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PROGRAM OF ACTIVITIES

22 June 2008 (Sunday)

Arrival of Participants

23 June 2008 (Monday)

8:30am - 9:00am **Registration & Distribution of Training Materials**

9:00am – 10:00am **Opening Ceremonies**

Keynote Speech
Usec. Bernie Fondevilla, Department of Agriculture

Introduction of Participants

Briefing of the Mechanics of the Training & Introduction of Speakers
Mr. Israel Q. Dela Cruz, *Senior Science Research Specialist* of the Bureau of Agriculture and Fisheries Product Standards

10:00am – 10:30am **Morning Break**

10:30am – 12:00nn **Pre-training Evaluation Exam on Risk Analysis & Risk Communication**

Training Case Study: Risk Communication and Government.
The participants should be able to write a paper at the end of the training designed to provide a baseline understanding of risk communication in their government based on the lectures provided by experts. The paper should provide details on how to bridge the gaps with respect to risk communication and aspects of risk management and details on how to improve their government's overall risk communications strategies and activities.

Rationale & Background of the Training
Dir. Gilberto F. Layese, *Director*, Bureau of Agriculture and Fisheries Product Standards, Project Overseer

Introduction - Global Food Safety Strategy
Dr Sonia Y De Leon, President, Foundation for the Advancement of Food Science & Technology
Challenges in Food Safety: Current Situation
Needs for Risk Analysis
Managing Food Safety Risk

Group Photo

12:00nn – 1:30pm **Lunch Break**

1:30pm – 3:30pm **Review of Risk Analysis**
Ms Christel Leemhuis, Food Standards Australia New Zealand (FSANZ)
What is Risk Analysis
Development of Food Safety Risk
Components of Risk Analysis – Risk Assessment, Risk Management, Risk Communication
Risk Analysis Framework/Principles
Importance of Risk Analysis

Elements & Guiding Principles
Dr Deborah Cai, University of Maryland

Introduction
Goals of Risk Communication
Risk Communication as integral part of Risk Analysis
Roles and Responsibilities for Risk Communication
Elements of Effective Risk Communication
Principles of Risk Communication

Open Forum

3:30pm – 4:00pm **Tea Break**

4:00pm – 5:00pm **Elements & Guiding Principles** *(cont.)*
Dr Deborah Cai, University of Maryland

Components of Risk Communication
Trust – Building trust and its three general principles
Perception – Public estimation of risks
Dread values – fright and dread factors

Summary: Dr. Dario Sabularse

7:00pm – 10:00pm **Welcome Dinner with the Dignitaries**
Sponsored by the Bureau of Agriculture and Fisheries Product Standards

24 June 2008 (Tuesday)

9:00am – 10:00am **Barriers to Effective Risk Communication**
Ms Christel Leemhuis (FSANZ) & Ms Samara Kitchener (New South Wales Food Authority)

Barriers within the risk analysis process
Barriers within the Codex Process
Barriers to communication in all contexts

Strategies to Effective Risk Communication
Ms Christel Leemhuis, FSAN) & Ms Samara Kitchener, New South Wales Food Authority

General consideration for effective risk communication

Points to consider regarding public concerns
Strategies for Risk Communication in non-crisis situations
Strategies for Risk Communication during a food safety crisis (international, national and industry responses)
Strategies on communication of Risk Management decisions

Open Forum

10:00am – 10:30am **Morning Break**

10:30am – 12:00nn **Aspects of Science-Based Communication**
Ms Christel Leemhuis, FSANZ
Communicating about science
Duality of Risk Assessment
Uncertainty in Science

12:00nn – 1:30pm **Lunch Break**

1:30pm – 2:30pm **Risk Communication Activities & Programs of the United States of America**
Dr. Marjorie Davidson, US FDA

Risk Communication Activities & Programs of Australia
Ms Samara Kitchener, NSW Food Authority

Open Forum

3:30pm – 4:00pm **Tea Break**

4:00pm – 5:00pm **Some Success Stories in Properly Managed Risk Communication: Benefits & Failures**
Dr. Marjorie Davidson, US FDA
Costs, Effects,
Difficulties/Challenges
Resolutions

Summary: Dr. Dario Sabularse

25 June 2008 (Wednesday)

9:00am – 10:00am **Economy Presentation**
Brunei Darussalam
People's Republic of China
Chinese Taipei
Indonesia

10:00am – 10:30am **Morning Break**

10:30am – 12:00nn **Economy Presentation** (cont.)
Malaysia
Mexico
Papua New Guinea

Korea

12:00nn – 1:30pm **Lunch Break**
Economy Presentation (cont.)
Peru
Philippines
Singapore
Thailand
Viet Nam

1:30pm -3:00pm **Risk Communication Studies: Emerging Food Safety Concerns**
Analysis, Strategies, Public Perception

GM Crops and Products – Dr. Ernelea Cao, Director, Natural Sciences Research Institute, University of the Philippines Diliman
Pesticide Residues – Dr. Dario Sabularse, Fertilizer Pesticide Authority

Open Forum

3:30pm – 4:00pm **Tea Break**

4:00pm - 5:00pm **Risk Communication Case Studies: Emerging Health Concerns**
Analysis, Strategies, Public Perception
Ms Christel Leemhuis

Analysis, Strategies, Public Perception
Microbiological case studies
- Listeria
- Poultry PPP Standards

Novel Technologies case studies
- Irradiation
- Nanotechnology

Summary: Dr Sonia Y De Leon

26 June 2008 (Thursday)

9:00am – 10:00am **Risk Communication: from Theory to Application**
Operationalizing the theory
-Sharing responsibility (government public relations)
-Trust and Transparency
Source Credibility
The Challenge of Resources and capacity
Risk Perception versus reality
-Life cycle of public perception of food hazard
Evaluation of risk
Setting Goals
Developing Messages
Incorporating public input

10:00am – 10:30am **Morning Break**

10:30am – 12:00nn **Risk Communication Model**
Dr. Deborah Cai, University of Maryland
Horizontal Approach (Renn's model)
Risk Communication in public risk decision-making
Risk Communication Framework
Science Advice
Communications model

Food Recall

Food Recall experience USA, Spinach Food Recall
Dr. Marjorie Davidson, USFDA
Food Recall experience Australia
Ms Christel Leemhuis, FSANZ

12:00nn – 1:30pm **Lunch Break**

1:30pm – 2:00pm Risk Communication Case Studies: Emerging Health Concerns
Analysis, Strategies, Public Perception
Ms Samara Kitchener

Dioxins in seafood from Sydney Harbour (2006)
Hydrogen cyanide in cassava-based vegetable chips / crackers (2008)

Fish Consumption – Methyl Mercury in Fish
Dr. Marjorie Davidson, US FDA

Open Forum

Workshop Session/Consultation for Case Study Work
Training Case Study: Risk Communication and Government.
The participants should be able to write a paper at the end of f the training designed to provide a baseline understanding of risk communication in their government based on the lectures provided by experts. The paper should provide details on how to bridge the gaps with respect to risk communication and aspects of risk management and details on how to improve their government's overall risk communications strategies and activities.

Communication Strategies
Action Plan
Communication Tools

Summary: Dr. Sonia Y. De Leon

3:30pm – 4:00pm **Tea Break**

4:00pm – 5:00pm **Workshop Session/Consultation for Case Study Work** (cont.)

Finalization of Case Study Report/Printing Report

	Making of Powerpoint Presentation of the Case Studies
7:00pm – 10:00pm	**Farewell Dinner** Sponsored by the Bureau of Agriculture and Fisheries Product Standards

27 June 2008 (Friday)	
9:00pm – 10:00am	**Presentation of Case Studies** Brunei Darussalam China Chinese Taipei Indonesia Korea Malaysia Mexico Papua New Guinea
10am -10:30am	**Morning Break**
10:30am -12:00nn	*cont.* **Presentation of Case Studies** Peru Philippines Singapore Thailand Viet Nam **Discussion of Case Studies (**Comments by the speakers and consultants, suggestions and analysis) **Evaluation Exam** **Evaluation of Speakers & Handling of the Training** **Closing Ceremonies** **Message – Dr. Sonia Y. De Leon** **Giving of Gifts/Tokens**
12:00nn – 1:30pm	**Lunch Break**
1:30pm – 6:00pm	**City Tour** **Free Time**

June 28, 2008	**Departure of Participants**
	Distribution of Draft Report/Certificates **Departure of Participants**

KEYNOTE SPEECH
of
HON. ARTHUR C. YAP
Secretary
Department of Agriculture, Philippines

Delivered by:
GILBERTO F. LAYESE
Director
Bureau of Agriculture and Fisheries Product Standards
Department of Agriculture, Philippines

During the
Capacity Building Training on Food Safety Risk Communication
For APEC Developing Member Economies
on 23-27 June 2008, The Malayan Plaza Hotel, Ortigas Center, Manila

On behalf of the Filipino people and our beloved President Gloria Macapagal Arroyo, and the men and women of the Philippine Department of Agriculture led by Secretary Arthur Yap, it is my distinct honor to welcome all of you – the delegates, resource persons and guests of this five-day training on Food Safety Risk Communication for APEC Developing Member Economies.

Mabuhay!

Secretary Yap sends his sincerest apologies for he is unable to attend this affair, as he is in the United States of America with President Arroyo for an official state visit.

At the outset, we at the Philippine Department of Agriculture – through the Bureau of Agriculture and Fisheries Product Standards (BAFPS) – sincerely thank the APEC for favorably considering our proposal to serve as host of this important activity.

At this point, please permit me to read the message of Secretary Yap:

“In recent years, it has become more imperative for our respective countries to strictly observe and comply with the accepted set of international standards on various products – most particularly food and other agricultural and fishery commodities.

“This is mainly because, compliance to international food standards – particularly the so-called ***Codex Alimentarius*** or food code – is the ticket to penetrating and surviving in the export market.

"And we should all commend the pioneering work of the ***Codex Alimentarius Commission*** through more than four decades and counting. Congratulations and keep up the excellent work!

"Since its creation in 1963 by the United Nations' Food and Agriculture Organization (FAO) and the World Health Organization (WHO), the Commission has been developing food standards, guidelines and codes of practice to protect consumers, ensure fair food trade practices, and promote coordination among international governmental and non-governmental organizations that undertake work on food standards, regulation and trade.

"More recently, with the establishment of the World Trade Organization in January 1995, compliance to and harmonization of food safety standards have been elevated to a higher level.

"In all, Codex standards have become the benchmarks against which national food measures and regulations are evaluated within the legal parameters of the WTO.

"Thus, we in the Asia-Pacific region, being WTO members, have been strictly adhering to the internationally-accepted food safety standards.

"The bottomline of our efforts is to keep up with the competition and capture a share of the global market – all for the benefit of our respective farmers, fishers, food processors and exporters, and more importantly for the satisfaction and acceptance of consumers, in both the domestic and export markets.

"Thus, maintaining and continuously improving food quality – that also means keeping the food-related risks to the minimum – is the real key.

"But this is easier said than done.

"And part of such challenging task is communicating to all our stakeholders what food safety standards and risks are all about.

"That brings us to why we are gathered here today and for the next four days.

"So by choice or designation, a part of the responsibility rests on your shoulders on how to effectively communicate the so-called "A-to-Z" of food safety standards and risks.

"It is our hope that after this five-day training, you will be able to translate scientific jargon into simple messages that anyone will understand and appreciate.

"Indeed, this is a huge challenge, especially for those who are not into writing or do not have any journalism background.

"But as most editors and bosses say: Practice makes perfect.

"For your efforts, you will earn the distinction of being the first batch of graduates of this pioneering food safety risk communication training program.

"So, may this be an enjoyable, learning experience for all participants, resource persons and guests.

"And beyond the confines of this world-class hotel, I hope that you find time to savor Filipino food and our brand of hospitality, and better yet visit one or two of our tourist spots of your preference.

"Once again, I wish you all a productive training, and a pleasant way in the Philippines!

"Thank you for this honor and privilege. Mabuhay!"

That, ladies and gentlemen, is the brief message of Secretary Arthur Yap. Thank you, too, for this opportunity, and good day!

Training Details & Mechanics

Israel Q. Dela Cruz
Bureau of Agriculture and Fisheries Product Standards

Training Program Overview

Four main components:

- **Theoretical Aspects of Risk Communication**
- **Application of Risk Communication**
- **Case Study & Evaluative Examination**
- **Economy Presentation/Experiences**

Delivery Mechanisms

- Lectures and Open Forum
- Discussion Groups/Workshops
- Examination and Case study
- Economy Experiences

Major Topics

- Review of basic Risk Analysis concepts and framework
- Theoretical aspect of Risk Communication
- Elements and guiding principles of Risk Communication
- Barriers and strategies of effective Risk Communication
- Aspects of science-based communication

Major Topics

- Communicating about the food
- Food recalls
- Risk communication activities in the USA and Australia and participating APEC economies
- Risk communication strategies of emerging health concerns

What Participants will gain from the Program?

- Theoretical and practical understanding of effective Risk Communication
- Capacity to develop effective Risk Communication strategies and overcome barriers including emerging and new food safety or health concerns
- Be able to communicate outcomes of both the risk assessment and risk management to appropriate stakeholders

What Participants will gain from the Program?

- Tools to improve their government or organizations competency in the area of Risk Communication
- Involvement in a regional network of colleagues with Risk Communication capability and expertise

Summary of Schedule

Day 1 (Monday)

- Morning
  - Opening Ceremonies
  - Rationale & Background of the Training
  - Introduction of Participants
  - Pre-Training Evaluation Exam
  - Training Case Study: Risk Communication and Government
  - Briefing and Mechanics of the Training
  - Introduction – Global Food Safety Strategy

Day 1 (Monday)

- Afternoon
  - Review of Risk Analysis
  - Elements & Guiding Principles
    -Introduction
    -Components of Risk Communication
  - Open Forum

Day 2 (Tuesday)

Morning

- Barriers to Effective Risk Communication
- Strategies to Effective Risk Communication
- Open Forum
- Aspects of Science-Based Communication
- Communicating About the Food

Day 2 (Tuesday)

- **Afternoon**
  - **Risk Communication Activities & Programs of the United States of America**
  - **Risk Communication Activities & Programs of Australia**
  - **Some Success Stories in Properly Managed Risk Communication: Benefits & Failures**
  - **Highlights of Days 1 & 2**

Day 3 (Wednesday)

Morning

Economy Presentation:

- Brunei Darussalam
- China
- Chinese Taipei
- Indonesia
- Korea

Day 3 (Wednesday)

Morning

Economy Presentation:

- Malaysia
- Mexico
- Papua New Guinea
- Peru
- Philippines
- Singapore
- Thailand
- Viet Nam

Day 3 (Wednesday)

- Afternoon

Risk Communication Studies: Emerging Food Safety Concerns *Analysis, Strategies, Public Perception*

- Fish consumption
- GM Crops and Products
- Pesticide Residues
- Dioxins in seafood
- Hydrogen Cyanide
- Microbial
- Novel food technologies

Day 4 (Thursday)

- **Morning**
- **Risk Communication: from Theory to Application, Operationalizing the theory**
- **Risk Communication Model**
- **Food Recall (USA & Australia)**
- **Highlights of Days 3 & 4**

Day 4 (Thursday)

- Afternoon
- Workshop/Preparation for your case studies
- Drafting of presentation

Day 5 (Friday)

Morning/Afternoon

- Economy Presentation of Case Studies
- Discussion of case studies
- Evaluation exam, speakers and handling of the training
- Closing ceremonies

Training Case Study: Risk Communication and Government.

- *The participants should be able to write a paper at the end of the training designed to provide a baseline understanding of risk communication in their government based on the lectures provided by experts. The paper should provide details on how to bridge the gaps with respect to risk communication and aspects of risk management and details on how to improve their government's overall risk communications strategies and activities.*

Case Studies

- The participants should be able to write a paper at the end of the training designed to provide a baseline understanding of risk communication in their government based on the lectures provided by experts.
- The paper should provide details on how to bridge the gaps with respect to risk communication and aspects of risk management and details on how to improve their government's overall risk communications strategies and activities.
- The objective of this case study is to review current theory on risk communication and to ultimately propose a **model for food risk communication within your organization/agency**.

Resource Speakers

- **Dr. Marjorie Davidson**, *Food and Drug Administration, United States of America*
- **Dr. Deborah Cai**, *University of Maryland, College Park, United States of America*
- **Ms. Samara Kitchener**, *New South Wales Food Authority, Australia*
- **Ms. Christel Leemhuis**, *Food Standards Australia New Zealand*

Resource Speakers

- **Dr. Sonia Y. De Leon**, *Foundation for the Advancement of Food Science & Technology, Inc, Philippines*
- **Dr. Dario Sabularse**, *Fertilizer Pesticide Authority, Philippines*
- **Dr. Ernelea Cao**, *University of the Philippines, Diliman Campus*

Reminders

- Welcome Dinner/Farewell Dinner
- Case Studies
- Correct the list at the back
- Confirmation of flights
- Information about the place (at the back)
- Any handouts that are unreadable
- Other additional information about the place or other places that you would like to visit
- Be sure to keep every receipts of any documents for your reimbursement as stated in your travel undertaking
- Hotel-airport transfer
- Other matters

Rationale & Background of the Training

Capacity Building Training on Food Safety Risk Communication for APEC Developing Member Economies

Gilberto F. Layese
Director, Bureau of Agriculture & Fisheries Product Standards
Project Overseer

Background

- This project was proposed during the first meeting of APEC Food Safety Forum last 2-4 April 2007 in Hunter Valley, Australia
- This project is primarily in accordance with the Capacity Building Priorities of the APEC Food Safety Cooperation Initiative endorsed by the Sub Committee on Standards and Conformance under the activities on **Information-Sharing and Communication Networks and Technical Skills and Human Resource Capacity**

Project Objectives

- **To build capacity among the APEC developing economies on the area of effective information-sharing and communication networks particularly on risk communication within the schemes of risk analysis;**
- **To strengthen capability in technical skills among developing APEC economies' food safety experts on the area of risk communication;**

Project Objectives

- **To create regional profile of current risk communication infrastructures, policies, activities and strategies in managing effective risk communication as part of the national food safety programs**

Rationale

- A key rationale of this project is based on *cooperation* and *networking* among member developing economies in building their capacity in the area of food safety risk communication as it upholds the endeavours stated in the APEC Food Safety Cooperation Initiative and supports the objectives of the APEC Food Safety Forum.

Facts

- While the advantages of effective risk communication are obvious, communication does not occur automatically, and it has not always been easy to achieve.
- Risk Communication requires specialized skills and training, to which not all food safety officials have had access.
- Risk Communication also requires extensive planning, strategic thinking and dedication of resources to carry out.

Facts

- And since risk communication is the newest of the three components of risk analysis to have been conceptualized as a distinct discipline, it is often is the least familiar for risk analysis practitioners.
- The great value that communication adds to any risk analysis justifies expanded efforts to ensure that it is an effective part of the process.
- Communication elements of a risk analysis need to be well organized and planned, just as risk assessment and risk management elements are.

Therefore…

This training explores the complexity of Risk Communication from different perspectives, including a review of some of the recent theory on risk communication with a focus on food risk and science-based communication.

The Framework

To provide a baseline understanding of risk communication, to bridge gaps with respect to risk communication and aspects of risk management, and to improve the participants' overall risk communications strategies and activities.

Indeed, no one form of risk communication will satisfy everyone, but it is possible to align theory in a predictable way and thus, build an effective communication strategy.

Food Safety and Risk Communication

The practical application of risk communication in relation to food safety involves all aspects of communications among risk assessors, risk managers and the public, which include:

Food Safety and Risk Communication

- Mechanisms of delivery;
- Message content;
- Timeliness of the communication;
- The availability and the use of supporting materials and information; and
- The purpose, credibility and meaningfulness of the communication.
- Risk communication goals should reflect a two-way exchange of information leading to a common approach to discussion of issues and a common influence on risk decisions.

Point to Ponder

- Risk communication will not, even when effectively used, solve all problems or resolve all conflict on issues. On the other hand, poor or absent communication will almost certainly lead to failure to manage risk effectively.

Project Implementing Agency

The Bureau of Agriculture and Fisheries Product Standards

BAFPS is the Philippines Codex Contact Point

- ✓ Link between Codex Secretariat and Member Countries
- ✓ Coordinate all relevant Codex Activities within their countries
- ✓ Receive all Codex final text
- ✓ Send comments/proposals
- ✓ Receive invitation to Codex Sessions

FUNCTIONS OF BAFPS (RA 8435, Sect. 63)

"Formulate & enforce standards of quality in the processing, preservation, packaging, labeling, importation, exportation, distribution & advertising of agricultural & fisheries products;

Conduct research on product standardization, alignment of the local standards with the international standards; &

Conduct regular inspection of processing plants, storage facilities, abattoirs, as well as public and private markets to ensure freshness, safety and quality of products."

THANK YOU

GOOD DAY!

GLOBAL FOOD SAFETY STRATEGY

By
Sonia Y. de Leon, Ph.D. M.B.M
President, Foundation for the Advancement of Food Science and Technology (FAFST)

GLOBAL FOOD SAFETY STRATEGY

1. Need for Global Food Safety Strategy
   1.1 Food Safety Situationer
   1.2 Challenges in Ensuring Food Safety
2. International Effort :
   WTO, WHO, FAO, CODEX
3. Programs on Risk Analysis
4. Regional Effort : APEC

References

1.1 FOOD SAFETY SITUATIONER

- Consumers today are taking unprecedented interest in the way food is produced, processed and marketed

DEVELOPMENT OF CONSUMER PRIORITIES ON THEIR FOOD SUPPLY

1930s-40s	1950s-60s	1970s-80s	1990s	2000-present
FOOD SUPPLY	FOOD PRICES	FOOD CHOICES	FOOD SAFETY	FOOD GUARANTEE

1.1 FOOD SAFETY SITUATIONER

Food safety outbreaks have negative consequences on individuals, communities and countries

1.1 FOOD SAFETY SITUATIONER

Negative Consequences of Food Safety Outbreaks

- Consequences on **Consumer Health**
- **Financial Consequences**
  - Loss of income while incapacitated
  - Long-term consequences of the disease that affects work performance
- **Economic Effects** on the Individual, the Industry or the Country
- **Emotional Effects**
  Fear (e.g., BSE scare)

1.1 FOOD SAFETY SITUATIONER

Importance of Food Safety

To protect consumer health

To gain market access

- Retailer requirements
- Government requirements

1.1 FOOD SAFETY SITUATIONER

Negative Consequences of Food Safety Outbreaks

Business and Industry

Nation and Government

1.1 Current Situation

- **In 2005 the value of agricultural exports accounted to approx.**
  US$669 billion.
- **This was an 8% increase from a year earlier and a 23 % increase over the 2000 level of exports.**

*in nominal terms; 6% increase in constant prices

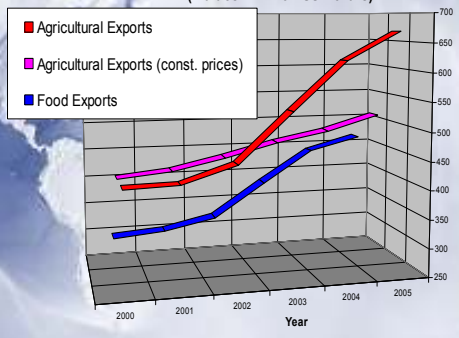
Agricultural / Food Exports Year 2000 to 2005 (Values in Billion US Dollars)

YEAR	AGR. EXPORTS (CONSTANT)		Unit value index FOOD EXPORT	AGR. EXPORT
2000	421.828	1	421.828	294.841
2001	424.334	0.99	430.316	302.502
2002	454.003	1.01	450.127	321.847
2003	537.582	1.13	473.647	384.041
2004	620.558	1.26	491.437	440.815
2005	669.063	1.29	517.406	464.34

FAO STAT:http://faostat.fao.org/site/342/default.aspx accessed on 2 June 2008

Agricultural / Food Exports from Year 2000 to 2005

(Values in Billion US Dollars)



Factors Contributing to the Rise in Global Trade

- rise in global income levels
- improved transportation networks
- growing populations

The world has come to realize the importance of food safety from "farm to plate"

1.1 Food Safety Situationer

- Countries worldwide have sought to improve their food safety management practices through education, training, legislation and surveillance

Identification and Control of Food Borne Pathogens

Demand for more nutritious and safer foods

Decrease sources of risk in the food supply

1.1 Food Safety Situationer

Many developments have taken place that can help assure food safety

Establishment of Food Safety Management Systems

- Good Agricultural Practices (GAP)
- Good Manufacturing Practices (GMP)
- Hazard Analysis and Critical Control Point (HACCP)

1.1 Food Safety Situationer

Many developments have taken place that can help assure food safety

- Improvement of equipment for Production, Processing and Distribution of Food
- Improvement in physico-chemical and microbiological analysis
- National, Regional and International Programs on Food Safety

1.1 Food Safety Situationer

US reports: The incidence of foodborne illnesses has not declined significantly in the past years, in spite of various measures being put in place

1.1 Food Safety Situationer

Food and waterborne diarrheoal diseases are still the leading causes of illness and death in less developed countries, killing approximately 2.2 million people annually, most of them children

1.1 FOOD SAFETY SITUATIONER

How widespread are food safety outbreaks?

USA

Hepatitis causes illness in 400 people and 3 deaths

- Contamination linked to green onions

USA, Canada

Salmonella bacteria causes illness in 561 people

- Contamination linked to tomatoes

Australia

500 people sick from drinking unpasteurized orange juice contaminated with Salmonella

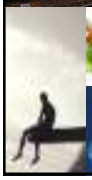
- Traced to dip tank in packing shed

Philippines

27 children die after eating cassava sweet contaminated with pesticide

1.1 FOOD SAFETY SITUATIONER

Why are food safety outbreaks increasing?



- Increase in global trade
- New products
- Consumption of fresh/uncooked foods: fresh cut salads, sushi
- New production and preservation technologies
- Organisms with different levels of virulence
- Introduction of new organisms into regions
- Changes is susceptibility of the people

1.1 FOOD SAFETY SITUATIONER

The effects of food outbreaks linger even after measures are undertaken to control and prevent such incidents.

It takes time for public perception to change.

It is costly to regain public confidence in the product and ability of the institution, local or foreign government to ensure safe food.

1.1 Food Safety Situationer

- **There is a rise of Global Trade – both in volume and extension (global food production, global food processing and global food transportation)**

This means contaminated foods can be spread over a larger geographical area over a shorter period of time.

1.1 Food Safety Situationer

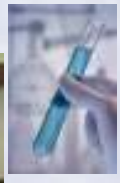
Intensification and Industrialization of agricultural and animal production

1.1 Food Safety Situationer

- Changing food handling patterns
- Changing dietary patterns and food preparation preferences
- New food processing methods
- New food and agricultural technologies
- Increasing resistance of bacteria to antibiotics
- Changing human/animal interactions with potential for disease transmission

1.2 Challenges in Food Safety

1.2 (a) Varying levels of acceptance and perception of Food Safety Risks



1.2 (b) Non-compliance or non-regulated compliance of Food Safety Standards

1.2 Challenges in Food Safety

1.2 (c) Varying levels of access to information and about food safety risks

1.2 (d) Varying levels of access to means to prevent food Safety hazards

1.2 Challenges in Food Safety

1.2 (f) Enabling the private sector to engage in consistent food regulation practices that meet international standards

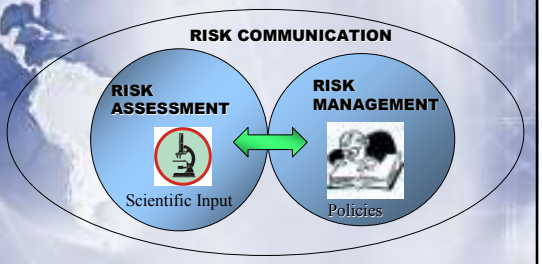
- **Self-regulation**
- **Vertical Integration**
  (e.g. to ensure the quality/safety of inputs, for example)
- **HACCP systems**
- **Third Party Certification (ISO9000)**

ACCESS TO SAFE FOOD AND WATER

- **A Human Right**
- **A Fundamental Need**
- **A Foundation of Development**
- **Vital for Dignity and Health of People**

- FAO and WHO

3. RISK ANALYSIS



3. RISK ANALYSIS

Risk Assessment

OBJECTIVE: to determine the degree of risk associated with the food under consideration

- What can go wrong (scenario)?
- How likely is that to happen (likelihood)?
- If it happens, what are the consequences (magnitude)?

3. RISK ANALYSIS

Risk Assessment

Four Steps

- hazard identification
- hazard characterization,
- exposure assessment, and
- risk characterization

The integrated information from these steps provides an estimate of the health and safety risk based on the likelihood of the occurrence of an adverse event and the magnitude of the consequences.

3 RISK ANALYSIS

Risk Management

OBJECTIVE: to establish if and what food regulatory measures are required to mitigate the risk to a level that is acceptable to the community.

3. RISK ANALYSIS

Risk Management

Risk management options are developed and assessed for their effectiveness in dealing with the health and safety risks while considering the impact of each option on relevant stakeholders such as primary producers, food manufacturers, retailers, consumers, and government.

3. RISK ANALYSIS

Risk Communication

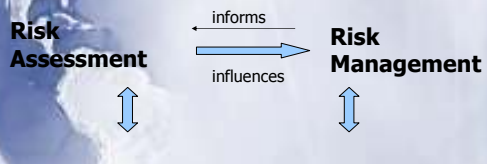
- An essential element in the Risk Analysis Process
- It is useful to have risk communication activities at various stages of the process to allow appropriate involvement of stakeholders.

3. RISK ANALYSIS

Risk Communication

Effective risk communication benefits all participants by ensuring a rigorous and transparent risk analysis process, adequately informed stakeholders and a high level of community confidence in the regulatory system.

RISK ANALYSIS FRAMEWORK



Risk Communication

Means of Managing Food Safety Risk

- Advocating and Supporting the development of risk-based, sustainable, integrated food safety systems
- Devising science-based measures along the entire food production chain that will prevent exposure to unacceptable levels of microbiological agents and chemicals in food

Building Trust

Principle 1. Accountability

- Openness, transparency. and traceability
- Acceptance of responsibility
- Acknowledgement of failings
- Willingness to adapt and learn

Building Trust

Principle 2. Antagonistic Cooperation

*Procedures for informing and making decisions enabling participation if wanted

*Positive engagement of stakeholders

*Acknowledge vested interests

*Clarify role of experts

*Accept the need for trade-offs

Building Trust

Principle 3. Legitimacy

- Clear mandate
- Independence
- Values in balancing interests

Means of Managing Food Safety Risk

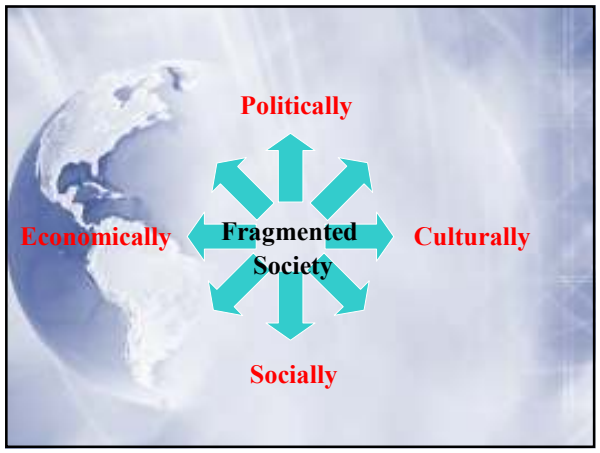
- **Assessing and managing foodborne risks and communicating information**
- **Surveillance in a national level to reduce food-related risks**
  - **Sentinel sites**
  - **International Laboratory Networks**
  - **Internationally agreed methods for surveying food contamination and basis of risk**
- **Detailed and accurate knowledge about the nature and level of foodborne diseases**
- **Interdisciplinary Approach involving health and agricultural sectors**

Means of Managing Food Safety Risk

- **Developing tools for appropriate risk assessment**
- **Complete information on chemicals and microorganisms in food and their link to foodborne diseases**
- **Assessing safety of new technologies: foods derived from new methods of production (genetic engineering)**
  - **Health Benefits**
  - **Environmental Effects**
  - **Socioeconomic Consequences**

Means of Managing Food Safety Risk

- Developing tools for communication
  - Easily understandable form
  - Fostering dialogue among the different stakeholders (including the consumers)
  - Methods of assessing the effects of risk communication



4. REGIONAL EFFORT
APEC

1998 APEC Business Advisory Council (ABAC) called APEC leaders to commit to building an APEC Food System as a comprehensive approach to the Food Sector

1999 APEC Ministers agreed that the overriding objective of the APEC Food System would be 'to efficiently link together food production, food processing and food consumption to meet the food needs of our people' - included was a focus on food security and food safety

4. REGIONAL EFFORT
APEC

2002 There was a sub-committee on Standards and Conformance discussing Risk Assessment in support of Food Safety Measures

2004 Senior Officials' Meeting: proposal on establishing Food Safety Cooperation and Cooperation of Food Safety Credibility

2006 APEC Regional Food Safety Study: framework and implementation capacity for food safety and quality control in APEC

2007 Inaugural APEC Food Safety Cooperation Forum

ROUND TABLE DISCUSSIONS

TEAMS

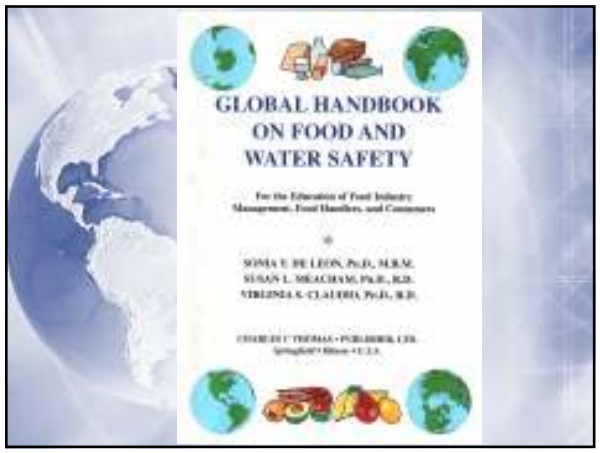
Sensory | Research & Development | Food Safety | Food Standards | Quality Assurance

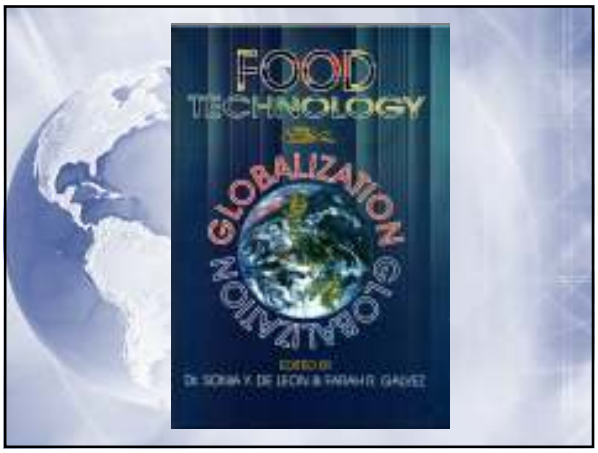
GAIN **Networking**

Government
Academe
Industry
Non Government organizations

References

* Chartier, J. and S. Gabler, 2001. Risk Communication and Government. Theory and Application for the Canadian Food Inspection Agency
- WHO, FAO, CODEX documents
- References used in the preparation of technical reports and publications on food safety and globalization





Let's Network Together

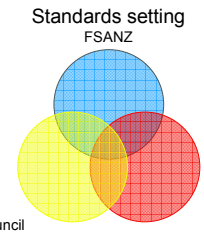
- Dr Sonia Y De Leon, President, Foundation for the Advancement of Food Science & Technology
- E-mail: fafst@yahoo.com, sydeleon@i-manila.com.ph

Review of Risk Analysis

Ms Christel Leemhuis
Day 1

Australian Regulatory System

Food regulatory system depends on effective collaboration.



About FSANZ

- Independent science based organisation
- 140 staff: scientists, social scientists, economists and communicators
- Develops and changes food standards for Australia and New Zealand
- Standards enforced by Australian states and territories and NZFSA

What Does FSANZ Do?

FSANZ develops food standards for the composition and labelling of foods sold in NZ and Australia.

In Australia, FSANZ also develops food standards for food safety and primary production.

Standards are included in the **Food Standards Code**

NSW Food Authority

Through-chain food safety agency

NSW is:

- Most populous State in Australia; Sydney is the capital
- Largest food manufacturing sector of all the Australian States and Territories;
  - one-third of Australian processed food production
  - turnover of A$23.6 billion pa
  - exports of around A$4 billion pa

NSW Food Authority

Major Functions

- Compliance and enforcement
- Science and policy development
- Investigation of incidents of foodborne illness
- Standards development & implementation
- Consumer and industry education

Risk Management Approach

- Regulatory intervention based on risk
- Food Safety Programs are required where warranted by risk

Overview

- What is Risk Analysis
- Development of Food Safety Risk Analysis
- Components of Risk Analysis
- Risk Analysis Framework
- Importance of Risk Analysis
- Review

What Is Risk Analysis?

- A systematic approach to examine and assess public health and safety risks associated with food
- Risk Analysis addresses two questions:
  1. What is the nature and magnitude of the health risk?
  2. How should the risk be managed and communicated to those affected?

What Is Risk Analysis

- The Risk Analysis process can be used across a broad range of circumstances
- Can lead to effective risk management strategies
- Encourages communication between all interested parties

Development of Food Safety Risk Analysis

- Ensuring food safety and public protection is a challenge for food regulators around the world.
- New challenges include:
  - Global food commodities
  - International trade
  - New technologies
  - Environmental issues
  - Greater consumer interest

Development of Food Safety Risk Analysis

- Assumption that all food is safe all the time
- These risks must be assessed and managed
- Maintaining a safe food supply requires constant vigilance by food regulators, industry and consumers.

Factors Associated With Health Risks In Food

- Classic Risk Factors
  - Microbiological
  - Chemical
  - Physical
  - Unknown (e.g. natural toxins)
- Other Risk Factors
  - New technologies
  - Changing nutrient profiles
  - Novel foods / functional foods
  - Allergenic foods
  - Food intolerance

Development of Food Safety Risk Analysis

- The Risk Analysis process allows us to identify, assess and manage food related health risks.
- It is a systematic and disciplined approach and includes:
  - Risk Assessment;
  - Risk Management; and
  - Risk communication.

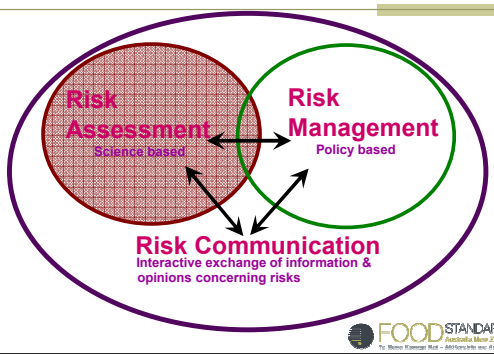
Underlying Principles of Risk Analysis

- Use best available data
- Recognise uncertainty in risk analysis
- Involve interested and affected groups
- Apply a level of protection proportional to risk
- Communicate in an open and transparent manner
- Review the regulatory response

Risk Analysis Definitions

- Definitions (*Codex, 2001)*
  - *Safe* – a reasonable certainty of no harm under normal circumstances.
  - *Hazard* - a biological, chemical or physical agent in, or condition of, food with the potential to cause an adverse health effect.
  - *Risk* – the probability or likelihood of an adverse health effect.

Components of Risk Analysis – Risk Assessment



Risk Assessment

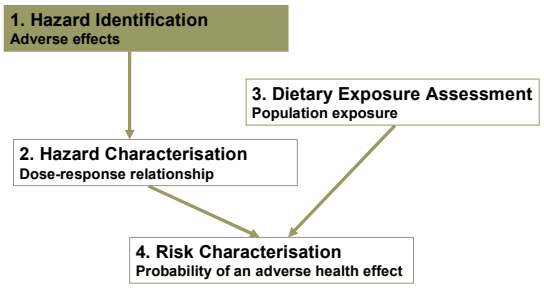
The scientific evaluation of known or potential adverse effects resulting from human exposure to food-borne hazards

What is the nature and magnitude of the of the food related health risk?

Risk Assessment

- Risk assessment is a scientifically based process consisting of 4 steps
  - Hazard identification
  - Hazard characterisation
  - Dietary exposure assessment
  - Risk characterisation

Risk Assessment Elements



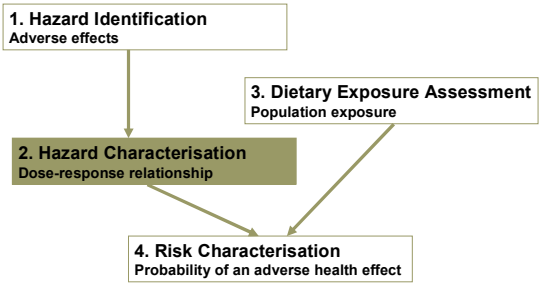
Hazard Identification

- Is there a potential to cause health problems in humans?
  - Microbiological
  - Chemical
  - Physical
- What is the evidence?
  - Human evidence (epidemiological, illness, poisoning cases)
  - Animal and human *in vivo* studies
  - Comparative analysis

Hazard Identification Data Sources

- Animal toxicity studies
  - Rats, mice, dogs
- Human data
  - Epidemiological data, human toleration studies
- Data from non-food use
  - Occupational or accidental exposure

Hazard Characterisation



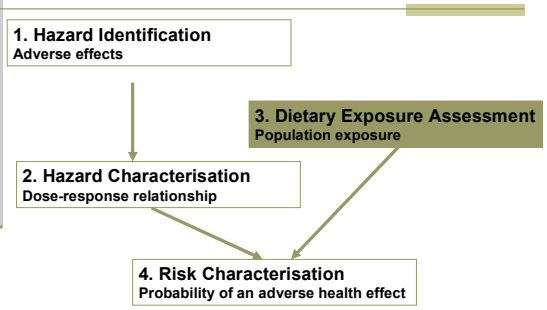
Hazard Characterisation

- Understanding the dose-relationship of hazards
- Critical endpoints examples
  - Bodyweight gains/losses
  - Elevated blood parameters
  - Birth defects
  - Cancers

Hazard Characterisation

- Outputs
  - Shape of the dose-response curve
  - Identification of thresholds
  - Determination of safety factors
  - Establishment of reference health standards (ADI, TDI, UL's), if possible

Hazard Charaterisation



Dietary Exposure Assessment

- An exposure estimate based on:
  - The amount in hazard in specific food/s
  - The level of food consumed

Dietary Exposure Assessment

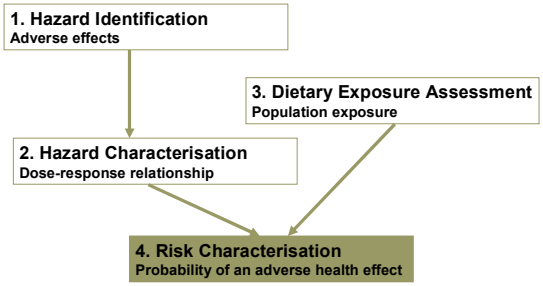
Dietary intake for mean and 90th/95th percentile consumers

Dietary intake for different age groups

Dietary intakes for vulnerable population groups

- Exposure assessments can be:
  - Short term exposure (one meal – one day)
  - Medium-term exposure (days – months)
  - Long-term exposure (years – lifetime)

Hazard Characterisation



Risk Characterisation

- An estimation, including potential uncertainties, of the probability of occurrence and severity of an adverse effect/s in a given population under defined exposure conditions

In other words

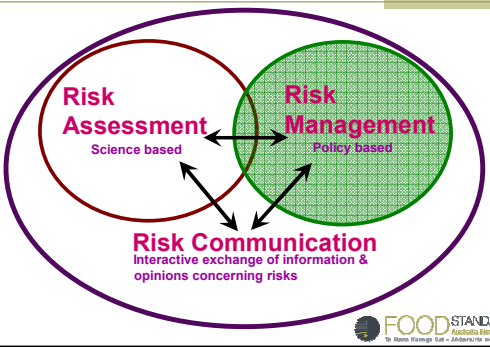
- What is the likely human health risk and who are the at risk groups?

Risk Characterisation

- Integration of the information from exposure assessment and hazard characterisation into advice suitable for use in risk management.

