

Infants, Young Children and Maternal Nutrition:

A Review of the Situation in Selected Asian Countries

November 16, 2010



Objectives

- To describe the nutritional status of infants and young children and pregnant and lactating women in Southeast Asian countries
- To identify key issues and research gaps



Brunei Darussalam

Cambodia

China

Indonesia

Lao PDR

Malaysia

Myanmar

Philippines

Singapore

Thailand

Vietnam

Methodology

Identification and selection of relevant published scientific articles and reports



Assessment of the quality of each study/report



Synthesis of findings from individual studies or reports



Interpretation of findings



Summary presentation

Review Limitations/Constraints

- ❖ Limited/no data for some indicators in several countries
- ❖ Limited/no data for pregnant women and lactating mothers in almost all countries
- ❖ Methods used in assessment, indicators used, and age groupings vary
- ❖ Prevalence of other nutrient deficiency such as calcium deficiency cannot be found in any national survey available online
- ❖ Some national surveys and scientific articles require log in information
- ❖ Some data are not updated

Country Context

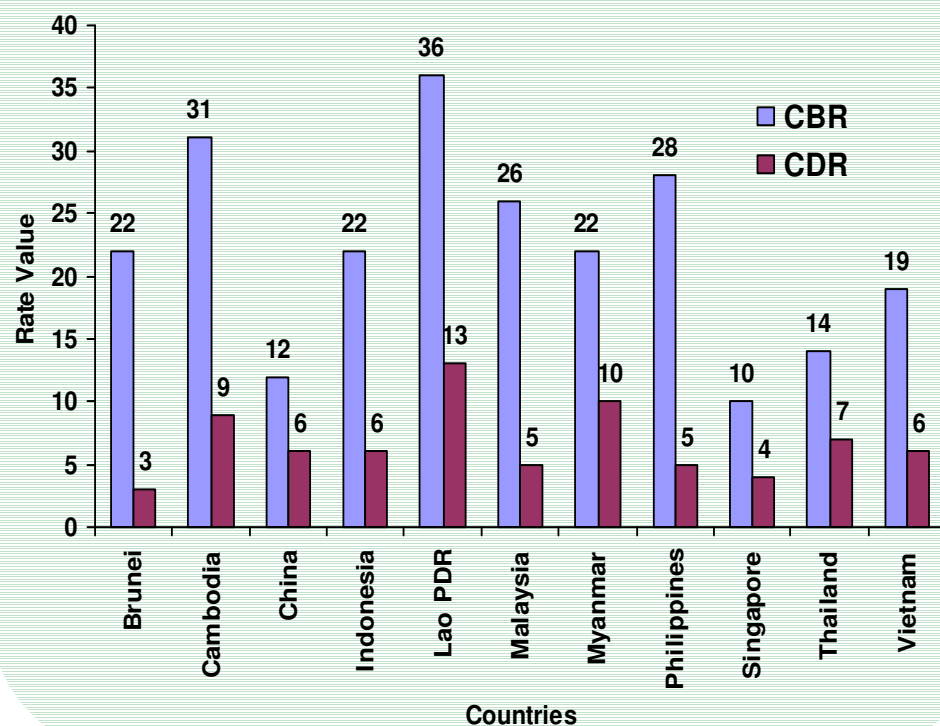
Demographic profile, Southeast Asia countries and China, 2005

Country	Population (in millions)	Area (square miles)	Population Density (per sq. mile)	CBR	CDR	Life Expec-tancy (at birth)
1. Brunei	0.4	2,228	162	22	3	74.1 (M) 77.7 (F)
2. Cambodia	13.3	69,900	191	31	9	57.8 (M) 64.1 (F)
3. China	1,303.7	3,696,100	353	12	6	72
4. Indonesia	221.9	735,355	302	22	6	68
5. Lao PDR	5.9	91,429	65	36	13	59 (M) 63 (F)
6. Malaysia	26.1	127,317	205	26	5	73
7. Myanmar	50.5	261,228	193	22	10	60
8. Philippines	84.8	115,830	732	28	5	70
9. Singapore	4.3	239	17,946	10	4	79
10. Thailand	65.0	198,116	328	14	7	71
11. Vietnam	83.3	128,066	650	19	6	72
Southeast Asia	557	1,735,448	321	22	7	69
World	6,477	51,789,516	125	21	9	67

