Food and Health: Global Perspective

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Food safety is an increasing global public health concern

- Safe food must be a top priority among all stakeholders along the food chain

- Food businesses must take responsibility and governments must hold them accountable

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Food safety is a health security threat

- <u>Foodborne illnesses</u> represent an important health security challenge which significantly affects the health of consumers and has major economic consequences
- More than <u>200 diseases</u> can spread through food
- <u>Diarrheal diseases</u> are the third leading cause of death among communicable diseases

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The public health burden

- Globally, about 2 million people die from diarrheal diseases every year
- Unsafe food can cause acute illness as well as long-term chronic diseases, such as:
  – Cancer
  – Kidney failure
  – Brain disorder
  – Chronic malnutrition

The burden of unsafe food is unknown

- Foodborne Disease Burden Epidemiology Reference Group (FERG) – 2007
- Launch 3 December 2015
- 31 foodborne hazards
  - 11 diarrhoeal disease agents
  - 7 invasive infectious disease agents
  - 10 helminths
  - 3 chemicals
- Disease burden data divided in 14 geographical regions

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There are many reasons why food safety needs high attention

- Increasing international food trade
- Globalization and industrialization of the food supply
- Rapid urbanization
- New technologies and innovations
- Climate change
- Antimicrobial resistance
- Growing burden of noncommunicable diseases

HOW SAFE IS YOUR FOOD?
From farm to plate, make food safe
WORLD HEALTH DAY 2015 #safefood
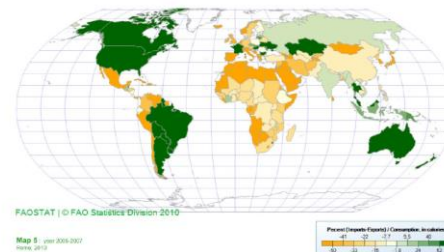
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Increased global trade is a food safety challenge

- Contaminated food can quickly spread across borders
- Food safety events can have severe economic impact
- Food recall and traceability becomes more complex
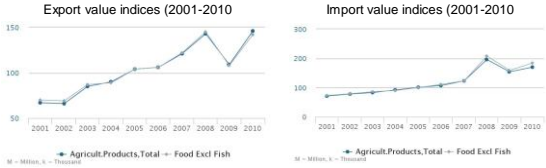- The need for information sharing is greater than ever

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The role of food trade

1,375 billion dollars of exports of food in 2012 [WTO]

FAOSTAT | © FAO Statistics Division 2010

Map 5

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Food trade in Philippines

Export value indices (2001-2010

Import value indices (2001-2010

M – Million, k – Thousand

-•- Agricult.Products,Total -+- Food Excl Fish

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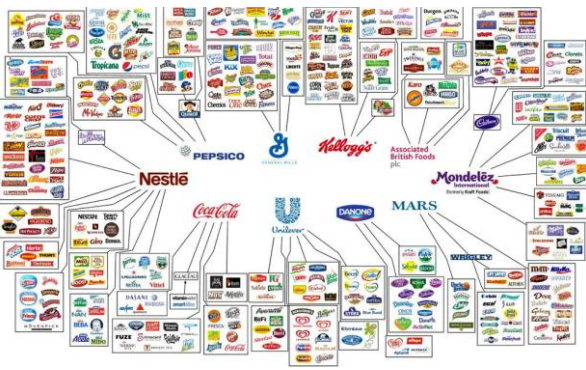
Globalization and consolidation in the global food industry

Company	Revenue (USD Billion)	Profit (USD Million)	Employees
Nestle	103.5	11,200	333,000
Unilever	68.5	6,700	174,381
PepsiCo	66.4	6,700	274,000
Coca-Cola Company	46.9	8,600	130,600
Mondelez International	35.3	3,900	107,000
Mars	33.0	n.a.	60,000
Groupe Danone	29.3	2,000	104,642
Associated British Food	21.1	837	112,652
General Mills	17.9	1,800	43,000
Kellogg Co.	14.8	1,800	30,277

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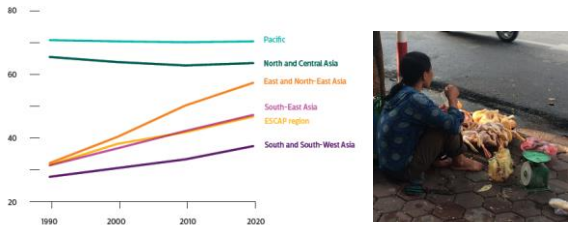
Why is globalization and consolidation a food safety issue?