Hazard characterisation
\+
Exposure assessment
→ Advice to risk managers

Components of Risk Analysis – Risk Management



Risk Management

The process of weighing policy alternatives to accept, minimise or reduce assessed risks and to select and implement appropriate options

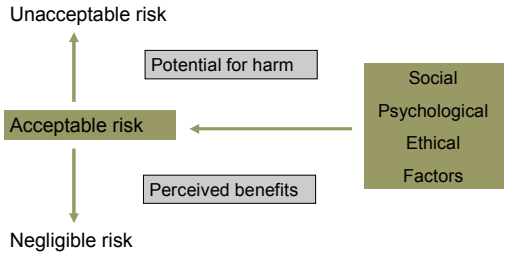
Risk Management Elements

- Identifying the food safety problem and commissioning the risk assessment
- Identification of risk management options
- Evaluation of risk management options
- Implementing the decisions
- Monitoring and review of the effectiveness of the risk management decision

Risk Management

- Goals
  - Determine the relative importance of the food-borne hazard
  - Establishing measures to meet the level of acceptable risk
  - Evaluating the effectiveness of the risk management decision

Risk Management – Acceptable Risk



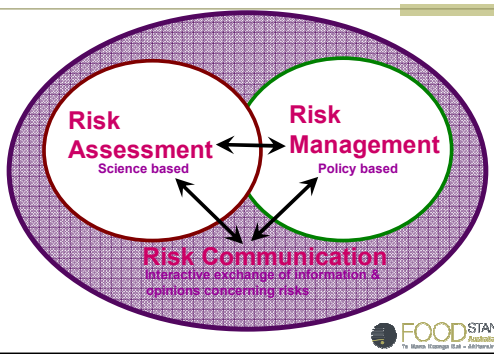
Risk Management

- Potential Measures
  - Standards
    - Restrict the levels in food (e.g. MRLs, MLs, prohibitions)
    - Microbiological limits
    - Labelling e.g. ingredient, advisory statements
    - Standards requiring premarket assessments
  - Guideline levels
    - Contaminants
    - Microbiological contaminants

Risk Management

- Measure cont.
  - Codes of Practice
    - Good hygiene practice, nutrient claims
  - Education material/programs
    - Advice on Listeria and mercury in fish for pregnant women

Components of Risk Analysis – Risk Communication



Risk Communication

An interactive process of exchange of information and opinion on risk among risk assessors, risk managers and other interested parties

Risk Communication

- Why are we communicating?
- Who is our audience?
- What do our audiences want to know?
- What do we want to get across?
- How will we communicate?
- How will we listen?
- How will we respond?

Risk Communication

- Nature of the risk
- Associated uncertainties and constraints
- Risk management options
- How the risk management measure addresses the risk

Risk Communication Is

- Communication linked to the risk analysis process
- Embedded in risk assessment and risk management
- Active at the start of the risk analysis process – not an add-on at the end
- Everyone's responsibility

Risk Communication Is

- Two way process
- Understanding people's perception of risk
- Opportunities for public involvement in decision making
- Timely and accurate information
- Internal communication

Risk Communication Is Not

- Just about communicating risk
- Simply selling decisions to the public
- A crisis-related process
- The sole responsibility of communication specialists

Risk Communication

- Goals
  - To ensure that all information and opinion required for effective risk management is incorporated into the decision making process
  - To promote engagement of all interested parties in the risk analysis process
  - To facilitate consistent, transparent and effective decision making
  - To promote understanding of the decision and decision making process

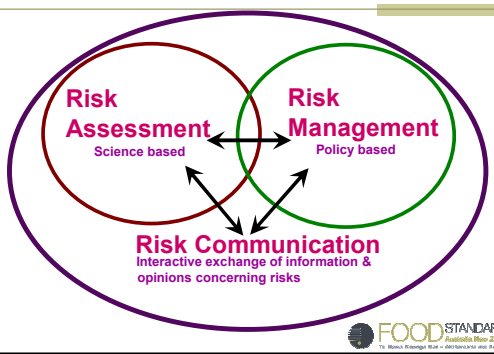
Perceptions Of Risk

- We all see the world differently (mind sets)
- People of similar backgrounds tend to perceive risk in a similar way
- Some gender differences
- People with less control over their lives tend to see greater risk

Ways We Communicate

- Workshops
- Encouraging consultation
- Public release of assessment reports
- Use of web, fact sheets, explanatory publications
- Presentation at conferences, public seminars
- Engagement with the media
- Engaging interested consumers, industry in particular projects

The Risk Analysis Framework



Why Use A 'Framework' for Risk Analysis?

- Structured approach
- Open and transparent
- Weaknesses (uncertainties) can be identified
- Cost and benefits identified
- Outcome can be defended
- Confidence in the outcome

Importance of Risk Analysis

- Risk Analysis provides
  - A framework for organising data and information in a rational and consistent way
  - Guidelines and rules for different part of the food chain
  - Facility to make rational and transparent decisions to protect public health and safety

Risk Analysis Benefits

- Benefits of using Risk Analysis
  - Identification of public health problems
  - Targeting resources to highest risk areas
  - Facilitating trade negotiations
  - Better informed community

Risk Analysis Challenges

- Challenges in using Risk Analysis
  - Availability of nationally relevant data
  - Availability of adequately trained staff
  - Communicating complex concepts and issues

Review

- The Risk Analysis process is a structured framework that allows us to answer the two key questions of
  1. What is the nature and magnitude of the food related health risk?
  2. How should the risk be managed and communicated to those affected?

Review

- The Risk Analysis Process consists of
  - Risk Assessment (hazard identification, hazard characterisation, exposure assessments and risk characterisation)
  - Risk Management (evaluation of options, implementation, monitoring and review of risk management decisions)
  - Risk Communication (interactive information sharing with interested parties)

Risk Analysis Relevant Documents

- Codex Procedural Manual, 13th edition, FAO/WHO, 2004
- Application of Risk Analysis to Food Standards Issues. Report of FAO/WHO Consultation, WHO document WHO/FNU/FOS/95.3
- Risk management and food safety. Report of FAO/WHO Consultation, Food and Nutrition Paper #65, FAO, 1997
- The application of risk communication to food standards and safety matters. Report of a FAO/WHO Consultation, Food and Nutrition Paper #40, FAO, 1999

Risk Analysis Relevant Documents

- Risk assessment of microbiological hazards in foods. Report of FAO/WHO Consultation, WHO document WHO/SDE/PHE/FOS/99.5
- Food safety and globalization of trade in food. A challenge to the public health sector. WHO document WHO/FSF/FOS/97.8 Rev.1 (1998)
- Food safety in international trade. Myagishima K. & F.K. Kaferstein, World Health Forum 19, 407-411, 1998
- www.who.int/fsf/ www.fao.org

Questions?

Food Safety Risk Communication

Elements of Guiding Principles

MATERIALS CREATED IN COOPERATION WITH:

NATIONAL CENTER FOR FOOD PROTECTION AND DEFENSE
A Homeland Security Center of Excellence

University of Minnesota · NDSU · University of Missouri-Columbia · International Food Information Council Foundation · Cornell University · Wayne State University · Institute of Food Technologists · UC Davis · University of Arkansas · FAZD Center: National Center for Foreign Animal and Zoonotic Disease Defense · Saint Joseph's University · Michigan State University · The University of Southern Mississippi

Special thanks to

Dr. Monique M. Turner
Associate Professor, Department of Communication
Director, Center for Risk Communication Research
University of Maryland

Dr. Katherine McComas
Associate Professor, Department of Communication
Cornell University

Guiding Principles of Risk Communication

1. Goals of risk communication
2. Defining risk communication
3. Roles & responsibilities for risk communication
4. Elements of effective risk communication
5. Principles of risk communication
6. Components of risk communication

History of Defining Risk

Risk: Originally a neutral term

Modern understanding of risk: "A lot of danger"

Referred to negatively

Risk communication defined

An open, two-way exchange of information and opinion about risk leading to better understanding and better risk management decisions.

Source: USDA, 1992

Risk communication goals

- Disclose information about hazards to the potential victims.
- Enhance public protection via information related to risk reduction.
- Educate decision makers about public concerns and perceptions.

Risk communication goals

- Tailor communication so it takes into account the **emotional response** to an event.
- Empowers audience to make **informed decision-making**.
- **Prevent negative behavior** and/or **encourage constructive responses** to crisis or danger.

Risk communication goals

- Explain risk management routines to enhance trust in the process.
- Provide guidelines for emergencies.
- Improve understanding of risk among target groups.
- Produce the appropriate level of concern and action (Minnesota Extension Service, 1990).

Outcomes of effective risk communication

- Decrease injury, illness, death
- Build support for a response plan
- Assist in executing response plan
- Prevent misallocation and wastefulness
- Keep decision makers well informed
- Correct rumors
- Foster informed decision making

Situating risk communication in risk analysis

Risk management

All potentially effected parties are engaged in:

Risk analysis paradigm

- **Everything we do involves risk**
- **Zero risk is unachievable**
- **Options exist for managing every risk**

Elements of effective of risk communication

- Audience assessment
- Audience involvement
- Message
- Logistics
- Listening
- Meta-messaging
- Self-assessment
- Evaluation

Communication considerations

- What information is important?
- What messages should be delivered:
  - Before
  - During
  - After
- What are the obstacles?
- What are the opportunities?
- What questions can we anticipate?
- What are the news media's responsibilities?

Outrage factors

- Voluntariness
- Control
- Fairness
- Process
- Morality
- Familiarity
- Memorability
- Dread
- Diffusion in time and space

Fear & Trust

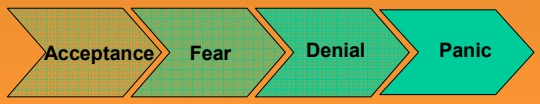
Fear & trust are two adaptive survival processes

FEAR
- Rapidly acquired
- Slow to extinguish
- Easily re-established

TRUST
- Slowly acquired
- Readily extinguished
- Difficult to re-establish

Adjustment to risk

Reactions change as risk increases.

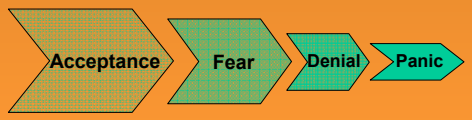


Low → *perceived risk* → *High*

SOURCE: Peter Sandman, 2005

We accept most risks well

Humans usually adapt well to risk.



Frequently → *Rarely*

SOURCE: Peter Sandman, 2005

FEAR as a adjustment reaction

Fear is our natural reaction in a crisis

- **It is automatic**
- **It comes early**
- **It is temporary**
- **It is a small over-reaction**
- **It may need guidance**
- **It serves as a rehearsal**
- **It reduces later over-reaction**

Fear is a useful response. Let it happen!

Reactions to perceived risk

Over-reaction **is our initial reaction to a new, potentially serious risk.**

- We pause
- We become hyper-vigilant
- We personalize the risk
- We take extra precautions that are probably unnecessary, or at least premature.

SOURCE: Peter Sandman

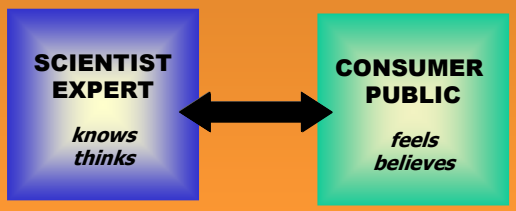
Heightened Fear Leads to Denial

- **Less common than *fear***
- **More dangerous than *fear***
- **More common response than *panic***
- **Denial is reduced when:**
  - *Legitimize the fear*
  - *Action – do something*
  - *Decision – given range of actions*

What shapes perceptions of risk?

- Hazard – ***something that can go wrong***
- Probability – ***likelihood of it happening***
- Consequences – ***implications of hazard***
- Value – ***subjective evaluation of the relative importance of what might be lost***

Scientist - Consumer disconnect



Fact-based: *hazard, probability*

Value-based: *consequences, value*

Perceptions of risk

Risk = Hazard + Outrage

SOURCE: Peter Sandman

What shapes perceptions of risk?

- Hazard – ***something that can go wrong***
- Probability – ***likelihood of it happening***

THINKING

- Consequences – ***implications of hazard***
- Value – ***subjective evaluation of the relative importance of what might be lost***

FEELING

Peter Sandman

"The risks that upset people are completely different than the risks that kill people."

Risk perceptions

- Two primary factors that affect risk perceptions (Slovic, 1987)
- 1. Unknown factor
- 2. Dread factor

Unknown Factor

- People evaluate risk depending on whether risk is
  - Observable vs. unobservable
  - Known to those exposed vs. unknown
  - Effect is immediate vs. delayed
  - Risks are known to science vs. unknown
- People less concerned about risks that are observable, known to those exposed, have immediate effects, and are known to science

Dread Factor

- People assess risk based on how they judge the risk as
  - Controllable vs. uncontrollable
  - Think calmly about vs. dread
  - Not globally catastrophic vs. catastrophic
  - Equitable vs. not equitable
  - Not individually catastrophic vs. individually catastrophic

Dread Factor

- More basis for judging risk:
  - Low risk to future generations vs. high risk to future generations
  - Exposure easily reduced vs. difficult to reduce
  - Risks are decreasing vs. increasing
  - Voluntary exposure vs. involuntary exposure

Dread Factor

- People tend to be less concerned about risks that are controllable, they think calmly about, not catastrophic, equitable, not individually catastrophic, pose low risk to future generations, easily reduced in terms of exposure, decreasing, and voluntary in nature.

What is panic?

- **A sudden strong feeling of fear that prevents reasonable thought or action.**
- **While "panicky feelings" are common… panic is rare.**

Response to the 2001 anthrax scare

In the 3 affected cities:

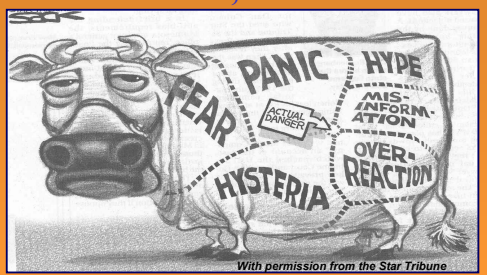
- **1% - purchased gas masks**
- **5% - purchased antibiotic prescriptions (80% of these did not take prescriptions)**
- **98% opened mail as usual**
- **3% consulted doctor about anxiety**

"Fear Fear" & "Panic Panic"

Do NOT 'Fear Fear' or 'Panic Panic'

- **Most people can cope & manage their fear**
- **To "Fear Fear" & "Panic Panic" can result in unwise strategies:**
  - *Withhold information*
  - *Over assure*

Mad Cow, 2003



With permission from the Star Tribune

Scientists focus on danger - consumers on the 'whole cow'

Barriers to Effective Risk Communication

Ms Samara Kitchener
Ms Christel Leemhuis
Day 2

Presentation outline

- Barriers to Communication within Risk Analysis framework
- Barriers to Communication within Codex
- Risk Communicators challenge
- Organisational requirements
- Communication channels
- New media and the internet

Barriers to Communication within Risk Analysis framework

Codex Risk Analysis

Barriers to risk communication

- Engagement of stakeholders
- Uncertainty and science
- Separation of risk assessment and risk management
- Stakeholder acceptance of the risk assessment
- Stakeholder acceptance and ability to implement risk management options
- Communicating how the risk management options will alleviate the risk
- Public support for chosen management options

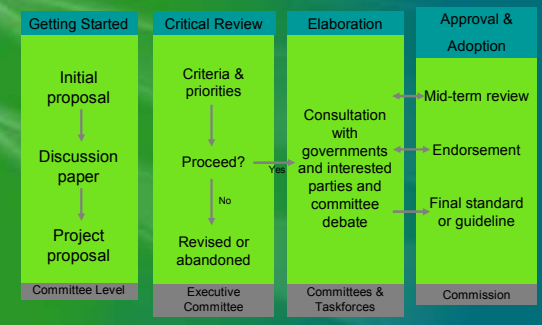
Risk Communication Through the Chain

Barriers to Communication within Codex context

Codex

- The Codex Alimentarius Commission (1963) develops food standards, guidelines and related texts such as codes of practice under the Joint FAO/WHO Food Standards Program
- The main purposes of the Program
  - Protecting the health of consumers
  - Ensuring fair trade practices in the food trade
  - Promoting coordination of food standards work undertaken by international, governmental and non-governmental organisations.

Codex Standards Process



Horizontal Codex Committees

- Codex Alimentarius Commission
- Codex Committee on Contaminants in Foods
- Codex Committee on Food Additives
- Codex Committee on Food Hygiene
- Codex Committee on Food Import and Export Inspection and Certification Systems
- Codex Committee on Food Labelling
- Codex Committee on General Principles
- Codex Committee on Pesticide Residues
- Codex Committee on Methods of Analysis and Sampling
- Codex Committee on Nutrition and Foods for Special Dietary Uses

Codex Commodity Committees

- Codex Committee on Fish and Fishery Products
- Codex Committee on Fats and Oils
- Codex Committee on Fresh Fruits and Vegetables
- Codex Committee on Milk and Milk Products
- Codex Committee on Natural Mineral Waters
- Codex Committee on Processed Fruits and Vegetables
- Codex Committee on Residues of Veterinary Drugs in Foods
- Executive Committee of the Codex Alimentarius Commission

Ad Hoc Taskforces

- Ad Hoc Intergovernmental Task Force on Food Derived from Biotechnology
- Ad hoc Codex Intergovernmental Task Force on Antimicrobial Resistance
- Ad hoc Codex Intergovernmental Task Force on the Processing and Handling of Quick Frozen Foods

Codex Coordinating Committees

- FAO/WHO Coordinating Committee for Africa
- FAO/WHO Coordinating Committee for Asia
- FAO/WHO Coordinating Committee for Europe
- FAO/WHO Coordinating Committee for Latin America and the Caribbean
- FAO/WHO Coordinating Committee for Near East
- FAO/WHO Coordinating Committee for North America and South West Pacific

Codex and Risk Analysis

- The Codex Alimentarius Commission agreed on the importance of the risk analysis process in Codex work
- Action Plan for Codex-wide Development and Application of Risk Analysis Principles and Guidelines adopted at 22nd session in 1997

Barriers Within the Codex Process

- Risk communication is difficult at the international level
- Participation of developing countries and consumer organisations
- Lack of knowledge and expertise to participate
- Workload of committees
- Policy guidance on incorporation of factors other then science

Barriers Within the Codex Process

- Risk communication is difficult at the international level
  - Wider participation in the process is more feasible at the national level
- Participation of developing countries and consumer organisations
  - Participation in process may be difficult, therefore views are under represented in risk analysis process

Barriers Within the Codex Process

- Lack of knowledge and expertise to participate
  - Many consumer groups, NGOs and some governments lack experience and knowledge to be effective at Codex
- Workload
  - Committees are being asked to consider more work
  - Decreasing budgets for meetings
  - Reduction of meeting durations

Barriers Within the Codex Process

- Policy guidance on incorporation of factors other then science
  - What legitimate factors other than science are?
  - How can these be incorporated?
  - Will these assist in clarity of communication?

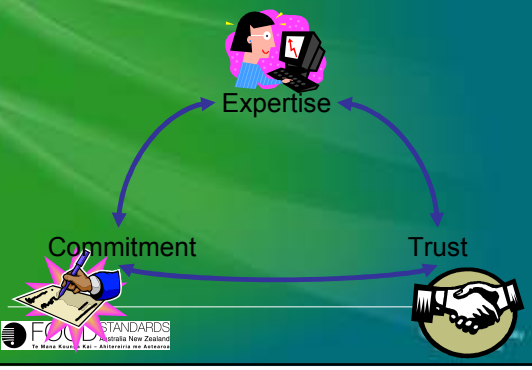
Barriers to Communication Generally

Risk Communicator's Challenge

Expert Assessment of Risk:		Public Assessment of Risk:
Scientific	⇔	Intuitive
Acceptable Risk	⇔	Is it safe or not?
Population averages	⇔	How will it affect me?
Changing Knowledge	⇔	I want to know now
A death is a death	⇔	My life is important

Based on Lecture Notes,Dr Doug Powell, University Guelph, Canada

Organisational Requirements for Risk Communication



Commitment

- Risk Communication is serious business -- failures can be costly.
- If you are responsible, do it **early** and often.
- Always put the science in a policy context (what will you do to fix the problem)

Expertise

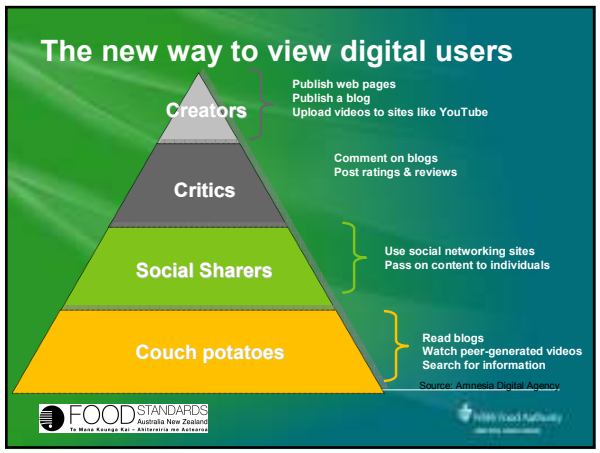
- Community looks to Government as the experts
- Scientific information is important – need to be open, honest and SIMPLE
- Can use other experts – eg universities to support your message

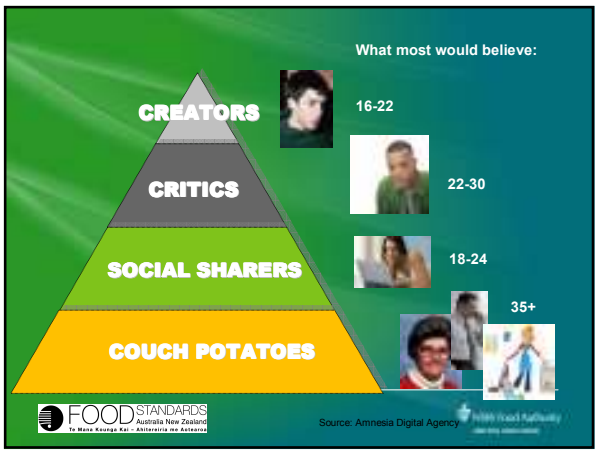
Trust

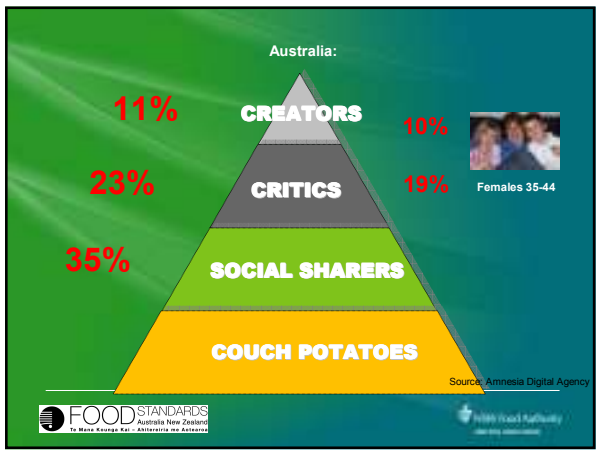
- Building trust takes time
- Needs to be done before a major crisis hits
- Takes a long time to build and is easy to lose
- Must DO what you SAY
- Can use other credible organisations to support you

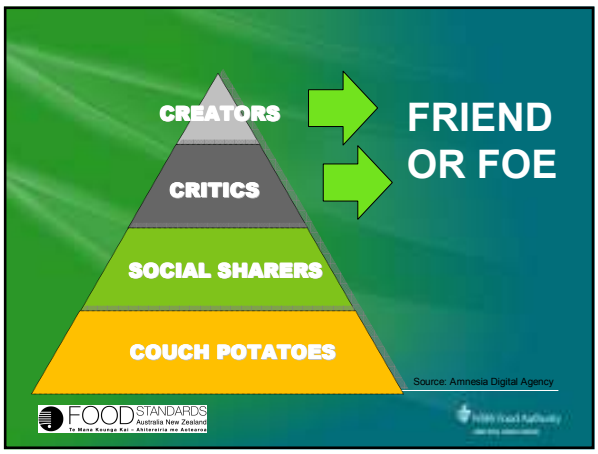

Communication Channels
- How can you get your message out?
Public Health partners
Online
Media
Message
Community events
Point of Sale
NEWS
MLK


New Media
Mass media masses of media
• Web sites
• RSS feeds
• Podcasts
• Blogs
• Mobile phone video & photo editing
• SMS


The new way to view digital users
Creators
Publish web pages
Publish a blog
Upload videos to sites like YouTube
Critics
Comment on blogs
Post ratings & reviews
Social Sharers
Use social networking sites
Pass on content to individuals
Couch potatoes
Read blogs
Watch peer-generated videos
Search for information
Source: Amnesia Digital Agency


What most would believe:
CREATORS
CRITICS
SOCIAL SHARERS
COUCH POTATOES
16-22
22-30
18-24
35+
Source: Amnesia Digital Agency


Australia:
11%
CREATORS
10%
23%
CRITICS
19%
Females 35-44
35%
SOCIAL SHARERS
COUCH POTATOES
Source: Amnesia Digital Agency


CREATORS
CRITICS
SOCIAL SHARERS
COUCH POTATOES
FRIEND
OR FOE
Source: Amnesia Digital Agency

New media is here to stay

"To find something similar you have to go back 500 years to the printing press, the birth of mass media . . Technology is shifting power away from the editors, the publishers, the establishment, the media elite. Now it's the people who are taking control."

Rupert Murdoch, "His Space", Wired Magazine, July 2006

Don't ignore new media!

- Government responsibility to communicate risk
- Communicates your message FAST
- Communicates DIRECTLY
- New media will start to appear during a crisis whether you use it or not

Challenges new media pose

- Instantaneous
- Credibility
- Counterview will be available
- Lack of control
- Two-way conversation
- Segmented
- High expectations

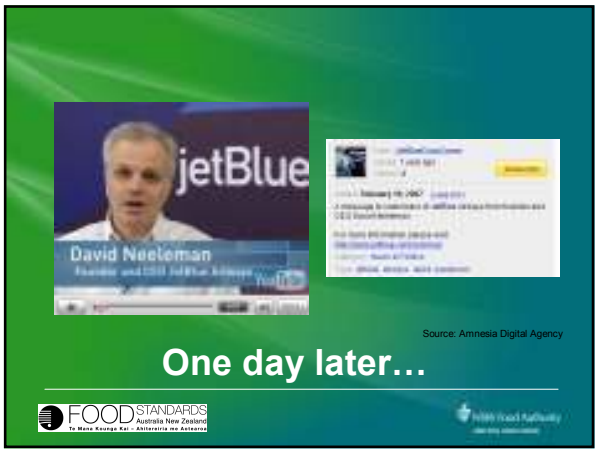
Overcoming barriers

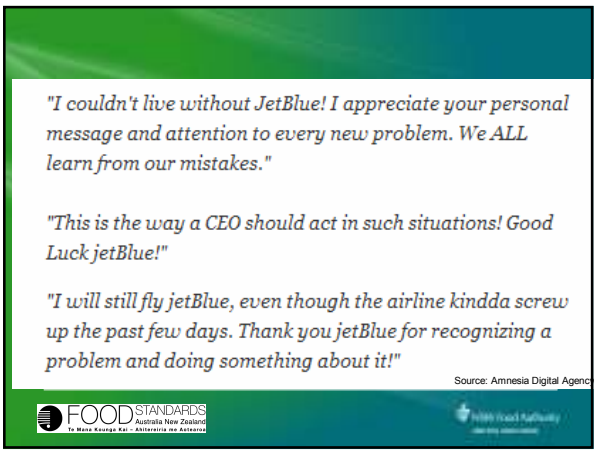
- Be networked before crisis occurs
- Build relationships and trust
- Plan and prepare
- Employ the technology
- Response mechanism
- Maintain messages

Source: Amnesia Digital Agency

It doesn't have to be that way


Feb 18 2007
Jet Blue Cancellations Continue
WNYC Newsroom
NEW YORK, NY February 18, 2007 —Stranded JetBlue passengers are out of luck again today. The Queens-based airline has canceled all flights in and out of 11 of its airports, including Pittsburgh, Nashville, Houston, Texas, and Portland, Maine.
The low-cost carrier is still reeling from a Valentine's Day snowstorm that led to hundreds of canceled and delayed flights. JetBlue canceled a quarter of its flights this weekend in an effort to get back on schedule.
Additional cancellations are still possible. The airline is advising travelers to check the status of their flights before heading to the airport.
Source: Amnesia Digital Agency


jetBlue
David Neeleman
Source: Amnesia Digital Agency
One day later…


"I couldn't live without JetBlue! I appreciate your personal message and attention to every new problem. We ALL learn from our mistakes."
"This is the way a CEO should act in such situations! Good Luck jetBlue!"
"I will still fly jetBlue, even though the airline kindda screw up the past few days. Thank you jetBlue for recognizing a problem and doing something about it!"
Source: Amnesia Digital Agency


Long term damage prevented.
Source: Amnesia Digital Agency


Questions/Comments

Strategies for effective risk communication

Ms Samara Kitchener
Ms Christel Leemhuis
Day 2

NSW Food Authority

Presentation outline

1. General consideration for effective risk communication
2. Points to consider regarding public concerns
3. Strategies for risk communication in non-crisis situations
4. Strategies for risk communication during a crisis
5. Strategies on communicating risk management decisions

General consideration for effective risk communication

The Codex risk analysis model

What is a risk?

Risk is the measure of an adverse effect, caused by a hazard, on people or the environment.

Types of risk

Day to day risk	Major risks
• Food poisoning	• BSE
• Food recall	• Bird Flu
• Increase rates of salmonella	• Dioxins
• Food allergies	• Mercury
	• Major food poisoning outbreak

WHO definition of risk communication

"The interactive exchange of information and opinions throughout the risk analysis process concerning hazards and risks, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions"

World Health Organization (WHO)

What is risk communication (in English☺)?

Risk communication is the specific communication strategies and techniques that are used to supply the public with the information they need to make informed, independent judgments about risks affecting their health.

Why should governments communicate risk to the public?

- Fundamental responsibility
- Public needs to know to make good decisions
- Ensures public health and safety
- Protects the economic well-being of the food industry
- legal responsibility
- reputation to uphold

How can governments undertake risk communication effectively?

1. Identify potential food safety risks
2. Assess food safety risks
3. Assess public perceptions of risks
4. Engage expert advice on the public health significance of the risks

effective risk communication (continued)

5. Review approaches to manage similar issues
6. Formulate management decisions
7. Consider audiences the risk will impact
8. Write key messages
9. Determine methods and channels to reach

Points to consider regarding public concerns

Risk communication challenge

Scientific Assessment of Risk

EXPERT KNOWLEDGE

+

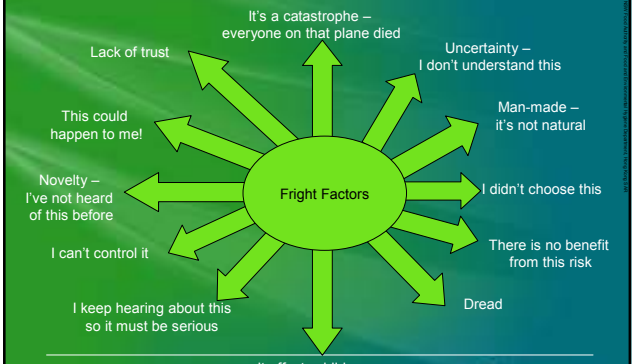
Public Assessment of Risk

PERCEPTIONS

=

Risk Communication

BALANCED ADVICE



The important role of the risk communicator

Expert Assessment of Risk

HAZARD

Risk Communicators Assessment Of Risk

INFORMATION

Public Assessment of Risk

UNDERSTAND & RESPOND

What happens if no risk communicator?

Expert Assessment of Risk

HAZARD

Information Vacuum

Public Assessment of Risk

OUTRAGE

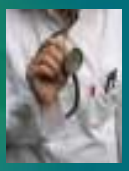
Strategies for risk communication in **non-crisis situations**

Non-crisis situations are risks that are **on-going** rather than immediate.

- Food poisoning
- Food recalls
- Increase rates of salmonella
- Food allergies
- Listeria
- Mercury in fish
- Fat intake
- Unsafe food practices

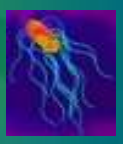
Important to build trust during smaller issues to use in big issues

- Improves health and safety outcomes
- Seen as a credible source of information
- Trust you in times of crisis

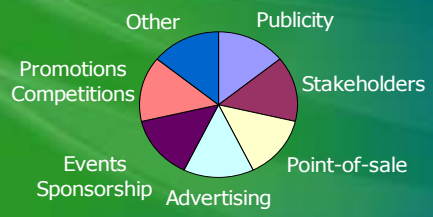


Risk communication in non-crisis situations:

- Develop awareness of the risk or
- Encourage people to take risks perceived as acceptable more seriously



Raise awareness of risk



Encourage people to take risk more seriously

Barriers to risk perception

- Level of benefit relative to risk
- Optimistic bias
- Consumer attitudes and socio-demographics
- Tolerance of individual risks

Overcoming barriers to risk perception

How can you change people's ideas, attitudes and behaviour?

Consider how to communicate:

- Who it will affect
- Probability of risk
- Consequences of accepting risk
- Benefit of following risk advice
- Changing attitudes in society

Strategies for risk communication during a **food safety crisis**

A crisis is any unplanned event that triggers a threat to the safety, health or environment of the public or disruption of routine operations such that there are significant consequences and costs.

Robert C Chandler Ph.D. Pepperdine University
Issues & Crisis Management Conference, Sydney 2008

- BSE
- Bird Flu
- Dioxins
- Major food tampering
- Major food poisoning outbreak

Stages of a crisis

Stage one **Fact finding**

Stage two **Unfolding drama**

Stage three **Blame**

Stage four **Resolution**

Mad Cow Disease

"BSE has caused the biggest crisis in the history of the European Union."
Franz Fischler, EU Agricultural Commissioner

Denial → Truth

- It is dangerous to deny a problem.
- The truth does come out and the consequences are very bad.
- Our job as Government is to protect the public.
- To do this we have to share difficult information.

BSE UK – What Went Wrong?

- Public panic began to spread in 1995 because of an information vacuum created by the British Ministry of Agriculture & Food.
- The Ministry did not communicate with the public on developing scientific suspicions about human impact of BSE
- The public was unprepared to deal with the thought that a dreaded human disease could be contracted by eating beef.
- People lost trust in the Government

Based on Lecture Notes,Dr Doug Powell, University Guelph, Canada

The costs

- 180,000 cases of BSE in UK cattle
- 4.7 million cattle slaughtered
- £1.5 billion in compensation
- £575 million in disposal of carcasses
- Annual cost to government @ 2002 = £400 million
- By Nov 2005: 152 deaths and 158 cases of vCJD
- Inquiry cost $27m and lasted 2 years

Goals of risk communication

- Help people to make informed decisions
- Prevent panic
- Share responsibility in managing the risk
- Stop the spread of a disaster (less people get sick)

Plan for a crisis before it occurs!

Then in a crisis:

- Adapt your plan to fit circumstances
- Communicate quickly, honestly and simply
- Give specific guidance on what to do
- Acknowledge uncertainty
- Update and fix errors and rumors

Channels of communication in a crisis

- New media – SMS, Lexivixual messages, emails, RSS feeds, Podcasts, Blogs
- Mass media – TV, Radio, Newspapers
- Stakeholders – industry, other government departments
- Staff
- Two-way process

Media road rules in a crisis

1. Media are an opportunity, not an enemy
2. Respect their right to do their job
3. Know their needs (and make life easy)
4. Prepare your messages in advance
5. Present a polished public face

Key messages during a crisis

- What is happening?
- How does it affect me?
- What should I do?
- How can I get help?

An issue that should never have become a crisis

Strategies on communication of risk management decisions

Strategies for Communicating Risk Management Decisions

- Communication strategies for risk management decisions should be developed in consultation with risk managers.
- Risk communicators need to work closely with risk managers to identify:
  - Target audiences;
  - Communication messages; and
  - Communication vehicles.

Strategies for Communicating Risk Management Decisions

- Strategies for communication of risk management decisions vary according to:
  - Complexity of issue
  - Degree of public interest
  - Length of time taken to complete risk analysis
  - Perceived risk associated with the risk management decision

Communication Strategies

- Different communication strategies for risk management decisions include:
  - Passive
  - Responsive
  - Educative
  - Proactive

Communications Strategies

	Strategy
1. LOW risk – LOW perceived risk e.g. contaminant levels	**Passive**
2. LOW risk – HIGH perceived risk e.g. GM foods, country of origin	**Responsive**
3. HIGH risk – LOW perceived risk e.g. mandatory fortification	**Educative**
4. HIGH risk – HIGH perceived risk e.g. BSE, dioxin	**Proactive**

Communication Strategies

• Passive	Notification and alerting interested/affected parties
• Responsive	Labelling for consumer information
• Educative	Education campaigns to attempt to change consumer behaviour
• Proactive	Media and stakeholder interaction is initiated by Regulator

Identifying Relevant Strategy

- What is the perceived risk to consumer?
  - Feedback from assessment reports
  - Media interest
  - Social or consumer research into issue
  - Evidence from other countries

Communication Strategies

1. Identify audiences – segment stakeholder groups (don't forget **internal** audiences).
2. Prepare messages – normally **three** key messages and **separate** messages to each audience.
3. Select communication tools.

Communication Tools

Fact sheets, publications, advertising.
Media releases, backgrounders.
Telephone advice lines.
Website, email bulletins.
Conferences, seminars, meetings.
Speeches, presentations, talks.
Exhibitions, displays, launches.
Education campaigns.
Media relations.

USA Risk Communication Activities and Programs

Marjorie Davidson, PhD

A Bit of History . . .

- By 1906, U.S. product safety had reached crisis proportions
- Dr. Harvey Wiley of USDA was building a coalition of health experts and lobbying for legislation
- In response, Teddy Roosevelt signed The Pure Food and Drugs Act into law
- FDA was founded as "Bureau of Chemistry" with regulatory authority

FDA Today . . .

FDA Today – An Agency within HHS

- FDA enforces the present-day Federal Food, Drug and Cosmetic Act
- As a public health agency, FDA regulates all:
  - Food (except raw meat, poultry, and processed eggs)
  - Cosmetics
  - Animal Drugs and Feed
  - Prescription and non-prescription drugs
  - Blood products, vaccines, and tissues for transplantation
  - Medical equipment
  - Devices that emit radiation, including microwave ovens

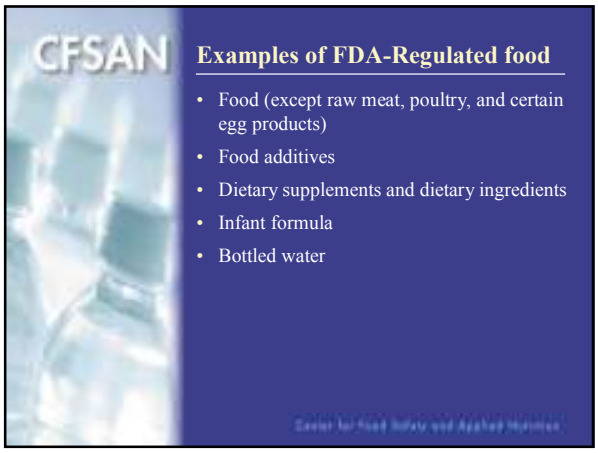
FDA's Impact

- Employs 1,100 investigators and inspectors
- Ensures safety of $1 trillion worth of products
- Finds 3,000 products per year to be unfit
- Detains 30,000 import shipments each year
- Regulates 25¢ of every consumer dollar spent
- Protects Americans for 2¢ per day

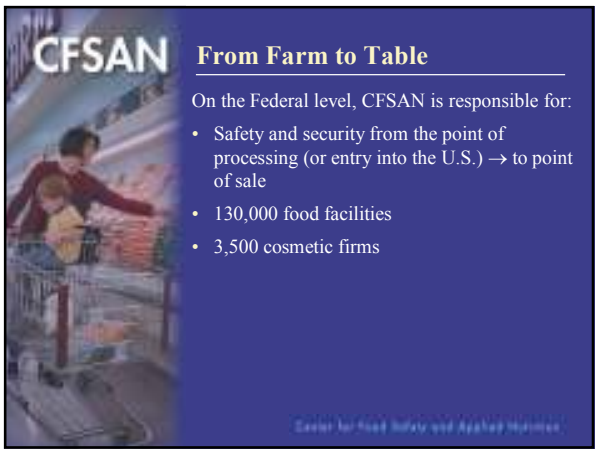
FDA: With You at Every Meal

- FDA influences lives and health by keeping U.S. food supply among the safest and most nutritious in the world
- FDA regulates 80% of our food . . . a critical responsibility handled by FDA's Center for Food Safety and Applied Nutrition (CFSAN)


CFSAN
Regulating the U.S. Food Supply
• $240 billion of domestic food
• $15 billion of imported food
– 65% of all imports at the U.S.'s 350 ports of entry are food
– Partnering with WHO, FAO, and Codex
• $15 billion of cosmetics sold across state lines


CFSAN
Examples of FDA-Regulated food
• Food (except raw meat, poultry, and certain egg products)
• Food additives
• Dietary supplements and dietary ingredients
• Infant formula
• Bottled water

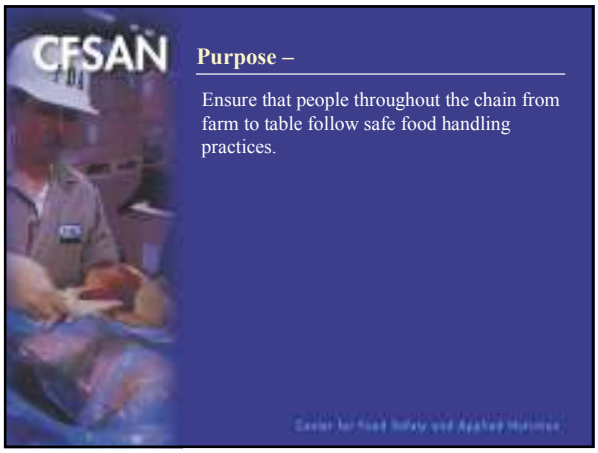

CFSAN
The Team
A specialized staff of. . .
• Scientists
• Researchers
• Nutritionists
• Epidemiologists
• Mathematicians
• Sanitarians
• Public Health Educators
• Consumer Safety Officers
• Lawyers
• Administrative Professionals


CFSAN
From Farm to Table
On the Federal level, CFSAN is responsible for:
• Safety and security from the point of processing (or entry into the U.S.) → to point of sale
• 130,000 food facilities
• 3,500 cosmetic firms

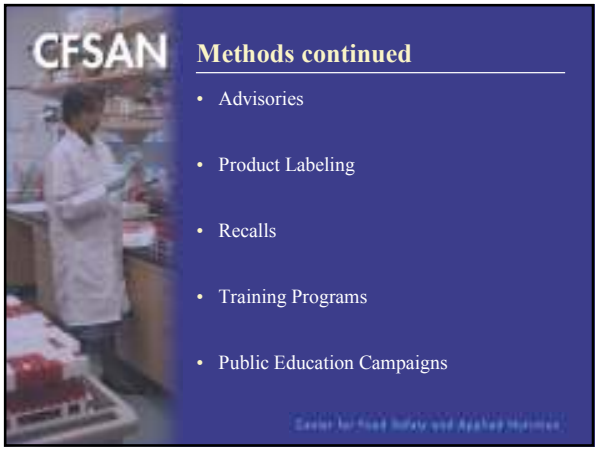

CFSAN
At State & Local Levels
State and local authorities regulate:
• 600,000 restaurants and food service establishments
• 235,000 grocery stores and other food outlets
FDA supports these local efforts with:
• Guidance
• Model codes
• Training
• Technical assistance


CFSAN
Risk Communication -
• An interactive process of exchange of information and opinion among individuals, groups, and institutions.
Source: National Academy of Sciences

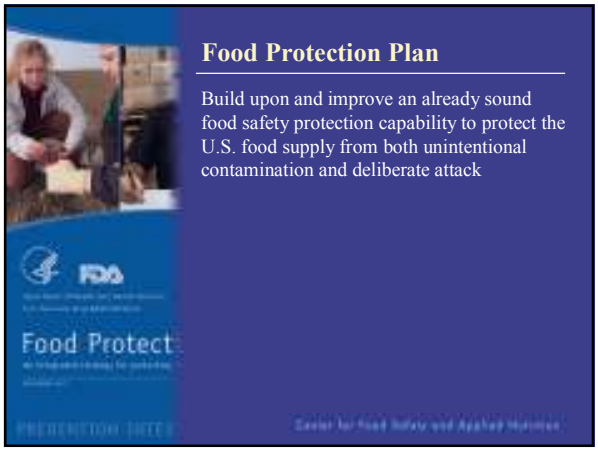

CFSAN
Purpose – To insure accountability (and trust) in the food safety system
• Informal meetings with stakeholders
• Public meetings on proposed government food safety regulations and actions
• Consumer and Industry membership on government advisory committees
• Public notification of surveillance data
• Press releases on food recalls


CFSAN
Purpose –
Ensure that people throughout the chain from farm to table follow safe food handling practices.