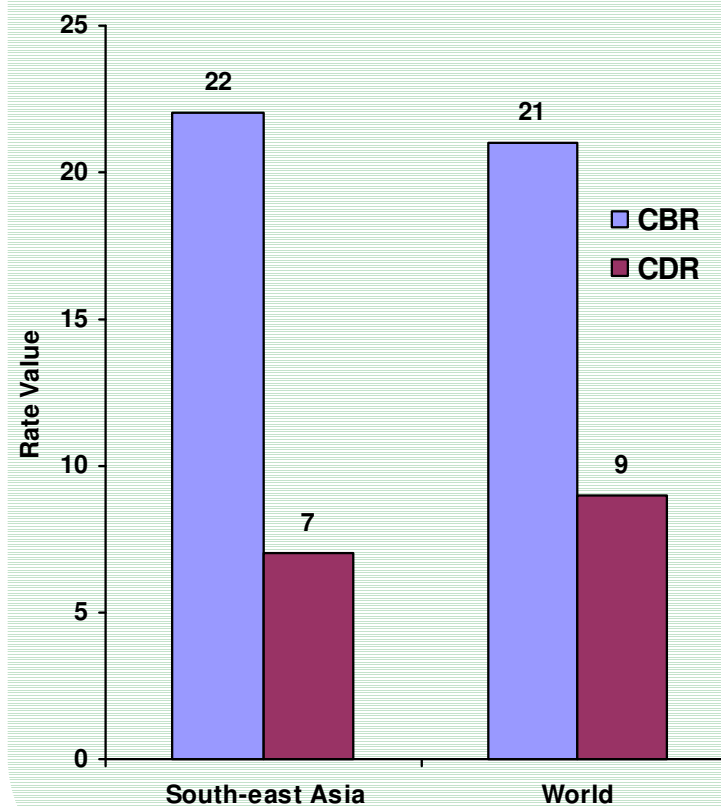
Source: 2005 data for Asian countries and the USA is from the Population Reference Bureau, "2005 World Population Data Sheet." Annual urban growth rates for Asia is from the "2003 ESCAP Population Data Sheet."; <http://www.uky.edu/~ulack/Geo152/PopData332.html>; Population Reference Bureau (2008)

Different levels of socio-economic development

Demographic Profile based on CBR and CDR



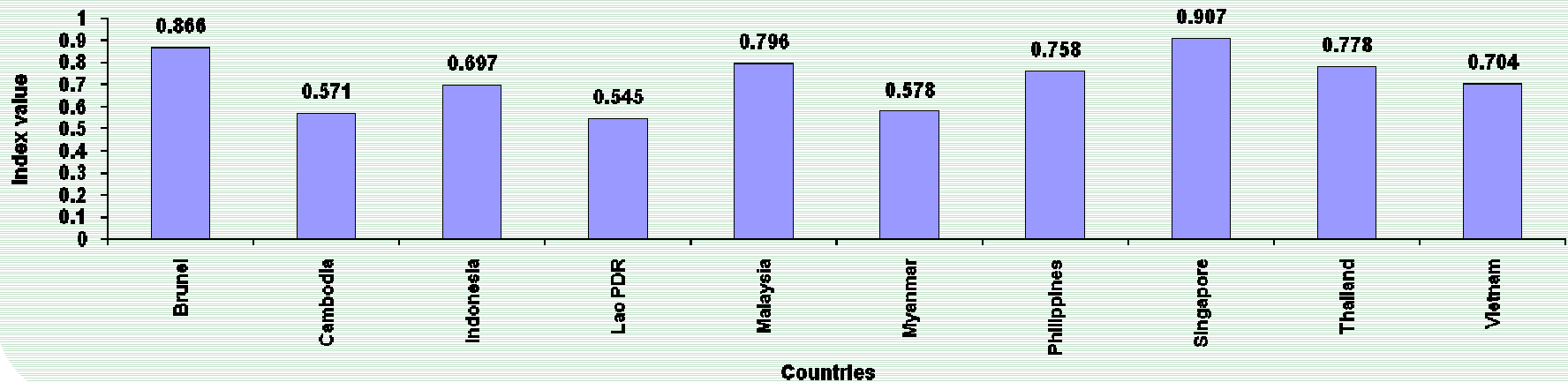
Demographic Profile based on CBR and CDR