- The legal framework for food safety varies between countries
- Many countries have weak enforcement and compliance capacity
- Private food quality and safety standards
- Mass-production increases risk of mass-exposure to contaminated products

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Over 45% of the population in Asia lives in cities

Urbanization and food safety

- Food transport
- Growing street food sector
- More ready-to-eat convenience products
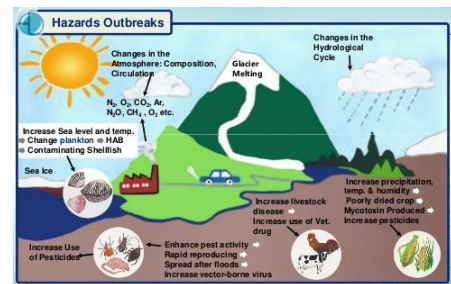- Greater reliance on supermarkets and processed food

New technologies and food safety

- New technologies are challenging food safety systems
- Human health impact and risks are yet to be fully understood
- Huge potential benefits, but also some unknown risks
- Greater requirements for risk assessment

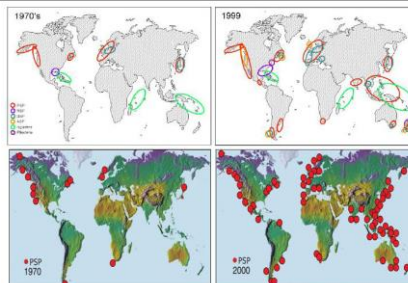## Climate change is an emerging food safety challenge

Climate change issues particularly relevant for Philippines

- Impacts of Harmful Algal Blooms (HAB)
  - Various types of shellfish poisoning
  - Ciguatera fish poisoning
- Ocean warming
  - Increased risk of mercury in fish
- Extreme weather events → Need to prepare for managing food safety during emergencies
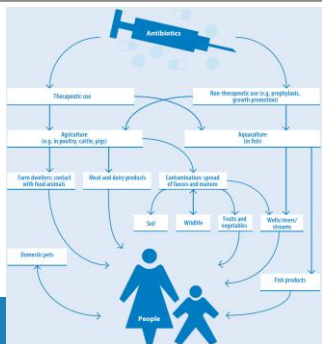 - Typhoons, flooding and drought

Global distribution of HAB toxins and paralytic shellfish poisoning outbreaks

Source: Tirado et.al., 2010

Antimicrobial resistance (AMR) is a significant health and food safety problem

Overuse and misuse of antibiotics increases health risks

- About 80.3 million cases of foodborne diseases are caused by salmonella – Emerging multi-resistant salmonella bacteria is an increasing threat

- To address AMR countries need:
  - Coordination
  - Regulation
  - Surveillance
  - Advocacy, training and capacity building

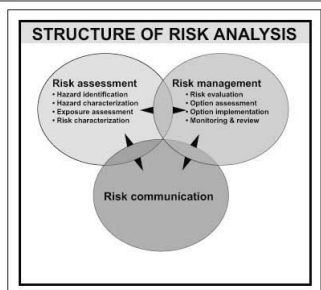## The burden of noncommunicable diseases (NCD) is growing

- Unhealthy diets are diets high in fat, sugar and/or salt
- Food safety and food quality is closely related
- Food safety systems may need to broadening scope of work

NCD risk factors in Philippines	%
Overweight and obesity	27%
Hypertension	25%
High blood sugar	5%
High total cholesterol	10%