CFSAN
Methods of Communication
• Media outreach (all kinds)
• Education Conferences
• Toll Free Hotline 1-800-SAFEFOOD
• E-mail Inquiries
• Constituent Updates
• EdNet Listserve


CFSAN
Methods continued
• Advisories
• Product Labeling
• Recalls
• Training Programs
• Public Education Campaigns


CFSAN
Recalls
• Tomatoes contaminated with *Salmonella* SaintPaul
• Spinach contaminated with *E. coli*
• Peanut butter contaminated with Salmonella
• Melamine in pet food
• Botulism poisoning in Castleberry brand canned foods
• *Vibrio parahaemolyticus* in oysters from Hood Canal in Washington State


Food Protect
Food Protection Plan
Build upon and improve an already sound food safety protection capability to protect the U.S. food supply from both unintentional contamination and deliberate attack


CFSAN
Food Protection Plan – Risk Communication to Stakeholders
Design and conduct consumer communications and behavior response studies
Use study information to update Food Protection Risk Communication Plan with strategies to effectively communicate with consumers
Website for food protection information


CFSAN
Risk Communication Advisory Committee
• Membership – experts in risk communication; risk perception; social marketing; communications; sociology, psychology, decision analysis, health literacy, research methodology, cultural competency, journalism, bio medical ethics


CFSAN
Risk Communication Advisory Committee
•Advise on strategies and programs for communicating with the public about risks and benefits of FDA regulated products
•Review and evaluate research relevant to communication to the public
•Facilitate sharing risk and benefit information with the public


CFSAN
Partnering for Success
Who Plays a Role?
• Government Agencies
• Industry
• Academia
• Health Providers
• Consumers
Collaboration with:
• JIFSAN
• NCFST
• University of MS: Natural Products Research Center


CFSAN
Government Partners
• Centers for Disease Control and Prevention
• U.S. Department of Agriculture
• U.S. Environmental Protection Agency
• U.S. Department of Commerce
• U.S. Department of Treasury
• U.S. Department of Justice
• U.S. Department of Homeland Security
• Federal Trade Commission
• State and Local Governments


CFSAN
International Partners
• Codex Alimentarius Commission
– Standard-setting organization of the Food and Agricultural Organization (FAO) and World Health Organization (WHO)
• Foreign Governments


CFSAN
Trust and Risk Communication
Consumers confident that the food supply is safe:
2006 - 82% confidence
2007 - 66% confidence
2008 - 81% confidence


CFSAN
Safe Food Handling Practices
1998-2001 Large improvements in food safety practices for all food handling practices which have been maintained
2007 Next generation has adopted safer food handling practices


FDA
CFSAN
Working to Keep Food and Cosmetics Safe and Promote Good Nutrition
FDA
Centennial

Risk Communication Activities & Programs of Australia

Samara Kitchener
Director Communications
Day 3

NSW Food Authority

Presentation Outline

- NSW Food Authority
- Goals of Risk Communication
- Case studies
  - Methyl mercury in fish
  - Food Safety and Pregnancy
  - Allergy Aware

NSW Food Authority

Through-chain food safety agency

NSW is:

- Most populous State in Australia; Sydney is the capital
- Largest food manufacturing sector of all the Australian States and Territories;
  - one-third of Australian processed food production
  - turnover of A$23.6 billion pa
  - exports of around A$4 billion pa

NSW Food Authority

Major Functions

- Compliance and enforcement
- Science and policy development
- Investigation of incidents of foodborne illness
- Standards development & implementation
- Consumer and industry education

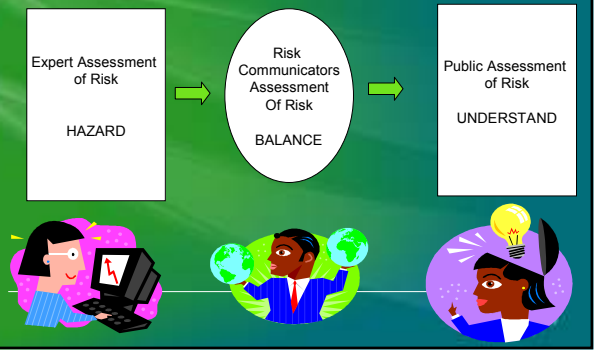
Risk Management Approach

- Regulatory intervention based on risk
- Food Safety Programs are required where warranted by risk

Common goals of Risk Communication

- Improve transparency and increase consumer trust and confidence in food chain
- Inform all parties in the food chain of what steps they can take to control food safety hazards
- Deliver messages that inform without frightening and educate without provoking alarm

The Important Role of the Risk Communicator



What Happens if No Risk Communicator

Expert Assessment of Risk

HAZARD

Information Vacuum

Public Assessment of Risk

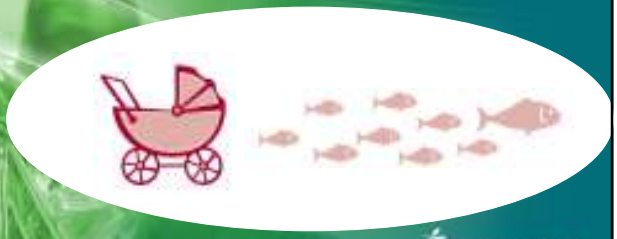
OUTRAGE

Risk Communication Through the Chain

Food Safety Schemes, Training and Regulation

Risk Communication

Case Study 1: Mercury in Fish



NSW Food Authority

Mercury in fish - background

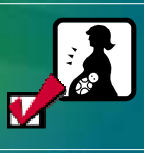
- Standard for mercury in large fish is 1mg/kg
- Some species of fish (shark, swordfish, marlin) have high mercury levels
  - 25% of shark, swordfish, marlin have levels above 1mg/kg
- Mercury in fish - problem for women planning pregnancy, pregnant women and children as mercury can affect a young child's development.
- However the nutritional benefits of fish, makes it an important part of a pregnant woman's diet.
- It is recommended that pregnant women eat 2-3 serves of low-mercury fish a week.

Mercury in Fish

25.4% above 1mg/kg limit for mercury

Large fish – high mercury

Small fish – low mercury

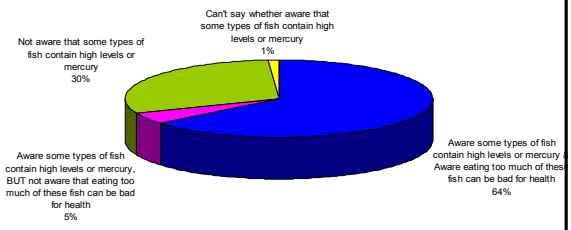


- Show video

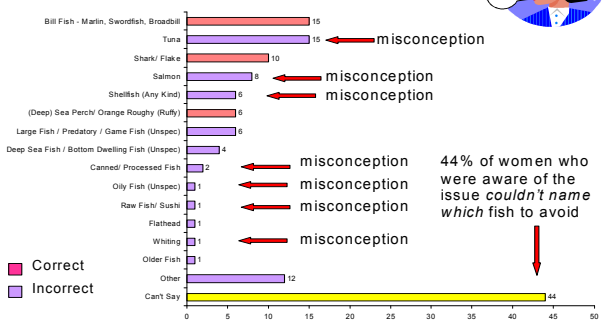
Pre-Campaign Media Coverage

- Media coverage resulted in widespread concern, but was unbalanced:
  - Benefits of fish consumption not mentioned
  - Lack of clarity about which fish to avoid
  - Tabloid media the only voice on the issue
- Research indicates that many pregnant women reduced fish consumption.
- Public health concern about pregnant women eliminating fish

March 05 – Pre-Campaign Market Research



March 05 – Pre-Campaign Market Research



44% of women who were aware of the issue *couldn't name which* fish to avoid

Fig.2. Benchmark Study – Which fish have elevated mercury levels and should be avoided when pregnant?

Goals & Objectives

- Educate women planning pregnancy and pregnant women on how to safely include fish in their diet
- Educate public-health professionals on fish consumption during pregnancy
- Encourage appropriate fish choices at point-of-sale
- Balanced media coverage

Campaign Criteria:

1.Portability

Designed a card that could be carried with pregnant women and used when shopping.

2.Accessibility – multiple channels

Cards were waterproof for fish shops and looked suitable for a doctors surgery.

3.Credibility

Message acceptability required endorsement a broad coalition of stakeholders.

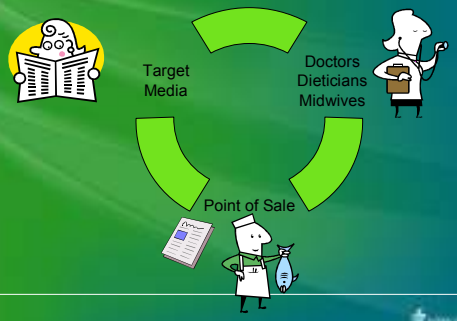
Campaign Message

- Fish are rich in protein and minerals, low in saturated fat, and contain omega-3 fatty acids.
- Omega 3 fatty acids are important for the development of the central nervous system in babies, before and after they are born.
- However some fish contain mercury levels that may harm an unborn baby or young child's developing nervous system.
- The following dietary advice will help you enjoy the health benefits of fish while minimising mercury risk

Dietary Advice

Pregnant & breastfeeding women & women planning pregnancy 1 serve equals 150 grams	Children (up to 6 years) 1 serve equals 75 grams
2 – 3 serves per week of any fish and seafood not listed below	
OR	
1 serve per week of Orange Roughy (Sea Perch) or Catfish and no other fish that week	
OR	
1 serve per fortnight of Shark (Flake) or Billfish (Swordfish / Broadbill and Marlin) and no other fish that fortnight	

Message Delivery – 3 Prong Approach



Which structure is more stable?

Building a Coalition – Partnering with Public Health Bodies

- The following associations agreed for their logos to be printed on the card, assisted in distributing materials and publicised the campaign:
  - NSW Health
  - FSANZ
  - Australian Medical Association
  - Australian Consumers Association
  - Australian Midwives Association
  - Australian Obstetricians and Gynaecologists Association
  - Australian Dieticians Association
  - Australian Breastfeeding Association

Partnering with industry

- The campaign is supported by the following organisations who committed to distribute the card in their stores:
  - Coles Supermarkets
  - Sydney Fish Markets
  - Master Fish Merchants Association
  - NSW Seafood retailers

Media

- Played an important part in initial message dissemination
- Not the only channel used due to the longevity of the message required

Test Launch at the Easter Show

Implementation

Launch Event
Sydney Fish Markets

NSW Minister for Primary Industries launched the campaign with NSW Australian Medical Association President Dr John Gullotta, pregnant nutritionist Tania Nash, Managing Director Sydney Fish Markets, Grahame Turk and NSW Food Authority Director General, George Davey.

500,000 cards distributed through

Group	Distribution point:
Doctors	⇒Over 1000 GP practices ⇒All 180 Obstetricians and Gynaecologists
Ante-natal clinics, Midwives	⇒All NSW Public Hospitals ⇒1500 Midwives
Dieticians	⇒3000 Dieticians
Fish Shops	⇒350 fish shops ⇒134 Coles supermarkets
Authority Contact Centre	⇒Pregnant women, women planning pregnancy ⇒Medical professionals

Website

Results - Media

- The campaign achieved a successful media repositioning - balanced messages reached a potential audience of 1.5 million through TV, radio, print and internet channels.
- All media reports mentioned fish benefits and information on fish choices fish when pregnant/planning.
- There was no negative media on the issue.
- In summary, the campaign was reported by:
  - Newspaper–SMH, Daily Telegraph, Sun Herald
  - Magazines –Women's Day, NSW Doctor, Sydney Child Australian Table, FoodWeek
  - Radio–multiple reports on ABC, 2UE, 2GB, 2NM, Nova
  - TV–Sunrise-Seven
  - Web–FoodWatch, BubHub, FeMail, Birth.com.au, Coles Baby Club

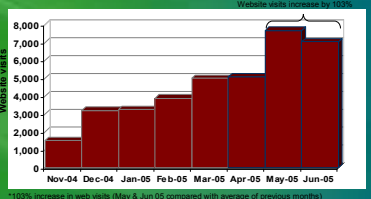
Results - Media

Audience of 1.5 million through TV, radio, print and internet channels.

Results – On-Line Media

Results – Public Interest

Visits to www.foodauthority.nsw.gov.au

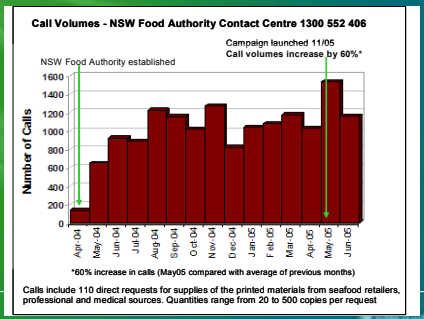


*103% increase in web visits (May & Jun 05 compared with average of previous months)

Total activity on the Authority's website rose substantially in May 2005 with the launch of the mercury campaign.

Additional Information: translated fact sheets

Results – Public Interest



*60% increase in calls (May05 compared with average of previous months)

Calls include 110 direct requests for supplies of the printed materials from seafood retailers, professional and medical sources. Quantities range from 20 to 500 copies per request

International Application

Assisting World Health Organisation develop guidelines for similar campaigns around the world.

WHO Meeting
Geneva, January 2006

Case Study 2: Food safety and pregnancy

Consumer research conducted in Feb/March 2007 amongst 102 pregnant and breast-feeding women found:

- Desire for more information on food an pregnancy generally
- 50% felt there was insufficient information available on diet and food safety for pregnancy.
- Only 50% were aware of the risks of Listeria in food.
- While there is high awareness of mercury in risks (92%); some confusion still remains over safe fish species.
- Strong interest in importance of folate

Campaign objective

Promote additional food safety messages to pregnant women including:

- Take care when preparing food
- Eat fish wisely
- Get your folate

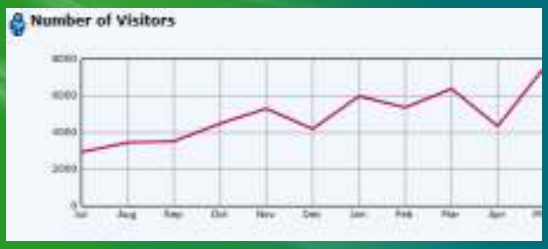
Implementation May 2007

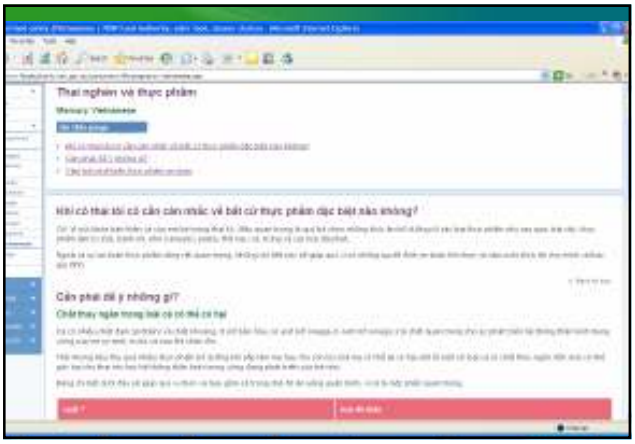
- 450,000 *pink mercury in fish* cards distributed
- 12,000 *Food Safety during Pregnancy* brooklets distributed to GPs
- Pregnancy Web portal developed
- Media launch
- Targeted competitions
- Ongoing communication with health professionals

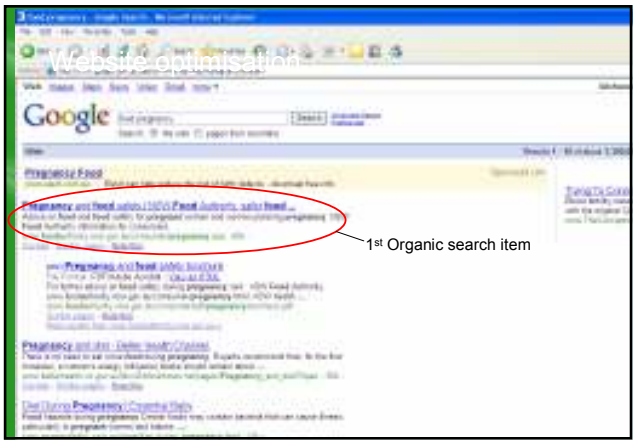
Web portal

Visits to pregnancy portal

July 2007 – May 2008







Results Post Campaign Research

- Most respondents (61%) now feel there is sufficient information available on diet and food safety (up 23% from pre-campaign research).
- 71% of respondents are aware of Listeria infection as a food safety issue (up 20% since the pre-campaign research).
- Of those who had received communication materials from NSWFA 76% said it affected what they ate during pregnancy.

2008 – A special message for children

- The Medical Journal of Australia 2008; 188 (1): 59-60
- Three cases in Sydney where children aged between 15 months and two years were found to have elevated mercury levels
- All cases ate fish (incl. large species) above the recommended dietary intake
- Targeted message to carers of young children

Press Conference, 6 January 2008

Case Study 3: Allergy Aware

An Allergy Training Pilot for Food Service Businesses

- Why an allergy pilot?
- Allergy aware pilot objective and strategy
- Partnering with food industry, consumers and local councils
- Initial pre training research
- Allergy Aware launch
- Next steps

Why an Allergy Pilot

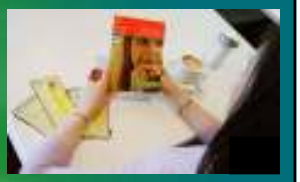
- Food allergies affect 5% of children (65000 in NSW) and 1% of adults (96000 in NSW)
- Eight known food **deaths** in NSW from 1999-2004 seven were 8-18 year olds all occurred when eating outside of the home (Loblay)
- 56% of anaphylactic reactions at restaurant or friend's house, 12% in school or day care, 16% misc, 16% at home. (Bock)
- 85% of people with food allergies had experienced a reaction in a restaurant but still eat out (Bruhn)

Pre-campaign media coverage

NSW Food Authority consumer research

Key concerns

- Lack of choice for allergic consumers when eating out
- Number of deaths or severe allergic reactions that occur outside of the home, particularly when dining out



Food Act requirements

- Must declare the 8 most common food allergens* on food labels of packaged foods
- Consumers can request this information when buying unpackaged foods or eating out
- Food businesses breach the code if
  - Information is not on a label or is not given by staff selling unpackaged food made at the premises, or
  - An allergen is found in a food that was specifically requested not to contain that allergen

*crustaceans, eggs, fish, milk, peanuts, soybeans, tree nuts, sesame seeds and their products and gluten and sulphites

Pilot objective

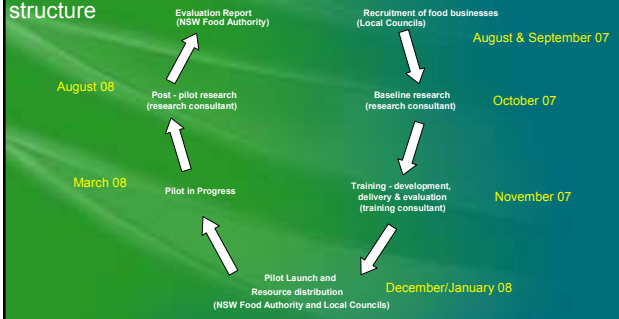
Establish an allergy management partnership between food service businesses, local councils, the NSW Food Authority and consumers to:

1. Help food businesses
   - understand and comply with legislation around food allergy
   - gain the knowledge, skills and resources to implement and maintain good food allergen management
2. Give allergic consumers greater choice when eating out

Pilot strategy

- Voluntary education and training program
- Two local council areas (Canada Bay & Orange)
- Involves 20 - 30 businesses in each council area
- Key activities
  - Research
  - Training in allergy management
  - Development of support materials

Pilot program structure



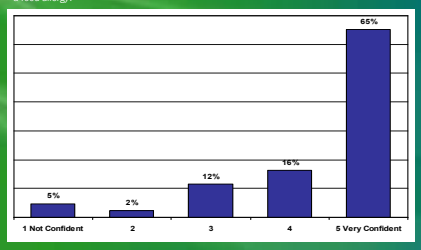
Allergy Aware Logo Concept

- Help consumers recognise Allergy Aware businesses
- Voluntary Scheme
- Businesses that elect to participate in the scheme will be provided with a kit of materials to promote they are Allergy Aware and will be able to use the Allergy Aware logo
- These businesses will need to comply with requirements of the scheme

Possible ways logo can be applied

PREPARING A SAFE MEAL

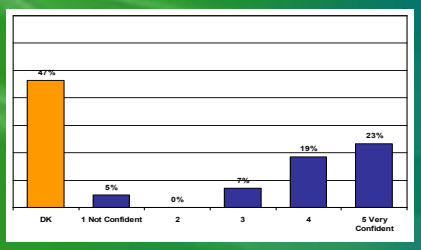
Q9. On a scale from 1 to 5, how confident are you that your staff could prepare a safe meal for a customer with a food allergy?



Establishments were even more confident that they could prepare a Safe Meal for customers with a food allergy, with over 80% rating their confidence at 4 or 5 (5=very confident).

COMPLIANCE

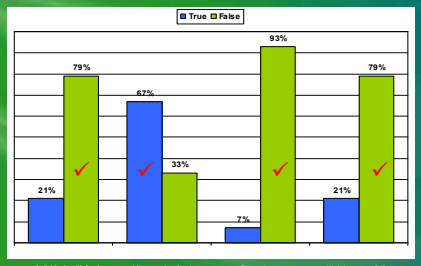
Q10. On a scale from 1 to 5, how confident are you that your establishment complies with food allergy legislation?



Over 50% of establishments either don't know or are not confident that their establishment complies with food allergy legislation. This suggests that most do not know or understand the legislation.

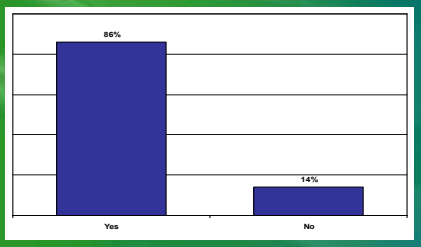
SAFE PREPARATION OF FOODS

Q15. Are these statements about food allergens true or false?



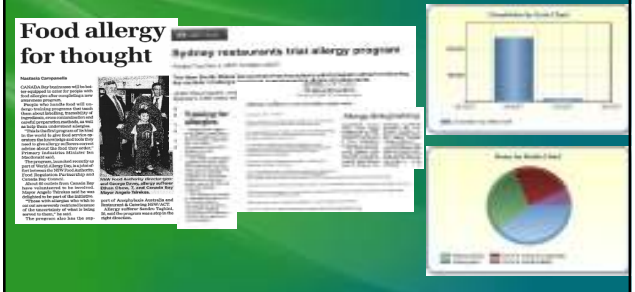
TRAINING & EDUCATION – ADDITIONAL REQUIREMENTS

Q19. Do you think it would be valuable to have more training and resources for your staff regarding food allergies?



Allergy Aware Launch - 3 December 2007

Allergy Aware Launch – Media Coverage



Allergy Aware – Challenges to date

- Coordination and priority with councils
- Better uptake in regional council than metropolitan
- Businesses find the work time consuming
  - Identify all allergens in all menu items
  - Documentation
  - Ingredient substitution

Future direction

- Carry out pilot
- Consumer awareness
- Develop further resources
- Evaluate
- Rollout to other areas in NSW
- Refresher training
- Continue publicity

Conclusion - Key Reasons for Success

- Simple messages
- Focus on positives
- Targeted campaign
- Strong partnerships with stakeholders
- Credible endorsements
- Multi channel distribution
- Cost effective

The Power of Partnering: Educating Consumers to Fight BAC!™ and Avoid Foodborne Illness

The Partnership for Food Safety Education – A Success Story
Marjorie L. Davidson, PhD
U.S. Food and Drug Administration

Partnership for Food Safety Education

- Why a Partnership?
- How was the Partnership structured?
- Is the Partnership successful?
- Lessons Learned…

Why a Partnership?

- Common interest in furthering food safety goals
- Acknowledgement that pooling limited individual organization resources would be more successful in achieving these goals

Key goals

- Brand a compelling character/slogan about food safety
- Develop a key set of messages
- Produce the multiplier effect through members

Key Messages

Partners

- American Dietetic Association
- American Egg Board
- American Frozen Food Institute
- American Meat Institute
- Assoc. of Food and Drug Officials
- Centers for Disease Control and Prevention
- Consumer Federation of America

Partners cont'd

- Environmental Protection Agency
- Food and Drug Administration
- Food Marketing Institute
- Food Temperature Indicator Assoc.
- Grocery Manufacturer's Association
- Nat'l Assoc. of State Depts. of Agriculture
- National Cattlemen's Beef Association

Partners Cont'd

- National Chicken Council
- National Fisheries Institute
- National Food Processors Association
- National Pork Board
- National Restaurant Association
- National Turkey Federation

Partners cont'd

- Produce Marketing Association
- The Soap and Detergent Association
- U.S. Department of Agriculture
- U.S. Poultry and Egg Association

How was the Partnership structured?

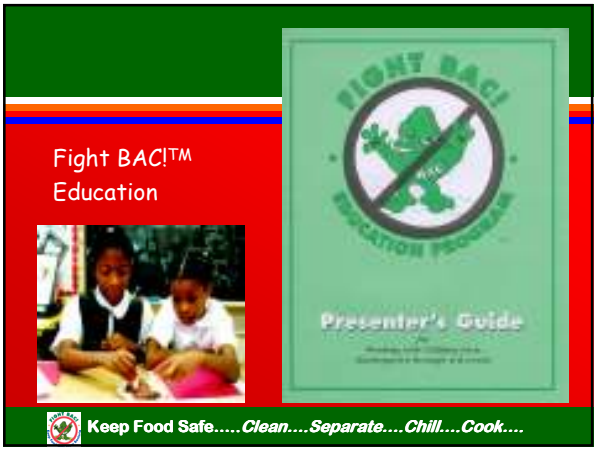
- Informal organization
- Funded by annual contributions from private members
- Part time administrator with contractor support
- Work done by committees
- Decisions made by consensus

The Partnership Provides the Tools Needed

- Web site
- Media Outreach
- Educational Packages for Kids
- Publications and "how to" materials for community outreach
- BAC! Store

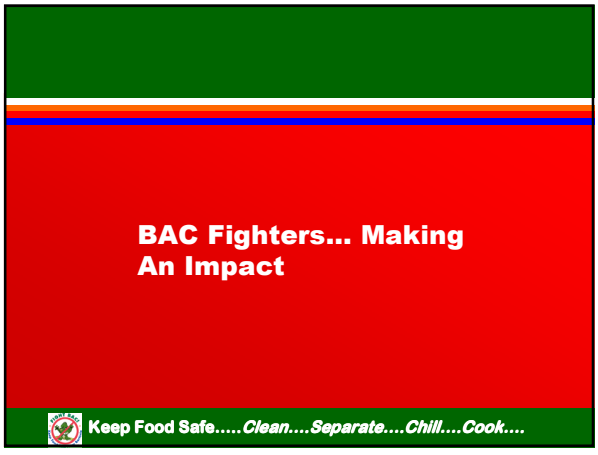

FIGHT BAC!
Keep Food Safe From Bacteria
BAC
this
SUMMER
Keep Food Safe.....Clean....Separate....Chill....Cook....


ANATOMY OF A
FIGHT BAC!YARD
When grilling foods, COOK ground beef to 160°F, steaks to 145°F and chicken to 180°F. Use a thermometer to make sure foods are cooked all the way through.
Use SEPARATE cutting boards for raw meat. Never place cooked food on same plate that previously held raw meat, poultry or seafood.
Store foods in cooler until ready to cook. Pack with plenty of extra ice and shut container tight to keep foods COOL.
Wash cooking utensils and surfaces with hot, soapy water. Consider using paper towels to CLEAN up surfaces outside.
Marinate foods in the refrigerator. Don't reapply same marinade from raw meat to cooked food.
On hot days (85°F+), don't leave perishable foods, such as meat, seafood, poultry or eggs, out for more than 1 hour.
Make food safety a top priority during the summer grilling season. Practice safe food handling in your backyard to help Fight BAC!™ and prevent foodborne illness.
Source: Partnership for Food Safety Education www.fightbac.org
Keep Food Safe.....Clean....Separate....Chill....Cook....


Fight BAC!™
Education
FIGHT BAC!
BAC
EDUCATION PROGRAM
Presenter's Guide
Keep Food Safe.....Clean....Separate....Chill....Cook....


Kit Components
COMMUNITY ACTION KIT
FIGHT BAC!
Keep Food Safe From Bacteria
A National Public Education Campaign
Sample Press Release
Newsletter Article
Reproducible Fact Sheet
Reproducible Flyer
Consumer Brochure
Radio Public Service Spot
Camera-Ready Logo Art
Keep Food Safe.....Clean....Separate....Chill....Cook....


BAC! Store
Mug
Apron
Patch
Sticker
Magnet
Bookmark
Poster
Keep Food Safe.....Clean....Separate....Chill....Cook....


BAC Fighters... Making
An Impact
Keep Food Safe.....Clean....Separate....Chill....Cook....

Media Outreach in North Carolina

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Ohio Farm Days

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Fight BAC! Kicks-off in Annapolis! July 1, 1999 -- In A Downpour!

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

San Diego Campaign

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Day 2

University of Maryland Microbiology Lab

SUCKING UP!!

Gwen, Deb & Wade

- Chilling
- nvestigation
- on't Cross Me!
- ooking Right
- Coliform Counts

McDonald's Happy Meals "Bag Hanger" for McMoms and Dads

12 million distributed

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Challenges.....

- Staff support for Partnership activities
- Sustainability of organization's financial support

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

FDA Consumer Survey

- Large improvements in food safety practices between 1993 and 1998
- In 2001 and 2007 these gains were maintained or improved again for all food handling practices

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Consumer Education Platforms

1. FIGHT BAC!

2. be food safe. clean. separate. cook. chill.

Original campaign

Free

Heavily used by health, food safety & consumer educators nationwide

Licensed

New platform for retail environment

www.fightbac.org

www.befoodsafe.org

be food safe. 41 Retail Licensees

Acme Markets
Albertson's LLC
Associated Food Stores, Inc.
Atlantic Food Mart
Big Y Foods, Inc.
Brookshire Grocery Company
Brown & Cole Stores
Buehlers Fresh Foods
Coborn's Inc.
Defense Commissary Agency
Dorothy Lane Market
Fairview Foods / Piggly Wiggly
Fiesta Mart
Food Lion LLC
Giant Food Stores, Carlisle PA
Giant of Maryland
Giant Eagle Inc.
Haggen Inc.
Hannaford Bros. Co
Harmons
Highland Park Market
Ingles Markets Inc.
Kings Super Markets Inc.
Kroger Co., Great Lakes
Lund Food Holdings
Meijer, Inc.
People's Food Cooperative Inc.
Price Chopper
Publix Super Market Inc.
Raley's
Roundy's Supermarkets, Inc.
Rudy's Markets Inc.
Safeway
Save Mart Supermarkets
Schnucks Markets
ShopRite
Soelberg's Market
Stop & Shop Supermarkets
Sweetbay Supermarket
Wegmans
Weis Markets, Inc.

June/2008

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Colorful, modular. Developed with input of major retailers & food companies




Keep Food Safe.....*Clean....Separate....Chill....Cook....*

be food safe. 41 Retail Licensees

Acme Markets	Highland Park Market
Albertson's LLC	Ingles Markets Inc.
Associated Food Stores, Inc.	Kings Super Markets Inc.
Atlantic Food Mart	Kroger Co., Great Lakes
Big Y Foods, Inc.	Lund Food Holdings
Brookshire Grocery Company	Meijer, Inc.
Brown & Cole Stores	People's Food Cooperative Inc.
Buehlers Fresh Foods	Price Chopper
Coborn's Inc.	Publix Super Market Inc.
Defense Commissary Agency	Raley's
Dorothy Lane Market	Roundy's Supermarkets, Inc.
Fairview Foods / Piggly Wiggly	Rudy's Markets Inc.
Fiesta Mart	Safeway
Food Lion LLC	Save Mart Supermarkets
Giant Food Stores, Carlisle PA	Schnucks Markets
Giant of Maryland	ShopRite
Giant Eagle Inc.	Soelberg's Market
Haggen Inc.	Stop & Shop Supermarkets
Hannaford Bros. Co	Sweetbay Supermarket
Harmons	Wegmans
	Weis Markets, Inc.

June/2008

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

be food safe.

In development:

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

Together, we're doing what none of us could do alone...

Keep Food Safe.....*Clean....Separate....Chill....Cook....*

FDA

A Label Education Program for Tweens

SPOT The Block
Get your food facts first

What is SPOT THE BLOCK?

- A health promotion campaign launched this year to help combat childhood obesity by encouraging "tweens" (ages 9 to 13) to use the Nutrition Facts to make healthful food choices

Why SPOT THE BLOCK?

- Part of the Department of Heath and Human Services commitment to help Americans live long, better, healthier lives by reducing overweight and obesity, poor nutrition and inactivity

Why SPOT THE BLOCK?

- Response to FDA Obesity Working Group action plan calling for education for children on how to lead healthier lives through better nutrition

The Problem

- More than 65% of all Americans are now overweight and over 30% are obese
- 15% of children and adolescents ages 6 to 19 are overweight—nearly double the rate two decades ago

Why TWEENS?

- Cognitively able to understand the label
- Making food choices on their own
- Want independence, but they are still influenced by their parents

What Some Tweens Eat

- No breakfast
- Lunch at school (10 AM to 1 PM) (chips and soda)
- After school snack (more chips, fast food)
- Dinner alone (pizza, chicken)

What do Some Tweens Think About the Nutrition Facts?

- Tweens don't think about the label
- No compelling evidence what would motivate them to think about it

Two-tiered Strategy – Tweens

- Brand the campaign to appeal to Tweens
- Deliver messages through Tween media
- Focus on 3 key action-based nutrition messages

Three Key Messages

(1) CHECK OUT THE SERVING SIZE – Remember one package isn't necessarily one serving

Key Messages

(2) CONSIDER THE CALORIES – Remember 40 calories is low, 100 is moderate, 400 is high

Key Messages

(3) CHOOSE NUTRIENTS WISELY – Pick foods that are lower in certain fats, cholesterol and sodium,

5% DV is low; 20%DV is high

Media Partner:
Time Warner's Cartoon Network

Reaching the Tween market

- On-air spots with Spot the Block messaging and CN licensed characters
- Custom designed mini-Web site with streaming spots and widgets
- Drive to web site

Media Partner:
Time Warner's Cartoon Network

Reaching the Tween market (cont'd)

- "Get animated" community events

Evaluation

- Developmental evaluation will continue as elements are produced
- Monitor impression # and usage of outlets over 70,000,000 impressions in 6 months

Evaluation

- FDA/CN program is effective in getting children to respond to messages in SPOT THE BLOCK
- Significant increases in children thinking nutrition facts panel is important to them

Evaluation

- Significant increases in likelihood that children will tell their friends to check out the nutrition facts panel
- Significant increases in perceived importance of knowing the serving size

Evaluation

- FDA's Health and Diet Survey

Two-Tiered Strategy - Parents

Two-Tiered Strategy - Parents

- Hands-on Practical Advice for Parents to talk to their kids in "family dialogue" areas
  - home, lunchbox/cafeteria, supermarket, restaurants

Two-tiered Strategy - Parents

National PR Campaign

- Outreach to the adult media
- Parent web site

Leveraging with Partners

- Cartoon Network
- NASA
- National Science Teachers Association

COUNTRY REPORT
BRUNEI
DARUSSALAM

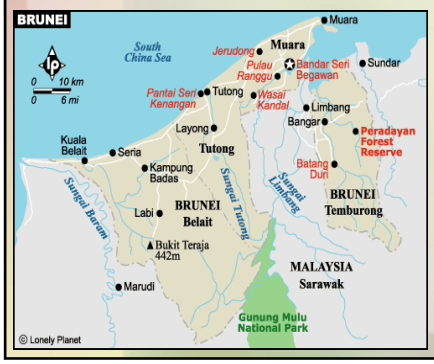
Capacity Building Training on Food Safety Risk Communication for APEC Developing Economies (CTI 33 2008T)

23rd- 27th June 2008
Metro Manila, Philippines

Content

oSituated in Southeastern region of Asia

BRUNEI DARUSSALAM IN BRIEF



o In Northeast Borneo,
oArea= 5765 sq km with 161 km coastlines
o Divided into 4 districts .
o 80% covered with tropical rainforest

CLIMATE

- o Equatorial climate
- o Temperature ranging between 23^{0}C and 32^{0}C
- o Rainfalls occur heaviest in September to January and May to July
- o Humidity= 70% throughout the year

PEOPLE AND CULTURE

- o Total population= 374,577
- o Predominantly Malay nation with the Malay ethnic group making up to 67 %
- o Other racial groups= Chinese (15%) & others (18%)
- o Literacy rate= 93.7%
- o Malay Islamic Sultanate
- o Religion - Muslims dominant
- o Languages= Malay (official), English (secondary) & others local dialect

ECONOMY

- o oil and natural gas
- o the main exports are crude oil, natural gas and petroleum products derived from oil and gas refining

Strategies To Diversify The Economy

- o economic diversification;
  - Rice Production;
  - Fruit Farming ,
  - Vegetables ,
  - Livestock ,
  - Forestry,
  - Fisheries (aquaculture),
  - Food Industries
- o Marketing food globally

FOOD SAFETY REGULATORY FRAMEWORK

- o Regulatory framework ensuring the safety and quality of food available to nation
- o The Public Health (Food) Act, (Chapter 182) and Public Health (Food) Regulations (RI Chapter 182) were enforced on January 1st 2001
- o Other relevant acts covering food safety:
  - Municipal Board Act;
  - Poisons Act;
  - Miscellaneous Licensing Act;
  - Custom Act;
  - Fisheries Act (Chapter 61) and its Regulations
  - Infectious Disease Order 2003.

FOOD SAFETY CONTROL AUTHORITIES

- o Integrated food safety system
- o Ministry of Health - main agency responsible for monitoring and surveillance of food by ensuring the safety and quality of food available to the nation.
- o Other relevant agencies ;
  - Department of Agriculture –safety and quality of meat and meat products; poultry; fruits and vegetables
  - Department of Fisheries – fish and fish products
  - Brunei Industrial Development Authority presides over the local production and importation of bottle packed drinking water and mineral water.
  - The Municipal Boards and the Districts Offices - licensing authorities for business establishments

PUBLIC AWARENESS

- Numerous health education and promotion activities are carried out
- Efforts in fulfilling the information need and improving the channel of communication in increasing public awareness on health including food safety, a Healthy Brunei Sihat newsletter is published once in every two months and is freely distributed to the public.
- Industry education and program:
  - a mandatory Food Handler's course
  - annual Agri-Food Program - The most Outstanding Food Manufacturer and Successful Food Manufacturer.
  - Food Hygiene Awards (non government initiatives)

CHANNELS OF COMMUNICATION

1) Electronic media such as radio and television programs
2) Printed materials such as pamphlets, brochures, guidelines, fact sheets and posters
3) Food alerts / notification - news release
4) Partnership with non- food safety bodies
   - dissemination of information / advertisement through local newspaper publication
5) Net working – local, regional international – food agencies, INFOSAN

FOOD SAFETY RISK COMMUNICATION IN THE PEOPLE'S REPUBLIC OF CHINA

AQSIQ, P.R. CHINA
LIU QUANGUO
June 23-27, 2008

General and Information

- P.R. China is located at eastern Asia, border on Japan □ Korea □ Russia □ India □ Thailand□Vietnam, etc.
- land: 9□600□000 km square
- Population□1,300,000,000

Economy

- GDP Gross □Third□ in the world
- Currency: RMB
- Exchange rate: RMB: Piso = 1:6

AQSIQ

General Administration Quality Supervision Inspection and Quarantine

- 18 Departments including import and export food safety bureau
- 35 Directly under Inspection and Quarantine bureaus, 328 branch bureaus
- 31 Province Leval Quality Supervision bureaus
- 163 Centers of food Inspection and Quarantine

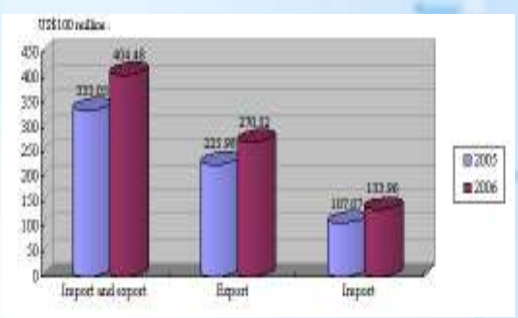
Food Production

The food-processing Industry □448,000 enterprises

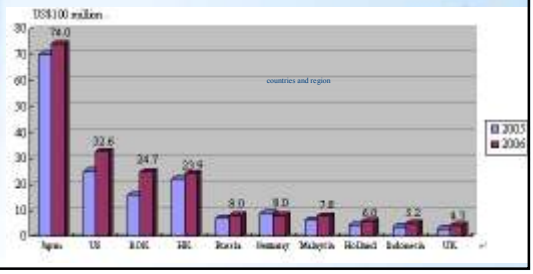
Food Production

The food-processing Industry □448,000 enterprises

The import and export volume in 2006: US$40.448 billion-worth



The top ten countries and region in trade volume



Food safety system

- Establish a food recall system (active recall and instructed recall)
- 2,675 enterprises have been granted hazard analysis and critical control point (HACCP) certificates
- 3,913 food testing laboratories have passed the laboratory accreditation (China National Accreditation Service CNAS □
- China's laboratories for import and export food inspection and quarantine take part in the international comparative experiments, such as the food ananysis performance assessment scheme of the UK

China's food risk analysis

Import and export food safety bureau,AQSIQ

- Organize and Actualize food safety risk assessment
- Constitute food safety risk management strategies
- Construct a risk-warning and emergency-response system
- Be responsible for food safety risk communication

The Status of the Food Safety Risk Communication in China

Established□

- The collection and analysis system of food safety risk information
- The trace system of risk information
- Strengthen the construction of a nationwide quick risk warning and responding system
- The Issuing system of risk information
- risk information counseling

The Responsibility System for the Food Safety Risk Communication

- Government organizations: Department of Agriculture□ Department of Health□ Department of Environment protecting □ Department of Business□General Administration of Industry and Commerce□ AQSIQ
- Corporation
- Society union
- Consumer and Consumer Association
- Academia and institute organization
- Media
- International organizations

Problems of the Food Safety Risk Communication

- Lack of risk communication resources and information is not enough and complete
- Present resources divided in different departments Lack of share system and risk management
- Lack of authoritative risk assessment
- Lack of diaphaneity of risk information
- Lack of participation activity
- Lack of related education and training
- Lack of personnel resources

Mission and Task

Mission

Establish a consummate analysis system of food safety risk

Mission and Task

Task

- Build and improve present supervisory system and mechnism for food safety, Strengthen and improve food safety legislation and relevant standards Establish food safety risk analysis system According food safety risk analysis establish the food safety standards and confirm control measure for the diseases caused by contaminated food
- Strengthen food safety control and a lasting efficiency mechanism to deal with root causes of food safety problems
- Establish a risk analysis mechanism including information share unification harmony authority
- Train risk analysis researchers
- Establish a special risk analysis organization
- Establish emergency-response system
- Strengthen international collaboration and exchanges international collaboration and exchanges

Suggestion and revelation

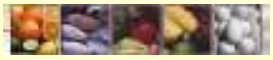
- Establish an unified harmonious food safety risk communication management system
- Sustaining from government departments
- Strengthen international collaboration and exchanges
- Strengthen risk assessment and management
- Integrate government resources

Food Safety Risk Communication in Taiwan, R.O.C.

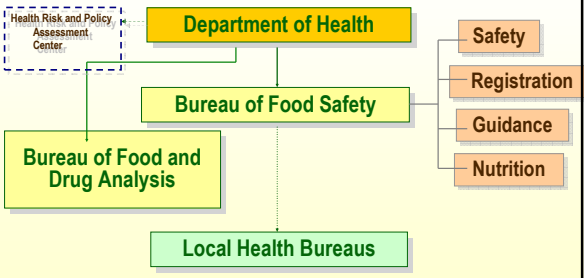
Hsu, Chao-Kai
Bureau of Food Safety, DOH
June/25/2008

Food Safety Issues

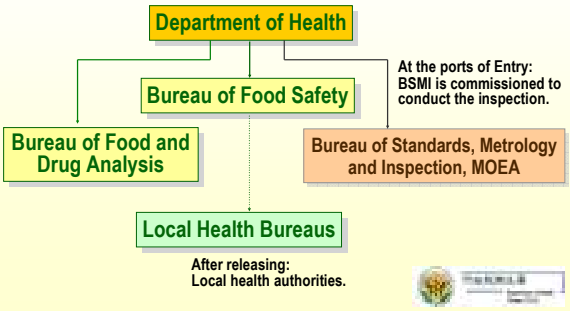
- The topics concerned by general public.
- The hot points reported by media.
- The close link to trade.
- Food safety is emphasized for developed countries.
- International standards were developed.



Organization



Import Food Management



Public Education

- The activities are conducted according to the annual scheduled plan and specific issues.
- Food Information Network
- Food and Drug Safety News Weekly (Electronic Newspaper)

http://food.doh.gov.tw

http://food.doh.gov.tw

Challenge for Crisis Management 1

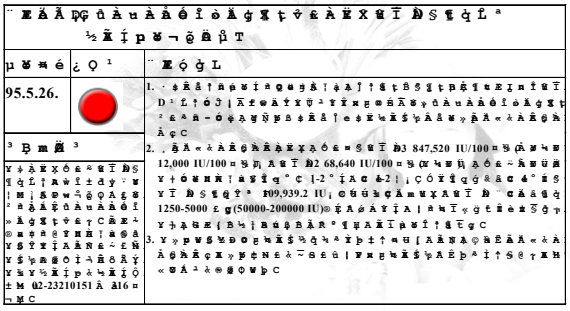
To improve the dealing of food safety issues
- To release alert news and to withdraw the unsafe products ASAP.
- To establish the task force coordinator mechanism.
- To enhance the food recall process.