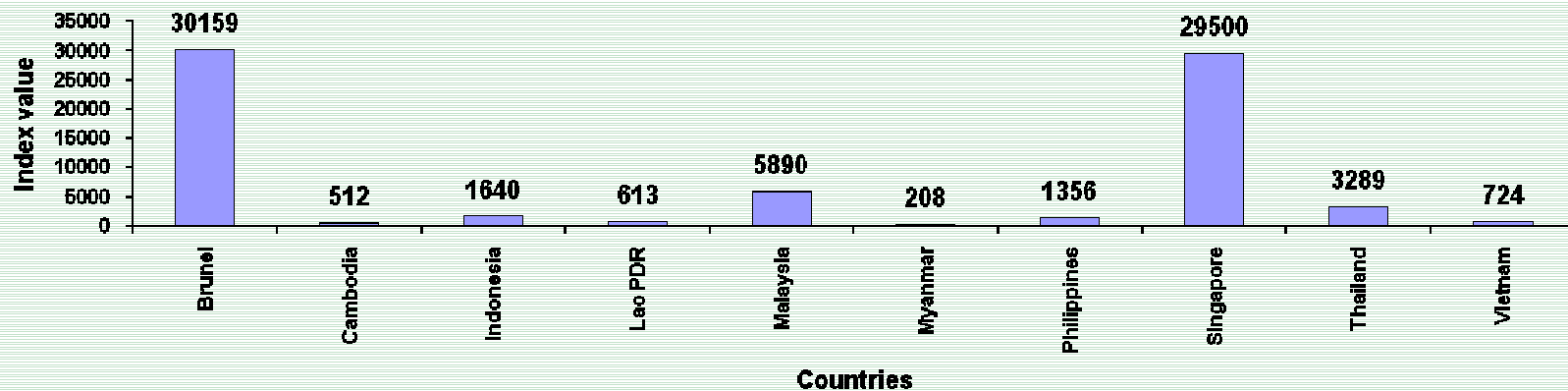
Sources: UNDP Human Development Report 2005; South-East Asia Regional Economic Integration and Cooperation. Deepening and Broadening the Benefits for Human Development. UNDP Regional Centre in Colombo 2006; Grebner et al 2009

Wide difference exist in terms of HDI and GDP

HDI of different countries



GDP per capita of different countries



Sources: UNDP Human Development Report 2005; South-East Asia Regional Economic Integration and Cooperation. Deepening and Broadening the Benefits for Human Development. UNDP Regional Centre in Colombo 2006; Grebner et al 2009

Almost all the countries included in the study falls under a extremely alarming state based on GHI