Countries need capacity to prevent, detect, report and respond to food safety events

National food safety systems must be build on the risk analysis framework

STRUCTURE OF RISK ANALYSIS

1. Appropriate measures for prevention of food safety events

- Contemporary regulatory frameworks for food safety in line with international recommendations and standards
  - Food laws, regulations and standards

- Risk-based food inspection and enforcement
  - Well-training and equipped food inspectors
  - Appropriate food testing capacity
  - Plans and procedures

Appropriate measures

- Training, education and awareness about food safety
- Risk communication and data for decision making
- Foodborne disease surveillance

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2. National and regional coordination and monitoring mechanisms

- Complex food chain
- Multisectoral engagement
- Roles and responsibilities must be clear
- Funding must be aligned

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3. Mechanisms, plans and procedures to prepare for and respond to and evaluate food safety events

- Food safety emergency response plans
- Food recall and traceability systems
- Risk communication plans and procedures
- Standard operating procedures for outbreak response

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4. International collaboration, exchange of information

- Codex Alimentarius
  – International food standards setting body
- Food standards, guidelines and codes of practice
- Countries must actively participate in Codex and raise their concerns and priorities
- Codex standards cannot be challenged by trading partners

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Reporting of food safety emergencies of international concern

- The International Health Regulations (2005) provide a global legal framework for *public health security* – **"legally binding"**

- IHR (2005) include requirements for:
  - Rules and procedures to manage public health emergencies of international concern (PHEIC)
  - Surveillance
  - Notification and provision of information to WHO

- A set of IHR core capacities must be in place

IHR core capacities

- Minimum capacities required to meet obligations under the International Health Regulations (IHR)
- Annual reporting based on a country self-assessment
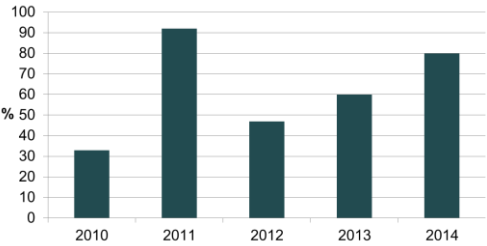

WHO, 2014

IHR core capacities for food safety

- Component

  Capacity to detect and respond to food safety events that may constitute a public health emergency of national or international concern

- Indicator

  Mechanisms are established and functioning for detecting and responding to foodborne disease and food contamination (18 capacities)

IHR core capacities for food safety in Philippines

Rapid exchange of information is crucial in the management of food safety

- The International Food Safety Authorities Network (INFOSAN) provides a global platform for exchange of food safety information

Voluntary network of food safety authorities from 181 Member States

INFOSAN

- Promotes the rapid exchange of information during food safety related events

- Shares information on important food safety related issues of global interest

- Promotes partnerships and collaboration between countries and networks

- Helps countries strengthen their capacity to manage food safety emergencies

Enhancing INFOSAN in Asia

- Unprompted and timely reporting and increased sharing of information
- Identification of food safety events
- National food safety systems development
- Better fulfil roles and responsibilities

Food safety must be addressed with a multisectoral approach

- No single sector and no single country can assure food safety alone
- Food safety is a complex issue which requires collaboration and coordination across borders and sectors
- The private sector is responsible for assuring a safe food supply
- Governments must hold food businesses accountable and ensure that rules and regulations are being adhered to

WHO assists countries in strengthening national food safety systems

- Science-based decision-making
  - Provides the science base for measures along the food chain
- Cross-sectoral collaboration and communication
  - Improves national and international collaboration between sectors
- Leadership and technical assistance
  - Assists in the development and strengthening of risk-based, integrated national systems for food safety

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The way forward for food safety

- Recognise that the food environment is rapidly changing and adapt accordingly
- Implement preventative approaches and risk-based measures
- Establish national coordination and monitoring mechanisms
- Ensure that plans, procedures and mechanisms for preparedness, response and evaluation are in place
- Engage in international risk assessment and information sharing networks

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Thank you

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