To strengthen the risk communications
- To reinforce the interaction with consumer groups.
- Food Consumption Warning Signal. (Traffic Light Signal)

Red sign: unfit for human consumption.
Yellow sign: no immediate risk but safety is in uncertainty.
Green sign: risk is negligible.

http://food.doh.gov.tw

Food Consumption Warning Signal



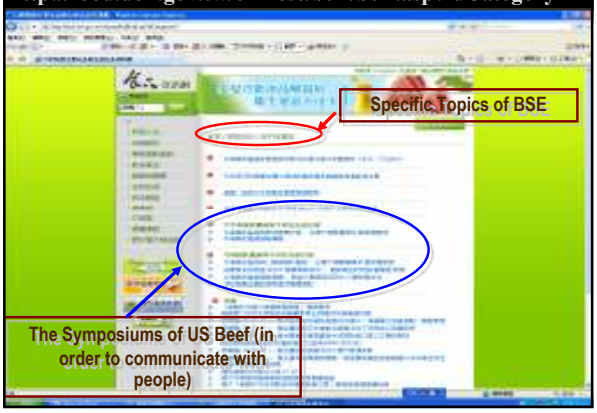
The Crisis of US Beef in Taiwan in 2005

US Cattles were Crazy as well as Taiwanese?

2005/06/13

http://blog.sina.com.tw/blackjack/article.php?pbgid=19586&entryid=3037

http://food.doh.gov.tw/chinese/bull/bull.asp?idCategory=2



Challenge for Crisis Management 2

To fulfill the from-farm-to-table principles
- To establish the inter-agency coordination mechanism among Health, Agriculture, and Environment Authorities.

To enhance the information transparency
- To release and update the information ASAP.
- To open the hotlines for public inquiries.

Challenge of Food Safety Issue Management in Future

- Increasing of consumer's knowing right
- More and more food safety issue loadings but less and less budgets in our bureau
- Int'l food safety issues causing the inspection system of imported foods are important
- The skill and experience of handling the food safety risk communication aren't still adequate.

Thank You for Your Attention !

Risk Communication on Food Safety

INDONESIA

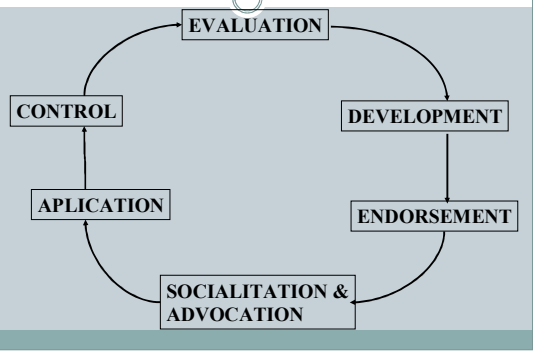
2008

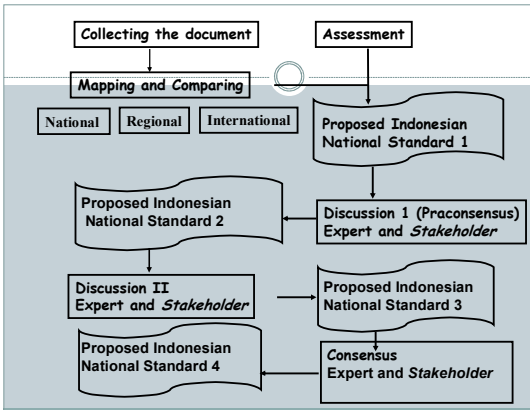
INTRODUCTION

Government in order to protect the public health:

- develops regulations, standards, guidelines, code of practice.
- involve stakeholder (governmental institution, university, expert association, food association, food producer, consumer association).

Management Standardization System





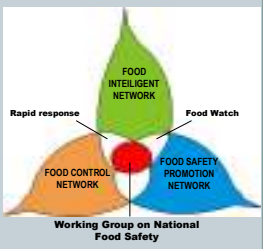
SOME REGULATION

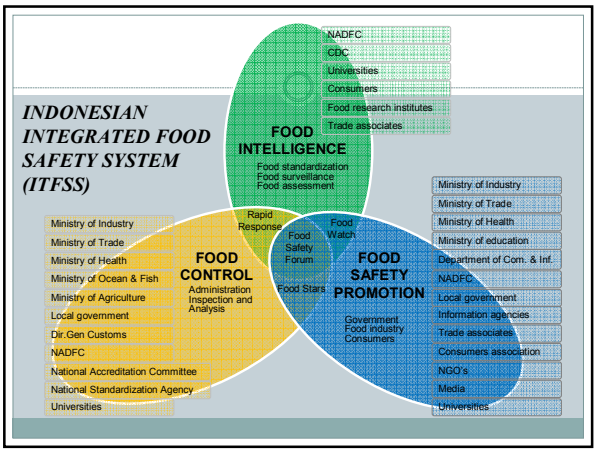
- Act Number 7 (1996) on Food
- Act Number 8 (1999) on Consumer Protection
- Government Regulation Number 28 (2004) on Food Safety, Quality and Nutrition
- Government Regulation Number 69 (1999) on Food Labeling and Advertisement
- Decree of Head of National Agency for Drug and Food Control Number : HK.00.06.1.52.6635 (2007) on Prohibition of Claims of Free Food Additives on Food Label and Advertisement

Integrated Food Safety System in Indonesia

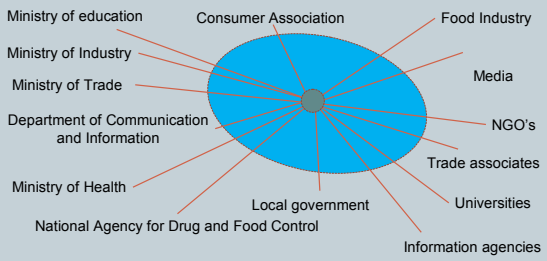
Integrated Food Safety System :

- Food Intelligent Network – based on risk assessment by Directorate for Food Safety Surveillance and Extension.
- Food Control Network – based on risk management by Directorate for Food Inspection and Certification
- Food Safety Promotion Network – based on risk communication by Directorate for Food Safety Surveillance and Extension.





Integrated Food Safety System (Continued)



Experience on Risk Communication in Indonesia

- Media of Communication
  - Poster, Leaflet, Comic, Module, Bulletin.
  - Training and Exhibition
  - Road Show (to School).
  - Radio, Television, Website.
  - Mascot of Food Safety: POMPI (Drug and Food Control Information Giver (Pengawas Obat dan Makanan Pemberi Informasi)
- Target of Communication
  - Food industry, elementary school, public
  - District food inspector

Cases

- Formalin
- E. Sakazakii
- Claims of Free Food Additives on Food Label and Advertisement

Cases (Continued)

- Formalin

  Formalin detected in food through periodic inspection on the traditional market → mass media → crisis? → NADFC enhance the food inspection → announce the result.

Cases (Continued)

- *Enterobacter sakazakii*

  Expert research (2004-2007) → publication on mass media (2008): certain infant formula contaminated with E. sakazakii→ Public worried with the marketed infant formula → public ask goverment to annouce the infected infant formula → crisis? (2008) → press release by NADFC: the nature of E. Sakazakii → public not satisfied → press release by Department of Communication and Information and NADFC: no infected infant formula distributed in the market.

Cases (Continued)

- Claim of Free Food Additives on the food label and advertisement
  Media : food additives can adverse health → crisis? → industri made label : no food additives → goverment has regulated food additives → Decree of NADFC on Prohibition of Claims of Free Food Additives on Food Label and Advertisement (2007) → some food producer complained.

Thank You

Capacity Building Training on Food Safety Risk Communication
for APEC Developing Economies
23-27 June 2008

KFDA NOW
Risk Communication activity

Korea Food and Drug Administration

Risk communication

- **Definition by FAO/WHO :**

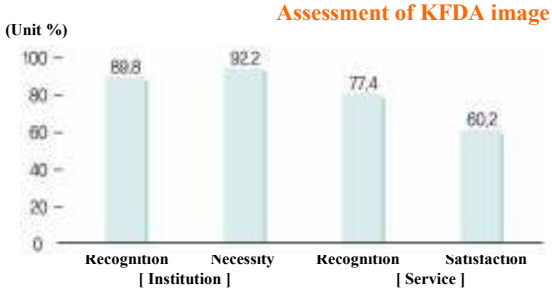
" The interactive exchange of information and opinions throughout the risk analysis process concerning risk, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions "

Why risk communication ?

- **Risk communication has become very difficult because of:**
  - changes in the society
  - public concern about risks of technology
  - changes in understanding hazards and risk
  - decline of public confidence in government
  - politicization of the technological debate

Public perception (1)

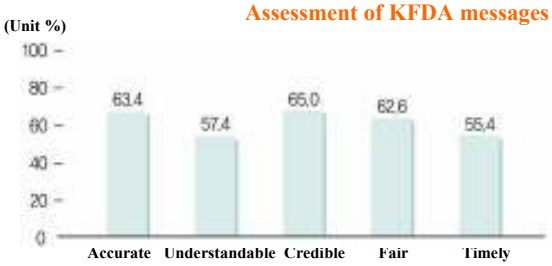
Assessment of KFDA image



D.S. Han, *et al*., Study for Development of KFDA Communication Manual, 2006

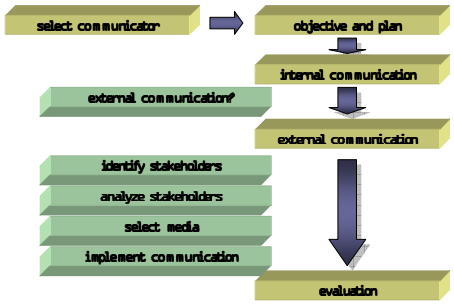
Public perception (2)

Assessment of KFDA messages



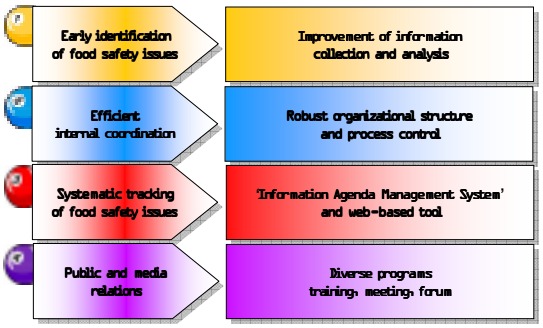
D.S. Han, *et al*., Study for Development of KFDA Communication Manual, KFDA Contract Study 2006

Risk communication process



Risk Communication Manual, Risk Management Team, KFDA, 2006

KFDA strategic focuses



Early identification of issues (1)

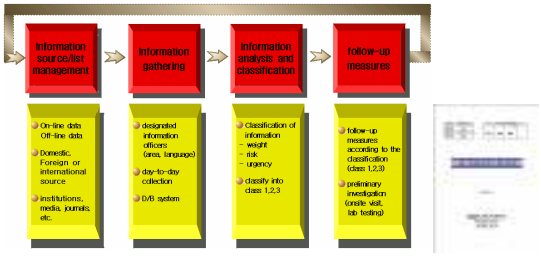
- **Effective information gathering and analysis are essential for effective food safety management**
- Challenges:
  - Information from different networks of monitoring and surveillance are not fully used
  - Food safety problems discovered in one country often are of concern in other countries

→Risk Information Team in charge of early identification of potential food safety problem

Strategic focus 1

Early identification of issues (2)

- **Risk Information Team workflow**



Strategic focus 1 Risk information management manual, Risk Information Team, KFDA, 2006

Early identification of issues (3)

- **Some numbers…**
- Risk Information Team: 9 officers
- Information sources
  - Domestic: 46
  - Foreign or international: 100
  - From expert institutions to general media

Strategic focus 1

Efficient coordination

- **Agency's food safety management depends on the combined efforts of multiple divisions**
- Challenges:
  - KFDA is a complex aggregation of diverse systems
  - Amount and speed of information increase

→Call for coordination!
Robust organizational structure and process control

Strategic focus 2

Restructuring organization (1)

KFDA 2005

1,012 employees
(479) 6 headquarters
4 departments
2 offices
46 teams
(129) 1 institute(NITR)
(404) 6 regional agencies

Strategic focus 2

Restructuring organization (2)

communicating as fragmented divisions

Restructuring organization (3)

New bureau for coordination

Restructuring organization (4)

- **New Bureau for:**

Communication! Coordination! Collaboration!

Risk Management Team
Risk Information Team
Food and Risk Standardization Team

Strategic focus 2

Systematic issue tracking

- **Better coordinated and agency-wide process control should be based on effective issue tracking system**

- Challenges:
  - Multiple divisions, interactions, resources and goals need to be coordinated

→**Information Agenda Management System (IAMS) for a systematic issue tacking and management model**

Strategic focus 3

IAMS (1)

- **Information Agenda Management System**
  - Developed by the Office of the President in July 2004
  - Adopted by KFDA in June 2005

Integration of IAMS into KFDA's risk analysis framework

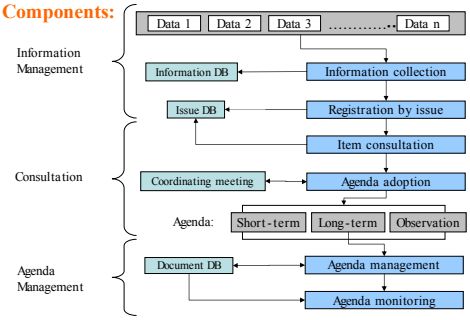
→key policy objective since 2006!

Strategic focus 3

S.W. Choi, KFDA IAMS demonstration, 2006

IAMS (2)

Process Components:



Strategic focus 3

S.W. Choi, KFDA IAMS demonstration, 2006

On-line IAMS

- **Easy-to-use web-based tool will be useful to support IAMS in tracking issues and automatically managing them through to resolution**
- **'KFDA On-line IAMS'**
  - will be available in few months
  - supports better communication and collaboration
  - allow automatically manage issues to resolution according to IAMS model

Strategic focus 3

Brief look at On-line IAMS (1)

Information management:
Data collection

Strategic focus 3

S.W. Choi, KFDA On-line IAMS demonstration, 2006

Brief look at On-line IAMS (2)

Information management:
Verification
Register
Share

Strategic focus 3

S.W. Choi, KFDA On-line IAMS demonstration, 2006

Brief look at On-line IAMS (3)

Issue/agenda management:
Agenda adoption
Related meetings
Tracking by issue/agenda

↓ Management decisions

Implementation

↓ Monitoring

Resolution !

Strategic focus 3

S.W. Choi, KFDA On-line IAMS demonstration, 2006

Public and media relations

- **Various programs to improve public and media relations…**

» Risk communication studies
» Risk communication manual
» Expert networks
» Meetings, forums, workshops
» Training for media relations

Strategic focus 4

Master media relations (1)

- **There is a formula to media reporting!**

" [X] was found in [Y] at the level of [Z] ppm
This level is [a] times above the limit set by [KFDA/codex]
(or KFDA has not even set a standard)
[X] may cause serious illnesses such as [b, c, d]"

- Public getting outraged, blames government and industry
- Government going on red alert
- Products sales drop, companies going bankrupt

→**New regulations resulting in increased product cost**

Strategic focus 4

Y.H.Kim, KFDA Risk Analysis Workshop, 2006

Master media relations (2)

- **Media is an information channel and public arena**
  →media relations is critical to successful risk communication
- **Understanding media**
  - Politics than risk
  - Simplicity than complexity
  - Danger than safety
  - Fierce competition among media
  - Unfavorable to government

Master media relations (3)

- **Agenda-setting**
  - Media Agenda
  - Public Agenda
  - Policy Agenda
- **Agenda competition:**

"Leading cause of death"

NSO* briefing → cancer
Internet media→ cancer
Yonhapnews → suicide

Master media relations (4)

- **Directions in media relations:**
  - Proactive risk communication
  - Continuous agenda management
  - On-line media, personal news
  - Long-term relationships with journalists
  - Honest and open
  - Meet reporters' needs

KFDA RC Manual

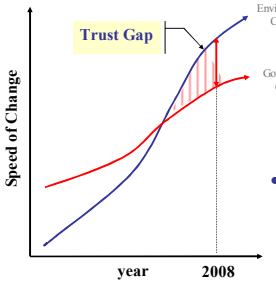
Basic research | Introductory text | Reference Manual

Preferred source

Rank	Information source
1	TV, Radio, Newspapers
2	Family, Relatives, Friends, Neighbors
3	Internet search information
4	Producers
5	Consumer groups
6	Government
7	Research institutes
8	Distributor, Food store
9	Manufacturers, processors
10	Public health professional, Product presentation
12	Professional journals
13	Dietitian, Cook

- PCRM
- http://www.kfda.go.kr
- http://kfda.kfda.go.kr
- http://kfda.news.go.kr
- http://kin.naver.com

Governance paradigm change



Trust gap is increasing →limitation of current public administration paradigm !

- Redefining the relationship between government and citizens

Summary

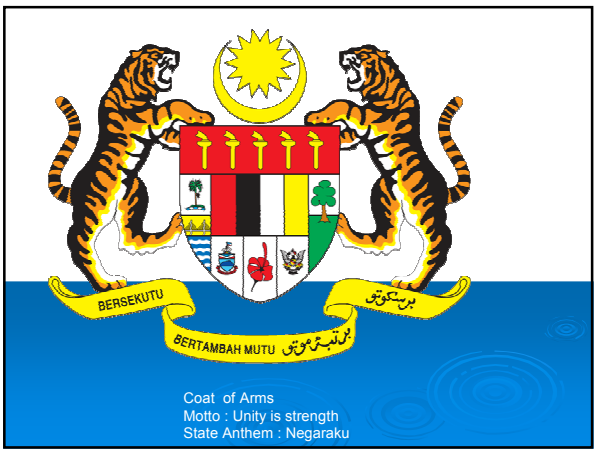
- **Risk communication goals:**
  - Improving the understanding of risk among target groups
  - Disclosing information about hazards to potential victims
  - Enhancing public protection via information related to risk reduction measures
- **KFDA is focusing on process control in order to work with our partners to achieve these goals**

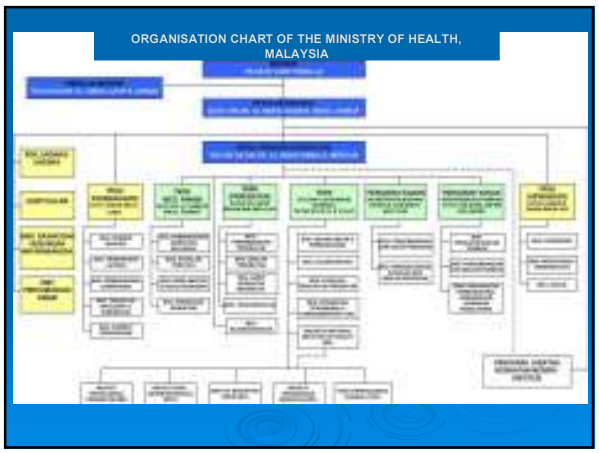
Acknowledgments

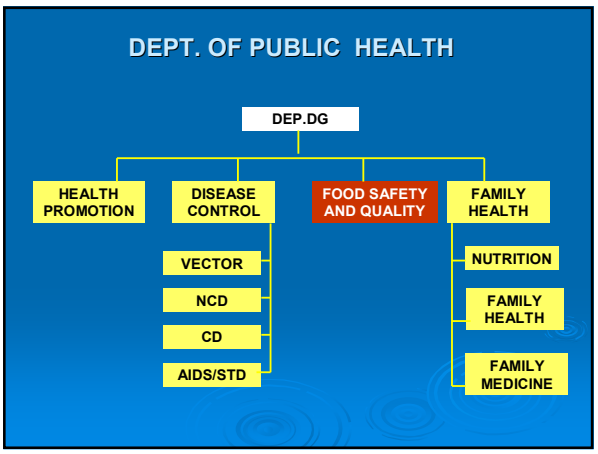
Sung Wook Choi, Solideo Systems, Co., Ltd.
Yuran Kim, Jung Mee Hong, Risk Information Team, KFDA
Kwang Soo Lee, Young Hee Shin, Sun Soon Hwang, Risk Management Team, KFDA
Jae Han Kim, Government Information Agency
Dong Sub Han, Korea Society for Journalism and Communication Studies
Mee Ra Kim, Kyungpook University
Yong Sung Park, Dankook University
Mi-young Cho, Food Safety Assurance Team, KFDA
Younju Choi, Food and Risk Standardization Team, KFDA
Masami Takeuchi, FAO


MALAYSIA


MALAYSIA
13 states
Capital City : Kuala Lumpur, Putrajaya – Federal Government
Population : over 25 million
Religion : Islam
Ethnicity : Majority - Malays, Chinese, Indian
Minority – Dayaks, Kadazan Dusun, Orang Asli etc
Language : Bahasa Malaysia (official), English (widely spoken)


BERSEKUTU
BERTAMBAH MUTU
Coat of Arms
Motto : Unity is strength
State Anthem : Negaraku


ORGANISATION CHART OF THE MINISTRY OF HEALTH, MALAYSIA


DEPT. OF PUBLIC HEALTH
DEP.DG
HEALTH PROMOTION
DISEASE CONTROL
FOOD SAFETY AND QUALITY
FAMILY HEALTH
VECTOR
NCD
CD
AIDS/STD
NUTRITION
FAMILY HEALTH
FAMILY MEDICINE


FOOD SAFETY AND QUALITY DIVISION,
MINISTRY OF HEALTH, MALAYSIA

Vision of Food Safety and Quality Division

- To ensure Food Safety and to uphold the nations integrity by ensuring safe food through shared responsibility and accountability on the basis of effective tripartite management towards Vision 2020.

Strategy In Food Safety
Tripartite Management Approach

Industry: responsible and accountable in producing safe and quality food.
Consumer: to be knowledgeable and informed on safe food practices and able to make selective choices.
Government: establish program policies and strategies to ensure effective surveillance and enforcement.

General Objective

- To protect the public against health hazards and fraud in the preparation, sale and use of food, and for matters incidental there to or connected therewith.

Specific Objectives

- To ensure food is processed, stored and handled in a safe and sanitary manner
- To ensure that food sold are:
  - Free from contamination and non-permitted additives
  - In compliance with the required standards in the food legislation; and
  - Labeled and advertised in a clear and not misleading manner
- To ensure food imported into this country is safe and complies with the prescribed Food Act 1983 and Food Regulations 1985.
- To ensure food exported from this country complies with the food regulatory standards of the importing country.
- To ensure the public receives adequate information on food safety and quality.

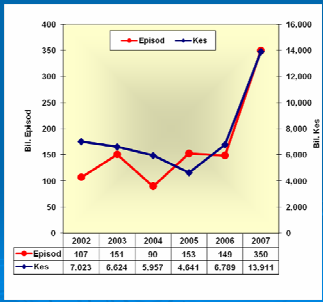
ACTIVITIES

- Legislative support
- Enforcement
- Laboratory Services
- Industry
- Monitoring and Research
- Codex and International Affairs
- Consumer Education
- Information Technology
- Training

EXPERIENCE OF RISK COMMUNICATION IN MALAYSIA

EXPERIENCE OF RISK COMMUNICATION IN FOOD POISONING

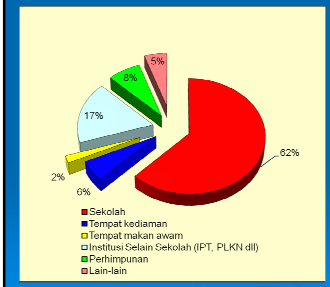
- Food poisoning trend in Malaysia year 2002-2007
- Trend increasing every year
- Number of episode and case increasing double in 2007 compared to 2006



	2002	2003	2004	2005	2006	2007
Episod	107	151	90	153	149	350
Kes	7.023	6.624	5.957	4.641	6.789	13.911

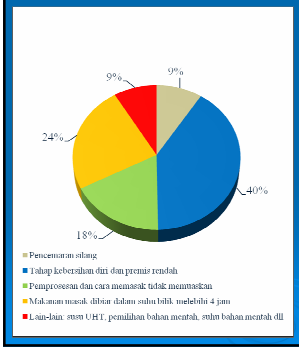
(Source: CDC, 2008 Malaysia)

Episode/ Incidence Food Poisoning in Malaysia According to Places, 2007



- Almost 62% incidence in schools, Institutional 17% and gathering 8%.

Risk Factors in Food Poisoning, Malaysia, 2007



- 350 episode reported, 145 (41%) episode was determined:
  - 40% : Food handlers behaviour and food premise hygiene
  - 24%: Left Over >4 hours
  - 18%: Food Handling & Processing
  - 9%: Cross contamination during storage

RC Objective for Food Poisoning

- General objectives:
  - To ensure effective communication at all levels during the food poisoning
  - To contribute to effective management of the food poisoning
- Specific objectives:
  - Effective communication to allay fears of the public.
  - Could be knowledge, attitude or behaviour based

RC Strategies

- To seek the cooperation of related government agencies and non-government organisations (NGOs) during crisis situations.
- To provide accurate, timely, comprehensible information through the use of appropriate technology and channels of communication during crisis.
- To coordinate flow of information to internal and external stakeholders. This includes relevant government agencies and NGOs.
- To obtain feedback during crisis situations so as to improve the flow of relevant information as to the respective target groups
- To develop effective partnership with the media
- To provide in-house training programmes
- To evaluate and document all activities

APPLYING RC PROGRAMME

SPOKESPERSON

- **Legal and Ethical Understanding**
  - Staff handling a health crisis should have knowledge of the relevant laws and ethical considerations pertaining to the crisis.
- **Sources of Law**
  - Federal constitution
  - Regulations
  - General Orders
  - Government directives and circulars
  - Common law
- **Function of spokesperson is to provide guidance, technical input and advice on policy**

Cont…

National	Minister of Health, Director General, Deputy Director General, Appointed Officer
State	Minister of Health, Director General, State Health Exco, Appointed Officer
District	Minister of Health , Director General, Appointed Officer
Operation/Disaster site	Minister of Health, Director General of Health, Appointed Officer
Institution	Minister of Health, Director General of Health, Appointed Officer
Interagency Collaboration	Minister of Health, Director General of Health

Government Circulars and Directives

- Government Servant Regulations (Attitude & Code of Behaviour 1983)
  Peraturan-peraturan Pegawai Awam (Kelakuan dan Tatatertib) 1983
  - Regulation 19
- Government Order 1st Series year 1985
  Pekeliling Perkhidmatan Bil. 1 Tahun 1985
  - Non-disclosure
- Orders of General Officer (Attitude & Code of Behaviour 1983), (Chapter D)
  Perintah-perintah Am Pegawai Am (Kelakuan dan Tatatertib) (Bab D) 1980
  - Term 17
  - Term 4
- Government Order 1st Series year 1985
  Pekeliling perkhidmatan Bil. 1 Tahun 1985
  - non-disclosure

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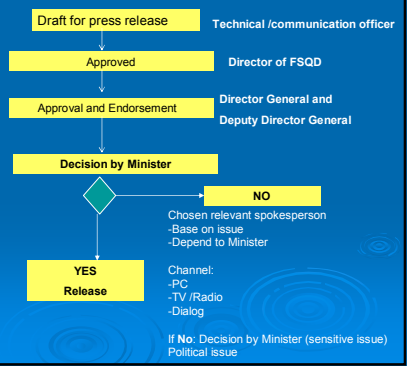


(Organizational Activities) -Collaboration other agencies

DATE	ACTIVITIES/ ACTION TAKEN
AUGUST 2007	➢ Joint Committee- Ministry Of Health (MOH) & Ministry Of Education (MOE) ➢ Chaired by Deputy Minister from both Ministry ➢ Others committee: standard user ➢ **Objective**: i. To handling food poisoning episode in school and ii. To increase food safety and quality in school ➢ Sub committee: Plan of Action Committee and Promotion Committee

Organizational Activities: Training

DATE	ACTIVITIES/ ACTION TAKEN
September 2007-ongoing	KENDIRI Program (Self inspection of Food Premise by owner) **Objective**: • To empower owner/manager to do self inspection based on guideline provided by MOH Committee: MOH & MOE Target Groups: • staff, teachers and owner of food premise

Organizational Activities : Educational activities

DATE	ACTIVITIES/ ACTION TAKEN
September – November 2007	i. "Food Safety Promotion Program" Target Group-School Children Activities: i. Developed new logo for Food Safety Programme ii. Developed and disseminated educational materials - posters, pamphlets, media kit, Interactive games, quiz iii. Road show - Sketch by comedian artistes - to educate and increased awareness among school children regarding food safety etc. hand washing, symptom of food poisoning, used senses (see/read, smell and taste) iv. Talk, seminars, dialogue v. Survey

Organizational Activities : Educational activities

DATE	ACTIVITIES/ ACTION TAKEN
Jan–November 2008	i. "Food Safety Promotion Program" ➢ Target Group-Food Handlers ➢ To strengthen knowledge and behaviour among food handlers regarding on food safety ➢ Activities: i. Road show – ii. sketch and quiz by comedian artistes-to educate and increased awareness among food handlers regarding food safety etc. personal hygiene, hand washing, food preparation following GMP including raw material, facilities food, used senses (see/read, smell and taste) iii. Disseminated health education materials iv. Media Campaign among consumer: How to empower consumer to choose the clean premise

Organizational Activities : Communication activities

Webpage:
Food Safety and Quality Division
http: fsq.moh.gov.my

Ministry of Health, Malaysia
http: moh.gov.my

Organizational Activities : Monitoring activities

- CAT Team (Crisis Alert Team)- News paper cutting
- Survey (Collaboration with Universities, Other Agencies)

THANK YOU

Food Risks in Mexican Products

June 2008

Introduction

- Some facts about Mexico
  Total Area: 1,972,550 km^2
  Population: 103,263,388 (2005)
  Languages: Spanish (97%); 60 national languages (3%)
  Climate: 2 zones: Template and Tropical
  Biodiversity: Is the 17th country in the world
  Economy: 12th largest economy in the world. Unique Latin-American member of OECD
  Free Trade Agreements: with 40 countries

Introduction

- Exports: 15th largest exporter in the world
  Tourism: 7th popular tourist destination
  Demographics: Most populous Spanish-speaking country in the world. Life expectancy: 76 years
  Culture: Fine Arts, Cinema, Literature and Music
  Cuisine: Based in Aztec and Mayan traditions. Candidate to World Human Heritage at UNESCO



Principal Mexican Exports

- Native Ingredients: maize/corn, tomato, vanilla, chocolate, avocado, guava and other 14
- Mexican alcoholic beverages: Tequila, Mezcal and beer
- Producer of "Sonora Meat"
- Perishable tropical fruits and vegetables



Agricultural and Livestock Products

Product	Production (mTon)
Corn (Maize)	20,500,000
Orange	3,969,810
Chicken meat	2,220,520
Lemon	1,824,890
Beef meat	1,630,000
Mango	1,503,010
Onion	1,130,660
Avocado	1,040,390



Exportable Fishing Products

- Tuna
- Shell products (mollusk)
- Shrimp
- Lobster
- Squid
- Octopus
- Hake




Principal Risks in Mexican Foods

- Human manipulation
- Bad Quality of irrigation water
- Irrigation type
- Use of forbidden pesticides and fertilizers



Human Manipulation Risks

- Mainly in perishable vegetables
- Development of guidelines for decreasing risks
- Publication of specific protocols for foods (mango, avocado, lettuce, strawberry, etc)
- Guidelines covers production and packing area
- Recognition in GMP/GAP of more than 1600 enterprises

Establishment of GAP/GMP

- Governmental programs in GAP/GMP
- Participation of local Health Offices in México
- Participation of producers and retailers in training, promotion, divulgation activities
- National recognition of areas in GMP/GAP
- Adoption of MoU between MEX-USA for cantaloupe


Food International Recognition

- International food safety recognition in 30 fresh products: cantaloupe, eggplant, chile, cabbage, watermelon, onion, mexican lemon, mango, avocado, etc
- Makes easy its exportation and international trades
- Principal objective is the decrease of FBI and insure food safety to consumers



Mexican Certification Programs

Certification programs in foods

- Some based in GAP (México Calidad Suprema-GAP)
- Certification of Chocolate
- Certification in Organic Production
- Certification of federal slaughters (TIF)
- Denomination of Origin of Mezcal and Tequila
- Denomination of Café de Veracruz


THANK YOU FOR YOUR TIME

mexican accreditation entity, a.c.

Olmo Cabrera Contreras
Certification Bodies Engineer

Capacity Building Training on Food

Safety Risk Communication for APEC

Developing Member Economies

23rd – 27th June 2008

Malayan Plaza Hotel,

Ortigas Business District, Metro

Manila, PHILIPPINES

FOOD SAFETY RISK COMMUNICATION ACTIVITES IN PAPUA NEW GUINEA

Presented By: Ms. Diana Kave & Mr. Patrick Malamut
Senior Food Safety & Quarantine Officers

ABOUT PNG

- Total land area of 462,243sq.km
- Sea area of 3.1 m sq km
- Population of 5.4million
- 75% live in rural areas
- 25% in Urban Area

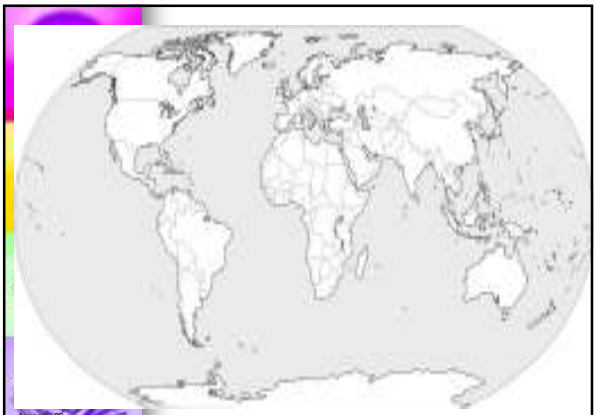
ABOUT PNG

- Birth rate of 34/1000
- Death rate of 10.6/1000
- 600 diverse cultures
- Over 800 languages
- Literacy rate of 47%

ABOUT PNG

Border sharing with:

- Australia – Southwest
- Indonesia – Northwest
- Solomon Island -Southeast



ABOUT PNG

GOV'T. FOCUS ON FOOD

- International Food Trade
- Downstream processing
- Food Security

Appendix 22

ABOUT PNG

SOCIOECONOMIC STATUS:

- Remains Poor
- Poverty
- Environmental Health & Sanitation
- Lack of housing
- Lack of Education
- Gender inequity
- Unhealthy lifestyles
- Drug abuse
- Law & Order issues

Appendix 22

ABOUT PNG

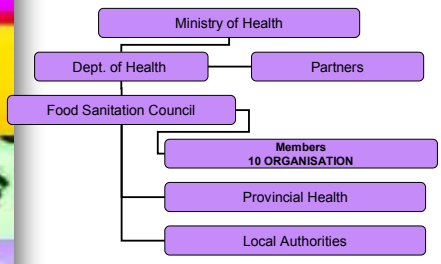
PNG is rich in Natural Resources

- Forest products
- Marine Products
- Minerals
- Cash Crops

YET PNG IS UNDER DEVELOPED

Appendix 22

FOOD SAFETY RISK COMMUNICATION ORGANISATIONAL STRUCTURE



Appendix 22

FOOD SAFETY RISK COMMUNICATION ORGANISATIONAL STRUCTURE

Role of the Ministry of Health

- Overseas the implementation of the Food Legislation
  - Food Sanitation Act
  - Food Sanitation Reg.

Appendix 22

FOOD SAFETY RISK COMMUNICATION ORGANISATIONAL STRUCTURE

Role of the Department of Health

- Develop Policy, Standards, Guidelines and Codes;
- Provide technical support;
- Provide Training;
- Support Human Resource & Management

Appendix 22

FOOD SAFETY RISK COMMUNICATION ORGANISATIONAL STRUCTURE

Role of the Food Sanitation Council

- Administer the implementation of the Food legislation.
- Directly responsible to the Minister for Health.
- Administer and deliberate on matters in relation to Food Safety Risk Communication.

Appendix 22

FOOD SAFETY RISK COMMUNICATION

ORGANISATIONAL STRUCTURE

Role of the Provincial Health

- Food regulatory implementation & Enforcement in the Rural Sector
- Report to the Provincial Superior
- Report to the Food Sanitation Council

Appendix 22

FOOD SAFETY RISK COMMUNICATION

ORGANISATIONAL STRUCTURE

Role of Local Authority

- Food regulatory implementation & Enforcement in the Urban Sector
- Report to the their Superior
- Report to the Food Sanitation Council

Appendix 22

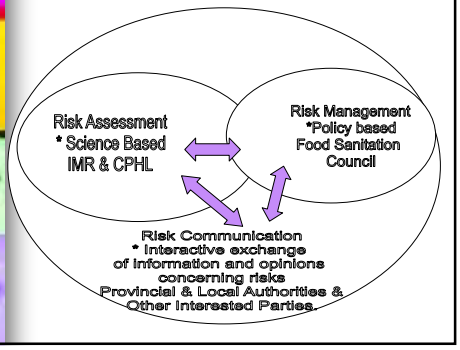
FOOD SAFETY RISK COMMUNICATION ORGANISATIONAL STRUCTURE

Partnership

- Dept. of Agriculture (Codex)
- Dept. of Trade & Industry (WTO)
- Dept. of Envirn. & Conservation
- National Standard Council (NISIT)
- Consumer Organization (ICCC)
- Business Council
- Manufacturers Council

Appendix 22

RISK ANALYSIS FRAMEWORK



Appendix 22

RISK COMMUNICATION Definition

- Exchange of information and opinions concerning risk and risk –related factors among;
  - Risk Assessors
  - Risk Managers
  - Consumers and
  - Other Interested Parties

Appendix 22

RISK COMMUNICATION STRATEGIES

Government

- Establishment of the Food Sanitation Council
- Facilitating Workshop for Food Safety Officers and other line agencies, eg. ICCC, NISIT
- Establishment of Laboratories & Equipping them.
- A member to the CAC

Appendix 22

RISK COMMUNICATION STRATEGIES

INDUSTRY

- Have a corporate responsibility for the Quality and safety of the food.
- Have a corporate responsibility to disseminate information on the ingredients and instructions on the safe handling of food products.

Appendix 22

RISK COMMUNICATION STRATEGIES

CONSUMER

- Have a responsibility to present their concerns and opinions on health risks to risk managers.
- Consumer organization like (ICCC & Local Authorities) are working with governments and industry to ensure that risk messages addressed to consumers are appropriately formulated and delivered.

Appendix 22

RISK COMMUNICATION STRATEGIES

INSTITUTIONS

- Members of the academic & research community play an important role in risk analysis by contributing scientific expertise on health & safety matters & identification of hazards.
- They also help risk managers that are seeking expert advice on risk communication approaches & strategies.
- They also act as an independent source of information.

Appendix 22

RISK COMMUNICATION STRATEGIES

MEDIA

- Media(Newspaper, Radio & TV) in PNG plays an important role in dissemination of information,
- Facilitate feedback from Consumers, Industries, Institutions & the Government.

Appendix 22

BARRIERS TO EFFECTIVE RISK COMMUNICATION

Accessibility to Information

- Vital information not readily available for risk analysis process by those who possess
- Industries are reluctant to share information with government agencies because of need to protect their competitive position or for other reasons known to them only
- Government agencies may be unwilling to openly discuss facts they possess about food risks for a variety of reasons.

Appendix 22

BARRIERS TO EFFECTIVE RISK COMMUNICATION

Difference in Perception

- Individual can perceive the risk from the same hazard very differently.
- Other segment of the public also may not pay attention to risks information if message does not address their actual concerns.

Appendix 22

BARRIERS TO EFFECTIVE RISK COMMUNICATION

Lack of Understanding

- Over-reliance on precise scientific terminology may obscure the meaning of facts for the general public.
- If messages are not kept relatively simple, they may be misunderstood.
- Communicators must try to minimize the differences between themselves & the public.

Appendix 22

BARRIERS TO EFFECTIVE RISK COMMUNICATION

Source Creditability

- The Public not trusting the sources of Information about food safety.
- Distrust due to failure by the communicator to provide accurate information in the past.

Appendix 22

BARRIERS TO EFFECTIVE RISK COMMUNICATION

Media

- Misinterpretation by the reporter of the complex scientific and policy aspect of food safety issues.
- Media having their own agenda and make their own independent judgments on what is newsworthy.
- Risk Communicators lacks media skills in planning for and responding to, emergency situations.

Appendix 22

BARRIERS TO EFFECTIVE RISK COMMUNICATION

Social Characteristics

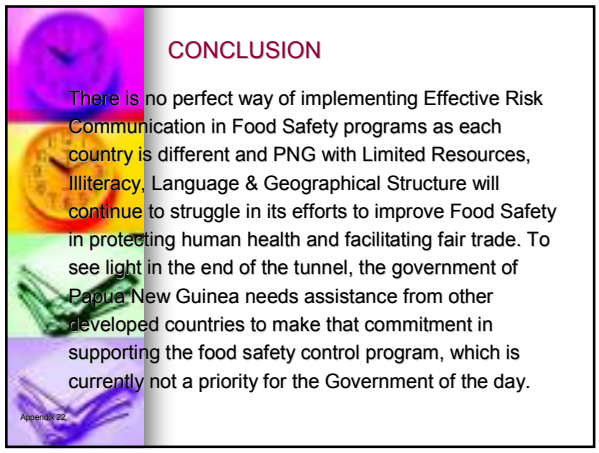
- Societal factors that can make risk communication more difficult in PNG includes;
  - Language differences
  - Cultural factors
  - Religious dietary laws
  - Illiteracy
  - Poverty
  - A lack of legal, technical and policy resources
  - A lack of infrastructure that support communication.

Appendix 22

WAY FORWARD

- The endorsement of the Legislation by the Government
- Constant awareness by all stakeholders in Risk Communication on Food Standards and Safety issues.
- Improve surveillance and monitoring systems.
- Conduct training for Food Inspectors to assess risk.

Appendix 22


CONCLUSION
There is no perfect way of implementing Effective Risk Communication in Food Safety programs as each country is different and PNG with Limited Resources, Illiteracy, Language & Geographical Structure will continue to struggle in its efforts to improve Food Safety in protecting human health and facilitating fair trade. To see light in the end of the tunnel, the government of Papua New Guinea needs assistance from other developed countries to make that commitment in supporting the food safety control program, which is currently not a priority for the Government of the day.
Appendix 22


THANK YOU
FOR LISTENING
HAVE A NICE
DAY
Appendix 22

Country Report

Perú

Iván Camacho - Elizabeth Segovia
SENASA – DIGESA
June 2008

Outline

General information

Competent Authorities

Other information

B

Background

Ancient Peru was the seat of several prominent Andean civilizations, most notably that of the Incas whose empire was captured by the Spanish conquistadors in 1533.

Peruvian independence was declared in 1821, and remaining Spanish forces defeated in 1824. After a dozen years of military rule, Peru returned to democratic leadership in 1980.

B → G

Geography

Located in the western South America, bordering the South Pacific Ocean.

B → G

Geography

Climate: Varies from tropical in East to dry desert in west; temperate to frigid in Andes.

Terrain: Western coastal plain (Costa), high and rugged Andes in center (Sierra) eastern lowland jungle of Amazon Basin (Selva)

Elevation extremes:

Lowest point: Pacific Ocean	0 m.
Highest point: Nevado Huascarán	6 768 m

B → G → P

People

Population: 28 000 000

Age structure:	0-14 years	29.7%
	15-64 years	64.7%
	+ 65 years	5.6%

Birth rate: 19.77 births / 1000 population

Death rate: 6.16 births / 1000 population

Life expectancy at birth: 70.44 years

B → G → P

People

Ethnic groups:

Amerindian	45%
Mestizo (Amerindian + white)	37%
White	15%
Black, japanese, chinese + others	3%

Religions:

Roman catholic	81%
Seventh Day Adventist	1.4%
Other Christian	0.7%
Other + unspecified + none	16.9%

B → G → P

People

Languages: Spanish, Quechua, Aymara

B → G → P → G

Government

Type: Constitutional republic

Capital: Lima

Administrative divisions: 25 regions

Independence (from Spain): 28 July 1821

Executive Branch:

Chief of State & Head of the Government is President Alan García.
Cabinet: Council of Ministers

B → G → P → G

Government

Legislative Branch:

Unicameral Congress of the Republic of Peru (120 members)

Judicial Branch:

Supreme Court of Justice

B → G → P → G → E

Economy

GDP: US$109.1 billion

GDP growth rate: 9% (2007)

Inflation rate: 3.9% (2007)

Agriculture products: asparagus, cofee, cotton,sugarcane,potatoes, plantains,grapes, oranges, fish, guinea pigs.

Industries: mining and refining of minerals, steel, metal fabrication, petroleum extraction and refining, natural gas, fishing and fish processing.

