic background, to determine how best to inform them about food safety risks. This chapter also describes how food safety risks must be discussed within the particular historical, political and media environment in which they occur, and the need to define a risk communicator’s responsibilities for food safety situation.
**Putting food safety risk communication into action**

The final chapter integrates key messages shared in previous chapters into practical guidance for the conduct of effective food safety risk communication. This includes continuous coordination of risk communication efforts, practical approaches on how to identify and understand target audiences and their needs, and how to effectively engage and interact with stakeholders. A decision-making aid on when and what to communicate on food safety risks in the presence of uncertainty is illustrated, as well as a guide for developing food safety risk messages and monitoring and evaluating risk communication activities.

**Highlights from two regional training workshops**

The risk communication training resource, including the handbook, was pre-tested in Budapest, Hungary, in 2013. The workshop was attended by 30 participants representing food safety and public health authorities from 10 countries in the Eastern Europe and Central Asia region. The workshop was delivered by two internationally recognised risk communication specialists, Drs. Bill Hallman (USA) and Lynn Frewer (UK), in collaboration with FAO/WHO coordination.

Group discussions at regional workshops in Budapest and Bangkok

Very positive feedback was received from the participants and guest speakers, suggesting high relevance and feasibility of the training to both developing and developed countries. Based on feedback received at this workshop, modifications and clarifications were made to the program and resources.
The three-day regional training (May 2015) was also organized for 40 food safety, public health, veterinary and other managerial and technical representatives from 13 Asian and Pacific countries. Very positive feedback received from all countries included specific recommendations: additional/advanced training on how to effectively communication with media (specifically in presence of uncertainty); on crafting messages for audiences with various needs (e.g. cultural differences); more concerted efforts to exchange existing regional expertise/experience among countries, and through enhanced utilization of recently developed INFOSAN Asia network.

**Selected highlights**

For illustration purposes, we show some examples of training applications and tips developed based on real-life, case studies collected from various countries and regions.

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**Box 1.1.**
The need for targeted risk-benefit communication (Source: FAO/WHO)

Eating fish may be associated with increased consumption of methyl mercury. At the same time increased consumption of omega-3 fatty acids, which are found in fish, have health benefits. The benefits and risks of eating fish may also vary across the population. For example, pregnant women or people who are immunocompromised are more at risk from contaminants such as methyl mercury. If everyone eats less fish, however, people who are not vulnerable may be disadvantaged. Similarly, if pregnant women reduce their consumption of all fish they may be disadvantaged, as there are also benefits to the developing child or fetus for pregnant women to consume fish. The risk information therefore needs to address who is at risk, together with information about who will, and who will not, benefit from reduced consumption of certain fish.

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**Box 1.4.**
Factors influencing risk perception

<table>
<thead>
<tr>
<th>Factor</th>
<th>Increase risk perception</th>
<th>Decrease risk perception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceived naturalness</td>
<td>Unnatural/mannmade</td>
<td>Natural hazard</td>
</tr>
<tr>
<td>Perceived controllability</td>
<td>Uncontrollable</td>
<td>Personal controllability</td>
</tr>
<tr>
<td>Scientific knowledge</td>
<td>Risks are unknown to science</td>
<td>Risks are known to science</td>
</tr>
<tr>
<td>Familiarity</td>
<td>New risk</td>
<td>Familiar risk</td>
</tr>
<tr>
<td>Voluntariness of exposure</td>
<td>Involuntary exposed</td>
<td>Choice over exposure</td>
</tr>
<tr>
<td>Perceived catastrophic potential</td>
<td>Many people are affected at the same time</td>
<td>People are affected over a greater period of time</td>
</tr>
</tbody>
</table>
### Severity of consequences
- **Severe consequence** (regardless of likelihood of occurrence)
- **Non-severe consequences**

### Immediacy of consequences
- Consequences are immediate
- Consequences are delayed

### Who is affected
- Vulnerable people (e.g. children, infants, and pregnant women)
- Not vulnerable

### Perceived distribution of risks and benefits
- Unequal distribution of risks and benefits
- Equal distribution of risks and benefits

### Ethical and moral concerns
- Risk is seen as ethically or morally wrong (e.g. fraudulent acts)
- No ethical or moral concerns

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**Tip**

Risk communicators should not expect people to trust or listen to them because they are a food safety expert or in a position of authority. To increase trustworthiness, they should actively work to demonstrate honesty, empathy and a sense of shared values, and that decisions and recommendations are aimed at protecting public health.

