Asia

48 WHO countries and areas
• 37 in the Western Pacific Region
• 11 in the South-East Asia Region

21% of earth’s land mass

53% of the world’s population
Diversity in Asia

- Race/Ethnic
- Tradition/Culture
- Language
- Religious/Beliefs
- Food
- Economics

Common trends and problems...

- Growing influence
- Aging population
- Social disparities
- Many common causes
- Rapid urbanization
- Double burden of disease
- Poverty
- Several common solutions
Regional Trends
Proportion of Undernourished

Undernourishment in 2010, by region (millions)

- **Total:** 925 million
  - **Developed countries:** 19
  - **Near East and North Africa:** 37
  - **Latin America and the Caribbean:** 53
  - **Sub-Saharan Africa:** 239
  - **Asia and the Pacific:** 578

Number of undernourished (millions)

- **Asia and the Pacific**
  - 1990–92
  - 1995–97
  - 2000–02
  - 2005–07
  - 2008
  - 2009
  - 2010

Note: All figures are rounded.
Source: FAO.
Regional Trends in Asian Countries
Reduction in Underweight in Under-Five children

Cambodia  China  Lao PDR  Mongolia  PNG  Philippines  Viet Nam

1990: 42.6  28.8  40  31.6  24.6  34  45
2008: 21.3  19  20  13  18.1  20.7  22.2
2015 (Target): 6.8  9.5  5.3  6.5  12.3  17  20.2
Prevalence of Overweight in Asian countries (BMI≥25) in adults

Source: WHO Global NCD Status Report, 2010
Burden of NCD
Death by Broad Cause Group and WHO Region, 2011

Source: WHO Health Statistics 2011
Double Burden of Malnutrition
NCDs and Income

% of Death by cause and income group, 2008

Distribution of death caused by NCDs across income groups, 2008

Source: WHO Causes of Death 2008 Summary Tables
**Burden of NCDs**

**Prevalence of Diabetes, 25+ years**

Fasting glucose ≥ 7.00 mmol/L or on medication

Source: WHO Global NCD Status Report, 2010
Burden of NCDs

Prevalence of Raised Blood Pressure
SBP≥140 DBP≥90 mmHg or on medication, 25+ years

Source: WHO Global NCD Status Report, 2010
Burden of NCDs
Prevalence of behavioural risk factors across income quartiles

Source: World Health Survey 2003 Country Reports
Low birth weight

- Undernutrition of the mother
- Fetal undernourishment
- Altered organ & metabolic function

Leads to:

Higher risk of NCD in the later life

- Coronary heart disease
- High blood pressure
- Stroke

- Type 2 Diabetes
- Obesity
- Osteoporosis
- Breast & Ovary Cancer

For more information: http://www.thebarkertheory.org/
What does this mean?

• Malnourishment of children today is putting the health of the future generations at risk
• Good maternal nutrition is very important
Prevalence of Low Birth Weight (< 2.5 kg) in Asian Countries

Low-income countries

- Bangladesh (2005)
- Cambodia (2005)
- Lao PDR (2006)
- Nepal (2006)
- DPR Korea (2002)
- Philippines (2003)
- Sri Lanka (2002)
- Timor-Leste (2002)
- Papua New Guinea (2007)
- Thailand (2002)
- Maldives (2005)
- Malaysia (2002)
- Bhutan (2005)
- Indonesia (2002)
- Viet Nam (2005)
- Mongolia (2006)
- China (2002)

Middle-income countries

- Japan (2005)
- Brandeis-Darussalam (2005)
- Singapore (2005)
- Macau (China) (2006)
- Australia (2004)
- New Zealand (2006)
- Hong Kong (China) (2005)
- Republic of Korea (2005)

High-income countries

Prevalence of Underweight in Children Under 5 Years: by Income Group

Low-income countries
- Bangladesh (2004)
- Cambodia (2006)
- Lao PDR (2005)
- Nepal (2006)
- DPR Korea (2003)
- India (2005-2006)
- Timor-Leste (2003)
- Viet Nam (2009)
- Philippines (2008)
- Papua New Guinea (2007)
- Indonesia (2008)
- Bhutan (2008)
- Thailand (2003)
- China (2002)
- Mongolia (2006)
- Malaysia (2005)
- Fiji (1993)
- Palau (1997)

Middle-income countries

High-income countries
- Samoa (1990)
- Brunei Darussalam (1993-1996)
- Republic of Korea (1997)
Prevalence of Stunting in Children Under 5 Years: by Income Group

Low-income countries

Middle income countries

High income countries

Asian and Pacific Countries & Areas: Prevalence (%)

*No data
BUT

Is Economic Growth the Only Factor?

Greatest benefits result from

Economic development accompanied by
key interventions during

The Window of Opportunity
The first key practice for good infant health is Exclusive Breastfeeding for 6 months - and we know that rates are LOW in most Asian countries.