B → G → P → G → E

Economy

Currency: Nuevo sol

Exchange rates: Nuevo sol per US$ dollar = 2.8)

B → G → P → G → E → C

Communications

Telephone main lines in use: 2.332 million

Telephone mobile cellular: 8.5 million

Radio broadcast stations:
- **AM 472**
- **FM 198**
- **SW 189**

Television broadcast stations:
- **13 + 112 repeaters**

B → G → P → G → E → C

Communications

Internet hosts: 270193

Internet users: 6.1 million

B → G → P → G → E → C → T

Transportation

Airports:	**Total**	**237**
	with paved runways:	**54**
	with unpaved runways:	**183**

Railways: **1 989 Km.**

Roadways: **78 829 Km.**

Waterways: **8 808 Km.**

Competent Authorities (Responsabilities, control systems & operational levels)

1: Animal Health
2: Food of animal origin
3: Imports of animals and food of animal origin
4: Feedingstuffs, Feedingstuffs imports
5: Veterinary Residues, Veterinary medicines authorisation, marketing and use
6: Food hygiene
7: Animal welfare /Slaughter /Farms /Transport

Ministry of Agriculture

SENASA

Ministry of Health

DIGESA

8: Imports of food of plant origin
9: Pesticides Residues, Pesticides authorisation, marketing and use
10: Plant health

Fisheries Technologic Institute

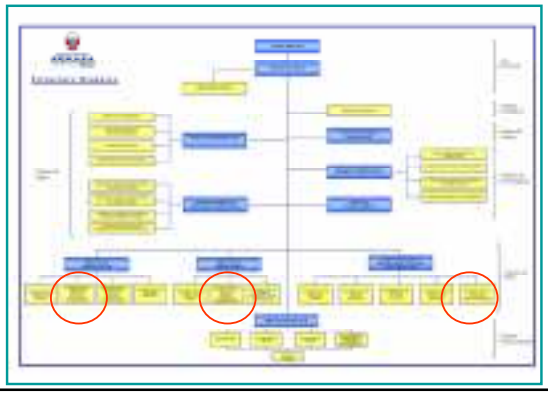
INDECOPI

INDECI

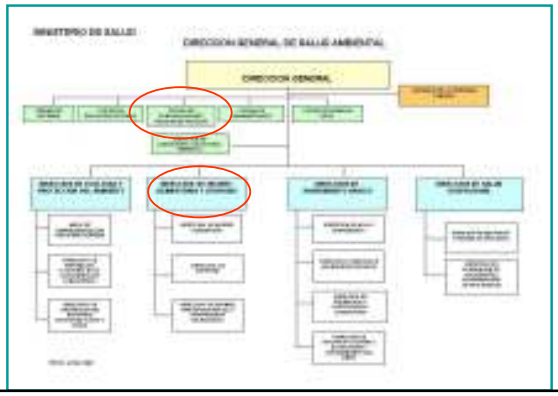
Competent Authorities (Responsabilities, control systems & operational levels)

	1	2	3	4	5	6	7	8	9	10
Policiy & Intnl Relations			Both			Both		Both		
Coordination Forum										
Implementation										
Routine Lab										
Risk Assmt, Scientific advice										

SENASAs Organizational Chart



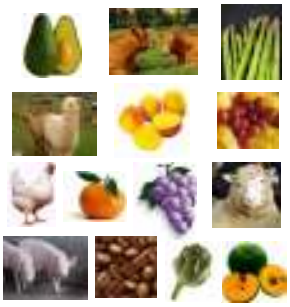
DIGESAs Organizational Chart



To resume

DIGESA is in charge of processed food products

SENASA is in charge of raw products



Peru in snap shots

Peru in snap shots

Peru

Multi race/ethnic country

Marinera dance, Trujillo-Peru

Beautiful women

Cebiche or ceviche, sea food

Pisco

Purple corn

Inca Kola, our Coke

Titicaca Lake, Puno-Peru

Machu Picchu, Cusco-Peru

PHILIPPINE FOOD SAFETY RISK COMMUNICATION

25 JUNE 2008

Capacity Building Training on
Food Safety Risk Communication for
APEC Developing Member Economies

Country Profile

Area	299,404 km2 ; archipelagic
Population	85.2M
% of Population Working in Agriculture	38.9%
Average Family Income(2003)	P148,616 (Annual)
Main Food Products	Rice, Corn, Coconut, Sugarcane, Banana
Main Food Exports	Banana, Beans, Cassava, Coconuts, Fruits (Mango) Nuts , High Value Crops Tuna and Shrimp
Main Food Imports	Corn, Rice, Wheat, Cotton , Meat

Regulatory Agencies

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Legislation	Bureau Animal Industry	Animal and Animal Health
	Bureau of Plant Industry Fertilizer and Pesticide Authority	Ensures safety of Plant and Plant Health (Agriculture produce) Regulation on Pesticide
	Bureau of Fisheries and Aquatic Resources	Ensures safety of Fish and Fishery Products
	National Meat Inspection Commission	Ensures safety of carcasses in slaughterhouse in accordance to Meat Inspection Code
	Sugar Regulatory Authority	Ensures safety of Sugar and sugar by products
	Philippine Coconut Authority	Ensures safety of Coconut Products
	National Food Authority	Ensures safety and quality of Grains

Regulatory Agencies

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
	National Dairy Authority	Ensures safety of Pasteurized Milk
	Bureau of Agricultural and Fisheries Products Standards	Establish Product Standards on Fish and Agricultural products
	Bureau of Food And Drugs- DOH	Ensures the safety and quality of food in accordance Food Drug & Cosmetics Act (Processed Food Only)
	Bureau of Quarantine	Food Service Establishment in international vessels at ports and airports
	National Center for Disease Prevention and Control	Policy formulation (Sanitary)
	National Epidemiology Center	Surveillance

Regulatory Agencies

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
	Research Institute of Tropical Medicine	Researches in the control and prevention of tropical diseases that are major causes of mortality and morbidity
	National Center for Health Promotion	Health Promotion and Advocacy
	Department of Interior & Local Government (LGU)	Implementers of Sanitation Code at Local Levels

Regulatory Support Services

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Laboratories	Bureau Animal Industry	Laboratory for Disease Diagnosis, feed analysis, residues of veterinary drugs Aflatoxin Laboratory (Feeds)
	Bureau of Plant Industry	National Pesticide Laboratory
	Bureau of Fisheries and Aquatic Resources	Chemical & Microbiological Laboratory

Regulatory Support Services

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
	National Meat Inspection Commission	Chemical and Microbiological Laboratory
	Sugar Regulatory Authority	Physico- Chemical Laboratory specific to sugar and sugar by products
	Philippine Coconut Authority	Physico- Chemical Laboratory specific to coconut and coconut by products

Regulatory Support Services

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
	National Food Authority Food Development Center	Physical Examination of Grains
	National Dairy Authority	Chemical & Microbiological Laboratory specific to pasteurized milk
	Bureau of Quarantine	Cholerae and Microbiological Laboratory
	DILG-LGU (1 City only)	Microbiological Laboratory

Regulatory Activities

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Monitoring & Surveillance	Bureau Animal Industry	Conduct monitoring of animal health
	Bureau of Plant Industry	Conduct monitoring of pesticide residues in farm produce
	Bureau of Fisheries and Aquatic Resources	Conduct monitoring of contaminants, drug residue in fish and aquaculture
	National Meat Inspection Service	Meat and meat product inspection and meat hygiene
	Bureau of Quarantine	Monitoring of airline caterers in conformance to Sanitation Code

Regulatory Activities

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
	Bureau of Food & Drugs	Conducts inspection and issues Establishment licenses involved in manufacture and re-packing, importation, exportation, distribution and retailing of processed foods.
		Monitors and ensures quality of processed foods, and other related products Enforces seizure, confiscation and condemnation orders covering products violating food. Monitors and ensures compliance of manufacturers with requirements of GMP/HACCP

Regulatory Activities

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Implement'n	Department of Agri.	**Laws and Regulations: AFMA/MI Code/Fisheries Code**
	Department of Health	Food Drug and Cosmetics Act Sanitation Code Quarantine Act
		Risk Analysis: Assessment/Mngt/Comm Risk Comm: transparent, alert system/recall/notification HACCP Adoption of CODEX food safety stands. Precautionary Approach Regulation of Pesticide Inspection of raw materials /additive/packaging mat. GMP Implementation

Regulatory Activities

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Food Insp/Cert	NMIS	HACCP Certificate
	Bureau of Food and Drugs	License to Operate GMP Certificate HACCP Certificate Export Certificate Health Certificate
	Bureau of Quarantine	GMP HACCP Certification to audited airline caterers
Education and Training	BAFPS/NMIS	HACCP Training
	DTI – Tech Training Ctr	GMP and HACCP Training
Information sharing	BFAD	BFAD Information Unit center for public information in case of alerts, product recalls and other food safety issues.

Regulatory Activities

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Research and Development	Dept. of Science and Technology-Food & Nutrition Research Institute University of the Phil./UPNIH	Conduct research studies, collaborate with govt. Regulatory bodies on researches in food.
International Participation	Department of Agriculture Department of Health	CODEX, ACCSQ, Asean Experts Group, EU, Australian
Consumer Participation		

Regulatory Activities

SECTOR	AGENCY	FOOD SAFETY RESPONSIBILITIES
Food Safety Control System	Food Safety Control System is implemented by two agencies Department of Agriculture	Legislation (Food Safety of Produce) GAP, GHP, Food Standards
	Department of Health	Laboratories Inspection Capacities Legislation Food Standards (Updating on process)
		Laboratories , Inspection/Monitoring & Surveillance, GMP/HACCP Product recalls, Traceability Alert System

Regulatory Levels

- National : RAs, EOs, PDs, AOs
- LGU : Provincial, City, Municipal Ordinances
- Barangay : Barangay Resolutions

Partnership

- Regional
- LGU
- National: Interagency/NAFC
- Private:
  - Industry Advisory Group/Councils
  - TWG
  - Associations/NGOs

Paradigm of 'Shared Responsibility'

Food Management System ('FARM TO FORK')

INPUT → PRODUCTION → PROCESSING → MARKETING

Risk Communication Cases

- Red Tide Monitoring and Advisory
- Consumer Welfare Desks (Agency)
- SPS/GMP/HACCP Certifications/Audit
- Certifications: GAP/GAqP/GHAP/GLP
- Pathogen Reduction Program
- Residue Monitoring Program
- Health Certificates :
  - Accredited Establishment to Export
  - Farm Registrations & Inspection

AVIAN INFLUENZA (AI)

- An infectious disease in chickens, ducks and other birds caused by different subtypes of the influenza A virus
- Also known as bird flu, avian flu, bird influenza
- Ranges from mild infection (LPAI) to acute, fatal disease (HPAI)

CAUSATIVE AGENT: INFLUENZA VIRUS A

Family:
ORTHOMYXOVIRIDAE
(RNA virus)

Classified into subtypes based on two surface proteins:

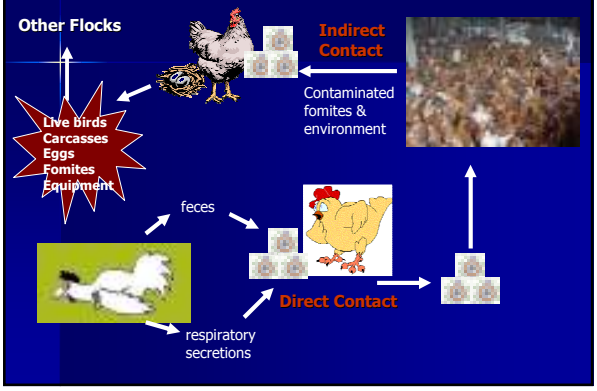
Hemagglutinin (HA)
Neuraminidase (NA)

There are 16 different HA subtypes.
There are 9 different NA subtypes.

An "H5N1 virus" designates an influenza A subtype that has an HA 5 protein and an NA 1 protein.

- **Highly infective**
- **Infects many species**
- **Causes frequent widespread epidemics and pandemics**

TRANSMISSION OF VIRUS



HOW IS AI TRANSMITTED AMONG POULTRY?

- Direct contact of healthy birds with discharges from infected birds, especially feces and respiratory secretions
- Recovered animals which can carry the virus up to 30 days after infection
- Contaminated fomites (feed, water, cages, equipment, vehicles and clothing) can carry the virus

HOW IS AI TRANSMITTED AMONG POULTRY? (CONT.)

- Clinically normal *but affected* water fowl, migratory birds, and sea birds may introduce the virus into flocks
- Broken contaminated eggs may infect chicks in the incubator

ECONOMIC IMPACT OF AVIAN INFLUENZA

More than 140 MILLION birds died or had been destroyed

Losses to the poultry industry are estimated to be more than US$10 billion

As of today, 23 June 2008

The Philippines remains Avian Influenza-free !

Avian Influenza Protection Program

Stages 1, 2, 3 and 4

Partnership/Collaboration

Lead: DA/DOH

National Government Agencies:
DOH, PNP, DENR, DILG, DOTC, DOF

Industry Stakeholders: Poultry industry, retail trade, hotels/restaurants, GOs, LGUs, general public

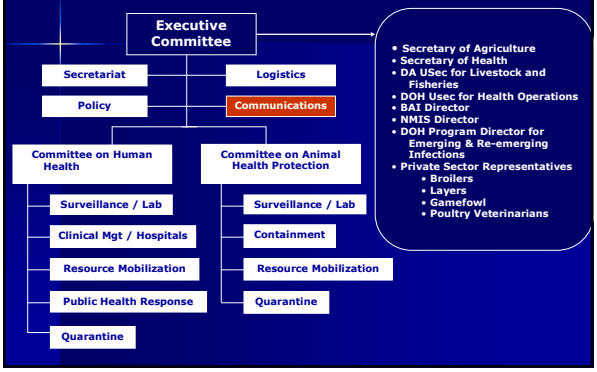
International Collaboration: FAO, OIE, USAID, New Zealand AID, Japan ODA

Mandates

1. **Executive Order No.280 (05 February 2004)**
   - DOH as crisis manager
   - DA as co-crisis manager
2. **Memo Circular No. 2004-37 (30 March 2004)**
   - Enjoins LGU to support the government particularly DA and DOH in the prevention and control of AI
   - Directs LGU to cause the enactment of a local ordinance supporting the AIPP
3. **Joint Administrative Order No. 001 (20 April 2005)**
   - Avian Influenza Protection Program (AIPP) adopted
   - Established Avian Influenza Task Force
4. **DA Secretary designated as Bird Flu czar**

Preparedness from the National to the Local Level

AI National Task Force



FUNCTIONS:

Rapid Action Team: shall be composed of members who will carry out the immediate diagnosis of Suspect Premises and the initiation and implementation of the stamping out procedures.

Surveillance Team: shall be composed of members who will conduct the regular surveillance and profiling of poultry diseases in the identified priority areas in their respective regions.

FUNCTIONS:

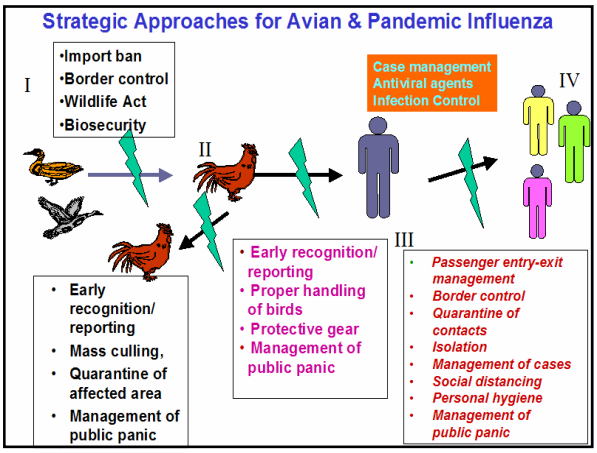
Quarantine Team: shall be composed of members who shall ensure the implementation of the prescribed minimum biosecurity measures as stated in stage 1 and the regulation and/or prohibition of animal movement for as stated in both stages 1 & 2.

Census Team: shall be composed of members who will conduct periodic identification and consolidation of data on poultry population, kinds and location in their respective region.

FUNCTIONS:

Information, Education and Communication (IEC) Team: shall be composed of members who will ensure adequate awareness of the general public on matters and updates pertaining to AI.

Strategic Approaches for Avian & Pandemic Influenza



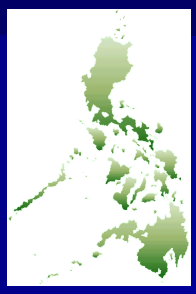
Avian Influenza Protection Program (AIPP)

Stage 1. Keeping the Philippines Bird Flu-Free

Stage 2. Controlling and Eradicating Bird Flu in Domestic Fowl

Stage 3. Bird to Human Transmission

Stage 4. Human to Human Transmission



STAGE 1:

Keeping the Philippines Bird Flu-Free

Department of Agriculture-Bureau of Animal Industry

Surveillance and Prevention in Airports and Seaports

- Standardized footbath installations and replenishment of disinfectants
- Inspection of luggage / cargo from AI-infected countries
- Confiscation and destruction of undocumented shipment
- Screening for the AI virus upon arrival at airport or seaport of all imported poultry and poultry products coming from AI-free countries

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Surveillance of Poultry in Critical Areas

- 20 critical sites identified
- Target poultry population are domestic fowls : chickens, ducks, gamefowl, etc. in the vicinity
  - 6 barangays per location to be selected for sample collection
- Wild birds are not included in sampling

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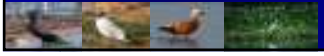
Priority Areas for Surveillance

- **Zamboanga del Norte**
- **Zamboanga del Sur**
- **Zamboanga City**
- **Zamboanga Sibugay**
- **Palawan near Quezon and Narra Towns**
- **Pampanga – Candaba Swamp**
- **Ilocos Norte – Pagudpud**
- **Cagayan – Aparri**
- **Cebu – Olanggo Island**
- **Negros Occidental – Himamaylan**
- **Isabela – Magat Dam**
- **Agusan del Sur**
- **Agusan del Norte**
- **Surigao del Norte-Lake Mainit**
- **Surigao del Sur**
- **Panay Island – Roxas, Capiz**
- **Sorsogon – Bulan and Matnog**
- **General Santos City**
- **Mindoro Oriental – Naujan**
- **Cotabato –Liguasan Marsh**



Enforcement of Wildlife Act

- To be led by PAWB-DENR, in coordination with the LGUs and local PNP
- No permits for poultry wildlife or exotic poultry species from AI-affected countries
- No collection of migratory birds, regardless of purpose or collection technique




Department of Agriculture-Bureau of Animal Industry

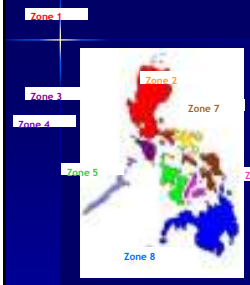
Preventive Measures in Humans

- **Seasonal vaccine may be useful to prevent reassortment of human and avian viruses.**

Recommended groups for vaccination:

a. cullers involved in destruction of poultry
b. people living and working on poultry farms
c. health care workers involved in the daily care of H5N1 human cases
d. health care workers in emergency care facilities in areas where there is confirmed occurrence of influenza H5N1 in birds.


Establishment of Poultry Zones



Objectives

- Establish boundaries to prevent entry and limit or stop spread of AI
- Facilitate surveillance, detection and control
- Ensure availability of disease free production areas for export and local markets

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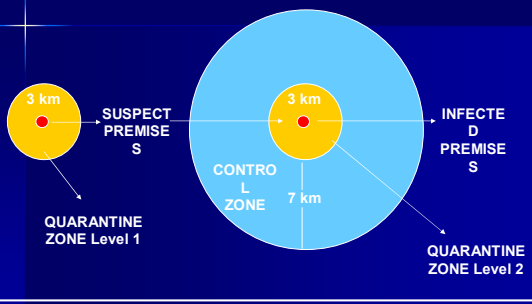
STAGE 2 :

Controlling and Eradicating Bird Flu in Domestic Fowl

Department of Agriculture-Bureau of Animal Industry

Definition of Terms



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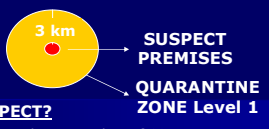


When is a farm SUSPECT?

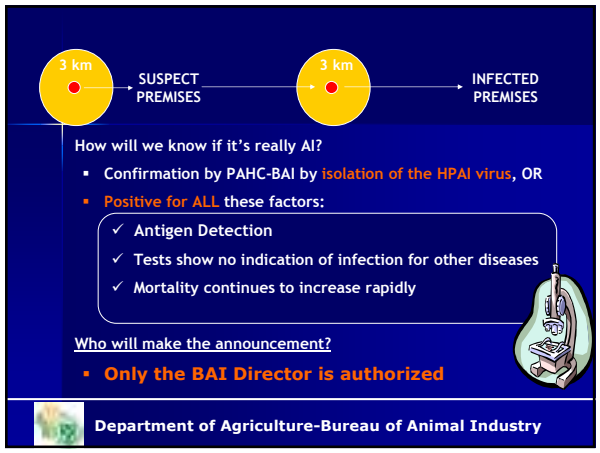
- Commercial farms: 1-day mortality of 3%, increasing twice over or more over next 3 days
- Backyard: Any unexplained mortality in 2 or more households within a barangay in a span of 2 days

Who should report and to whom?

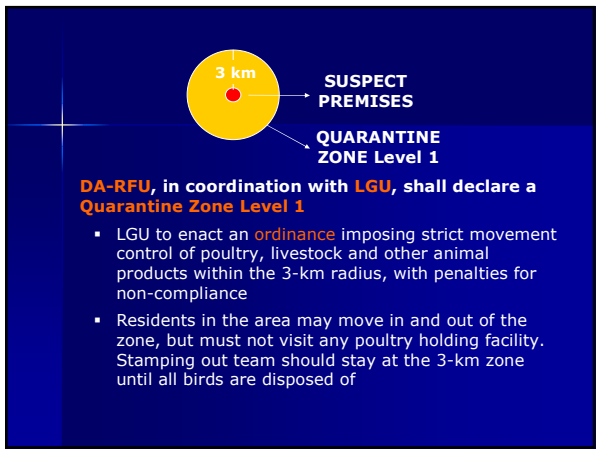
- **Farm vet or owner to BAI, RFU-DA or City/ Mun/ Prov'l Vet**

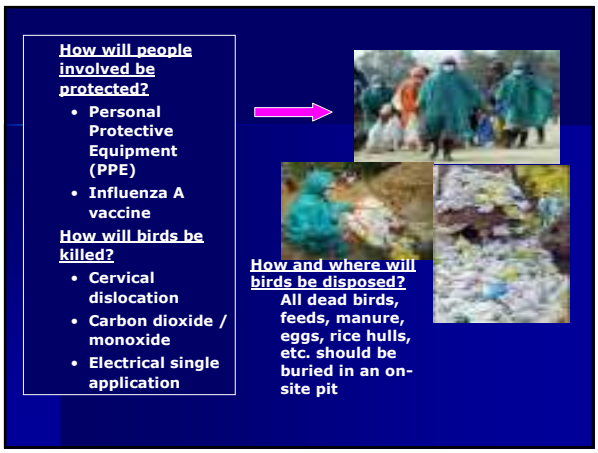
Who will investigate?

- **City/ Mun/ Prov'l Vet and the RADDL Technician within 24 hours**
- Accompanied by a **Barangay Representative and Local PNP** who shall remain outside to maintain order and control human movement

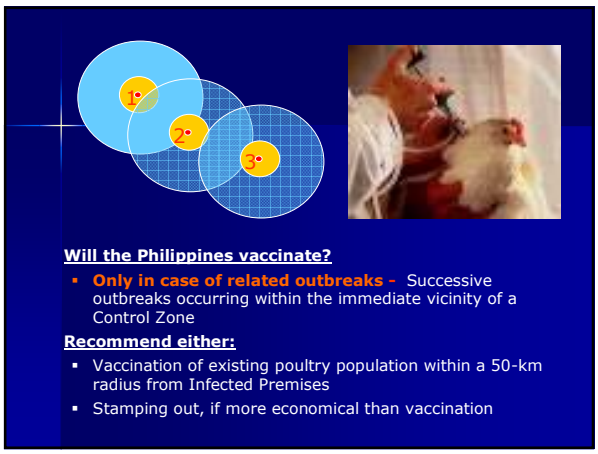

3 km
SUSPECT PREMISES
3 km
INFECTED PREMISES
How will we know if it's really AI?
▪ Confirmation by PAHC-BAI by isolation of the HPAI virus, OR
▪ Positive for ALL these factors:
✓ Antigen Detection
✓ Tests show no indication of infection for other diseases
✓ Mortality continues to increase rapidly
Who will make the announcement?
▪ Only the BAI Director is authorized
Department of Agriculture-Bureau of Animal Industry


3 km
INFECTED PREMISES
QUARANTINE ZONE Level 2
▪ BAI and RFU-DA, in coordination with the LGU, shall declare a Quarantine Zone Level 2 and a 7-km Control Zone
▪ ALL birds in the Infected Premises and Quarantine Zone Level 2 will be STAMPED OUT
Who will do this?
▪ DA representative, official veterinarian, farm hands and 1 military personnel per 1,000 birds, excavator operator
Department of Agriculture-Bureau of Animal Industry


3 km
SUSPECT PREMISES
QUARANTINE ZONE Level 1
DA-RFU, in coordination with LGU, shall declare a Quarantine Zone Level 1
▪ LGU to enact an ordinance imposing strict movement control of poultry, livestock and other animal products within the 3-km radius, with penalties for non-compliance
▪ Residents in the area may move in and out of the zone, but must not visit any poultry holding facility. Stamping out team should stay at the 3-km zone until all birds are disposed of


How will people involved be protected?
• Personal Protective Equipment (PPE)
• Influenza A vaccine
How will birds be killed?
• Cervical dislocation
• Carbon dioxide / monoxide
• Electrical single application
How and where will birds be disposed?
All dead birds, feeds, manure, eggs, rice hulls, etc. should be buried in an on-site pit


CONTROL ZONE
7 km
What will happen in the Control Zone?
▪ All respiratory cases to be reported and evaluated, can lead to identification of new suspect premises
▪ No movement of poultry and poultry products for the first 15 days
▪ Live bird markets, cockfights and other gatherings of poultry and other birds will be PROHIBITED
▪ No re-stocking of poultry farms within control zone


1
2
3
Will the Philippines vaccinate?
▪ Only in case of related outbreaks - Successive outbreaks occurring within the immediate vicinity of a Control Zone
Recommend either:
▪ Vaccination of existing poultry population within a 50-km radius from Infected Premises
▪ Stamping out, if more economical than vaccination

Recovery Process

- Clean-up, disinfection and 21-day rest period
- Re-stocking with sentinel chicken at 2% of farm capacity for commercial farms, or 5 birds for backyard farms
  - Day-old broilers for broiler farms, day-old cockerels for layer farms, gamefowl and others
  - 42-day growing period
  - Samples taken and tested at 21 days and prior to culling
- Repopulation at farm capacity, subject to BAI approval
- Declare as DISEASE-FREE

Department of Agriculture-Bureau of Animal Industry

for reports and queries

Hotline **(02) 9259999**
or
(02) 9282836

Department of Agriculture-Bureau of Animal Industry

Let us work together for an AI-free Philippines!

Maraming Salamat!

Risk Communications – *A Singapore Perspective*

About AVA

- Agri-Food & Veterinary Authority is Singapore's National Food Safety Authority
  - Ensure a resilient supply of safe food

Risk Communication Efforts

- Focus of risk communication efforts:
  - Food Safety Public Education
  - Product Recalls
  - Crisis Communications – Bird Flu

Food Safety Public Education

- Objective:
  - Raise awareness that food safety is a shared responsibility
  - Educate consumers on food safety risks and good food safety practices

Food Safety Public Education

- Key messages and taglines:
  - Together, Let's Keep Food Safe!
  - 5 Keys to Safer Food

Food Safety Public Education

- Communication strategies and activities :
  - Food Safety Mascot
  - Food safety collaterals
  - Website

Food Safety Public Education

- Mass media (TV, radio, newspapers and magazines)
- Supermarket programme (mascot tours, cooking demos, POS materials)

Food Safety Public Education

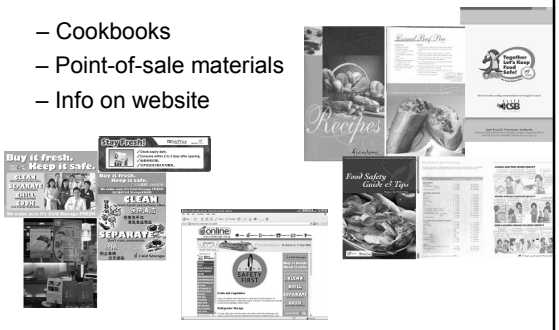
- School programme (talks, exhibitions, mascot tours and demos)
- Roadshows and exhibitions (food exhibitions, libraries, community events and offices)

Food Safety Public Education

- Partnership with the Industry
  - Collaterals
  - Advertisements

Food Safety Public Education

- Cookbooks
- Point-of-sale materials
- Info on website



Food Safety Public Education

- Food Safety Partnership Scheme

Product Recalls

- Establish trigger points for a product recall:
  - Contamination
  - Labelling infringements
  - International notification of unsafe food

Product Recalls

- Communication strategies and activities:

Traders
– Notification on withdrawal of product

Public
– Notification on website
– Press release
– Media stories

Product Recalls – Case Study

Crisis Communications – Bird Flu

- Develop key messages :
  - Singapore is free from bird flu
  - AVA has taken necessary precautions to prevent the incursion of bird flu
  - Poultry & eggs are safe for consumption
  - Government has in place contingency plans to deal with an outbreak of bird flu

Crisis Communications – Bird Flu

- Communication strategies and activities:
  - Press conference and regular media updates
  - Photo/Filming opportunities

Crisis Communications – Bird Flu

- Bird Flu website
- Collaterals (posters, brochures and information booklet)

Crisis Communications – Bird Flu

- Hotlines

- Dialogues with community groups

Crisis Communications – Bird Flu

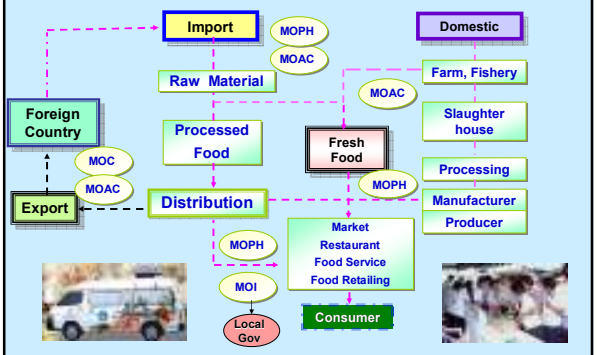
– Briefings to poultry slaughterhouses and farmers

Thank You

Risk Communication in Thailand

- Ms. Saiyuod Prasertvit
  Food Safety Operation Centre, Thai FDA
  Ministry of Public Health
- Mrs. Sasiwimon Tabyam
  National Bureau of Agricultural Commodities & Food Standards
  Ministry of Agriculture & Cooperatives

Food Authorities in Food Chain



Outline

- National Food Safety Policy
- Food Authorities in Food Chain
- Risk Communication Network of Thailand
- ASEAN Food Safety Network (AFSN)
- ASEAN Rapid Alert System for Food and Feed (ARASFF)
- Food Alert System of Thailand (FAST)

National Food Safety Policy

Food Safety has been declared to National Agenda in 2003

⇩

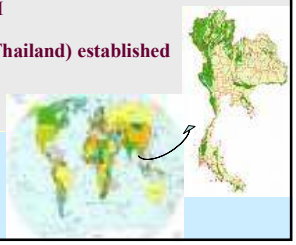
Strengthening Food Control Strategies along Food Chain by Risk-Based Approach

⇩

- To ensure in Safety and High Quality of Food Supply for Domestic Consumption and Exportation
- To prevent and decrease contamination from hazardous chemical substances, microorganism, veterinary drug residue and foodborne diseases

Risk Communication Network of Thailand

- ARASFF (ASEAN Rapid Alert System for Food and Feed) established in 2005 under ACFS, MOAC
- INFOSAN (The International Food Safety Authorities Network) established in 2005 under Food Safety Operation Center (FSOC), FDA, MOPH
- FAST (Food Alert System of Thailand) established in 2007 under Food Control Division, FDA, MOPH



Network for Risk Communication and Information on Food Safety of Thailand

Global Level

- Member 164 countries
- Thailand

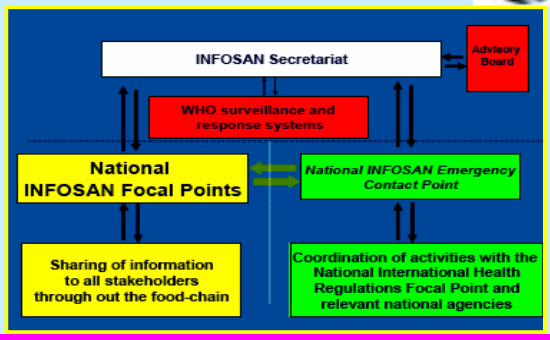
INFOSAN

WHO-sec.

Food Safety Operation Centre
FDA
(Emergency Contact Point and INFOSAN Focal point)
www.foodsafetythailand.net

INFOSAN Thailand

Structure of the INFOSAN Network



Food Safety Operation Centre 2008

Who are INFOSAN Members

- Each country designates one INFOSAN Emergency Contact Point

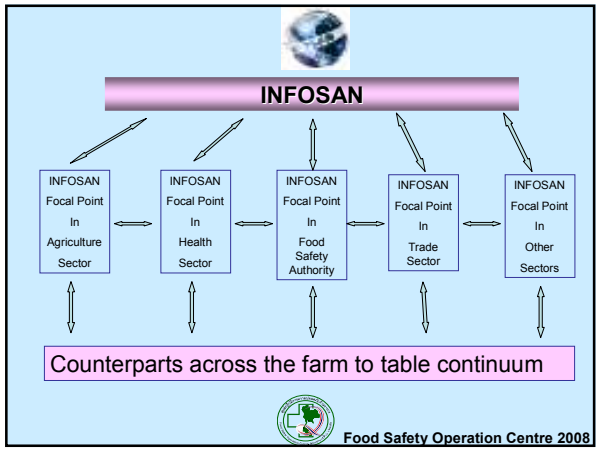
- One or more INFOSAN Focal Point(s)

Food Safety Operation Centre 2008

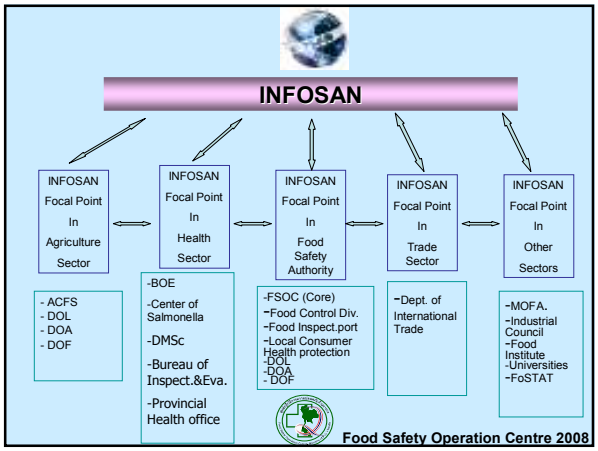
Establishment of INFOSAN Thailand

- **Food Safety Operation Centre (FSOC) has been designated by Ministry of Public Health (MOPH) to be a National Emergency Contact Point and INFOSAN Focal Point since Nov.1,2007.** (formal)

Food Safety Operation Centre 2008



Food Safety Operation Centre 2008



Food Safety Operation Centre 2008

www.foodsafetythailand.net

ASEAN LEVEL

ASEAN Food Safety Network

- **Member: 10 Countries**
- **Thailand → ACFS (MOAC)**
  Leading Country
  (Focal Point of ASEAN)
  www.aseanfoodsafetynetwork.net

ASEAN Food Safety Network (AFSN)
www.aseanfoodsafetynetwork.net

A central platform for coordinating and exchanging information on food safety for ASEAN bodies related to food safety and Member Countries

www.aseanfoodsafetynetwork.net

ARASFF → ASEAN Rapid Alert System for Food and Feed

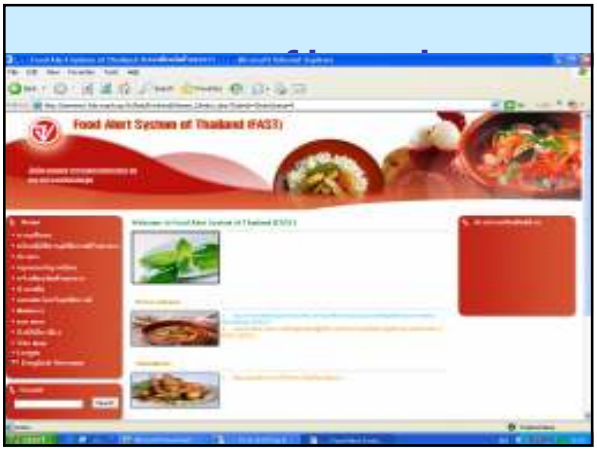
- **Member: 6 Countries**
  (Thailand, Malaysia, Vietnam, Cambodia, Myanmar and Philippines)
- **www.arasf.net**

www.arasf.net

Country Level

FOOD ALERT SYSTEM OF THAILAND (FAST)

Network of Food Safety Information in FAST (In-country)



Thank you for your attention
(Khob Khun Ka)

Presentation

on

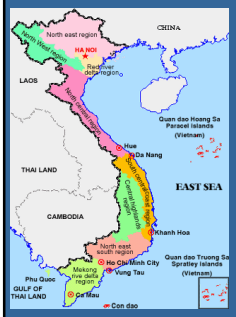
Food safety in Viet Nam

Ma. Tran Thi Nhai

Senior Expert – Education and Communication Division- Food Administration

Ministry of Health, Viet Nam

General introduction of Vietnam country



Population: About 85,000,000 people

Square: 329,241 km2

Provinces/cities: 64

Capital: Hanoi

International Airports: Noi Bai International Airport in Ha Noi, Tan Son Nhat International Airport in Ho Chi Minh; Da Nang International Airport in Da Nang city.

Port: Sai Gon, Hai Phong, Da Nang, Quang Ngai

Border-line: VN-Laos, VN-Cambodia, VN-China

Islands: Truong Sa, Hoang Sa., Cat Ba, Phu Quoc

Border gates: 58 (land port, maritime port, river port)

I. ACHIEVEMENTS IN FOOD SAFETY ASSURANCE IN VIETNAM

1.1 Management:

Basically, a legislative system has been formed in order to control food safety from *farm to table*

In particular:

- Legal documents on food safety management have been developed and issued:

+ Ordinance on Food Hygiene and Safety

+ Decree No 163/2004/ND-CP on regulating the implementation of some articles in detail of Ordinance on Food Hygiene and Safety

+ 05 interministerial circulars with concerning ministries: Ministry of Agriculture and Rural Development, Ministry of Fishery (former), Ministry of Industry (former), Ministry of Trade (former), Ministry of Culture and Information.

- For steering: The Steering committees have been established in 54/64 cities/provinces under the Directive No 08/1999/CT-TTg by the Prime Minister.

National Action Plan on assurance of food hygiene and safety up to 2010 (The Decision No 43/2006/QD-TTg dated on February 02, 2006 by Prime Minister)

- There are 717 Vietnam standards on foodstuff of which only 184 standards (27,1%) with technical requirements, 396 standards (55,6%) with testing methods.

- Regulations of Ministry of Health (MOH) to ensure the safety and hygiene for imported and domestic food such as: hygiene conditions, certification, inspection, food poisoning and foodborne desease prevention and remedy.

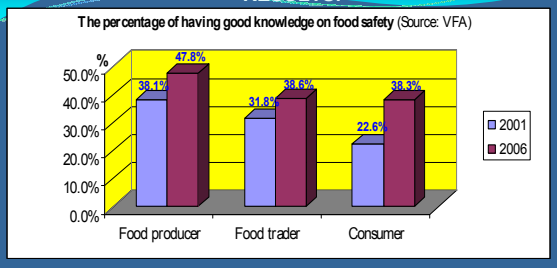
-Technical regulations of MOH: maximum level (ML) of contaminants in food, MRLs of pesticide in food, ML of food additives…

1.2. Food safety education and communication

The launching ceremony of the Month of Action for Food Safety is annually held with different titles. These titles have been based on urgent problems, shortcomings on food hygiene and safety.

Diversifying food safety communication such as: discussion, workshop, seminar, forum, radiobroadcast, television, press, competition, IEC products (leaflefts, poster, visual aids...)

RESULTS:



Many training courses on food safety, HACCP as well as courses on management for food safety officials from central level to local level have been held to improve their capacity and skill.

1.3 Interministerial activities and socialization of food safety activities

- The responsibilities among ministries, sectors have been specific assigned.
- The Interministerial steering committee has been established.
- The interministrial working group has met every 3-month excluded unexpected meetings. This gives comprehensive power and has results as following:

+ To overcome overlappings in establishing interministerial inspection team.

+ Immediately solving interministerial newly emerged problems.

+ To unify action plans as well as organizing food safety campaigns.

- Mobilizing organizations, unions participating in food safety dissemination and monitoring such as: The Women Union, The Farmer Association, The Veteran's Organization, The Red Cross, The Youth Union...

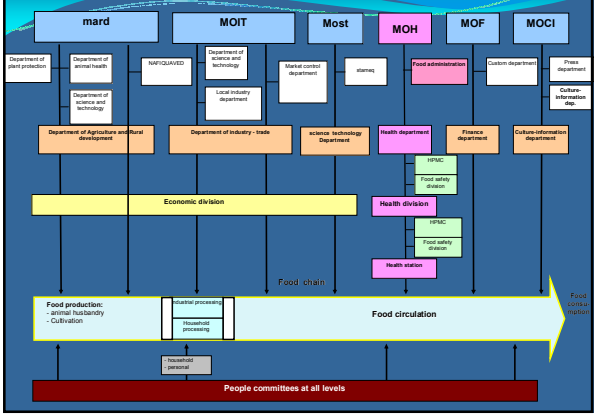
1.4. Inspection:

- Food safety inspection has been strengthened gradually from the central level to the local level. All provinces have their own plan from the beginning of the year.
- Organizing regularly food safety inspection campaigns in festivals, lunar festival, national important political and economic events.
- From 2001 to 2006, 14,229 missions have been established at the commune level. *(Source: VN Food Administration)*.

1.5. Analysis

- Ministries/sectors have their own laboratories at the central level and every local health departments have laboratory. This will step by step meet requirements of inspection and scientific research.
- These above labs can analyse important parameters of food contamination. About 87% of food poisoning outbreaks has been identified causes. There are 07 centers have been certified of applying ISO 17025 and 10 agencies responsible for imported food inspection (Source: VFA).
- Using rapid test kit for screening. Up to now, domestic produced rapid test kits with lower price have met demands, especially at the local level.

II. CURRENT FOOD SAFETY MANAGEMENT SYSTEM



III. Current urgent issues of food safety

3.1 Meals provided in canteens and in industrial zones:

- The number of canteens in schools, industrial zones, enterprises is rapidly increased, but only 52,6% of those meet requirements of food hygiene and safety condition.
- Almost canteens have not been granted food safety certificates as described by law.
- From 2000 to 2006, there were 328 food poisoning outbreaks at industrial zones, it accounts for 24.2% of total food poisoning outbreaks and 82.6% of total cases.

3.2 The process from crop cultivation, animal husbandry to desease prevention, harvesting, catching/hunting has not been controlled yet:

- Pesticide, antibiotic and hoocmon residues are big concerns of people.
- Many unpermitted pesticides were found in many kinds of fruits and vegetable.
- The level of pesticide residues in vegetable is increase gradually.
- From 2000 to 2006, there were 667 outbreaks caused by fruit and vegetable contaminated pesticide, fishery products with 11,653 cases and 283 deaths.

3.3. Problems in food preparation and processing:

- 70% of food processing in Viet Nam is hand –made, household and small scale. Therefore, almost of them do not meet the requirements of food safety.
- Street-vended food contamination has caused of many food poisoning cases, which account for high rate of total annual food poisoning cases. In most of urban areas, People's Committee at all levels do not pay much attention to the control of street-food vendors. This impact not only on people health but also on urban civilization.

- Slaughter houses:
  - Intensive slaughter house is 15% of total, especially only 2,5% in Northen provinces.
  - Poultry slaughtering is by hand-made, do not meet the requirements of veterinary hygiene.
- The use of borax, colours, and toxic preservatives in food preparation and processing are still popular.

3.4. Problems in food imported through the borders:

- Food imported through the borders are not totally under controlled and Food imported through unofficial channels are still popular such as fruit and vegetable, food additives, meat, alcohol, tobacco,...
- Inspection Agencies at border do not reach agreement in procedures and items to be inspected, which are overlapped and lacked of many items of food.

3.5. Food circulation and trading in markets

- Trading of food is conditional: trading of 10 high risk foods is compulsary to be certified by MOH.
- But in fact, food and additives trading are uncontrolable:

+ In Hanoi: only 300 of 17,000 street food vendors have been certified already.