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**Box 2.1. Risk communication about pesticides on fruits and vegetables in the United States**

#### Summary
Every year in the United States, the Environmental Working Group (EWG) publishes its Dirty Dozen list: A list of twelve fresh fruits and vegetables that are comparatively high in pesticide residue levels. Their key messages are: any level of pesticide residue is too much, and for the twelve items on the list, buy organic produce if possible.

The annual publication of the Dirty Dozen list results in negative consumer perceptions of these fruits and vegetables, a message that goes against dietary advice to increase fruit and vegetable consumption, as the benefits of a diet rich in fruits and vegetables outweigh the risks of regulated pesticide exposure.

#### Key risk communication challenge:
- To address negative consumer perceptions of the twelve fruits and vegetables published in the EWG’s Dirty Dozen list.

#### Actions:
The Alliance for Food & Farming (Alliance), representing agricultural associations, commodity groups and individual growers/shippers of both organic and conventionally-grown produce, launched an ongoing campaign to address negative consumer perceptions.

The key messages are:

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1 This case has been kindly provided by Ms Amy Philpott, Watson Green LLC.
Pesticides are heavily regulated and controlled by the government; with few exceptions, the residue levels of the items on the list are still within the safety tolerances set by the government and are safe; EWG is using fear, not facts.

The Alliance cited research studies on their website, and included video interviews and testimonials from independent researchers and health experts as well as farmers. This is likely to have increased the credibility of the Alliance. Communicating that they have organic producers supporting their message could have furthermore reduced potential perceptions that the Alliance is promoting their own vested interests in their messages. Communication strategies of the Alliance may have facilitated the public’s perception of the Alliance as a trustworthy information source and may have undermined the trustworthiness of EWG as information source.

**Lessons learned**

When there are conflicting messages, people can rely heavily on personal trust in the messenger to determine which message to believe.

To increase trustworthiness of an information source, it is recommended to use credible and independent scientific expertise, be honest, and address in the communication efforts potential perceptions of promoting own interests.

**Box 3.4.**

**The role of food in culture and society**

Food and food preparation practices play a unique role in cultures and society and must be taken into account when developing food safety risk messages.

- Foods are part of religious, cultural and traditional practices (e.g. the ritual preparation and consumption of certain foods).
- Food choices are a way to communicate one’s personal identity or cultural membership, or as an expression of ideological viewpoints (e.g. not eating (certain) meat products).
- Some foods have special symbolic importance (e.g. milk, honey, fruit and vegetables can be associated with health, purity and wholesomeness). Adulteration of such products may be seen as especially objectionable, and the risks connected with the contamination of these foods may also be perceived as much greater because of their symbolic value.

**Tip**

Dialogue with stakeholders and target audiences in the message development phase, and testing messages with target audiences, help identify potential unintended consequences of the communication in advance.
Box 4.7
Communicating uncertainty

When communicating about a food safety issue under conditions where risk information is associated with uncertainty, or where there are gaps in knowledge, it is important to:

- Acknowledge areas of uncertainty
- Communicate what is being done to reduce uncertainties
- Communicate the implications of remaining uncertainties for food safety
- Provide advice about what people can do to protect themselves

In addition, it is important to:

- Acknowledge that early messages may change as further information is gathered and/or verified.
- Release and discuss more complete information when it becomes available, its implications, and any revised course of action that may further protect food safety and prevent illness.

Tip

During emergency food safety situations, it is often useful to identify one governmental agency to coordinate communication efforts, and to appoint one or more appropriate spokespersons on behalf of multiple governmental agencies, to ensure consistency of government messages and to avoid confusion.