GHI (2009) of different countries

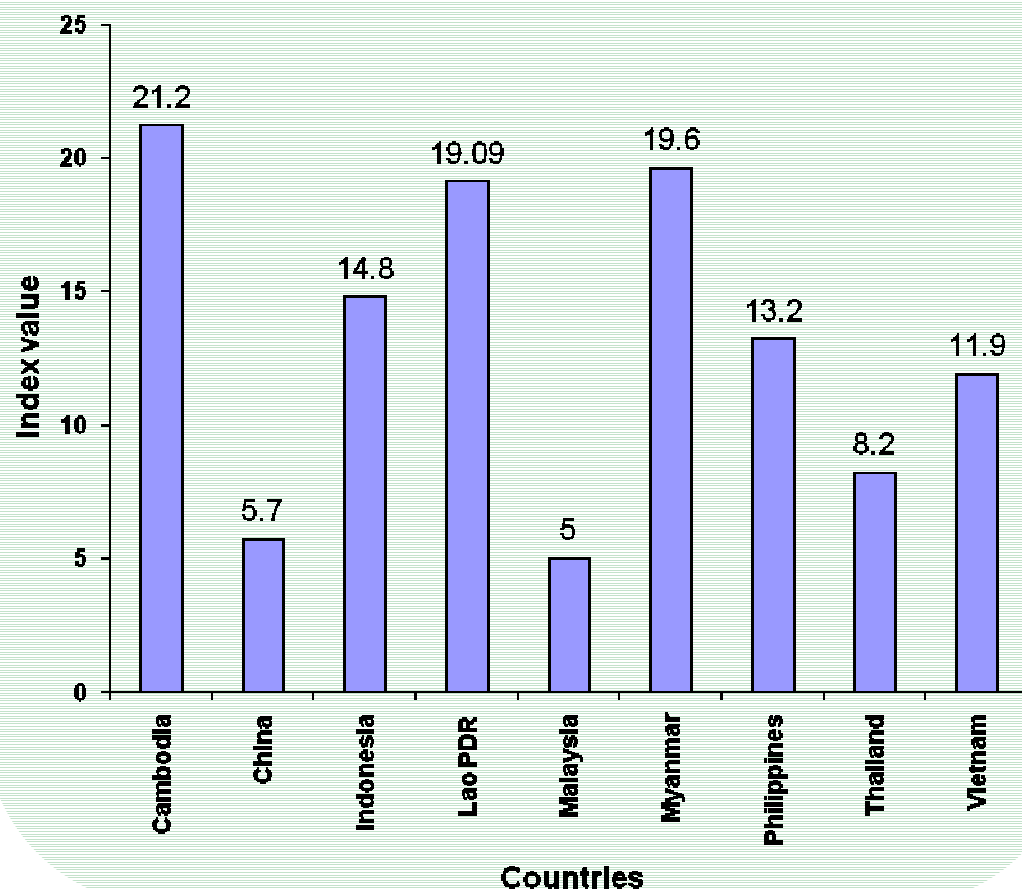


Table 3. Selected socio-economic data, Southeast Asian countries and China

Country	GHI Rank ¹
Brunei	-
Cambodia	61
China	5
Indonesia	38
Lao PDR	51
Malaysia	-
Myanmar	53
Philippines	34
Singapore	
Thailand	22
Vietnam	29

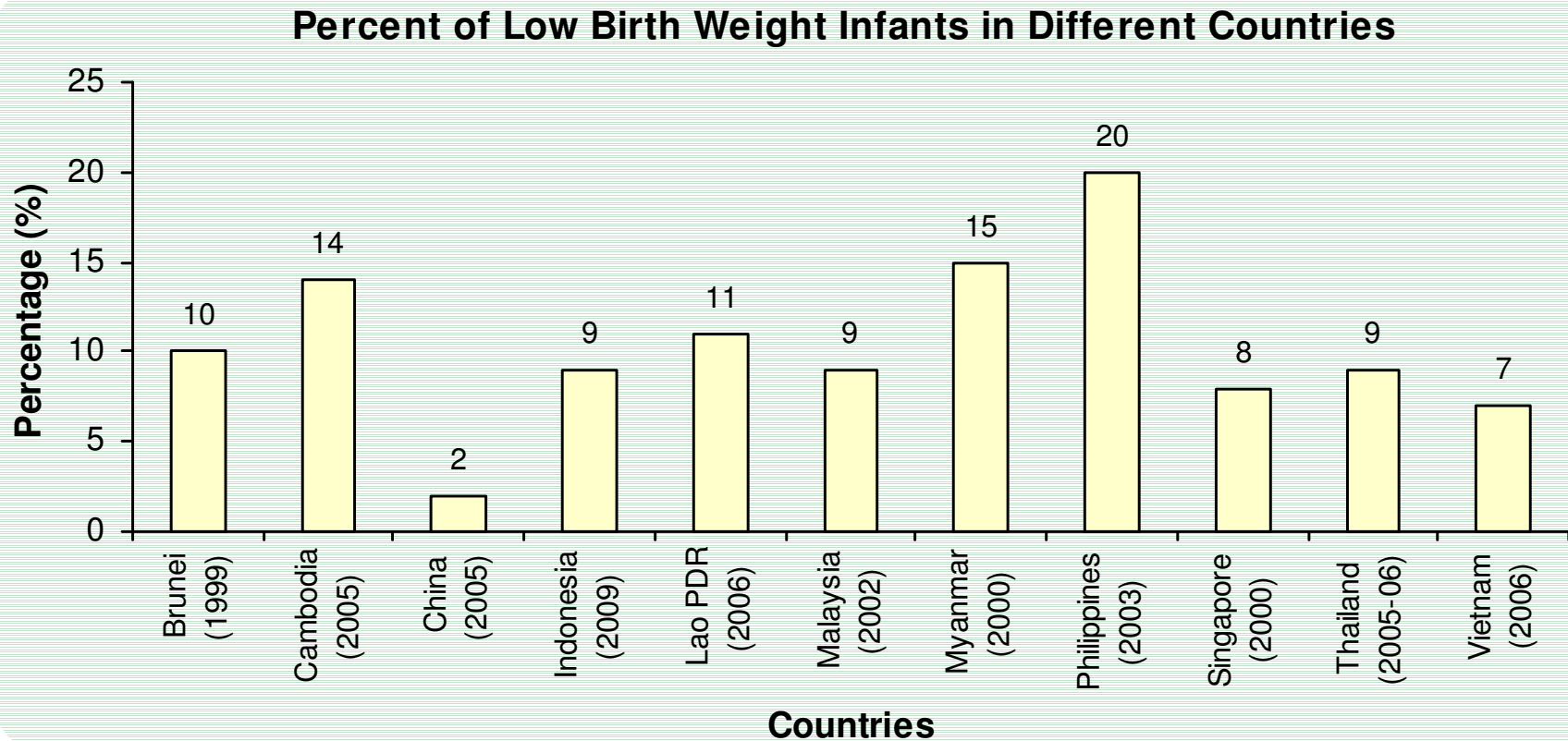
¹ Values less than 4.9 reflect low hunger, values between five and 9.9 reflect moderate hunger, values between ten and 19.9 indicate a serious problem, values between 20 and 29.9 are alarming, and values of 30 or higher are extremely alarming (Grebner et al 2009)

