Capacity Building on Food Safety: Focusing on Education and Social Communication

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Veterinary Public Health Unit

Food Safety Program
Headquarter

INPPAZ
Field Staff

Network

10 WHO/PAHO Collaborating Centers
COPAIA
RIMSA
Pan American Institute for Food Safety
Mandates

Regional

- PAHO/WHO Directing Council Resolutions.
- Inter-American Meeting on Health and Agriculture (RIMSA)
- Pan American Commission on Food Safety (COPAIA)

Global

- World Health Assembly Resolutions
- Codex Alimentarius Commission
- International Health Regulations
PAHO and USDA Sign Agreement on Food Systems Capacity Building

Washington, June 24, 2004 (PAHO)—

• food systems capacity building.

• Cooperation to improve protection of the food supply and Livestock & agriculture from intentional and accidental introduction of harmful substances and exotic disease, as well as other joint activities.

• PAHO Director, Dr. Mirta Roses (left), and Dr. Elsa A. Murano, from the USDA.

• (Photo: Armando Waak/PAHO)
EPIDEMIOLOGICAL ASPECTS

- 1.5 billion diarrhea cases worldwide per year
- 3 million deaths in children under the age of 5 years old

Source: WHO
EPIDEMIOLOGICAL ASPECTS

1995-2003

6,332 outbreaks
> 230,141 cases
317 Deaths

Source: SIRVETA PAHO/WHO
Some FBD’s Outbreaks in the Caribbean

- Major cause of economic burden, illness & death
- 1990-98: 63 outbreaks: 33 viral, 23 bacteria
- 48% were FBD due to *Salmonella* (mainly SE)
- Multiple based hotel FBD outbreaks
- 2002: 4 hotels, 10 cruise ships FBD outbreaks
FBD in the Caribbean
2005 (5 January – 7 February) Outbreak

– 51 Cases Diarrhea from 6 USA States → CDC
– 29 cases confirmed
  (S. Enteritidis)
– 7 Canadians
– Common history :— Common Place /Time Exposure:
  • Jamaica/tourist resorts
  • Preliminary investigation : MOH JAM
    – Source of Infections: Imported Eggs
  • CDC & CAREC : Holding course on FBD’s Surveillance 28 Feb.- 4 March.
Economic impact, food-borne infectious disease outbreaks, 1990–1999

USA — E. coli 0157
Periodic food recall, destruction

UK — BSE
US$ > 9 billion 1990-1998

PERU
Cholera
US$ 770 million 1991

South East Asia
Influenza A (H5N1)
US$ hundreds of million 2004

TANZANIA
Cholera
US$ 36 million 1998

MALAYSIA — Nipah
Pig destruction 1999
Handling foodborne risk
Five keys to safer food

Knowledge = Prevention
How safe is our food?
It depends on what you do with it!

Many – in all parts of the world – do not know the key rules for safer food.

Investigations show that a key risk factor for contracting campylobacteriosis is to belong to the group of young males.

Likely because surface used for raw chicken will also be used for cooked chicken in this age/sex group.
Everyone has a role

Everyone can understand

Consumer protection is primary purpose of any food safety programme
Food safety education for the Consumer

WHO 5 Keys

Posters
Games
Interaction
Community Channel: Facilitating food safety knowledge for the consumer

Simple and objective messages

Downloads

Atractive design

Interactive

Consumer

Children

Teachers

http://www.panalimentos.org/comunidad
Children education: Strategy to change habits
Bringing food safety home

- How to use the WHO 5 keys to safer food to create effective food safety training for specific target audiences - a manual

- Intended to elaborate on the core food safety messages and to suggest how these messages might be communicated.

- Although the material should be adapted to suit the basic needs of a specific target population, it is important that the core messages remain intact.
Training aimed at:

- School children, or
- Consumers, or
- Food Handlers, or
- Street food vendors, or
- Small food businesses, or
- Catering, or
- Restaurants, or ..........
Evaluation of improvement in knowledge, attitude and reported/actual food safety behavior after using the 5 keys training material/manual

**Knowledge**

**Key 1 – Keep clean**
- It is important to wash hands before handling food  
  True / False
- Kitchen cloths can spread microorganisms  
  True / False

**Key 2 – Separate raw and cooked**
- You can use the same chopping-board for raw and cooked foods as long as there are no visible juices/residues  
  True / False
- When food is in cold storage there is no need to keep it separate  
  True / False
Food safety initiative
World Health Organization

How safe is our food?