+ Many kinds of unpermitted, unknown original, illegal imported food additives and are still free circulated in the market.

IV. Food safety control program in vietnam (Fomular 1-3-6-9)

4.1. General objective: Availability of safe food for domestic consumption and export.

4.2. Guiding principles :

(1). Socialization of all activities of food hygiene, safety is main guiding principle to ensure the food quality, hygiene and safety. In which the political leaders at all levels and related agencies play the leading role.

(2). Education and communication are key activities which should be done in advance of all activities for ensuring food quality, hygiene and safety.

(3). Development bases on solid triangle: Food Law, Food Inspection and Food Analysis.

4.3. Implementation principles :

(1). The local government should take the lead in all activities for food safety and hygiene. These activities should link with the local socio-economic development plan.

(2). The health sector should play a role of clever advisor.

(3). Education and communication on food safety and hygiene should cover every target audients.

(4). Mobilizing the participation of every sectors and organization.

(5). Commitment on assurance of food safety with the local authority by food premise manager/owner.

(6). Regular monitoring, inspection and timely handle any breaches.

4.4 Solutions

(1) Strengthening State management capacity and developing an effective food safety management system from central to local level.

(2) Promoting food safety education and communication in community.

(3) Improving interministerial activities in assuarance of food hygiene and safety.

(4) Improving inspection the implementation of food safety legislative documents.

(5) Reinforcing and enhancing capacity of food safety analysis systems at ministrial level and in nationwide.

(6) Monitoring food contamination, food poisoning and foodborne diseases.

(7) Promoting scientific researchs, technique and their application in food safety management.

(8) Improving international cooperation in food safety.

(9) Increasing the investment for food safety activities from the central to local level.

FS Education and communication

- Organization of the Month of Action (MoA(for Food Safety and Quality annually:
  - To take place from 14/4 to 15/5 annually
  - From 1999 up to now it has been organized 9 time.
  - Thanks to the Month of Action the entire society has been enlightened, alerted and warned with regard to the FS matter, contributing to raising the awareness and sense of responsibility of management bodies, food producers, traders and consumers.

The month of action is event the opportunity to mobilize human resources from the Central to grassroots level to launch propaganda, education and inspection, control campaign in order to solve the most urgent matter in FS.

Propaganda on mass media

- From 2001- 2007
  - Newspaper:

  .Central and Ministrial, sectoral levels: 48 newspaper with 37,769 pieces of new, articles

  . Local levels: 64 newspaper with 3,614 pieces of news, articles.
- Television:

  . Central level: broadcasting 2,866 times with 1,704 pieces of news, acticles, report, 1,219 broadcasts of FS message about the month of action, Lunar new year festival, prevention of acute diarrhea…

  . Local level: broadcasting 6,272 sessions about FS.
- Radio station:

  . VOV Radio: there are 8 programs taking part in propaganda about FS, 11,402 sessions have been broadcas
- Ted with 6,805 pieces of new, articles.
- . Radiobroardcasting system in communes/wards"where availabe " broadcast averagely 1-2 session in a week, 15 minutes each.

Direc propaganda in various forms such as speeches, workshop, seminars, competition

- From 2001- 2007 it has been able to organize:

  -39,568 talks with 11,292,661 participants.

  - 2,596 workshops with 104,233 participants.

  - Seminars on FS with more than 15 units.

Slide 23

T1 TranThiNhai, 6/24/2008

Coaching, training from 2001-2007

- Training for certificates: Cooperated with the HaNoi Medical University, the Thai Binh Medical University Thai Binh to organize 22 FS cetificating courses from 2 weeks to 3 months for 1,046 persons in provincer and cities.
- The HCCP training:

  . The HCCP Team of the VFA has provided professional advice on HACCP application to 22 food production facilities applying HACCP, 5 among them have been certified anf 2 have been evaluated.

  . The health sector of provinces has applied HACCP to 127 food production, processing facilities, 36 in wich have been certifed.

  . In the fisheries sector 321 enterprices have been acknowledged to conform to the FS standard

- Coaching: the central and local levels, have organized 18,924 FS knowledge coaching session for 1,133,007 participants.

Other form

- Competition:

  . FS contests:

  2001: there were 800.932 contests papers;

  2003 there were 523,000 contests paper;

  2005 there were 39 contests with 3,590 participnts.

  . Drawing contests on prevention of food poisoning due to Globefish.

  . Cooperated with the South Television Advertising Company to organize the FS propagandist contest in the subject <food and life> with more than participants.

- Organized3 contests on FSon the VoV radio.
- Organized Manoeuvres of FS Mobile Propaganda Teams:

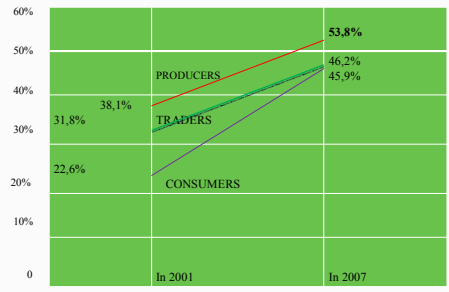
  . Competition of good Street Food collabator in HaNoi

  . FS mobile propaganda manoeuvres organized in HCMCand Thai Binh

Communication products: up to 2007

- . 6,899,413 folders and , posters <14 kinds>, 1,485 tapes and disks have been printed 840,000 FS information sheets have been published to be distributed up to the grassroots level on a national scale.
- 17 book titles in FS have been published such as: Control of street food, food hygiene and safety, Globefish and Food Poisoning, information on FS…, with 75,966 books.
- Formulation of web page in FS: Up to 26/3/2008, there have been 136,195 access times.
- FS knowledge advice: Cooperating with the VN FS Sience and Technology Association to provide expert advice on FS knowledge automatically 24/24 h through telephone number 19001783.
- Organization of meetings with press collaborators <once every day 3 month>.

Outcome of beneficiaries awarwness on FS



THANKS FOR YOUR ATTENTION

Emerging Food Safety Concerns: GM Crops and Products

Ernelea P. Cao, Ph.D.
Professor, Institute of Biology and
Director, Natural Sciences Research Institute
University of the Philippines
Diliman, Quezon City, Philippines

The advances in the field of modern biotechnology has allowed for the development of genetically modified crops with improved qualities aimed at enhancing production and diversifying products for food security and global competitiveness.

Genetically Modified Organisms (GMOs)

- possess a novel combination of genetic material (DNA) obtained through the use of modern biotechnology.

Biotechnology:

refers to the use of biological materials to produce products useful to man.

May involve:

- whole organism
- part(s) of the organism
- products from the organism

Food Safety Assessment

Before entering the marketplace, foods are assessed consistent with guidelines issued by several organizations like the WHO, FAO and OECD:

- GM food products are regulated in the same way as foods produced by other methods. The risks associated with foods derived from biotechnology are of the same nature as those for conventional foods.

- These products will be judged on their individual safety, allergenicity, toxicity and nutrition rather than the methods or techniques used to produce them.

- Any new ingredient added to food through biotechnology will be subject to pre-market approval in the same way as a new food additive, such as a preservative or food color, must be approved before it reaches the marketplace.

Principles of Safety:
To establish if the GM–plant food/feed is as safe as its traditional counterpart

Novel (GM) Plant Food/Feed

COMPARE W/

Conventional/ Traditional Counterpart (with safe history)

Substantial Equivalence: Comparison in terms of

- Origin of gene(s)
- Agronomic parameters
- Composition (key nutrients/anti-nutrients)
- Consumption

Confirmation of "substantial equivalence" equals "as safe as."

Examples

- Protein/amino acid composition
- Total fat/fatty acid content
- Anti-nutritional factors (e.g. phytic acid, trypsin inhibitior, ferulic acid, p-coumaric acid, raffinose)

Three Possible Scenarios

- Substantially equivalent to conventional counterpart: No further testing.
- Substantially equivalent to conventional counterpart except for introduced trait(s): Focus assessment on trait(s)/gene product(s).
- Not substantially equivalent to accepted food or food component: Combined nutritional/toxicological assessment.

The Philippine Experience:

- For international guidance, uses the Codex Guidelines for the Conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants (CAC/GL 45-2003) for Risk Assessment Applications.
- For national guidance, has implemented through the Department of Agriculture, Republic Act 8435 of 1997 referred to as the Agriculture and Fisheries Modernization Act (AFMA), which aims to modernize the agriculture sector by transforming it from a resource-based to technology-based sector. Specific provisions for a biotechnology program are provided for in the act.

- In 2001, Philippine President Gloria Macapagal Arroyo declared a national biotechnology policy, that is "…promote the safe and responsible use of modern biotechnology and its products as one of the means to achieve food security, equal access to health services, sustainable and safe environment and industry development."
- With the above policy statement on modern biotechnology, coupled with the objective of the Department of Agriculture to accelerate agricultural development, enhance production, and diversify products for food security and global competitiveness, the need for a legal and strong framework on the importation and use of GMOs was emphasized.

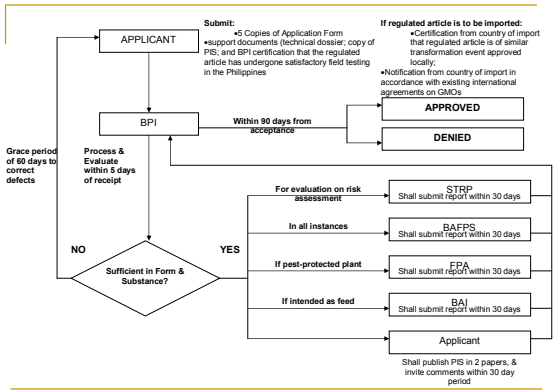
Department of Agriculture - Administrative Order No. 8 (DA – AO 8 series of 2002 entitled "Rules and Regulations on the Importation and Release into the Environment of Plants and Plant Materials Derived from the Use of Modern Biotechnology")

- covers the importation or release into the environment of any plant or plant product altered or produced through the use of modern biotechnology which may pose significant risks to human health and the environment based on available scientific and technical information.

Under AO 8, no person shall be allowed to import or release into the environment any regulated article without a satisfactory risk assessment.

The assessment of GM crops shall be:

- Science-based – identification and evaluation of risk based on scientific studies
- Transparent – basis for decision is open for public scrutiny
- Case by case – different GMOs pose different types and levels of risk and should be assessed accordingly
- By transformation event - unit of analysis in evaluating GMOs



Flowchart of the Procedure for Application for Propagation

- Scientific and Technical Review Panel (STRP) – assess scientific quality of reports; assess feed safety and environmental safety
- DA Regulatory Agencies:
  - Bureau of Agriculture and Fisheries Product Standards– assess food safety
  - Fertilizer and Pesticide Authority – safety of pest-protected plants
  - Bureau of Animal Industry – assess feed safety
  - Bureau of Plant Industry - environmental safety

Assessment

- Science-based evaluation procedure
- Independently evaluated for safety by scientists or experts in nutrition, molecular biology, toxicology, allergenicity and other aspects of food science (at least 3 per event).

Challenges

Information dissemination on:

- What are GMOs?
- Safety issues
- Safety nets

Changing mindsets and attitudes:

- Role of the government
- Role of the academe
- Role of other sectors

Thank you very much
for your kind attention!

Pesticide Residue and activities to communicate the risk in the use of pesticides

Dr. Dario C. Sabularse
Deputy Executive Director
Fertilizer and Pesticide Authority
Philippines

MRL & Food Safety

A chemical substance used in crop protection is always toxic

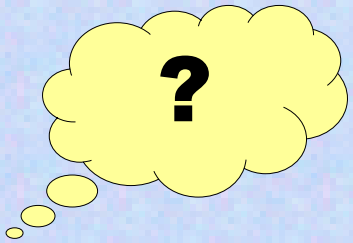
> It contains the active material for killing the target organisms (pests, weeds, diseases)

> But it can also be hazardous to non-target organisms (humans, beneficials)

Humans will not INGEST such a chemical

…but may take the chemical as pesticide residues in their daily food !

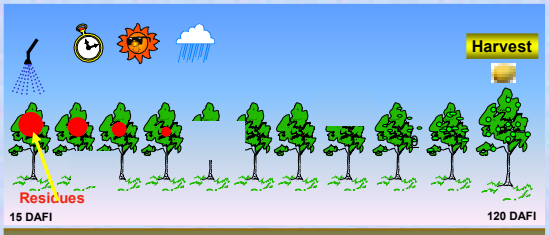
What are pesticide residues?



Pesticide residues refers to substances in food , agricultural commodities or animal feeds resulting from the use of crop protection products

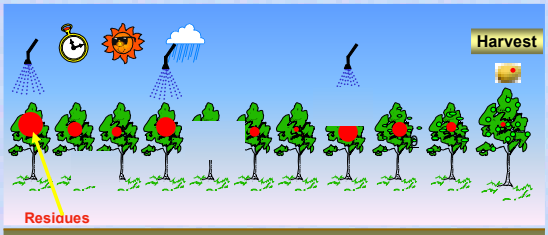
How does a crop protection chemical gets on or into our food and detected as pesticide residues ?

Single application of an insecticide in mango



- Pesticide residues degrade thru time with the influence of environmental factors (i.e. temperature, weather conditions)
- Degradation also depends on the characteristic of the pesticide
- Single application may result in non detectable residues at harvest

Multiple applications of an insecticide in mango



Multiple applications of a pesticide may result in detectable residues in the harvested crop

Application of an insecticide near harvest time

Application of a pesticide near harvest time may result in detectable
residues in the harvested crop

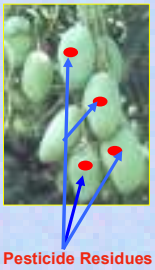
MRL- Brief History

- due to concerns on the growing use of pesticides governments regulated sale of pesticides with unacceptable properties to be introduced into the market
- use of chemicals was regulated to protect users and consumers of treated foodstuffs

MRL- Brief History

- 1959- Panel of experts recommended establishment of pesticide tolerances to protect consumers
- 1961- FAO/WHO Expert panel requested implementation of this recommendation

MRL



Maximum concentration of pesticide residue resulting from the use of pesticide according to Good Agricultural Practice that is legally permitted in an agricultural food commodity

MRL is expressed in mg of pesticide residues per kilogram of the commodity

MRL is estimated on whole commodity basis

Importance of MRL

- To protect health of consumers (no potential hazard of pesticide residues in food)
- To facilitate international trade

If residues at harvest are above the MRL

…the export commodity can be rejected by the importing country e.g. okra, mango /Japan

… or possible long term health effects

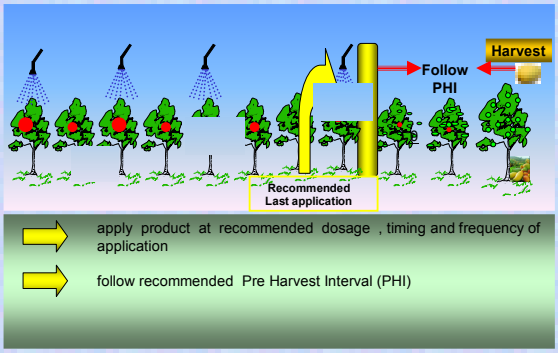
Establishment of MRL (new active ingredient)

- registration data
- valid supervised pesticide residue trials , according to GAP
- suggested MRL based on targeted PHI
- dietary risk assessment

MRLs :
are the maximum concentrations of pesticide residues to be legally permitted in or on food commodities
represent the maximum amount of residues that might be expected on a food commodity when GAPs are respected
MRLs are not:
toxicological threshold concentrations at which, if they are exceeded, toxic effects must automatically be expected

How to keep the concentration of pesticide residues below the Maximum Residue Limit ?

Follow Label Recommendation on the use of Crop Protection Product



Judicious Use of Pesticides

To avoid over-usage of pesticides which will result in pesticide residues exceeding the MRLs, ensure the judicious use of pesticide by:

- Spraying the pesticides only when necessary; when the insect or pests are beyond physical control
- when monitoring devices (if in place) indicate that the insect population is above the action threshold level (ATL)
- when the disease symptoms are seen.

Judicious use of pesticides cont'd.

- Following the label instructions with regard to spray rate, spray volume and PHI.
- Reducing the number of applications so that the intervals between sprays are as long as possible, preferably two weeks or more.
- Practicing pesticide rotation to avoid residue build-up of a single pesticide as well as to prevent insect resistance to that and,
- Not mixing pesticide cocktails.

Basic Steps in Reducing Pesticide Risks:

- Choosing the right pesticide product.
- Reading the product label.
- Determining the right amount to purchase and use.
- Using the product safely and correctly.
- Storing and disposing of pesticides properly.

MAP OF THE REPUBLIC OF THE PHILIPPINES

LEGAL MANDATE
Presidential Decree 1144, 30 May 1977

"**SECTION 1. Creation of the Fertilizer and Pesticide Authority**. The Fertilizer and Pesticide Authority, hereinafter referred to as the FPA, is hereby created and attached to the Department of Agriculture for the purpose of assuring the agricultural sector of adequate supplies of fertilizer and pesticide at reasonable prices, rationalizing the manufacture and marketing of fertilizer, protecting the public from the risks inherent in the use of pesticides, and educating the agricultural sector in the use of these inputs.

FPA Pesticide Regulatory Policies and the Implementing Guidelines
GREENBOOK

Defines
Describes
Delineates

- **all existing and applicable laws,**
- **rules and regulations in the rational and judicious use of pesticides in the Philippines**

Pursuant to Section 9 of Presidential Decree 1144 and Article II, Sec.1 of FPA Rules and Regulations No.1 Series of 1977,

All pesticides intended for commercial use in the Philippines shall be registered with the Fertilizer and Pesticide Authority.

***"X X X X Separate registration shall be required for each active ingredient and its possible formulations in the case of pesticides….. X X X X "* (Section 9, PD 1144)**

" No pesticide shall be imported, manufactured, formulated, repacked, distributed, delivered, sold or offered for sale,, transported, delivered for transportation, or use unless it has been duly registered with the Authority or covered by a numbered provisional permit issued by the Authority for use in accordance with the conditions stipulated in the permit. Separate registration shall be required for each brand and formulation of pesticides" (Article II, Sec.1, FPA Rules and Regulations).

Definition of Pesticide
As provided in Section 3 of Presidential Decree 1144

Any substance or product, or mixture thereof, including active ingredients, adjuvants and pesticide formulations, intended to control, prevent, destroy, repel or mitigate directly of indirectly, any pest.

The term shall be understood to include insecticide, fungicide, bactericide, nematicide, herbicide, molluscicide, avicide, rodenticide, plant regulator, defoliant, desiccant and the like.

In furtherance of the policy on judicious use of pesticide to maximize its benefits yet minimize social costs, FPA has adopted the following:

- **Efficient registration process** for less toxic/less hazardous pesticides, and of biorationals which include biochemical and microbial pest control agents (PCA) and other natural enemies of insect pests;
- **Reasonable licensing requirements**;
- **More responsible product stewardship;**
- **Well structure monitoring and evaluation of post registration and post licensing activities**; and
- **Stringent penalties for violations of pesticide rules and regulations.**

Definition of Product Stewardship

- defined as the responsible and ethical management of a product from invention through to ultimate use and beyond. It means making safe use a priority for everyone who handles pesticide products, the general public and environment.
- **cradle-to-grave approach**
- Pertinent Guidelines are based from Chapter 5 Product Stewardship and Responsible Care pp.12 126-163, FPA Pesticide Regulatory Policies and Implementing Guidelines.2nd Edition, 2001.

FPA Regulatory Guidelines on Products Stewardship for Compliance by Pesticide Companies

1. The Company concerned shall ensure that its products are handled properly and workers protected during formulation, storage, transit, application and disposal.

The company concerned must submit a report covering the manufacturing or formulation process, the volume and quantity of products (imported, processed, marketed and sold), the number of workers involved, safety precautions employed, waste management and disposal methods, including the residue levels in the wastes emitted/disposed, etc.

FPA Product Stewardship Guidelines

2. The company concerned shall provide the necessary training on the safe handling and use of its product (including proper waste disposal) to dealers and users following FPA approved modules. A yearly report which includes annual training schedules shall be submitted to FPA.

Farmer'sTraining

FPA Product Stewardship Guidelines

3. The company concerned shall provide, at cost, protective clothing such as aprons, gloves, masks and boots to users of its product especially those belonging to Categories I and II pesticides. The company shall ensure the continued supply of these protective clothing and equipment for as long as its products belonging to Categories I or II are marketed.

FPA Product Stewardship Guidelines

4. The dealers concerned shall make available first aid kits while the company shall provide antidotes for its product to the nearest medical facilities as determined by FPA. The provision of antidotes to medical facilities shall be made annually and reported to FPA.

Fuller's earth was distributed to participating institutions.

FPA Product Stewardship Guidelines

5. All companies concerned shall provide information services to the public. The nature and scope of these services shall be subject to FPA approval.

FPA Product Stewardship Guidelines

6. The company concerned is obliged to report to FPA any information adversely affecting the safe use of its product within the quarter that such information has become known.

FPA Product Stewardship Guidelines

7. The company concerned shall stop the sale of and recall its product which has been found or deemed unsafe for use under any use directions or restrictions by FPA. The company concerned must shoulder all the expenses that might be incurred in the retrieval and proper disposal of the recalled products.

Example Retrieval of containers, a project of Croplife



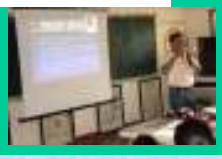
Plantation Stewardship – Empty Container Retrieval

Activities on Product Stewardship of pesticide companies

- **Training of farmers on safe, effective and environmentally conscious handling, application and storage of crop protection products;**

Training of Medical Practitioners on the Treatment of Pesticide Poisoning


Training of school children regarding safe and judicious of pesticides

Information campaign using print, broadcast media

Summary of Accreditation, Trainings and Symposia, FY 2007

Description	No. conducted	No. of pax
Accredited Safety Dispenser (ASD)	34	860
Accredited Responsible Care Officer (ARCO)	3	145
Accredited Fertilizer and Pesticide Researcher	2	27
Fertilizer and Pesticide Symposium	3	79
Certified Pesticide Applicator (CPA)		
- Fumigator	2	66
- Exterminator	6	321
Certified Pesticide Applicator Symposium	7	805
Household/Wood Preservative	7	100
Mango Contractor	1	21
Safe & Judicious Use of Pesticide	9	92
Mango Stakeholders' Symposium	7	546
TOTAL	75	3,062

CONCLUSIONS/ RECOMMENDATIONS

Crop Protection Product Stewardship-

To ensure proper, safe and judicious use of pesticides

- **as to its MRL for safety of food products making Philippine produce competitive in the world market;**
- **Efficiency in terms of volume and quality of agricultural produce;**
- **Safe use for the handlers and applicators/farmer-users;**
- **Reduce the risk inherent to pesticides**

Plantation Product Stewardship Program

Inspection of plantation | Air Monitoring Kit | Occupational Health

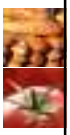
Banana Plantation Product Stewardship - Aerial Spraying of Fungicide

Monitoring of compliance of plantations, i.e.inspection of water waste

Thank You. MABUHAY!!!

☺

Risk Communication Case Studies



Ms Christel Leemhuis
Day 3

Overview

- Public Perceptions in Australia
  - What are Australians worried about?
- Risk Communication within FSANZ
- Microbiological case studies
  - Listeria
  - Poultry PPP Standards
- Novel Technologies case studies
  - Irradiation
  - Nanotechnology

2007 Consumer Attitude Survey (Australia)

- Healthy eating 4th (23.4%) after drought, household finances/cost of living and pollution/environment issues
- 61% confident the food supply was producing safe food
- 54% confident in regulation and monitoring
- 60.2% prompted awareness of FSANZ
- 92.4% confident about safety of food prepared at home

http://www.foodstandards.gov.au/newsroom/publications/consumerattitiudes/index.cfm

Consumer Concerns

48.4%	Food poisoning e.g. salmonella or *E. Coli*
47.6%	Storage time of 'fresh' foods
38.2%	Safety of imported food
37.2%	Food additives
36.9%	Antibiotics/hormones/steroids in meat
35.4%	Obesity
35.4%	Sugar in food
33%	Saturated fats
32.9%	Pesticides in food
26.8%	Bird flu
26.7%	Trans fats in food
25.3%	GM food
25.0%	The amount of salt in food
18.5%	BSE/mad cow disease
18.1%	Allergies

Actual risks

1 Diet related disease
2 Food poisoning
2 Allergens
3 Food emergencies
4 Chemical residues
5 Pesticide residues on fruit and vegetables
6 GM foods

Risk Communication in FSANZ

General communication	Awareness about FSANZ and its process
Information dissemination	Risk assessment, risk management options
Stakeholder identification	Industry, government, consumers, lobby groups, health professionals, media

Risk Communication in FSANZ

- **Relationship building** – Fostering partnerships among stakeholders
- **Consultation** – Input from stakeholders including attitudes and motivating factors
- **Maintaining the contact** – Keeping people in the loop

Microbiological – Case Studies

- Listeria
- Poultry Primary Production and Processing Standards

Listeria Background

- Review of the microbiological standards (limits) in the Australian New Zealand Food Standards Code (the Code)
- Risk analysis undertaken largely qualitative
- Concerns over whether the standard provides adequate protection
- FSANZ (then ANZFSA) raised a Proposal to further review the scientific evidence, particularly for Listeria in cooked crustacea

Listeria Issues

- *L. monocytogenes* is the main species of concern as it can cause:
  - Listerial gastroenteritis – mild flue like symptoms
  - Invasive listeriosis – rare disease
- Incidence is approximately 3 cases per million in the general population

Listeria Assessment

- Some populations groups are at a higher risk
  - Pregnant women and foetus
  - Neonates
  - Elderly
  - Immuno-compromised (e.g. HIV/AIDS, transplant patients)
  - Very rarely healthy people

Foods of Concern

Listeria Risk Management

- *L. monocytogenes* in cooked crustacea, presents a low risk to public health and safety
- Compliance with existing standards should ensure that good hygienic practices are employed during production and handling of this product
- A microbiological limit for *L. monocytogenes* in cooked crustacea was not justified

Listeria Risk Communication

- Sharing of information with food industry and State and Territory regulatory authorities to develop management systems to minimise Listeria contamination during food production including:
  - the implementation of Codes of Hygienic Practice;
  - adherence to microbiological standards and hygiene and sanitation requirements in the Food Standards Code;
  - meeting requirements of State and Territory regulatory agencies; and
  - providing targeted advice to at-risk consumers to further enhance the safety of our food supply.

Listeria Risk Communication

HIGH risk to some – LOW perceived risk

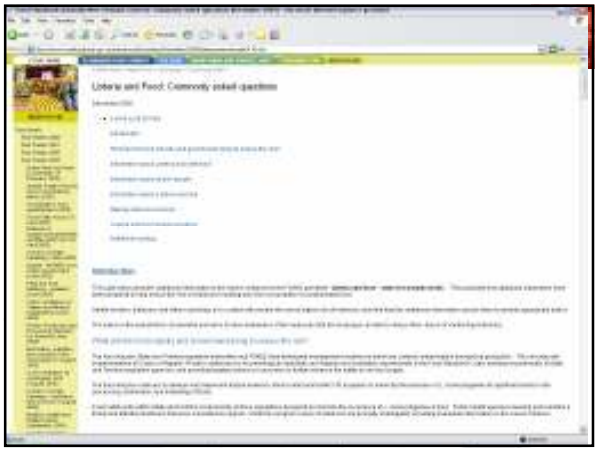
=

EDUCATIVE

Listeria Risk Communication

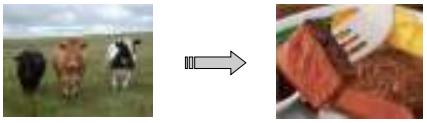
- Website information
- Question and Answer sheet
- Fact sheet for at risk consumers
- Listeria Recall Guidelines for Packaged Ready-to-eat food

More information at http://www.foodstandards.gov.au/foodmatters/listeria/index.cfm

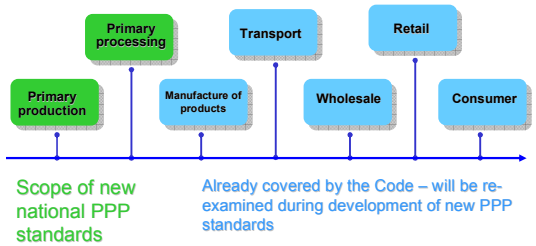


Primary Production and Processing (PPP) Standards - Background

- Australia adopted a "whole-of-chain" approach to food safety in 2002



Scope of the Food Standards Code



Scope of new national PPP standards

Already covered by the Code – will be re-examined during development of new PPP standards

So far….

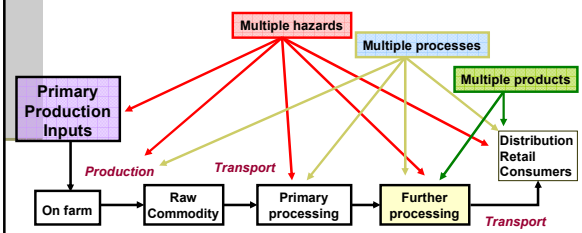
Completed
- Seafood
- Dairy (pasteurised)

And next?
- Plant and plant products
- Meat and meat products

Currently being developed
- Poultry meat
- Eggs and egg products
- Raw milk products

Through-chain risk assessments

- Adds significant complexity…



Poultry PPP Risk Communication

- Explaining the risk assessment
- Identifying and involving stakeholders throughout the risk analysis process
- Open and transparent
- Identifying data gaps and uncertainties

Novel Technology – Case Studies

- Irradiation
- Nanotechnology

Novel Technology - Irradiation

- the processing of food by subjecting it to the action of ionising radiation, but does not include ionising radiation imparted to food by measuring or inspection instruments, and 'irradiate' and 'irradiated' have corresponding meanings

Novel Technology - Irradiation

- Standard – 1.5.3 in the Code – key provisions:
  - Case-by-case assessment of use
  - Technological need has to be justified
  - Not be substituted as a procedure for good manufacturing practices
  - Minimum and maximum doses
  - Packaging-suitable quality and in an acceptable hygienic condition
  - Labelling requirements

Irradiation Risk Communication

LOW risk – HIGH perceived risk

=

Responsive

Worldwide Consumer Surveys

- Consumer Attitudes and Market Response to Irradiated Food (ICGFI, 1999).
  - Worldwide consumer awareness of food irradiation increasing
  - people in several countries have purchased irradiated food
  - in some markets, the availability of a high quality produce item out of season was an important benefit
  - greater microbiological safety was a benefit in other markets
  - consumers will buy irradiated foods

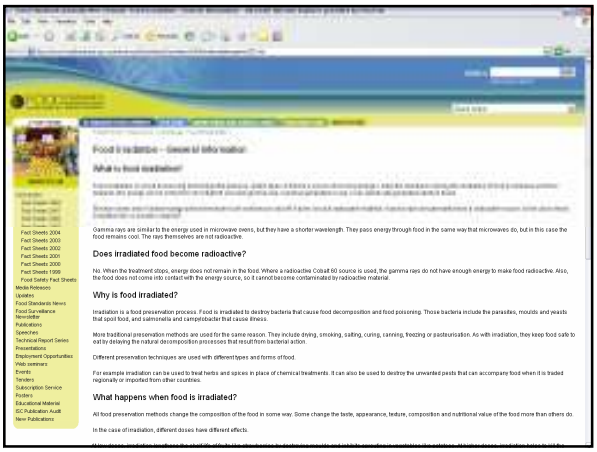
Australian and New Zealand Consumer Surveys

- *Perceptions of food irradiation in New Zealand and Australia* by Roger Harker et al, HortResearch (2001).
  - Consumers have some concerns about irradiated foods, although the level of concern is lower than other food safety issues
  - The willingness to purchase irradiated foods is much lower than in the USA
  - Consumers raised similar fears over irradiated foods as found in other countries
  - New Zealand consumers were concerned with retention of the 'clean, green image' of NZ food exports
  - Consumers seemed supportive of irradiated foods once a need for treatment has been established

Irradiation Risk Communication

- Open and transparent assessments
- Full consultation on applications with stakeholders
- Questions and Answer sheet
- Labelling for consumer choice
- Factsheet
- Information on website – webinars

FSANZ Food Labelling Webinar - 30/08/2007



Does irradiated food become radioactive?

No. When the treatment stops, energy does not remain in the food. Where a radioactive Cobalt 60 source is used, the gamma rays do not have enough energy to make food radioactive. Also, the food does not come into contact with the energy source, so it cannot become contaminated by radioactive material.

Why is food irradiated?

Irradiation is a food preservation process. Food is irradiated to destroy bacteria that cause food decomposition and food poisoning. Those bacteria include the parasites, moulds and yeasts that spoil food, and salmonella and campylobacter that cause illness.

More traditional preservation methods are used for the same reason. They include drying, smoking, salting, curing, canning, freezing or pasteurisation. As with irradiation, they keep food safe to eat by delaying the natural decomposition processes that result from bacterial action.

Different preservation techniques are used with different types and forms of food.

For example irradiation can be used to treat herbs and spices in place of chemical treatments. It can also be used to destroy the unwanted pests that can accompany food when it is traded regionally or imported from other countries.

What happens when food is irradiated?

All food preservation methods change the composition of the food in some way. Some change the taste, appearance, texture, composition and nutritional value of the food more than others do.

In the case of irradiation, different doses have different effects.

Novel Technology - Nanotechnology

- New issue being considered by regulators around the world
- Potential concerns include:
  - Safety
  - Regulatory gaps
  - Consumer concerns

Risk Communication - Nanotechnology

- Early identification and involvement of stakeholders
- Questions and Answer sheet on the Web
- Establishment of Working Groups

http://www.foodstandards.gov.au/newsroom/factsheets/factsheets2008/smallparticlesnanote3923.cfm

Food Safety Risk Communication

From Theory to Application

The Messenger and Risk Communication

- **Credibility is a perception**
  - Credibility is not a single concept; it is a set of perceptions about a source
- **Credibility is multi-dimensional**
  - Credibility is the extent to which a speaker is:
    - An expert
    - Trustworthy
    - Likable and similar to the audience
    - An authority
    - Communicates well non-verbally

Messenger's Expertise and Risk Communication

- **Expertise**
  - **Training:** Advanced knowledge and/or degrees in the area being spoken about
  - **Skill:** Specialized skills
  - **Informed:** Up to date on advanced research and well informed on the current information about his/her topic
  - **Authoritative:** Speak with authority, assured in their knowledge
  - **Ability:** Ability to take action
  - **Intelligence:** General intelligence

Expertise

- In low trust and high concern situations, credibility is assessed using four measures:
  - empathy and caring (50%, assessed in the first 30 seconds)
  - competence and expertise (15-20%)
  - honesty and openness (15-20%)
  - commitment and dedication (15-20%)

Communicating expertise

- To convince people you know what you are talking about
  - Communicate that you are an expert
    - Cite your sources
    - Let people know your relevant training and skills
    - Speak with intensity and conviction

Communicating trustworthiness

- **Trust is a multidimensional concept:**
  - **Integrity**
  - **Benevolence**
  - **Competence**
  - **Dependability**
- **Trustworthiness**
  - **Empathy and caring**
  - **Honesty and openness**
  - **Dedication and commitment**

To communicate trust

- **Covello offers the following advice:**
- Be balanced
- Focus on a specific issue
- Pay attention to what the audience already knows
- Be respectful in tone and recognize that people have legitimate feelings and thoughts
- Be honest about the limits of scientific knowledge
- Consider and address the broader social dynamics in which risks are embedded
- Be willing to be subjected to careful evaluation

Communicating trust

- Have you demonstrated that you are unbiased?
- Trust is contextual: Whether you are seen as trustworthy may depend on the audience
- Take into consideration whether they are industry, farmers, government, etc.
- To be seen as trustworthy you must be seen as empathetic and caring, open and honest, and dedicated and committed

Communicating elements of trust

- **To communicate empathy and caring**
  - Select a messenger who can connect with the audience
- **To communicate openness and honesty**
  - Act calm
  - Be willing to admit that you do not know everything
  - Trust is linked with perceptions of accuracy and expertise
  - Admit to uncertainty
  - Be forthcoming
  - Avoid secret meetings

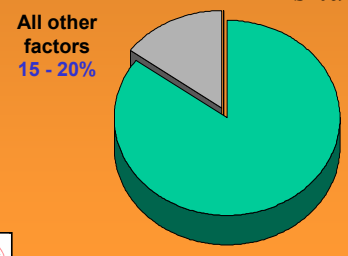
Communicating elements of trust

- **To communicate dedication and commitment**
  - Stay late after your talk
  - Show the audience you are there to answer their questions. Communicate your commitment to their concerns.
  - This principle holds for showing up early, too
  - If you make a promise, keep it
  - Provide contact information; provide audience with your phone number or e-mail address
  - Listen to what various groups have to tell you
  - Coordinate this commitment within your agency

Messages that are trustworthy

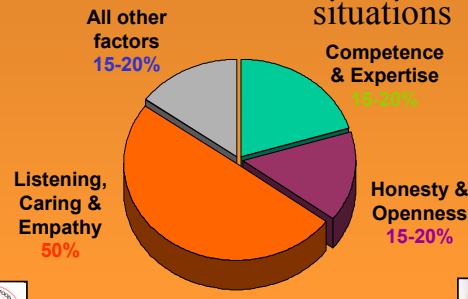
- Speak against their own best interest
- Are overheard

LOW stress situations



SOURCE: Vincent Covello

HIGH stress situations



SOURCE: Vincent Covello

Impact on communication

HIGH STRESS

Sender – *perceived trust & credibility critical*

Receiver – *reduced ability to process complex information*

Message – *needs to be simplified*

Feedback – *what is receiver hearing, feeling?*

Mental noise – *harder to hear, understand, remember*

SOURCE: Vincent Covello

Messenger's nonverbal communication

- People judge the credibility of a speaker within the first 30 seconds of an interaction
- Body language makes an impression: Body language can provide between 50% to 75% of the message that people hear
- Attractiveness matters

Communicating nonverbally

DO	DON'T
Make Eye Contact	Stare
Use Gestures To Make Your Point	Flap Your Arms Wildly or Make Meaningless Gestures
X	Make a Fist When You Are Speaking
Lean In When Speaking	Slouch
Have Good Posture	Stand Rigidly
Speak Moderately Quickly	Speak Slowly or So Quickly That People Can Not Keep Up
Have Good Vocal Intonation	Speak With a Monotone
Speak Clearly and Coherently	Hedge and Hemm
Look Comfortable with Yourself	Put Your Hands In Your Pockets

Communicating nonverbally

Research shows that people who are seen as dynamic and extroverted as viewed as:

- relaxed
- comfortable
- calm
- powerful
- strong
- active
- energetic
- outgoing
- healthy
- friendly
- nice
- personable

From theory to practice: Summary of communicating the message

- Risk communicators can not avoid the fact that they have to put a face to an issue
- It is not enough to simply put out a press release and hope that people will read an article in a newspaper
- To get the message out, we must get out and talk to the various publics interested in or affected by an issue
- As the speaker, you will not only have to prepare what you will say but also prepare for how people will perceive you

Best Practices

For Effective Risk Communication

- **Communicate with compassion, concern and empathy**
- **Demonstrate honesty, candor, and openness**

The Messenger and Risk Communication

- Communication competence is the ability to be effective and appropriate
- Communicator credibility is made up of multiple dimensions-it is not a unidimensional issue!
- Boost your perceived expertise by citing sources, and letting people know how and where you were trained
- Boost your perceived expertise by revealing your commitment and empathy for the people you are communicating with
- Information that is overheard and does not appear to be in your best interest is viewed as trustworthy
- No matter how expert and trustworthy you are, you still must look like it: Practice your non-verbal communication

Knowing your Audience

- Government
- Industry
- Academia and research institutions
- Media
- Consumers and consumer organizations

Self-esteem

- Feelings of self-worth based primarily on reflected appraisals
- Feelings of efficacy, based on observations of the effects of one's own actions
- Risk often deals with our health in some way
- Research shows self-esteem affects how we think about health
- Research shows self-esteem affects how we think about health
  - birth control
  - doing a breast self-exam
  - exercise

Self-efficacy

- **Belief in one's own ability to perform behaviors**
- **Self-efficacy has been related to:**
  - **smoking cessation**
  - **pain management**
  - **weight control**
  - **adherence to health prevention programs**
  - **others**

Involvement

- The level of concern the audience has regarding the topic
- Does the audience see how the topic affects them?
- Four kinds of involvement
  - Value relevant involvement
  - Outcome relevant involvement
  - Impression relevant involvement
  - Ego relevant involvement

Value relevant involvement

- Concern over the values that comprise a person's self-concept

Effect on risk communication:

- It is difficult to persuade people if the issue is against their values, especially highly ingrained values
- If you want these audiences listen to or read your message, it must be written to reflect their values

Outcome relevant involvement

- Concern for achieving a particular outcome, one that will affect your life

Effect on risk communication :

- You can persuade people if they believe it is in their best interest
- But, you must communicate to persuade the audience that the topic is in their best interest

Impression relevant involvement

- Concern for the type of impression the audience will make on others

Effect on Risk Communication

- Inhibits attitude change in general.
- You have to show the audience that the actions you want them to take are not silly
- You have to make them believe that folks will not think less of them

Ego involvement

- Concern for the degree to which an issue reflects the definition the audience members have for themselves

Effect on Risk Communication

- It is difficult to persuade these folks
- When a message threatens audience members' egos, they become defensive
- Defensiveness leads the audience to put down the source
- Stay away from anything that insults people

Anxiety

- An individual's predisposition to feel upset, distressed, tense, apprehensive, distractible, and nervous

Effect on Risk Communication

- High risk X low efficacy = anxiety
- Anxious people are motivated to seek information
- Anxiety debilitates ability to process information

Knowing your audience

- Anxious / fearful people, first and foremost, need to feel efficacy
- Self efficacy: That you can do the action
- Response efficacy: That the action will work
- Audience needs sensitive and simply-stated information they can process easily
- To reduce anxiety, reduce complexity
- Anxious people need specific instructions

Knowing your Audience

- **Culture**
  - **Individualism-collectivism**
    - ***Collectivist*** **cultures tend to value harmony, concern for others, and the goals of the group over the goals of the individual**
    - ***Individualistic*** **cultures tend to value independence, and the goals of the individual**
    - **Pay attention to the culture of the specific community**
    - **Don't rely on stereotypes**

Take away points

- No two audiences are alike: Think about who you are communicating with
- Assess (professionally, if possible) the target audience's perceptions, knowledge and experience with the risk
- Analyze the audiences' characteristics; know how high their self-esteem is, their level of anxiety, and the type of involvement they have

MATERIALS CREATED IN COOPERATION WITH:

NATIONAL CENTER FOR FOOD PROTECTION AND DEFENSE
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University of Minnesota · NDSU · University of Missouri-Columbia · International Food Information Council Foundation · Cornell University · Wayne State University · Institute of Food Technologists · UC Davis University of California · University of Arkansas · FAZD Center National Center for Foreign Animal and Zoonotic Disease Defense · Michigan State University · The University of Southern Mississippi

Special thanks to

Dr. Monique M. Turner
Associate Professor, Department of Communication
Director, Center for Risk Communication Research
University of Maryland

Dr. Katherine McComas
Associate Professor, Department of Communication
Cornell University

Food Safety Risk Communication

Modeling Risk Communication

Traditional models of risk communication

- Traditional models based on three assumptions (Scherer, 1991)
- 1. Only science can provide objective truth
- 2. Only science and technical experts can provide correct risk information
- 3. The "public" is a passive recipient of risk information

Challenges to traditional views

- 1. Only science can provide objective truth
  - Challenge: Science can also err
- 2. Only science and technical experts can provide correct risk information
  - Challenge: People's perceptions matter
- 3. The "public" is a passive recipient of risk information
  - Challenge: Multiple audiences are influenced by many aspects of the message and messenger

Alternative models of risk communication

- Interactive models involve dialogue about risk rather than one-way transfer of risk information
- Assumes everyone is affected by risk and has a right to be involved in the resolution of the risk issue
- Implementing an interactive model requires free exchange of information among policy makers and the various audiences about risk problems, information, and solutions

What risk communication IS:

- **Considers human perceptions of risk**
- **Multi-directional communication among communicators, publics and stakeholders**
- **Activities before, during, and after an event**
- **An integral part of an emergency response plan**
- **Empowers people to make their own informed decisions**

What risk communication is NOT**:**

- ***Spin***
- ***Public relations***
- ***Damage control***
- ***Crisis management***
- ***How to write a press release***
- ***How to give a media interview***
- ***Always intended to make people "feel better" or reduce their fear***

Reaching risk communication goals

- We have to get the numbers right
- We have tell them the numbers
- We have to explain what we mean by the numbers
- We have to them that they've accepted similar risks in the past
- We have to show them that it's a good deal for them
- We have to treat them nice
- We have to make them partners