What Factors affect the practice of exclusive breastfeeding?
• Traditional infant feeding practices
• Availability and accessibility of breastfeeding counselling
• Environmental support
  ex. duration of paid maternity leave, breastfeeding breaks at work, etc.
• Advertising of infant feeding products by companies
  inside and outside health facilities

- Law: 5
- Many provisions law: 7
- Few provisions law: 2
- Voluntary measures: 4
- Some provisions voluntary: 4
- Being studied: 1
- No action: 0
- No information: 1

1. Introduction of solid, semi-solid or soft foods at 6–8 months of age

2. Minimum dietary diversity from 4 or more food groups

3. Minimum meal frequency

4. Minimum acceptable diet

For more information: WHO, Indicators for assessing infant and young child feeding practices.
Burden of **Vitamin & Mineral** Deficiencies

- Most common vitamin and mineral deficiencies
  - **Iron**
  - **Iodine**
  - **Vitamin A**
- **Zinc** and **folate** also are major concerns in some countries

What is the situation for these deficiencies in Asian countries?
Prevalence of Anaemia in Preschool Children in Asian Countries & Areas

Low-income countries

- Nepal: 68%
- Bangladesh: 63%
- Myanmar: 48%
- Cambodia: 32%
- Laos PDR: 63%
- DPR Korea: 78%

Middle-income countries

- SEAR: 65.5% - 115.3 Million
- WPR: 23.1% - 23.1 Million

High-income countries

- Singapore: 19%
- Brunei Darussalam: 24%
- New Zealand: 17%
- Japan: 11%
- Australia: 8%

Source: WHO global database on anaemia
Prevalence of Anaemia in Women in Asian Countries & Areas

Low-income countries
- SEAR:
  - Pregnant women: 48.2% 18.1 Million
  - Non-pregnant women: 45.7% 182 Million

Middle-income countries
- WPR:
  - Pregnant women: 30.7% 7.6 Million
  - Non-pregnant women: 21.5% 97 Million

High-income countries
- Singapore
- Brunei Darussalam
- New Zealand
- Japan
- Australia

Source: WHO global database on anaemia
Prevalence of Iodine Deficiency 1993-2006

Of the Asian countries for which data are available

2 have mild iodine deficiency
1 has moderate iodine deficiency
5 have more than optimal iodine status

Prevalence of Vitamin A Deficiency in children under 5

Considering night blindness as the indicator, 10 countries have data:

- 2 have no significant problem
- 2 have a moderate problem
- 6 have a mild problem

Source: WHO Database, on Vitamin A deficiency. 2009
IN CONCLUSION

Many Asian countries have made remarkable progress in socio-economic development including malnutrition reduction.

Today’s Nutritional Challenges in Asia are:

- alleviating the remaining under-nutrition problems;
- reducing inequalities between sectors of society;
- preventing and controlling the growing threat of overweight/obesity and NCDs.
Is there Need of More Data?
The CIP for MIYCN proposes 4 types of indicators:

- Biological Outcomes
- Process indicators
- Food Security Indicators
- Policy Environment Indicators

Each country needs to ask:

1. Do we have this information? If not, conduct surveys
2. If information is available, is there a public health problem?
3. If there is a public health problem, what targets for 5 yrs? 10 yrs?
Regional Action Towards Improving Food Safety

The Western Pacific Regional Food Safety Strategy 2011 – 2015
Human Right: “...Access to nutritionally adequate and safe food is a right of each individual.”

WHO estimates that globally foodborne and waterborne diarrhoeal diseases cause the deaths of about 2.2 million people annually, 1.9 million of them children.

- ~241,925 - Campylobacter,
- ~39,085 - Salmonella, and
- ~12,072 - V. parahaemolyticus (per year)

Aust - 5.4 million cases per year

N.Z – cost $161.9 million

Each year - 48 million people get sick, 128,000 are hospitalized, and 3,000 die of foodborne diseases
More Reality

Reported human infection and disease

Actual human disease burden
### Objectives of the Initiative to Estimate the Global Burden of Foodborne Diseases

<table>
<thead>
<tr>
<th>Objective</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective 1</strong></td>
<td>To provide estimates on the global burden of foodborne diseases according to age, sex and regions for a defined list of causative agents of microbial, parasitic, and chemical origin.</td>
</tr>
<tr>
<td><strong>Objective 2</strong></td>
<td>To strengthen the capacity of countries in conducting burden of foodborne disease assessments and to increase the number of countries who have undertaken a burden of foodborne disease study.</td>
</tr>
<tr>
<td><strong>Objective 3</strong></td>
<td>Encourage countries to use burden of foodborne disease estimates to set evidence-informed policies.</td>
</tr>
</tbody>
</table>

**FERG** (Foodborne Disease Burden Epidemiology Reference Group) = scientific expert group appointed by & advising the WHO Director General
Current Status in the Western Pacific

Advances in food safety have been made since the development and implementation of the Regional Strategy for Food Safety in 2001, including:

- Improvement in coordination along the food chain.
- Development of food law and regulations.
- Increased laboratory capacities.
- Greater understanding of the need to be prepared for food safety incidents and emergencies.

However, there is still a need to develop national food control systems further to strengthen the aspects above and to address:

- Availability of data to base policy and legislation on.
- Capacity building of food inspectors and development of inspection services.
- Consumer food safety education.
- Continue laboratory capacity building and/or referral systems.
- Detection, assessment and management of food safety incidents and emergencies.
Western Pacific Regional Food Safety Strategy 2011 - 2015

- **Vision** – A Western Pacific Region contributing to the health of all through safe and healthy food.

- **Goal** – By 2015, countries and areas in the Western Pacific will have strengthened their national food control systems and will be actively collaborating to facilitate safe and healthy food.

- **Two objectives:**
  1) Strengthen national food control systems
  2) Share information, expertise and cooperation, and harmonize through partnership and mentoring
6 +1 themes

Regulatory Framework
Coordination and funding
Food Safety Data Driving Policy
Inspection Services
Food Safety training and education
Food safety incidents and emergencies
Partnerships and Mentoring

IMPROVING PUBLIC HEALTH THROUGH REDUCED FOODBORNE DISEASE

= RA + RM + RC
Food Safety and Nutrition in partnership

- Risk-based / evidence-based approaches
- Codex Alimentarius
- Legislation development
  - Compositional standards (diet related NCD’s and micronutrient deficiencies)
  - Food labelling requirements (for nutrition and diet-related NCDs)
- Legislation enforcement (domestic and imported)
- Consumer education
Thank You