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## Strengthening nutrition within the food security agenda

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### Objectives

- Brief review of the nutrition situation in the Asia and Pacific regions: Progress and challenges
- Food and nutrition security definitions and determinants
- Implications for
  - Policy
  - Programs
  - Monitoring progress



### Persistent malnutrition in children <5 yrs – affecting millions of children in Asia



Initiative

Source: Black et al. Lancet 2008

### Anemia and micronutrient deficiency is a major public health problem in Asia

	Anaemia*²	Vitamin A deficiency†³
South Asia		
India	74.3	62.0
Bangladesh	47.0	21.7
Sri Lanka	29.9	35.3
Pakistan	50.9	12.5
Nepal	78.0	32.3
South-East Asia		
Vietnam	34.1	12.0
Thailand	25.2	15.7
The Philippines	36.3	40.1
Indonesia	44.5	19.6
China	20.0	9.3
Malaysia	32.4	3.5
Cambodia	63.4	22.3
Laos	48.2	44.7
Myanmar	63.2	36.7

\*Defined as haemoglobin <11 g/dL. +Defined as retinol <0.70 µmol/L.



Source: Pasricha et al. 2010

## Important tradeoffs between nutritional problems with increased national income

The global shift from childhood stunting to adult obesity as national income rises





### Asian countries are among the most affected by illness related to overweight and obesity

	2000		2030	
Rank-		Millions		Millions
ing	Country	with	Country	with
		diabetes		diabetes
1	India	31.7 🛑	India	79.4 🛑
2	China	20.8	China	42.3
3	USA	17.7	USA	30.3
4	Indonesia	8.4 🛑	Indonesia	21.3
5	Japan	6.8	Pakistan	13.9
6	Pakistan	5.2	Brazil	11.3
7	Russian Federation	4.6	Bangladesh	11.1 🛑
8	Brazil	4.6	Japan	8.9
9	Italy	4.3	Philippines	7.8 🛑
10	Bangladesh	3.2	Egypt	6.7



Source: Wild et al. 2004

#### Global prevalence of overweight and obesity in preschool aged children 1990 to 2020





Source: de Onis et al. 2010

#### Malnutrition across the life cycle contributes to mortality, mental and physical impairment, including chronic disease risk





#### Source: Lancet, 2008

### Malnutrition is complex and multi-causal, encompasses deficits and excess

Food security is an underlying determinant of one's food and nutrient intake. But what does it mean to be "food secure"?





### **Food Security**

*"Food security exists"* when all people, at all times, have physical, social and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life"

#### Includes concepts of

- *Access* to food
- *Sufficiency* of food in relation to needs
- Food *safety*
- *Nutritious* foods
- Food *preferences*



## *Food and nutrition* security requires moving beyond the focus on calories

- Focus on meeting (not exceeding) dietary needs:
  - All nutrients must be taken into consideration
  - *Excessive focus on energy (calories) risks distorting issues, further contribution to overweight and obesity trend*
- Focus on populations, households and individuals
  - In most countries, efforts require effective identification and targeting to affected sub-groups of the population



### Implications for policy, programs and measurement of progress

- 1. Understand the dietary gaps and nutrition problems to be addressed
- 2. Know who is affected food and nutrition insecurity in populations and within households
- 3. Work across sectors to develop solutions to these gaps and problems in the short and long term
- 4. Appropriate and timely information to inform the above



# 1. Understand dietary gaps and nutritional problems

Energy and protein may or may not be among the dietary gaps – may actually be available/ consumed in excess

- Essential fats
- Vitamins and minerals

Requires information on nutritional status, dietary patterns



## Food and nutrition insecurity exists even in the context of food abundance





Source: Neufeld et al. 2011

### Food and nutrition insecurity exists even in the context of food abundance





## 2. Who is affected food and nutrition insecurity?

Interventions to improve food and nutrition security must respond to where a country or population group sit within this spectrum



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### 3. Work across sectors to develop solutions

- Short term, stop-gap policies and programs
  - Social safety nets linked with health sector programs (for e.g.)
    - purchasing power, demand creation
    - platform for distribution of micronutrient fortified foods, nutritional supplements
    - address issues of intra-household food distribution
- Long term investments
  - Agricultural crop diversity with education related to child feeding
  - Food industry investments in foods of appropriate energy and micronutrient density



# Nutrition sensitive and nutrition specific interventions are needed









Source: Hammond and Dubé, PNAS 2012

## "Enhancing child nutrition through animal source food management"

#### • Aim:

Increase young children's access to animal source foods for improved nutrition

- Intervention:
  - Nutrition and business education
  - Microcredit loans

#### By working across disciplines and sectors

Nutrition Animal science Vet medicine Agriculture extension Economics Anthropology Ministry of Food & Agriculture Ghana Health Services (MOH) Non-governmental organizations Heifer Int'l (animal husbandry) Freedom from Hunger (finance) Private sector rural banks





Source: Marquis et al. 2011



### **SUN – Scaling Up Nutrition**

- Promote collaborative and coordinated actions across sectors
- Improve information dissemination
- Stimulate research
- Harmonize policy
- Improve M&E
- Build capacity (individuals and institutions)
- Garner long-term governmental commitment







• Network of government-led, solutionfocused partnerships across sectors

 Aim: establish a forum for food and nutrition officials to share their vision, demands and lessons learned – across sectors



### 4. Measure what matters

## Food and nutrition security

- Dietary adequacy
- Dietary diversity
- Nutritional indicators of under- and over- nutrition

#### Equity and stability

- Populations, households and individuals
- Changes in all of these indicators over time



### Thank you

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