Timing is everything

Two ways to approach risk communication

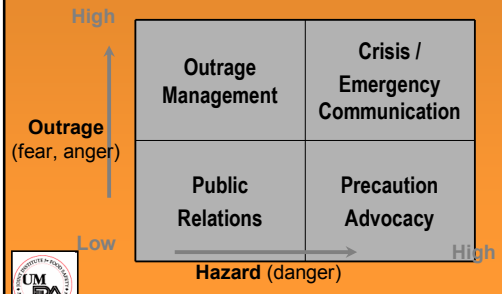
1. Reactive
   - Advantages:
     - Allows the public to vent about the issue
   - Disadvantages:
     - Science may be less relevant when issues become highly emotionally charged
     - Places communicator in defensive position
     - People may not believe information that is delayed
     - People may unknowingly be exposed to risk

Timing is everything

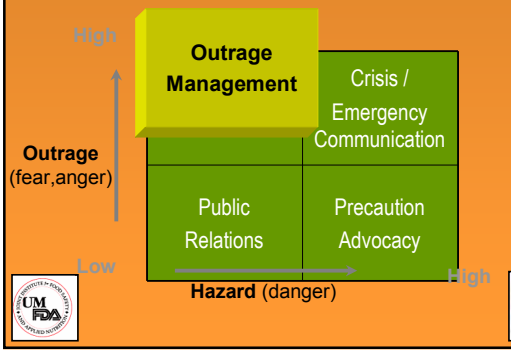
Two ways to approach risk communication

2. Proactive
   - Advantages:
     - May alert people to something of which they are not aware
     - Allows for a much more meaningful discussion of risk
     - Generates more balanced discussion about risk
   - Disadvantages:
     - May alert people to something of which they are not aware

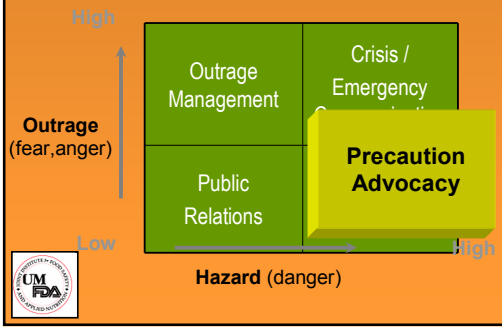
A variety of risk comm approaches



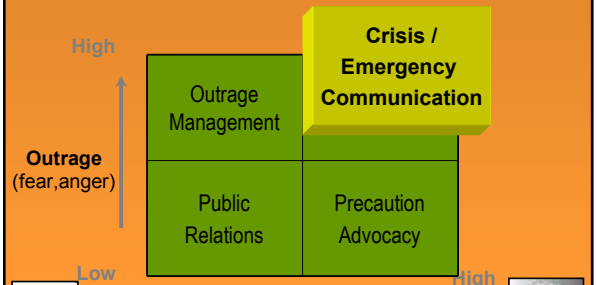
Goal: *Reduce outrage so people don't take unnecessary precautions*



Goal: *Increase concern for a real hazard to motivate preventive action*



Goal: *Acknowledge hazard, validate concern, give people ways to act*



Message preparation

Communicator Role & Purpose

Purpose	Communicator Role
Assist in executing response plan	• *Government official* • *Emergency responder* • *Public health spokesperson*
Providing background, technical, educational information	• *SME* • *Industry spokesperson* • *Extension educator* • *University scientist* • *Consultant*
Support recovery leading to return to normalcy	• *Industry spokesperson* • *Government official* • *Consultant*

Message development

Preparedness Strategies

- *Trust-building*
- *Relationship-building*
- *Partnerships with publics*

Message development

Key Audiences

- *Education*
- *Knowledge of event or issue*
- *Age*
- *Language*
- *Cultural orientation*
- *Others?*

Message development

Key Questions & Key Messages

3 most important things:

- *You would like your audience to know*
- *Your audience would like to know*
- *Your audience is likely to get wrong*

Message development

Metamessage Strategies

Metamessaging

- Communicate with compassion, concern & empathy
  - Does not preclude professionalism
  - Enhances credibility and trust
  - Express feelings: *I feel terrible… I understand why you're frustrated…*
- Demonstrate honesty, candor & openness
  - Dare to apologize: I am sorry that we have been unable to…
  - Admit mistakes: We were wrong to withhold this information…
- Accept uncertainty & ambiguity
  - Don't wait until all the facts are in
  - Express wishes: I wish I could say that…

Metamessaging

Non-verbal messages

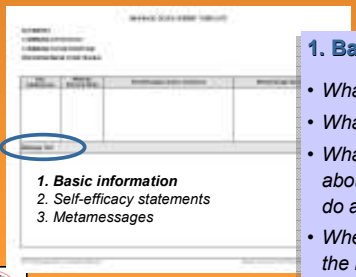
- Staging (flags, symbols, re-establish community cohesion)
- Clothing appropriate to setting (farm field vs. city hall attire)
- Appear with credible resources
- If possible go to disaster site
- Not saying anything ("no comment")

Message development

3 Messages Components

1. *Basic information*
2. *Self-efficacy statements*
3. *Metamessages*

Message development

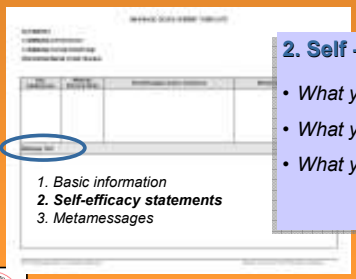


1. Basic information
2. Self-efficacy statements
3. Metamessages

1. Basic Information

- *What you know*
- *What you don't know*
- *What you're doing about it, or trying to do about it*
- *When you'll provide the next update*

Message development

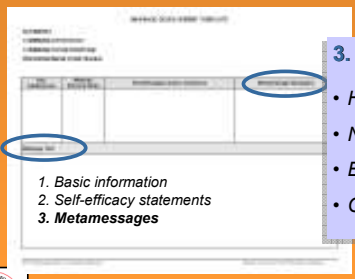


1. Basic information
2. Self-efficacy statements
3. Metamessages

2. Self - efficacy

- *What you **must** do*
- *What you **should** do*
- *What you **could** do*

Message development



1. Basic information
2. Self-efficacy statements
3. Metamessages

3. Metamessages

- *How you say it*
- *Nonverbal*
- *Empathy*
- *Caring*

Additional suggestions

Do –

- Seek first to understand, not to be understood
- Work for mutually satisfying ends
- Encourage independent investigation or sources for additional information
- Adapt your messages to enhance understanding
- Use talking points

Additional suggestions

Do -

- Stay on message
- Use simple visual aids that are easy to interpret
- Use rhymes, acronyms, groups of 3
- Use personal pronouns
- Anticipate, anticipate, anticipate

Typical mistakes made in high risk situations

- Over reassure
- Sound too certain
- Wait too long
- Fail to communicate the complexity
- Try to appear objective by excluding emotions
- Treat the public like children
- Downplay mistakes that were made

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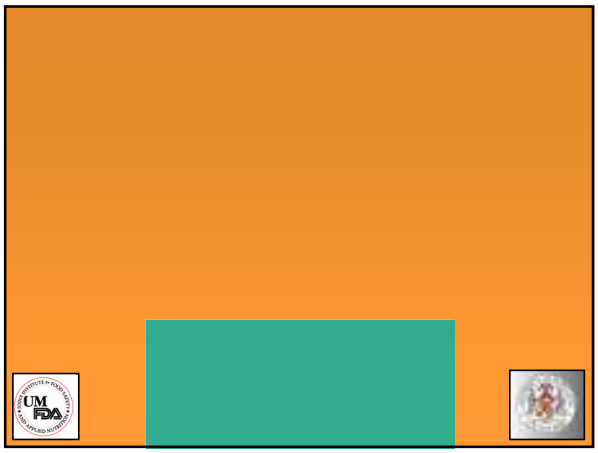


Communicating Public Health Messages In A Crisis: Spinach Recall

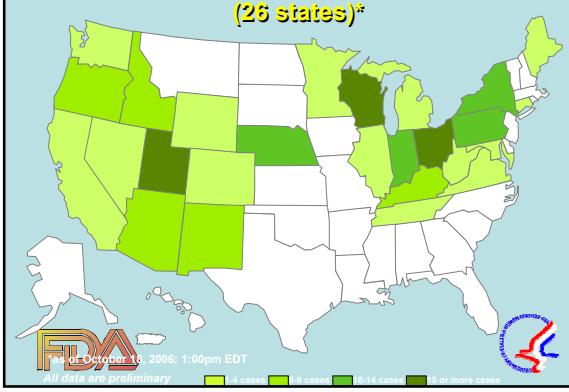
Marjorie L. Davidson, Ph.D.
Center for Food Safety and Applied Nutrition
Food and Drug Administration

Communicating information about possible life threatening issues is difficult and, if not done well, can put the public at greater risk by creating misunderstanding.

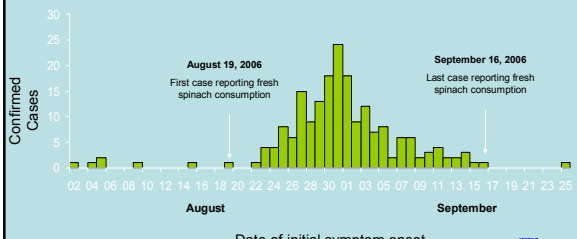
The Problem

- E. coli 0157:H7 found in fresh bagged spinach

204 Cases of *E. coli* O157:H7 Infection (26 states)*



Number Of Cases by Date of Illness Onset United States, August-September, 2006



as of October 18, 2006; 1:00pm EDT

All data are preliminary

Patient outcomes

Outcome	n, (%)
Hospitalized	104 (51)
HUS	31 (15)
Died	3 (1)

All data are preliminary

Communication Goal

To get accurate information out in a transparent fashion as rapidly as possible to protect the public health

Effective Communication Strategy

- CFSAN Communication Planning and Strategy
  - "Textbook" communication planning and thinking for crisis communications
  - World Health Organization – Effective Media Communication During Public Health Emergencies (July 2005)

Communication Strategy Seven Steps

- Step 1 - Assess media needs, media constraints and internal media-relations capabilities
  - Be ready with the kinds of information the press needs and at the times they need
  - Assess the constraints of the media

Communication Strategy Seven Steps

- Step 1 cont'd - Assess the media needs:
  - Identify procedures for routing press calls
  - Develop mechanisms for releasing information to the media (including trade media)
  - Identify a 24/7 contact point for the media
  - Identify internal experts on various subject matter topics
  - Develop rapid clearance procedures
  - Develop communication plans for reaching the media and our stakeholders

Communication Strategy Seven Steps

- Step 2 - Develop goals, plans, and strategies
  - Develop media communication goals and objectives
  - Develop a written media communication plan
  - Develop a partner and stakeholder strategy

Communication Strategy Seven Steps

- Step 3 - Train communicators
  - Train the media communication team
  - Train designated spokespersons

Communication Strategy Seven Steps

- Step 4 - Prepare messages
  - Prepare lists of stakeholders and their concerns
  - Prepare clear and concise messages
  - Prepare targeted messages

Communication Strategy Seven Steps

- Step 5 - Identify media outlets and media activities
  - Identify available media outlets
  - Identify the most effective media outlets
  - Identify media activity plans for the first 24-72 hours

Communication Strategy Seven Steps

- Step 6 - Deliver Messages
  - Deliver clear and timely messages
  - Deliver messages to maintain visibility
  - Deliver targeted message

Communication Strategy Seven Steps

- Step 7 - Evaluate Messages and Performance
  - Evaluate and improve performance based on feedback

Spinach Outbreak of 2006

"A test of our public health communication strategy."

Spinach Outbreak of 2006

- One of the largest outbreaks ever to confront FDA
- FDA implemented its communication strategy immediately
- Activity was fast-paced and FDA was providing information and updating information as fast as we could in the interest of protecting public health

Spinach Outbreak of 2006

FDA advises consumers not to eat bagged fresh spinach at this time.

Spinach Outbreak of 2006

FDA advises consumers not to eat fresh spinach or fresh spinach-containing products until further notice.

Spinach Outbreak of 2006

FDA advises consumers not to eat fresh spinach or fresh spinach-containing products until further notice. Fresh spinach includes bagged spinach, spinach in a clamshell, and loose spinach purchased from retail establishments such as supermarkets, restaurants and farmers' markets.

Spinach Outbreak of 2006

FDA is still reminding the public that Natural Selection Foods has recalled all spinach products under multiple brand names with a date code of October 1 or earlier.

Consumers are advised that proper storage of fresh produce can affect both quality and safety. To maintain quality of fresh produce, certain perishable fresh fruits and vegetables (like strawberries, lettuce, herbs, and mushrooms) can be best maintained by storing in a clean refrigerator at a temperature of 40° F or below. All produce that is purchased pre-cut or peeled should be refrigerated to maintain both quality and safety.

Lessons Learned

"Did practice fit the theory and our strategy?"

Lessons Learned

- Media needs, constraints and capabilities
  - Need to issue press earlier in day
    - Challenge - Press releases were released late in the day and missed deadlines for coverage on the evening news – moved to more press briefings

Lessons Learned

- Goals, Plans, and Strategies
  - Define parties involved early
    - These parties increased dramatically over planning
  - Define frequency of communication early
    - Frequency of need to communicate increased
  - Establish clear roles and responsibilities – different roles evolved and had to be made clear
  - Establishing a variety of internal processes for keeping everyone informed was constant

Lessons Learned

- Train Communicators
  - Review and update training in communication protocols regularly
  - Need more than one team
    - Around the clock effort—the team became exhausted

Lessons Learned

- Prepare Messages
  - Joint messages
  - Different messages for different audiences
  - Need more research to understand how the public will perceive the message

Lessons Learned

- Deliver Messages
  - Need separate meetings/conference calls with stakeholder groups (not mixed groups)

Public Reaction

- Message
  - Uncertainty is one of the factors that makes people fearful
  - Uncertainty of the cause of the spinach outbreak still exists
    - Problem has not been fixed and could reoccur

Public Reaction

- Rutgers University Survey – Public Reaction to Recall
  - Indicated most people heard about the outbreak
  - Large percentages of people thought the recall was still in effect or did not know if it was still ongoing

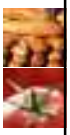
Public Reaction

- Grocery Shopper Trends (FMI)
  - In 2007 confidence in food safety went down to 66% (82% percent in 2006)
  - No less than 38% of shoppers reportedly stopped purchasing certain items due to food safety concerns
    - Produce topped the list
  - In 2008 confidence returned to 81%

Summary

- Communicating public health information is very challenging
- In general, FDA was effective in communicating its message during the spinach outbreak.
- Lessons are learned, and strategies must be constantly adjusted

Food Recalls in Australia



Ms Christel Leemhuis
Day 4

Overview

- Definitions and objectives
- Roles and responsibilities in a food recall
- Triggers and causes of recalls
- Recall data
- Food recall process

Definitions

- Recall – action taken to remove from sale, distribution and consumption foods which may pose an unacceptable risk to public health and safety
- Withdrawal - product withdrawn from sale for either:
  - quality defect
  - before an official recall pending further investigation

Objectives of a Food Recall

- Stop distribution and sale of affected product
- Inform the appropriate authorities and the public of the problem
- Effectively and efficiently remove potentially unsafe product from marketplace

Levels of Recall

- Trade –recovery of product from wholesalers, distribution centres, importers, supermarkets, grocery stores, hospitals, restaurants and other major catering establishments etc.
- Consumer – is most serious and involves recovery of the product from consumers

FSANZ Recall Officer

Role of Central Authority (Recall Coordinator)

- Relay information to enforcement agencies and other potentially affected parties without delay – action/information officers
- Liaise with food businesses regarding the recall and provide advice and assistance
- Conduct reviews of food recalls

Recall Coordinator's Responsibilities

1. Liaise with relevant government agencies and food industry organisations
2. Liaise with the food company, provide advice and assistance on recall process

Recall Coordinator's Responsibilities

3. Maintain electronic database containing all relevant recall information
4. Report to consumer affairs and FSANZ on progress of recalls

Company's Responsibilities

- Maintain records and have a written recall plan
- Notify recall coordinator and local authority
- Provide all relevant information
- Initiate and manage the recall process
- Notify distributors and customers
- Report on recall progress and evaluation

What Triggers a Recall?

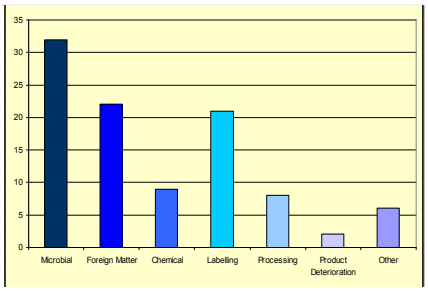
Possible Recall Situations

- Routine testing by a food company
- Testing or inspection by a regulatory authority shows problem
  - Incorrect labelling (eg. Undeclared allergens)
- Consumer complaint and/or illness
- Overseas authorities detect and report a problem with imported food

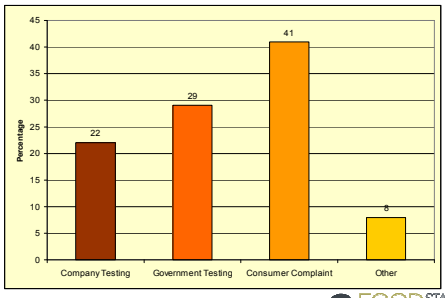
Common Causes of a Recall

- Microbiological
- Foreign matter
- Chemical
- Marine toxins
- Processing
- Labelling
- Tampering

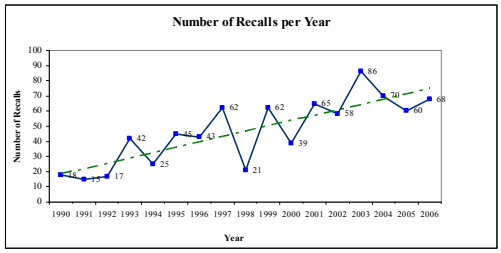
Common Causes of Recalls by Percentage (1998-2006)



Origin Of Recalls 1990-2006



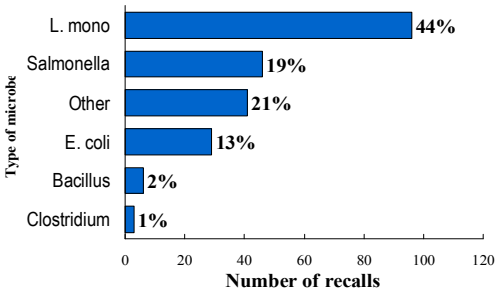
Number of Recalls per Year



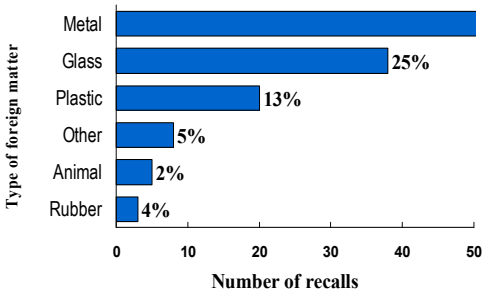
Number of Recalls – Domestic and Imported Foods

Year	Domestic Foods	Imported Foods
2000	28	11
2001	39	26
2002	34	24
2003	57	29
2004	51	19

Microbiological Food Recalls, 1990 - 2004

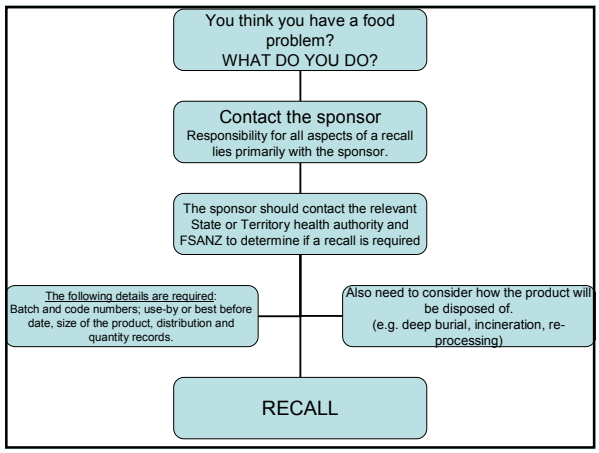


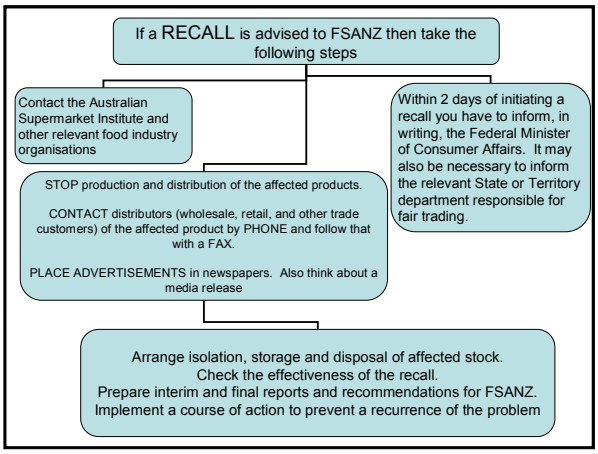
Foreign Matter Food Recalls, 1990 - 2004



The Recall Process

- FSANZ is notified of a potential recall situation
- The home State or Territory determines whether a recall is warranted
- Information concerning the recall is collected and disseminated
- Legislative requirements for food businesses to act and report





Recalls: Identifying the Problem

Details required:

- Nature of the problem
- How it was detected
- Results of tests and other investigations on suspect or other samples
- Complaints received

Other Relevant Details

- Type of hazard and assessment of the risk
- Action proposed by the relevant Health Department or other Government agency
- Action proposed by the company
- Proposed recall level (consumer or trade)

Product Information Required

- Product name
- Brand name
- Date marking
- Lot code
- Australian Product Number (APN) or other code number
- Package description
- Electronic image
- Country of origin
- Manufacturer and/or importer details
- Company contact
- Distribution
- Reason for recall
- Action proposed
- Method of disposal

Other Product Details Required

- Use-by-date or Best-before-date
- Quantity manufactured, date and amount released – how much can be accounted for?
- Domestic and overseas distribution

Other Recall Issues

- Relabelling a recalled product
- Single product – multiple sponsors
- Products made under licence for another company
- Product has left the manufacturing / processing plant but is still in the company's warehouses

Food Industry Recall Protocol

- Latest version, 5th edition 2004 (same as 2002 but with updated contact list)

- What is in the recall protocol?
  - Steps to be undertaken when, in the interest of public health and safety, food products should be removed from supply or use by consumers
- Writing a recall plan
  - Standard 3.2.2 Food Safety Objectives
  - Up-to-date food recall plan

Food Safety Standards

Standard 3.2.2 states that a food business engaged in the wholesale supply, manufacture or importation of food must:

- have in place a system to ensure the recall of unsafe food;
- set out this system in a written document and make this document available to an authorised officer upon request; and
- comply with this system when recalling food

Conclusion

- In Australia recalls are coordinated and monitored through a central point at FSANZ
- FSANZ assists in the recall process, but the decision whether or not to recall foods rests with the enforcement agencies
- Prompt and effective recall action ensures safety of the food supply and promotes consumer confidence in a company's products

Case Studies:
1. Dioxins in seafood from Sydney Harbour (2006)
2. **Hydrogen cyanide in cassava-based vegetable chips / crackers** (2008)

Samara Kitchener
Director Communications
Day 3

NSW Food Authority

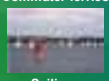
The Codex Risk Analysis framework

Sydney Harbour


Community celebrations


Residential living


Commuter ferries


Sailing


Car imports


Tourism

Dioxins in seafood from Sydney Harbour

- Small yet viable commercial industry
- Dioxin levels monitored in marine species close to Homebush Bay for 20 years
- 28 November 2005, NSW Food Authority advised of 'elevated' dioxin levels in prawns outside of contaminated area

How much dioxin is too much?

- **Acute effects (short-term)**
  - Nanogram (10^{-9}) to milligram (10^{-3}) quantities
  - Muscle and stomach pain, tiredness, chloracne (a skin discoloration)
- **Chronic effects (long-term)**
  - Applies to quantities above
  - picogram (10^{-12}) quantities

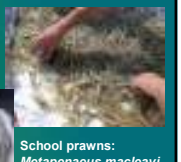
Consistent exposure over 40-50 years

- potential for increased risk of certain cancers, immune system, reproductive and developmental problems

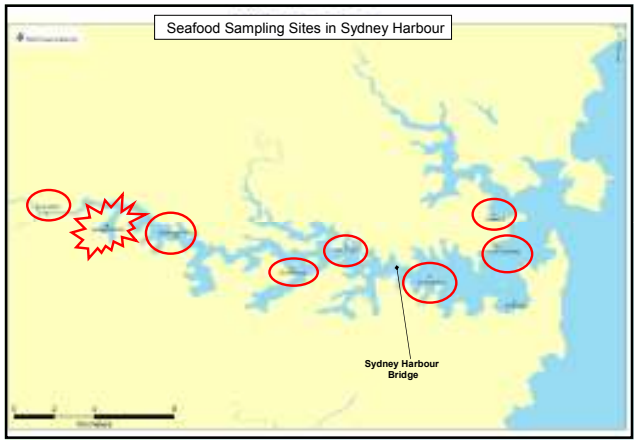

Ukrainian politician Viktor Yushchenko's blackened face, shows the acute effects of dioxin

Extent of the hazard

- Sampling & testing program for prawns and bream
- Food Standards Australia New Zealand undertake an exposure assessment using test results
- Formed an expert panel to determine the public health significance of the findings


School prawns:
Metapenaeus macleayi


Bream:
Acanthopagrus australis



Dioxins in Prawns and Bream

- **European Union levels (fish muscle meat)**
  - 4 pg TEQ dioxins & furans/g fresh weight
  - **8 pg** TEQ total dioxin/g fresh weight
- **Sydney Harbour/Parramatta River levels**
  - Prawns mean **11.3** TEQ total dioxin/g fresh weight (range 3.1 – 22.9 pg)
  - Bream mean **29.1** TEQ total dioxin/g fresh weight (range 6.6 – 141 pg)

What do the levels mean for consumers of seafood from Sydney Harbour?

- People who consume seafood from Sydney Harbour 2 or 3 times per year, or less are not likely to have dietary exposures to dioxins that exceed the reference health level
- There is the potential for frequent eaters of these species (e.g. recreational fishers or commercial fishers who eat their own catch) to exceed the reference health level for dioxin

FSANZ, 2005/2006

How can frequent eaters of seafood from Sydney Harbour do so safely?

Consumption advice, eat less than:

150 grams per month of fish, or
300 grams of prawns per month

FSANZ, 2005/2006

Expert Panel

- Agreed that dioxins in seafood from Sydney Harbour pose a significant public health risk and should not be consumed on a regular long term basis
- Agreed with the consumption advice

Risk management options

- Offer dietary advice?
- Market catch specifically as “Sydney Harbour/Parramatta River” and advise consumers on acceptable levels of consumption?
- Co-mingle coupled with consumer education?
- Close specific locations?
- Close all commercial fishing in Sydney Harbour/Parramatta River?

Consulting with industry & government

- The livelihood of 44 commercial fishers was affected
- Reputation of the broader industry
- Discussions on a buy-out package

Public communication

- Media releases
- Question and answer (website)
- Helpline 1300 552 406
- Government gazettes
- Release of Expert Panel Report (website)
- Stakeholder forums

Extensive media interest

The Courier-Mail

Print this page

Cancer scare stops prawn fishing

has been suspended after tests revealed the
the cancer-causing chemical, dioxin.

mmercial and recreational prawn fishers, would remain in
ailable, the New South Wales Government said.

s, Ian Macdonald, said the temporary closure was put in
after consultation with the NSW Food Authority.

otential health risk over the long-term and have been
h as cancer.

rbour prawn operators only," Mr Macdonald said.

side already existing restrictions) is not affected, as there
els in fin-fish at this stage.

ediately and a range of fin-fish will be included as an
aid.

n advise the Government of any further action.

ABC NEWS ONLINE

Prawn fishing suspended in Sydney Harbour

Hydrogen cyanide in cassava-based vegetable chips / crackers (2008)

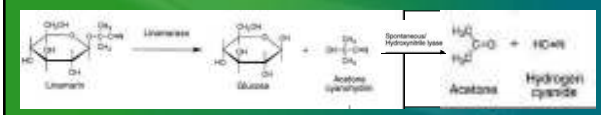
Cyanide & cassava chips

- Detection in Japan of higher than normal levels of hydrogen cyanide in a brand of cassava-based vegetable chips / crackers
- Japanese authorities regarded the level (59 mg / kg or 59 parts per million, ppm) as "a danger to damage human health"
- No maximum level for hydrogen cyanide in these types of products
- No Australia Standard test method

Cyanogenic glycosides and cassava

A hardy plant grown in many tropical countries

If poorly processed, the plant, when eaten, can trigger the production of hydrocyanic acid (hydrogen cyanide) in the gut



Signs of cyanide poisoning

Acute

- vomiting, abdominal pain, anxiety, constriction of the throat, dizziness and weakness to more severe signs such as unconsciousness, convulsions, coma and death.

Chronic

- neurological diseases, such as Konzo, an irreversible motor neuron disease (clinical signs include the inability to walk, limited arm movement, and speech difficulties)

Types of Cassava-based products

- Flour
- Vegetable dishes
- Desserts
- Chips / crackers



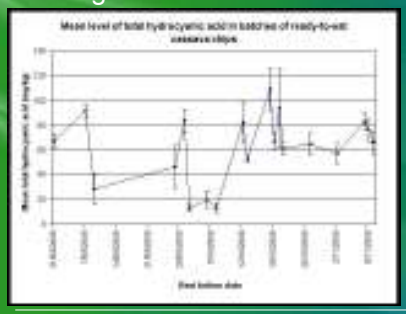


Exposure assessment

- Children are the most vulnerable group
  - if eaten in excess (200g product, 20 kg child)
- Cassava-based vegetable chips / crackers with a total cyanide level of greater than 25 mg/kg (or ppm) present a potential health risk where the degree of risk is determined on a case-by-case basis dependent on the level present
- Guidance level of 25 mg/kg

FSANZ, Feb 2008

Testing



Response

- Voluntary product recalls
- Continued monitory of the market
- Notification to businesses when test results > 25 mg/kg
- Case-by-case determination of action
- Request for introduction of the Foods Standard
- Request for establishment of an Australian Standard Method for analysis

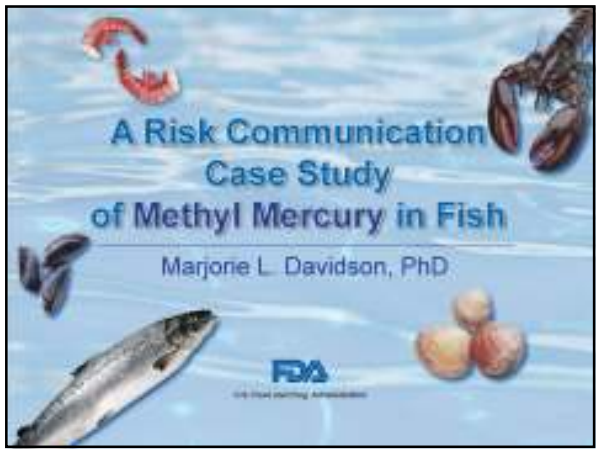
Communication

- Consumer advisories to limit consumption
- Media releases
- Government and industry

Wrap-up

- Low level chemical contaminations in food require responses in a short-time frame
- Risk analysis provides a sound framework
- Be prepared to review management approaches as new information emerges
- Be prepared to repeat key messages and use multiple communication channels

Comments
or
Questions



Consumer Advisory

- Response to a National Academy of Sciences Report
- Called for minimizing and preventing body burden increase of methyl mercury

FDA

Purpose of Advisory

- Minimize the risks from methyl mercury
- AND, be mindful of Seafood's Health Benefits

FDA

Communication Exchange

- Meetings with various groups
  -Industry
  -Consumers and Health Professionals
  -States
  -Tribes

FDA

Target Audience for Advisory

- Pregnant Women
- Women Planning to Become Pregnant
- Nursing Mothers
- Mothers of Young Children

FDA

Research Audience and Message

- What do women and others know about methyl mercury in fish?
- What are the barriers to adopting our advice?
- What messages will best communicate to women so they will follow our advice?

FDA

Focus Groups

- Held 8 focus groups in 4 cities
- Groups of pregnant women, mixed gender groups, highly educated, low literacy, and mixed gender groups with no educational restriction
- Iterative

Focus Group Findings

- Little knowledge of methyl mercury – needed to explain how it got into fish
- Message considered very important
- A simple message
- A limit message meant “do not eat”

Focus Group Findings

- “Spillover” effect of message to others not at risk from methyl mercury in fish

Advisory

- Mercury falls from the air and can accumulate in streams and oceans and is turned into methyl mercury in the water. Fish absorb the methyl mercury as they feed in these waters…

Advisory

- Fish and shellfish are an important part of a healthy diet. Fish and shellfish contain high quality protein and other essential nutrients, are low in saturated fat, and contain omega-3 fatty acids. A well-balanced diet that includes a variety of fish and shellfish can contribute to heart health and children’s proper growth and development.

Advisory

- So, women and young children in particular should include fish or shellfish in their diets due to the many nutritional benefits.

Advisory

- However, nearly all fish and shellfish contain traces of mercury. For most people, the risk from mercury by eating fish and shellfish is not a health concern. Yet, some fish and shellfish contain higher levels of mercury **that may harm an unborn baby or young child's developing nervous system.**

FDA

Advisory

- Avoid levels that could harm an unborn child
- Don't eat large fish with high methyl mercury levels
  - Shark
  - Swordfish
  - King Mackerel
  - Tilefish

FDA

Advisory

- Eat up to 12 ounces (2 average meals) a week of a variety of fish and shellfish that are lower in mercury
  - Shrimp
  - Canned light tuna
  - Salmon
  - Pollock
  - Catfish

FDA

Advisory

- Albacore ("white") tuna has more mercury than canned light tuna. Eat up to 6 ounces (one average meal) of albacore tuna per week.

FDA

Advisory

- Check local advisories about the safety of fish caught by family and friends in your local lakes, rivers, and coastal areas…

FDA

Outreach and Education

- General and specialized media
- Physicians, nurses, health departments
- Membership organizations
- "Grass roots" education to high fish eating populations

FDA

Evaluation

- FDA Consumer surveys
  -Measure consumer trends on food safety, knowledge, and behavior

Evaluation Results

- Most U.S. adult consumers have eaten seafood in the past year. Most also are aware of health benefits and health concerns related to eating seafood
- Most consumers have heard of mercury as a problem in some seafood, but few know the specific details of the FDA/EPA advisory

Evaluation Results cont'd

- Women are **equally** as likely as men to have heard of mercury as a problem in some seafood
- A majority of pregnant women across all demographics (age, race/ethnicity, income, and educational level), are aware of mercury as a problem in food, and a majority of pregnant women link the problem to seafood

Evaluation Results cont'd

- Nearly all pregnant women report that they limit or do not eat the fish at highest risk of methyl mercury contamination, and some report limiting other fish also.
- The predominant reason that pregnant women limit their consumption of fish is that it may harm their baby.

Evaluation Results cont'd

- Most pregnant women, postpartum women and women of child bearing age consumer less than one average meal of seafood a week and very few consume high mercury options.

BRUNEI DARUSSALAM RISK COMMUNICATION

Capacity Building Training on Food Safety Risk Communication for APEC Developing Economies (CTI 33 2008T)

23rd- 27th June 2008
Metro Manila, Philippines

Content

FOOD SAFETY REGULATORY FRAMEWORK

- Regulatory framework ensuring the safety and quality of food available to nation
- The Public Health (Food) Act, (Chapter 182) and Public Health (Food) Regulations (RI Chapter 182) were enforced on January 1st 2001
- Other relevant acts
  - Municipal Board Act;
  - Poisons Act;
  - Miscellaneous Licensing Act;
  - Custom Act;
  - Fisheries Act (Chapter 61) and its Regulations
  - Infectious Disease Order 2003.

Importance of Risk Communication

- Dissemination of (accurate, rapid and transparent) information
- Two-way interaction with stakeholders
- Strengthen relation/partnership with stakeholders

RISK COMMUNICATION SYSTEM

Channel of communications are:

- Electronics= radio, television, telephones, fax, website (regulatory bodies)
- Printed materials such as pamphlets, brochures, guidelines, fact sheets and posters
- Seminar, talks, dialogues, trainings, counseling
- publications in local / cross-border newspaper

Collaboration and Partnership

- Food Safety Regulatory bodies e.g. DoA, DHS, DoF and other relevant agencies
- Non-Food Safety Regulatory bodies e.g. DoI, Custom, Licensing Authority
- Traders/ Industries e.g Importers, Sellers, Manufacturers, Food handlers
- Consumers
- Academia; Higher Institute/ University
- Regional, International Food Safety bodies

Risk Communication Strategies

- To strengthen collaboration and cooperation with all stakeholders
- To disseminate (timely, accurate, rapid and transparent) information
- To have responsive and effective ways of communication
- To have continuous training on communication skill (capacity building)
- To evaluate and asses on risk communication activities/ programmes

Challenges

- Commitment of all stakeholders e.g. unwillingness to share info., extra burden,
- Limited resources, lack of expertise, lack of skilled communicators
- Lack of credibility → distrust, lack of confidence among stakeholders
- Lack of training
- Uncertainty and science → lack of data, research
- Public's perception → cannot except changes
- Lack of understanding → not informative enough, not explaining scientific terms/data

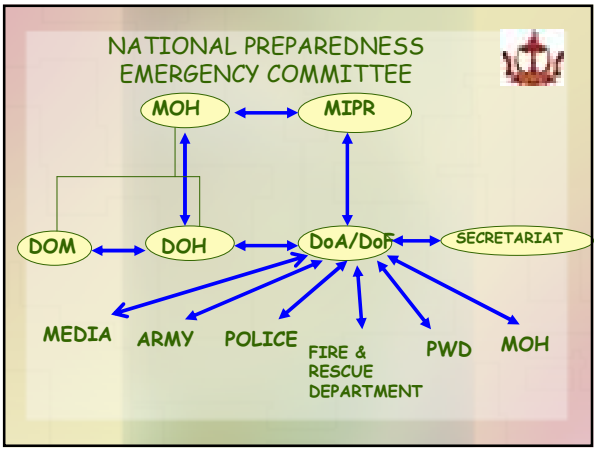
- Content / Misinterpreted information → public: too technical, boring
  → reporters, wrong info/ translation, lack of skill
- Accessibility of mass media/ information →
  -Area of reception covered (e.g tv and radio reception)→ for remote area
  -Printed materials do not reach certain area

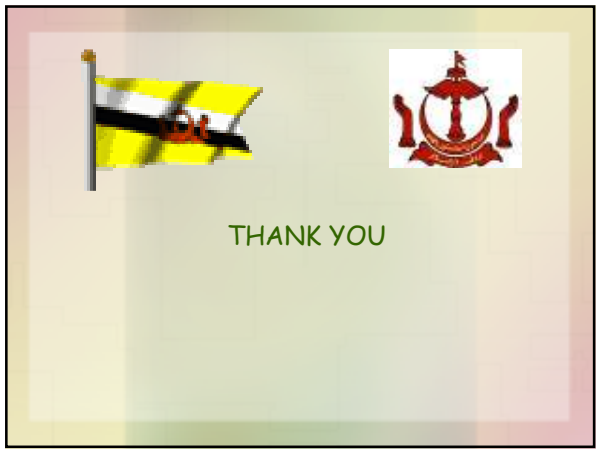
Improvement for Effective Risk Communication

- Asses stakeholders needs e.g. asses constraint, risk communication procedures
- Develop, review and establish goals and plan strategies for stakeholders
- Capacity building e.g. Training for communicators, recruiting resources
- Design and develop messages
- Identify media audience and activities
- Dissemination of messages
- Asses messages and performance.

Recommendation

- To have a well-planned/ review an effective strategies
- To improve capacity building
- To review and improve protocols and SOP on risk communication related matters




THANK YOU

TRAINING CASE STUDY: FOOD SAFETY RISK COMMUNICATION

AQSIQ, P.R. CHINA
LIU QUANGUO
June 23-27, 2008

I. Introduction

1.1 General and Information

- P.R. China is located at eastern Asia, border on Japan □ Korea □ Russia □ India □ Thailand□Vietnam, etc.
- land: 9□600□000 km square
- Population□1,300,000,000

I. Introduction

1.2 AQSIQ (General Administration Quality Supervision Inspection and Quarantine)

- 18 Departments including import and export food safety bureau
- 35 Directly under Inspection and Quarantine bureaus, 328 branch bureaus
- 31 Province Level Quality Supervision bureaus
- 163 Centers of food Inspection and Quarantine

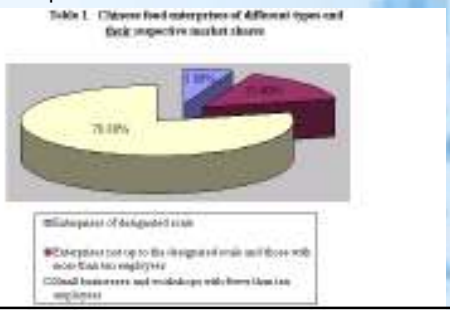
I. Introduction

1.3 Economy

- GDP Gross □Third□ in the world
- Currency: RMB
- Exchange rate: RMB: Piso = 1:6

Food Production

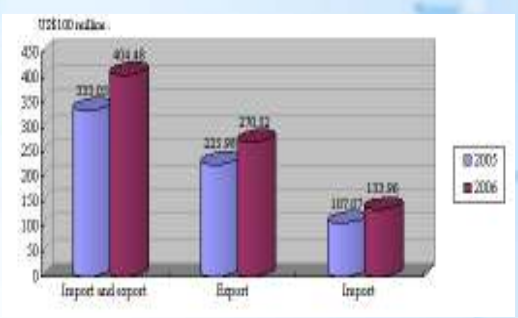
The food-processing Industry □448,000 enterprises



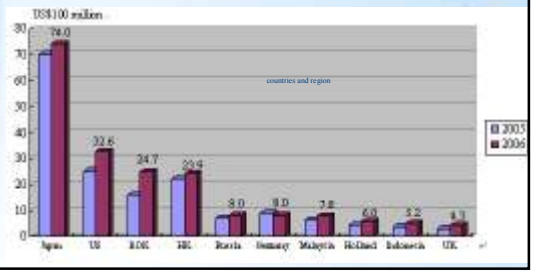
Food Production

The food-processing Industry □448,000 enterprises

The import and export volume in 2006: US$40.448 billion-worth



The top ten countries and region in trade volume



I. Introduction

1.4 Food safety system

- Establish a food recall system (active recall and instructed recall)
- 2,675 enterprises have been granted hazard analysis and critical control point (HACCP) certificates
- 3,913 food testing laboratories have passed the laboratory accreditation (China National Accreditation Service CNAS □
- China's laboratories for import and export food inspection and quarantine take part in the international comparative experiments, such as the food analysis performance assessment scheme of the UK

I. Introduction

1.5 The Status of the Food Safety Risk Communication in China

AQSIQ (Import and export food safety bureau, AQSIQ)

- Organize and Actualize food safety risk assessment
- Constitute food safety risk management strategies
- Construct a risk-warning and emergency-response system
- Be responsible for food safety risk communication

I. Introduction

1.6 The Status of the Food Safety Risk Communication in China

Established□

- The collection and analysis system of food safety risk information
- The trace system of risk information
- Strengthen the construction of a nationwide quick risk warning and responding system
- The Issuing system of risk information
- risk information counseling

I. Introduction

1.7 The Responsibility System for the Food Safety Risk Communication

- Government organizations: Department of Agriculture□ Department of Health□ Department of Environment protecting □ Department of Business□General Administration of Industry and Commerce□AQSIQ
- Corporation
- Society union
- Consumer and Consumer Association
- Academia and institute organization
- Media
- International organizations

I. Introduction

1.8 Problems of the Food Safety Risk Communication

- Lack of risk communication resources and information is not enough and complete
- Present resources divided in different departments□ Lack of share system and risk management
- Lack of authoritative risk assessment
- Lack of diaphaneity of risk information
- Lack of participation activity
- Lack of related education and training
- Lack of personnel resources

II. Theoretical Aspects of Food Safety Risk Communication

Why are food safety outbreaks increasing?

- New production and preservation technologies
- Organisms with different levels of virulence
- Consumption of fresh or uncooked foods
- Introduction of new organisms into regions
- Changes in susceptibility of the people

II. Theoretical Aspects of Food Safety Risk Communication

What is risk analysis?

A systematic approach to examine and assess public health and safety risks associated with food

Risk analysis addresses two questions

- What is nature and magnitude of the health risk?
- How should the risk be managed and communicated to those affected?

II. Theoretical Aspects of Food Safety Risk Communication

Risk analysis□

- Risk assessment
- Risk management
- Risk communication

II. Theoretical Aspects of Food Safety Risk Communication

Risk assessment□

- Hazard identification
- Hazard characterization
- Exposure assessment
- Risk characterization

II. Theoretical Aspects of Food Safety Risk Communication

Risk management□

Objective: to establish if and what food regulatory measures are required to mitigate the risk to a level that is acceptable to the community

Options are developed and assessed for their effectiveness in dealing with the health and safety risks while considering the impact of each option on relevant stakeholders such as primary producers, food manufactures, retailers, consumers, and government

II. Theoretical Aspects of Food Safety Risk Communication

Risk communication

An interactive process of exchange of information and opinion on risk among risk assessors and risk managers and other interested parties.