Safer

Five keys to safer food

Keep clean
- Wash your hands before handling food and after using the toilet, changing diapers, and handling animals.
- Wash surfaces that come in contact with food.
- Avoid contaminating food with raw meat, fish, and vegetables.

Why?
- Keep food clean and free from contamination.

Separate raw and cooked
- Use separate cutting boards and knives for raw and cooked food.
- Keep raw and cooked foods separate.

Why?
- Prevent cross-contamination.

Cook thoroughly
- Cook food to the correct temperature to kill harmful bacteria.
- Use a food thermometer to check internal temperature.

Why?
- Ensure food is cooked to a safe temperature.

Keep food at safe temperatures
- Refrigerate perishable foods promptly.
- Keep cooked food hot until served.

Why?
- Keep food at safe temperatures to prevent growth of harmful bacteria.

Use safe water and raw materials
- Use clean water to wash hands and cook food.
- Wash fresh fruits and vegetables.

Why?
- Use safe water and raw materials to prepare food.

Knowledge = Prevention
PAHO/WHO Training Package on HACCP

- GMP
- SSOP
- HACCP Implementation
- HACCP auditing
PAHO/WHO Guidelines for the Establishment & Strengthening of Foodborne Disease Surveillance Systems

• PAHO/WHO Guidelines for the Establishment & Strengthening of Foodborne Disease Surveillance Systems.
Manejo higiénico de alimentos
Catering aéreo

ORGANIZACION PANAMERICANA DE LA SALUD
Oficina Sanitaria Panamericana, Oficina Regional de la
ORGANIZACION MUNDIAL DE LA SALUD
Need for linking food safety authorities

- International concern:

  1996: BSE in beef
  1997: Dioxin in chicken
  1998: Cholera in fish
  2004: Avian Flu in Chicken
  2004: Enterobacter sakazakii in infant formula powder.
**V. cholerae outbreak, Tanzania, 1998: perceived vs actual risk**

*Cholera is endemic in Eastern Africa including Tanzania*
INFOSAN
International Food Safety Authorities Network

INFOSAN Focal point in Agriculture Sector

INFOSAN Focal point in Health Sector

INFOSAN Focal point in Food Safety Authority

INFOSAN Focal point in Trade Sector

INFOSAN Focal point in other Sectors
2004

WHO Global Outbreak Alert & Response (GOARN)

INFOSAN Emergency Network

National Outbreak Alert & Response System

National INFOSAN Emergency Contact Point

Foodborne disease surveillance & investigation

Communications Linkages

- Recall & tracing systems
- Food import/export inspection
- Food control laboratories
- Industry alert systems
- Food contaminant monitoring
- Other systems

Rapid intelligence, e.g. poison control centres
POTENTIAL INFOSAN INFORMATION

2002: Acrylamide in food
2003: SARS
2004: Avian Flu in Chicken
2004: Enterobacter in Powdered Infant Formula
2004: Salmonella in tahini and almonds
POTENTIAL INFOSAN EMERGENCY ACTIVITY

1996: BSE
1997: DIOXIN
2004: Avian Flu
INFOSAN DEVELOPMENT

- Reaching out to all Food Safety Authorities
- Guided by the participants
- Looking for partners

2004 4th Quarter

2005 – 1st Quarter

2005 2nd Quarter

Defining network, national focal points and Partners

Developing Operating Procedures and training for National Contact Points

Experience sharing + Response and Prevention

Today > 135 countries
Emergencies are unpredictable!
Fig. 1: **Systematic Approach to Curriculum Design, Training & Field Application of Information**

Problem (s) --->Needs----->Curriculum -----> Goal & Purposes--->

----->Learning objectives------->Methodology------->Training------->

------->Evaluation of training ( pre- and post-tests)------->

-------> Field Application of HACCP to selected fish and produce industries-------> Use of information for feedback training activities------->Adjust Curriculum of training program
PAHO/WHO Websites
Veterinary Public Health Unit

- http://www.who.org
- http://www.paho.org
- http://www.panaftosa.org.br
- http://www.panalimentos.org