Be embedded in risk assessment and risk management

Everyone's responsibility

II. Theoretical Aspects of Food Safety Risk Communication

Risk communication is

- An open, two way exchange of information and opinion about risk leading to better understanding and better risk management decisions
- Understanding people's perception of risk
- Opportunities for public involvement in decision making
- Timely and accurate information

II. Theoretical Aspects of Food Safety Risk Communication

Risk communication is not

- Just about communicating risk
- Simply selling decisions to the public
- A crisis-related process
- The sole responsibility of communication specialists

II. Theoretical Aspects of Food Safety Risk Communication

Risk communication's goals

- To ensure that all information and opinion required for effective risk management is incorporated into the decision making process
- To promote engagement of all interested parties in the risk analysis process
- To facilitate consistent, transparent and effective decision making
- To promote understanding of the decision and decision making process
- Share responsibility in managing the risk
- Stop the spread of a disaster (less people get sick)
- Help people to make informed decisions

II. Theoretical Aspects of Food Safety Risk Communication

For Effective Risk Communication

- Communicate with compassion, concern and empathy
- Demonstrate honesty, candor, and openness

II. Theoretical Aspects of Food Safety Risk Communication

Element of effective of risk communication

- Audience assessment
- Audience involvement
- Massage (TV, Radio, Mass Media, Printe etc.)
- Logistics
- Self- assessment
- Evolution

II. Theoretical Aspects of Food Safety Risk Communication

Barriers to effective of risk communication□

- Engagement of stakeholders
- Uncertainty and science
- Separation of risk assessment and risk management
- Stakeholder acceptance of the risk assessment
- Stakeholder acceptance and ability to implement risk management options
- Public support for chosen management options
- Communicating how the risk management options will alleviate

II. Theoretical Aspects of Food Safety Risk Communication

Strategies for effective of risk communication□

- Identify potential food safety risk
- Assess food safety risk
- Assess public perceptions of risks
- Engage expert advice on the public health significance of the risks
- Review approaches to manage similar issues
- Formulate management decisions
- Consider audiences the risk will impact
- Write key messages
- Determine moths and channels to reach

III. Application of Food Safety Communication

Mission and Task

1. Mission

- Establish a consummate analysis system of food safety risk

III. Application of Food Safety Risk Communication

2. Task□

- Build and improve present supervisory system and mechanism for food safety, Strengthen and improve food safety legislation and relevant standards□ Establish food safety risk analysis system□According food safety risk analysis establish the food safety standards and confirm control measure for the diseases caused by contaminated food
- Strengthen food safety control and a lasting efficiency mechanism to deal with root causes of food safety problems

III. Application of Food Safety Risk Communication

2. Task□

- Establish a risk analysis mechanism including information share□ unification□ harmony□ authority
- Train risk analysis researchers
- Establish a special risk analysis organization
- Establish emergency-response system
- Strengthen international collaboration and exchanges international collaboration and exchanges

Suggestion and revelation

- Establish an unified harmonious food safety risk communication management system
- Sustaining from government departments
- Strengthen international collaboration and exchanges
- Strengthen risk assessment and management
- Integrate government resources

Risk Communication and Government Theory and Application Report of Chinese Taipei, R.O.C. (Taiwan)

Hsu, Chao-Kai
Bureau of Food Safety, DOH
June/27/2008

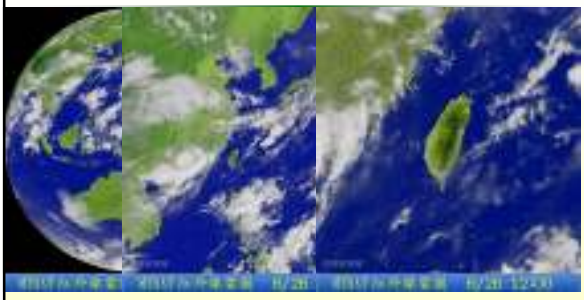
Outline

- Introduction
- A Risk Communication Model in Taiwan

Introduction

- **Location :**
  Taiwan lies off the southeastern coast of the mainland Asia, across the Taiwan Strait from Mainland China - a solitary island on the western edge of the Pacific Ocean. To the north lies Japan ; to the south is the Philippines.

Introduction (cont.)



http://www.cwb.gov.tw/

Introduction (cont.)

- **Area : 36,000 square kilometers**
  Population: 23 million
  Capital : Taipei City
  Language : Mandarin/Taiwanese/Hakka/In
  Languages
  Religion : Buddhism/Taoism/Christianity/Islam
  President : Ma Ying-jeou

http://eng.taiwan.net.tw

Introduction (cont.)

- **Economy : The GDP per capita in Taiwan have increased from US$15,668 (2005) to US$16,030 (2006).**
  (Government Information Office, 2008)

http://eng.taiwan.net.tw

A Risk Communication Model in Taiwan

- There are 10,867 establishments of radio-, cable- and TV-media. In newspaper and magazine, we also have 7,707 establishments.
- In 2004, we had established food safety signals, you may also say "Food Consumption Traffic Lights"

http://food.doh.gov.tw

A Risk Communication Model in Taiwan

Red sign: unfit for human consumption.
STOP !!

Yellow sign: no immediate risk but safety is in uncertainty.
Opt to you ?!

Green sign: risk is negligible.

http://food.doh.gov.tw

Case Study- Coconut Pesticide Residue Violation MRL

Expertise

Bureau of Food Safety ⟷ Food Safety Committee of DOH

Warning Signal of Coconut Pesticide Residue Violation MRL Event

Yellow sign

Because: according to the amount of residue this time, the weighing of 60 kilograms adult, should be consumption this kind of coconut the amount is up to 100 kilograms every day, just accumulate pathogenic doubts. Therefore, people do not need to be excessively panic, if still have a doubt, you can reduce and eat shortly.

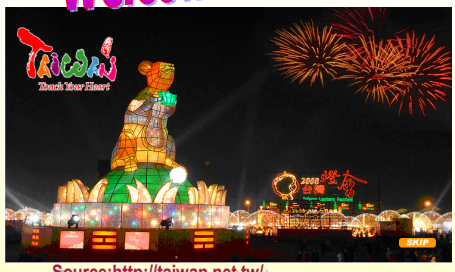
News release

http://food.doh.gov.tw/

News release

- 2008.4.29 DOH has done the strict monitor inspection to the violation company which imported coconut from Thai still wants to import foods. (BFS)
- 2008.4.29 Illustration of the violation coconut recall so far. (Local health bureau)
- 2008.4.30 Violation coconut from Thai had recalled almost 200 boxes (Local health bureau)
- 2008.5.1 Violation coconut from Thai had recalled almost to a quarter of total amount (Local health bureau)
- 2008.5.5 DOH will punish the company which violates the principle of trust. (BFS)
- This case was closed.

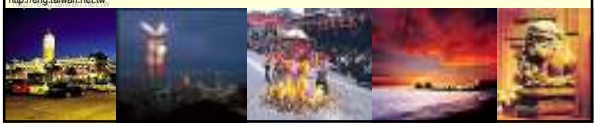
Welcome to Taiwan



Source:http://taiwan.net.tw/

Thank You for Your Attention !

http://eng.taiwan.net.tw



RISK COMMUNICATION AND GOVERNMENT - INDONESIA

Introduction:

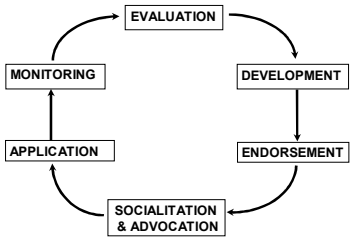
Indonesia :

- 17,508 islands
- 1.9 million square miles
- 33 provinces.
- 222 millions peple
- 300 ethnic groups.

Coverage area, varieties of food products, different level of food industries, low level of education and awareness, lack of food officers, limited budget.

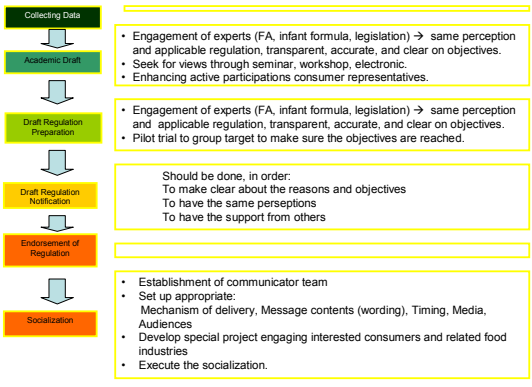
FOOD SAFETY NETWORK

Food Standardization System



Process	Challenges
Development	• Engagement of all interested parties • Enhancing active participations consumer representatives.
Endorsement	• Effective way to make aware people about the availability of the standards : Regular information (journal, web, newspaper)
Socialization & advocacy	• Educative strategies • The establishment of communicator team including experts on public communication. • Setting up appropriate: Mechanism of delivery, Message contents (wording), Timing, Media, Priority of audiences • Special project in engaging interested consumers and industries.
Application	• Information to food industries and others access to give comments: Telephone number, email, fax of authorized unit. • SOP to make responses
Monitoring	
Evaluation	• Access to share information: Telephone number, email, fax of authorized unit.

Risk Communication in Food Legislation Preparation




BADAN POM RI
Tetty Helfery Sihombing (Ms)
Yoes Usman Suhendar (Mr)
Agus Purnawarman (Mr)
Dwi Agustyanti (Ms)
Ade Maulana (Mr)
Ida Farida (Ms)
Terima kasih

A Risk Communication Case Study of lead in Kim chi (2006)

Korea Food and Drug Administration

Issue

- "High level of Pb in imported Kim chi!"
  - Call in question by national assembly report
- Hit the headlines
  - Low risk, high perception case

Outrage

- All the Kim chi is contaminated ?
- [illegible]?
- [illegible]?

Scrutiny of the case

- 1.5ppm of Pb in Kim chi is general level ?
- Stop eating Kim chi or still safe ?
- All Kim chi is contaminated ?
-
-

Case findings

- General level of Pb in Kim chi is less than 0.1 ppm
- Safe even if we have Kim-chi containing 1.5 ppm (the highest level reported) everyday
- All Kim chi is safe

Risk communication strategies

- Responsive strategy rather than educative or proactive
  - Communication Massage – Kim chi is safe
  - vehicles - Mass media (TV, Newspapers)

Barriers

- Public's Strong interest
- Main target audience - housewives
- Loss of trust toward government
- Need strong risk management options

RISK COMMUNICATION IN FOOD POISONING AMONG SCHOOL CHILDRENS, MALAYSIA YEAR 2007-2008

Conceptual Frame work

Overall Goal of RC
↓
Information
↓
Contents
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Package
↓
Messenger
↓
Overall Goal of RC

General objectives of Food Poisoning:

•To ensure effective communication at all levels during the food poisoning
•To contribute to effective management of the food poisoning

Specific objectives:

•Effective communication to allay fears of the public.
•Could be knowledge, attitude or behaviour based

Objectives of Risk Communication:

1. To prepare the department and programme managers in dealing with the potential crisis.
2. To prevent speculation
3. To allay tear and reduce anxiety
4. To prepare every individual in the organisation (MOH) to:
   i. Be ready at all times
   ii. Improve readiness to handle the crisis

RISK ASSESSMENT

Overall Goal of RC
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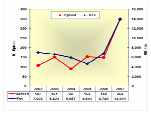
Overall Goal of RC

1. Types of information

- Numerical data/ epidemiological information
- News bulletin
- Rumours

2. Sources of information:

- Surveillance Unit (Official source)
- Media Reports
- Rumours (unknown source)

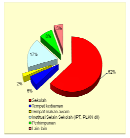


Experience Of RC In Food Poisoning

•Food poisoning trend in Malaysia year 2002-2007

•Trend increasing every year

Number of episode and case increasing double in 2007 compared to 2006



Episode/ Incidence Food Poisoning in Malaysia According to Places, 2007

Almost 62% incidence in schools, Institutional 17% and gathering 8%.

Cont..

Overall Goal of RC
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Overall Goal of RC

Standard Operating Procedure for Risk Communucation

1. Need assessment

- There is a need to take stock of the prevailing situation in the community before communicating the risks.
- Quick assessment of communication situation

- Prevailing behaviour
- Existing knowledge
- Risk perception

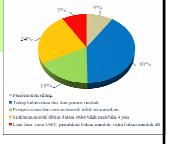
- This may be carried out in the shortest period of time during a crisis state.
- The target group should be analyzed to understand their motivations and opinion.
- They need to be identified and information on their perception, belief, values, knowledge, attitude, behaviour, socio-economic status need to be collected so that cultural, religious and social barriers could be overcome.
- Listen to all interested parties.

2. How to get information

- Past experience
- Situational analysis
- Literature
- Journalist/ media reports

Risk Factors in Food Poisoning, Malaysia, 2007

40% : Food handlers behaviour and food premise hygiene



Risk Management

Overall Goal of RC
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Overall Goal of RC

1. Monitoring and Enforcement at all state (routine and Food sampling)

Grading system:

A= >75%; B=<70-74% C= 65-69% D= Closed

↓

2. Joint Committee- **Ministry Of Health (MOH) & Ministry Of Education (MOE)**

Chaired by Deputy Minister from both Ministry
Others committee: standard user

Sub committee: Plan of Action Committee and Promotion Committee

↓

Meeting- National & state level to determined risk factors

i. Set up new Grading system
ii. Spot check with Minister
iii. Review SOP, Form, etc.

Grading System

Inspection Points	Grade	Action Taken by MOH
> 90%	A	Inspection every 6 months
80-90%	B	Inspection every 4 months
70-79%	C	Inspection every 2 months
< 70%	D	Premis closure under Malaysia Food Act 1983 & Food Regulations 1985 repect inspection within 14 days

Risk Communication

Overall Goal of RC
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Overall Goal of RC

Information should be:
- Technically sound, timely and by experts/ authority
- The contents must be clear
- Consist of relevant guidelines
- Consist of administrative instructions/ guidelines on logistics.

- For effective communication during crisis, it is important for us to identify who are our key players or target groups and notify them on what type of information each needs to have.

- It is important to identify the most effective channels to reach each of our target group. Information given to each target group should be suited to their needs and it should be simple, comprehensible, (avoid use of jargon) uniform, accurate and timely.

Key Players to be notified: (Food Poisoning)
Food Safety & Quality Division;
Program Managers; Health Minister: Deputy DG

Cont…

Overall Goal of RC
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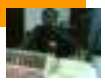
Overall Goal of RC

Packaging the content
- Should consists of technical information (management of the problem)
- Should consist of epidemiological information
- Should consist prevention and important contact numbers.

Package differently for different groups (Knowing your Audience):
- Media –Media kit
- Public (School Childrens, teachers, media, parents)
- Specific Target (Owner)
- Politicians (Management)

Food Poisoning:
Politician
Press release/ Fact sheet, Note of cabinet, Parliament

Food Poisoning:
MEDIA
Dialogue, note to editor, slot TV, Radio



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Overall Goal of RC
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Information
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Overall Goal of RC

Food Poisoning:

Public/ school children
i. Webpage (the public would be able to gain the latest information on the current crisis.

ii. Food safety promotion Program -Phase 1- School Children
(Road show to all school involved the food poisoning)

iii. Media kit (poster; pamphlet, etc.)

iv. Interpersonal communication- Seminars, Talk, Dialogue, Demonstration etc.

Food handlers KENDIRI PROGRAM
(Self inspection of Food Premise by owner)

1. Food safety promotion Program- Phase 2- Food Handlers
2. Talk/ seminar
3. Training to staff, owners, teachers

Cont…

Overall Goal of RC
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Overall Goal of RC

Level	Spokesperson
1. National	Minister, Director General, Deputy Director General Appointed officer
2. State	Minister of Health Director General of Health State Health Exco Appointed officer
3. District	Minister of Health Director General of Health State Health Exco Appointed officer
4. Operation/ Disaster site	Minister of Health Director General of Health Appointed officer
5. Institution	Minister of Health Director General of Health Appointed officer
6. Interagency Collaboration	Minister of Health Director General of Health


Panduan
Kesesuaian Makanan


Makanan bersih, Keluarga sihat

THANK YOU

COMMUNICATION RISK THE MEXICAN STUDY CASE

Olmo Cabrera
Juan Manuel Solar

Introduction

- The detection of a specimen in adult or immature state of a species of fruit fly Anastrepha gender, in the free areas of our country should be considered as an emergency, since it involves an outbreak of infestation with incipient danger expansion and with incalculable economic impact in that area, affecting a negative impact on production costs and the eventual suspension of export programs.

Introduction

- The plan's success depends on the emergency order, precision and speed with which they are applied phytosanitary measures.

Objective

- Establish procedures for implementing the emergency plan in the free areas of fruit flies of the genus Anastrepha, in order to retain that fitosanitary status.

Species of fruit flies interest quarantine

The contingency plan will be implemented when it detects a specimen of the following species:

Scientific name		Common Name
Anastrepha ludens (Loew.)		Mexican fruit fly
Anastrepha obliqua (Macq.)		Fly of mango
Anastrepha serpentine (Wied.)		Fly of zapote
Anastrepha striata (Schiner)		Fly of guava

Phases

- Phase 1
  - Detection
    - When a specimen is suspected of belonging to any of the species of fruit flies mentioned, it will lead immediately to the Laboratory Identification and differentiation of fruit flies for their diagnosis.
- Phase 2 (communication risk)
  - Notice the beginning of the emergency plan
    - Once confirm the identity of the specimen, the Laboratory must notify the federal ministry of agriculture for create an Emergency Brigade, who in turn, will immediately inform to the producers against fruit flies, in order to start implementing the emergency plan.

Phases

- Phase 3
  - Regulatory Actions

a) quarantine an area of around 260 ha. of the outbreak.

b) notify to the health agencies and the general public, that should not mobilize the fruit for ten days beyond detection outside the quarantine area and cancel the phytosanitary certificates for the mobilization of the fruits

c) Installation of inspection points to regulate temporarily mobilizing fruit

Phases

- Phase 4
  - Control Actions
    - a) Recall and destroy the fruits that could be infected by the plague in 100 hectares around the outbreak.

Phases

- Phase 5
  - Detection of larvae in markets and packaging
    - a) Recall and destroy the fruits that could be infected by the plague in 100 hectares around the outbreak.
- Phase 6
  - End of the quarantine
    - If after ten days fly is not detected again, the Health department will take off the quarantine and will continue again with the roadmap normal free zone, notifying those involved.

Conclusions

- We believe that with the implementation of this plan reduces the risk of a plague in the production of fruit, which its main market is the exportation and eliminate the impact that would bring to the economy of the producers of fruit.
- Its implementation will serve as an important tool to keep quality of all mexican products, mainly those which are exportable

MUCHAS GRACIAS

(THANK YOU)

FOOD SAFETY RISK COMMUNICATION ACTIVITES IN PAPUA NEW GUINEA

Case Study on Emergency Risk Communication on Avian Influenza

The Department of Health through the policy document "Ten Year Health Plan 2001-2010", provides for an overall policy guideline and mandates policy development, legislations, standards, codes and guidelines to facilitate the effective implementation of the food safety control system.

Enforcement, inspection and surveillance is delegated to the provincial governments and local medical authorities.

In assuring food safety the Food Sanitation Regulation 2007 is embedded on the science based approach (HACCP) which is mandatory for all food establishments to have in place by the year 2012. It also encompasses food standards, codes of hygienic practices, inspection and analysis of foods. Trainings for HACCP Auditing is underway for food inspectors to be certified auditors by an International certification organization.

Risk Communication in Food safety is administered by the Food Sanitation Council who reports directly to the Minister for Health. The Council has ten (10) members who represent relevant partners who are expertise in the field of food science and technology, academia, research, analyst, agronomists etc. They make amendments to the law, investigate and report to the minister on issues relating to food safety.

THE TEN MEMBER COUNCIL ARE;-

- NATIONAL HEALTH DEPARTMENT
- DEPT OF FINANCE
- DEPT OF AGRI. LIVE STOCK
- NATIONAL AGRI. RESEARCH INSTITUTE
- NISIT
- NATIONAL CAPITAL DISTRICT COMMISSION
- CENTRAL PUBLIC HEALTH LAB.
- DEPT. OF TRADE & INDUSTRY
- DEPT. OF COMMERCE
- UNIVERSITY OF TECHNOLOGY

WHAT ARE PAPUA NEW GUINEAS' BARRIERS TO EFFECTIVE RISK COMMUNICATION?

ILLITERACY

80% of the population is illiterate and are not able to read

LANGUAGE

- PAPUA NEW GUINEA IS MADE UP OF DIFFERENT ETHNIC GROUPS WITH 800 DIFFERENT LANGUAGES.

GEOGRAPHICAL STRUCTURE

- DUE TO THE LANGUAGE BARRIER WE NEED TO CONDUCT SITE VISITS,WHICH IS MADE EVEN HARDER BY THE RUGGED TERRAINS, VAST RAIN FOREST AND TOO MANY RIVER SYSTEMS.

LACK OF ORGANIZATIONAL & PRESENTATIONS SKILLS

TRAINED OFFICERS ARE AVAILABLE BUT LACK THE SKILLS TO ORGANIZE AWARENESS PROGRAMS

MEDIA

- DUE TO THE GEOGRAPHICAL STRUCTURE ACCESS TO MEDIA INFORMATIONS ARE QUITE DIFFICULT.

STRATEGIES FOR EFFECTIVE RISK COMMUNICATION IN PAPUA NEW GUINEA

DUE TO THE ILLITERACY SITUATION THE ONLY STRATEGY
FOR EFFECTIVE RISK COMMUNICATION IN PAPUA NEW GUINEA IS TO CONDUCT SITE VISITS TO CONVEY THE REQUIRED AWARENESS INFORMATIONS.

There is no perfect way of implementing Effective Risk Communication in Food Safety programs as each country is different and PNG with Limited Resources, Illiteracy, Language & Geographical Structure will continue to struggle in its efforts to improve Food Safety in protecting human health and facilitating fair trade. To see light in the end of the tunnel, the government of Papua New Guinea needs assistance from other developed countries to make that commitment in supporting the food safety control program, which is currently not a priority for the Government of the day.

Case Study on Emergency Risk Communication on Avian Influenza

Prepared & Presented By:
Ms. Diana Kave &
Mr. Patrick Malamut
Snr Food Safety & Quarantine Health Officers

Objectives

- Make the public aware the what Health Risk Avian Influenza poses on Birds & Human.
- Make the Public aware how they can Identify an Avian Influenza in a Bird

Who was involved in the awareness Programs

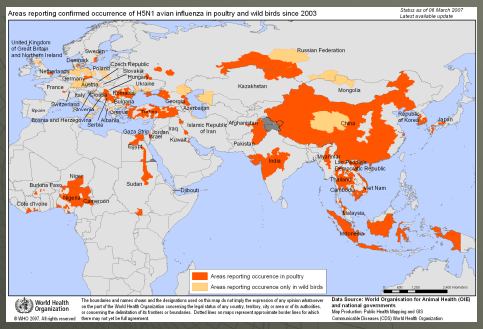
- 2 Countries – Papua New Guinea
  - Two Departments
  - DOH
    - * DCB
    - * CB
  - DAL
    - *NAQIA
  - Australia
  - DAFF
    - *AQIS

Awareness Task Force Formed

- Disease Control Branch
  - Diseases Surveillance Officer
  - Communication Co'ordinator
  - Food Safety Officer
- National Agriculture Inspection Authority
  Veterinary Officer
- Australia Quarantine Inspection Services
  -Veterinary Officer

Target Provinces in the Country were Identified

- Two Provinces sharing the border with Indonesia
  - * Sandaun (Town – Vanimo)
  - * Western (Town – Daru)



Target Rural Communities were Identified

Western Province

- Wando
- Wereabere
- Morehead
- Gwaku
- Bosset
- Komovai
- Tabulbil
- Kaikok
- Katawin
- Kungim
- Kamusi

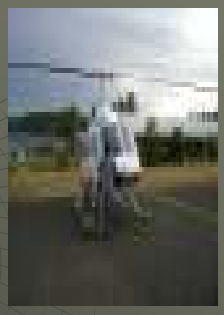
Weam
Indorodoro
Suki
Balimo
Aiambak
Kiunga

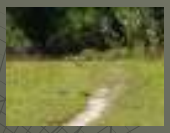
Target Rural Communities were Identified continue

- Sandaun Province

Aitape
Wutung
Niakono
Ningra
Bewani
Punda
Kwek
Sissano
Puare
Kasai
Telefomin
Munbil

Vanimo
Mushu
Leitre
Scotchyau
Amanab
Imonda
Kamberatoro
Serra
Wauru
Yapsie
Busulmin
Ibil




Form of transportation used

- Motor Vehicle
- Motor Boat
- Canoe
- Bicycle
- By Foot
- Aeroplane – 1 engine & Twin Auto
- Heilcopter

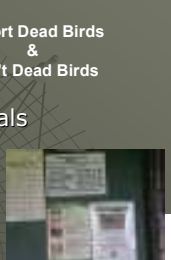
Language Used

- English
  - Pidgin – German English
  - Local Language

Awareness Materials Used

- Poster
- Handout
- Verbal
- Promotional Materials
  - Biro
  - T'Shirt
  - Bags
  - Hand bands
  - Cap
  - Water Bottles

Report Dead Birds
&
Don't Dead Birds



Other Awareness methods used

- Radio
- Two way Radio

The feed back after the awareness is that people were reporting dead birds and not only dead bird but other dead animal.
So you see Papua New Guinea is still finding difficult translate messages correctly with its 800+ Lanuages and 600+ Cultures

As we say PNG is a Land of the unexpected, you can expect the unexpected

Tenk Yu Tru Long Harim


THANK YOU
FOR LISTENING
HAVE A NICE
DAY

Case Study

Perú

Iván Camacho - Elizabeth Segovia
SENASA – DIGESA
June 2008

The Global/National Environment

- Great immigration to Lima
- Lack of trust/reputation in Government Agencies
- Public upset with politicians performance
- Big country decisions taken in Lima (capital)
- Corruption spread over several Peruvian society levels

The Global/National Environment

- Media judgment was "bought" by Fujimori/Montesinos during 10 years (1990-2000)
- People with lack of economic resources and education level do not take F. Safety as priority.
- Efforts to associate (consumers, companies, other Government, Agencies, Academia) are & have been reduced.

The Global/National Environment

- Official Reference Laboratories network under equipped.
- S/M Enterprises (97% of total enterprises) do not apply high level standards regard F. Safety (GMP/SSOPs/HACCP)
- Lack of surveillance of food & food borne illness in the market chain (dealers, retailers, importers).
- Outdated and lack of F. Safety Regulation.

The Global/National Environment

- International Cooperation is reduced or not required by Stakeholders.
- Roles/duties in F. Safety Regulations are not clear or not assumed.

The Agency Environment

- More duties/concerns VS same number of government officers.
- Overlaped duties among Regulatory Agencies.
- Hight rotation of human resources.
- Veracity Assumption Principle is adopted in the process of Manufacturing & Marketing Authorization of Foods, before the inspection (prior).

The Agency Environment

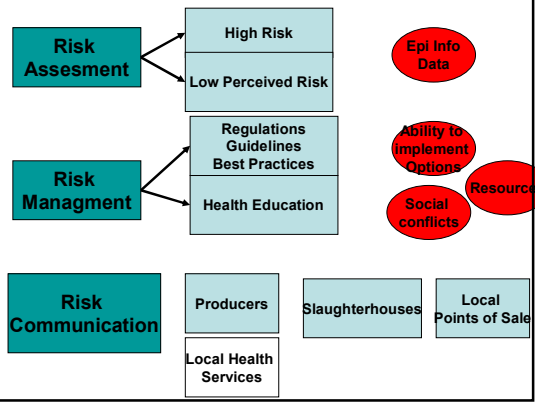
•Lack of training in F. Safety issues in all the levels of the organizational pyramid.

•Lack of communication facilities (internet, phone, fax, etc) in the Regional & Local level.

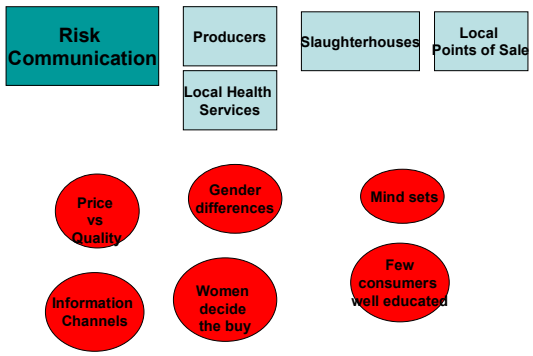
•Time consuming in transportation.

The problem: Antrax as an endemic disease in animals and the likelihood of exposure

SCENARIO: ANTRAX AS AN ENDEMIC DISEASE IN SOME REGIONS OF PERU



SCENARIO: ANTRAX AS AN ENDEMIC DISEASE IN SOME REGIONS OF PERU



Our message

- Scenario: High Risk Low Perception
- Comm Role: Govmt Officer
- Comm Purpose: Provide Animal & Health Information Education
- Preparedness Strategies: Build Trust Parternship public
- Key audience: Livestock producers (fattening stage), Spanish /Quechua spoken men (16-50 years old) Elementary school complete.
- Meta message: Clothes appropiate look like them

Our message

Message Text:

- Antrax basic information
- Increase of Antrax in Summer
- Affect animals & people (by ingestion/inhalation/direct contact)
- Exposure likelihood is high among producers and people in facilities.
- Economic losses ….lost of human beings.
- People must vaccine their animals; report/notifiy any health problem, dispose properly death animals.

Media:

- Radio spots

Philippines

Food Safety Risk Communication Proposal

Introduction

- Country consisting of 7000 islands grouped into Luzon, Visayas and Mindanao
- Population -85 M, 30% in megacities of Metro Manila and Cebu, 70% in small cities and rural areas
- 90% of population is Christian
- Colonial influence of Spanish and Americans plus indegenous Malay – culture is mixed Western and Asian

Introduction

- Most Filipinos believe in God- most family aspiration is to have all children in the family become educated and professional
- National policies –implemented by line agencies, regulatory activities are channeled through regional offices
- Governance is decentralized- delivery of public services -autonomous under Local Government Units

Introduction

- For Food Safety regulations and implementation,
  - DA (several agencies, coordinated by BAFPS) for crops
  - DOH (BFAD) for processed foods
  - LGUs for processed foods in localities, not registered at BFAD

ACTION PLAN ON FOOD SAFETY RISK COMMUNICATION (PHILIPPINES)

- **Goal :**

To upgrade food safety risk communication activities and responsibilities to ensure public health protection.

Plans for Improvement of FS Risk Communication

Major Activities	Sub Activities	Regulatory Support	Lead/Responsible Agency	Remarks
Situational Analysis on Food Safety Efforts	Consolidate food safety efforts	Existing Regulation	BAFPS	Fragmented No single authority in-charge of food safety communication
Assessment of Present Food Safety Risks	Crisis Assessment 1. Data gathering 2. Monitoring, Surveillance 3. Primary information gathering	No existing protocol procedures on the assessment	DA and its attached agencies	Formulation of over-all policy on food safety risk communication
	Validation of information - strengthening of laboratory services - ISO 17025 accreditation		DA research agencies,/DOH, academe, research institutions	Epidemiological study-target population at risk
Risk Communication	Preparation of communication audiovisuals, print materials Training of risk communicators		PIA	With technical support from concerned agencies

FS Risk Communication Strategy

- **COMMUNICATING PUBLIC HEALTH MESSAGES IN A CRISIS**
- **Scenario:**
  - Microbial food poisoning in spaghetti served in restaurants in Metro Manila
- **Communicator Role:**
  - City Health Officers
- **Communication Purpose:**
  - Increase concern for a real hazard to motivate preventive action
- **Preparedness Strategies:**
  Crisis/Emergency Communication

COMMUNICATING PUBLIC HEALTH MESSAGES IN A CRISIS

Key Audienc	Medium/Delivery Mode	Key Messages and/or Questions	Metamessages Strategies
High risk groups - children, elderly, infirmed & immuno compromised	Fliers, posters, food safety alerts – via TV, news releases, media briefings	Facts Frequently asked questions Safety tips/advises Contact information	Communicate empathy, compassion and concern by: - showing pictures of affected people - communicator should be a person of authority, e.g. mayor
Message Text			
During the crisis: - Message conveying: empathy, chronology of events as it happened, accountability and responsibility by the restaurant owner. - Government agency is in control of the situation. - Safety tips, what to do After the crisis: - Commitment of government authority to prevent crisis from happening again.			

Risk Communication strategy after the outbreak:

1. **Assess capability to effectively provide information, i.e. media, discussions, seminar, etc**
2. **Develop the communication goal, strategy and plan and determine the frequency and regularity of information dissemination**
3. **Train communicators.**

Risk Communication strategy after the outbreak

4. Prepare message.
5. Prepare target audiences, activities.
6. Deliver the message.
7. Evaluate what has been done.
8. Revise as needed/recommend strategies.

FS Risk Communication Strategy

- **COMMUNICATING PUBLIC HEALTH MESSAGES IN Non- CRISIS** Situation
- **Scenario:**
  - The level of concern for food safety in towns and barangays is minimal
- **Communicator Role:**
  - City Health Officer
- **Communication Purpose:**
  - Increase awareness of people on food safety and improve implementation of food safety regulations
- **Preparedness Strategies:**
  Education of local health officers and public

COMMUNICATING PUBLIC HEALTH MESSAGES IN Non- CRISIS Situation

- Identify foods that have to be regulated
- Train Local health officials on food safety on the identified food items, including inspection and reporting
  - Coordination with DOH and DA
- Education campaign
  - Seminars for mayors and barangay officials on food safety and importance to the local population
  - Seminars for food manufacturing on GMP for manufacturers
  - Seminars for market vendors on proper handling of the food items
  - Fact sheets about the identified foods
    - Safety of the family
  - Distribution of leaflets and posters in marketplace
  - Partnership with food manufacturers, schools, local media

COMMUNICATING PUBLIC HEALTH MESSAGES IN Non- CRISIS Situation

- Message
- Content
  - Safety of identified food items
  - Proper handling of identified food items
  - Effects on health of the family
- Dessimination
  - Fact sheets
  - Posters
  - News briefings in local media (print or radio)
  - Community gatherings – health officials and government officials

COMMUNICATING PUBLIC HEALTH MESSAGES IN Non- CRISIS Situation

- Evaluate the educational campaign- increased awareness
- Evaluate the capacity of local health officials on implementation of regulation
- Make modifications in training and education campaign to achieve the objective

Thank you for listening !

Case Study – *Singapore*

About Singapore

- Multi-racial, multi-religion
- Per capita GDP : US$35,163
- Population: 4.59 million (Chinese, Malays, Indians, Eurasians and other groups
- Main religions : Buddhism, Taoism, Islam, Christianity, Hinduism

Regulatory Agencies

- Agri-Food & Veterinary Authority (AVA)
- National Environment Agency (NEA)
- Health Sciences Authority (HSA)
- Health Promotion Board (HPB)

Risk Communication Efforts

- Food Safety Public Education
- Food Recalls
- Crisis Communications

Challenges and opportunities

- Lack of communication among risk assessors and risk managers
- Lack of trained spokespersons
- Introduction of new media

Areas of Improvement

- Expanding on risk communication efforts
  - Structured approach:
    - Risk communicators getting involved in the whole process
    - More consumer surveys
- Conducting regular media training sessions
- Leveraging on new media


Thank You

Risk Communication in Thailand

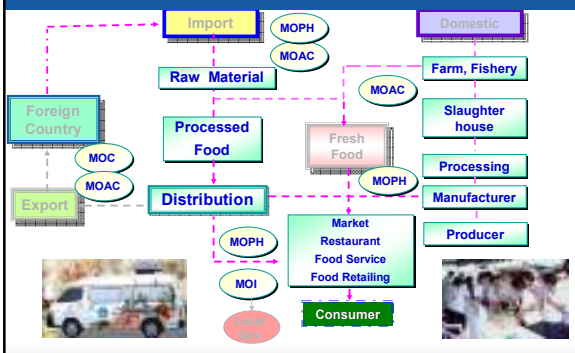
Capacity Building Training on Food Safety Risk Communication for APEC Developing Member Economies

23-27 June 2008

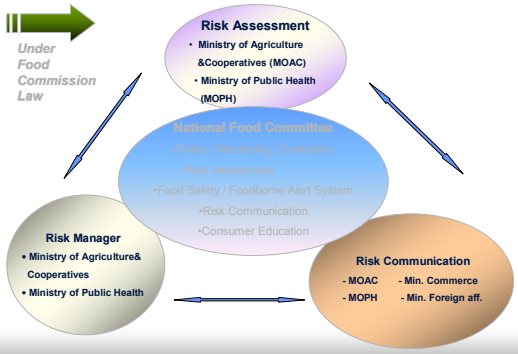
Country profile : Thailand

Nationality	Thai
Area	513,115 Km2
Regions	6 regions; North, Northeast, Central ,East, West and South
Capital	Bangkok
Religions	Buddhism 95%, Muslim 3.8%, Christianity 0.5%, Hinduism 0.1%, other 0.6% (1991)
Ethnic groups	Thai 75%, Chinese 14%, other 11%
Population	66 Millions
Literacy	Men 96% women 92%
GDP	4 - 4.5% in 2007
Large enterprises	0.7%
Medium	1.5%
Small	96.8%
Main exports items	Fishery products, oil seeds, fats & oils, cereal grains and products

Food Safety Regulatory Agencies



Risk Analysis Framework in Thailand



Crisis case : Avian influenza

The Problem:

- In 2004, Highly pathogenic avian influenza (HPAI) virus of the H5N1 subtype was first confirmed in poultry and humans in Thailand.

Incidences :

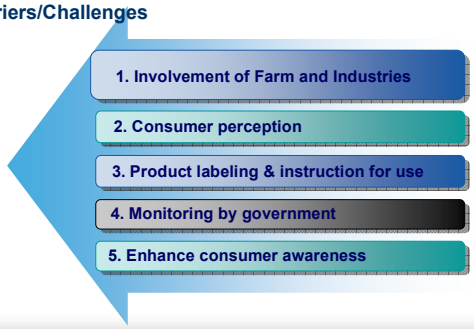
- Cases : 25 cases and 17 deaths. 2004.
- Total export value 23,700 Mil. Baht reduce 50% from 2003 (Source : Dept. of Livestock, 2005)
- Loss of rural income (fast cash)
- Indebt for poultry farmers (various scales) despite Govt. compensation approx. 6000 Mil. Baht
- Firm / Traders : loss of business (workers lay off)
- Outbreak investigation, controls and enforcement costs

Risk Communication Goal

" To protect consumer health and social economic disruption"

Challenges and Strategies

Barriers/Challenges



Strategies

1. Involvement of Farm, Industries and Consumer

Authorities	:	Ministry of Agriculture & Cooperatives Ministry of Public Health Ministry of Commerce
Target	:	Farm, Industries & consumer
How	:	1. Formulate National Plan, Guidelines and Requirement 2. Emergency Plan : Early Warning and Response System 3. Coordinate with relevant government agencies , farm and food industries organization 4. Coordinate scientific research and development. 5. Guidelines

Strategies

2. Consumer perception

Authorities	:	Ministry of Agriculture & Cooperatives, Ministry of Public Health, Ministry of Commerce, Partnership and Local authorities
Target	:	Consumer
How	:	1. Spoke person : building trust - Minister of Public Health - Minister of Agriculture & Cooperatives - Head of Department of Livestock Head of Department of Disease Control 2. Create key message "eat cooked " and publish through medias ie TV, radio, Newspaper, Poster, Press release etc. 3. Education – Farm level ie GAP, General information of Avain Flu. - Consumer ie General information of Avain Flu. 4. Training module

Strategies

3. Product labeling & instruction for use

Authorities	:	Ministry of Agriculture & Cooperatives Ministry of Public Health
Target	:	Industries & Consumer
How	:	1. Mass media: Instruction : cooked at temp > 85 ºC 2. Cooking show with Medias, Cartoon series –TV News letter, Education material, Internet etc.

Strategies

4. Monitoring by government

Authorities	:	Ministry of Agriculture & Cooperatives Ministry of Public Health
Target	:	Village, Farm, Market, Supermarket and Retailer
How	:	1. Farm : Compliance with requirement 2. Market, Supermarket and Retailer : Compliance with requirement and Labeling 3. National surveillance systems : field and hospital surveillance 4. Partnership with Reference Laboratory network and WHO

Strategies

5. Enhance consumer/public awareness

Authorities	:	Ministry of Agriculture & Cooperatives Ministry of Public Health Stakeholders
Target	:	Farm , Market , Supermarket and Retailer
How	:	1. Conduct a national public awareness campaign - campaign targets people in all areas. 2. Encourage to report sick birds or sick backyard birds voluntarily


Thank You !

Presentation

Risk Communication

Tran Thi Nhai and Nguyen Thi Lan
Viet Nam

General introduction of Vietnam country

Population: About 85,000,000 people

Square: 329,241 km2

Provinces/cities: 64

Capital: Hanoi

International Airports: NoiBai in HaNoi, Tan Son Nhat in HoChiMinh; DaNang in DaNang city.

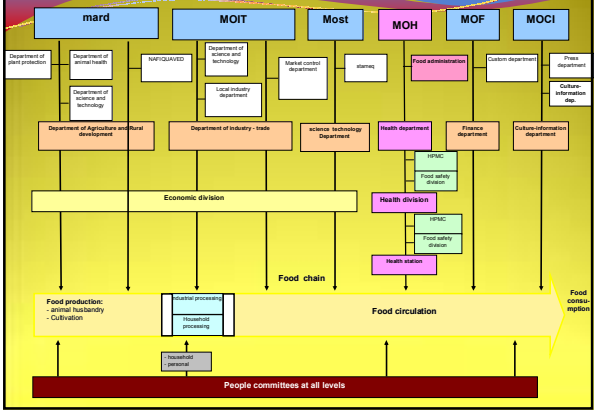
Port: SaiGon, HaiPhong, DaNang, QuangNgai

Border-line: VN-Laos, VN-Cambodia, VN-China

Islands: Truong Sa, Hoang Sa., CatBa, PhuQuoc

Border gates: 58 (land port, maritime port, river port)

II. CURRENT FOOD SAFETY MANAGEMENT SYSTEM



What is risk communication?

The interactive exchange of information and opinions throughout the risk analysis process concerning hazards and risks, risk-related factors and risk perceptions, among risk assessors, risk managers, consumers, industry, the academic community and other interested parties, including the explanation of risk assessment findings and the basis of risk management decisions.

What is risk communication?

- Communication linked to the risk analysis process
- Embedded in risk assessment and risk management.
- Active at the start of the risk analysis process
- Two way process.

Everyones responsibility.

Understanding people's perception of risk.

Opportunities for public involvement in decision making.

Timely and accurate information.

Internal communication

Goals of risk communication

- To ensure that all information and opinion required for effective risk management is incorporated into decision making process.
- To promote engagement of all interested parties in the risk analysis process.
- To facilitate consistent, transparent and effective decision making.

To promote understanding of the decision and decision making process.

Perceptions of risk

- We all see the world differently
- People of similar backgrounds tend to perceive risk in a similar way.
- Some gender differences.
- People with less control over their lives tend to see greater risk.

Ways to communicate

- Workshops.
- Encouraging consultation
- Public release of assessment reports.
- Use of web, fact sheet, explanatory publications.
- Presentation at conferences, public seminars.
- Engagment with media.
- Engaging interested consumers, industry in particular projects.

Trust

- Public confidence in the safety of the food supply.
- Confidence in industry and government regulators
- Not a level playing field.
- Negative events are more noticeable than positive events.
- Sources of bad news are seen as more credible.
- Media is attracted to bad news.
- Special interest groups are skilful using media

Communication strategies

1. **Low risk – Low perceived risk** **PASSIVE**
   eg. contaminant levels
2. **Low risk – High perceived risk** **RESPONSIVE**
   eg. GM foods, country of origin
3. **High risk – Low perceived risk** **EDUCATIVE**
   eg. Mandatory fortification
4. **High risk – High perceived risk** **PROACTIVE**
   eg. BSE, dioxin

Communication strategies

- Identify audiences – segment stakeholder groups
- Prepare messages – normally three key messages and separate messages to each audience.
- Select communication tools.

Communication tools

- Fact sheets, publications, advertising.
- Media releases, backgrounders.
- Telephone advice lines.
- Website, email bulletins.
- Conferences, seminars, meetings.
- Speeches, presentations, talks.
- Exhibitions, displays, launches.
- Education campaigns.
- Media relations

Communication skills

- Listening.
- Writing (reports and material for lay audiences).
- Public speaking.
- Publishing (hard copy and web).
- PowerPoint presentations.
- Media relations

Communication strategies in Vietnam

- To classify target audient groups according to their role in food supply chain, ecological area,.. in order to develop suitable messages and approach.
- To mobilize different communication channels and resource on food hygiene and safety.
- To establish mobile communication teams.
- To improve perceive of public on risk.
- Implement risk analysis programm follow Codex guidelines: risk assessment, risk management, risk communication
- To maintain organization of the Month of Action for Food safety and quality.

THANK YOU