Sources: UNDP Human Development Report 2005; South-East Asia Regional Economic Integration and Cooperation. Deepening and Broadening the Benefits for Human Development. UNDP Regional Centre in Colombo 2006; Grebner et al 2009



Nutrition Situation of Infants and Young Children

Many infants are born of low birth weight (LBW) in the 11 countries



Source: UNICEF Child Info; Retrieved from www.childinfo.org/low_birthweight_profiles.php

Most of the countries showed that the magnitude of undernutrition is higher for older infants

Percent of malnutrition among children aged 0-<12 months

Country	Year	Age Group	% Prevalence						
			Underweight		Stunting		Wasting		Overweight
			<-2SD	<-3SD	<-2SD	<-3SD	<-2SD	<-3SD	>+2SD
Cambodia ¹	2005/2005	<6 mos	4.7	1.2	5.6	0.2	3.6	0.6	-
		6-9 mos	10.6	1.9	9.5	1.8	4.1	0.7	-
		10-11 mos	43.6	14.4	24.7	5.0	12.2	3.0	-
China PR ²	2002	0-11 mos	2.6	-	8.0	-	-	-	-
Indonesia ³	2005	0-<5 mos	28.4	-	28.0	-	-	-	-
Lao PDR ⁴	2006	<6 mos	2.7	0.6	9.2	1.9	3.2	0.3	-
		6-9 mos	23.1	6.2	24.2	6.2	5.1	-	-
Malaysia ⁵	2006	<1 year	7.1	-	9.0	-	15.2	-	4.1
Myanmar ⁶	2008	<6mos	3.6	0.5	6.9	1.3	1.8	0.2	-
		6-11 mos	21.7	6.7	19.8	6.0	7.4	1.8	-
Philippines ⁷	2008	<12 mos	12.4	-	8.6	-	6.7	-	-
Singapore ⁸	2007	0-0.49 yrs	3.3	0.4	4.4	0.5	3.6	0.5	-
		0.5-0.99 yrs	3.6	0.5	5.4	0.6	4.0	0.7	-
Thailand ⁹	2006	<6 mos	1.7	0.0	7.0	1.4	3.0	0.4	-
		6-11 mos	6.1	0.2	10.0	2.1	5.6	0.5	-
Vietnam ¹⁰	2006	<6 mos	8.9	1.4	16.5	4.3	17.5	8.7	-
		6-11 mos	8.1	1.5	19.4	11.6	4.9	0.8	-

¹ Cambodia Demographic and Health Survey (2000/2005)

² China National Nutrition Survey 2002

³ Indonesia Central Statistics Agency 2005

⁴ Lao PDR Multiple Indicator Cluster Survey 2006

⁵ Malaysia National Health and Morbidity Survey III 2006

⁶ Myanmar Multiple Indicator Cluster Survey 2000

⁷ Philippine National Nutrition Survey 2008

⁸ WHO Global Database on Child Growth and Malnutrition Singapore 2007

⁹ Thailand Multiple Indicator Cluster Survey 2006

¹⁰ Vietnam Multiple Indicator Cluster Survey 2006

Based on UNICEF 2009 data, five countries in Southeast Asia have large numbers of moderately and severely stunted children

Stunting Prevalence (%) of different countries, 2003-2008

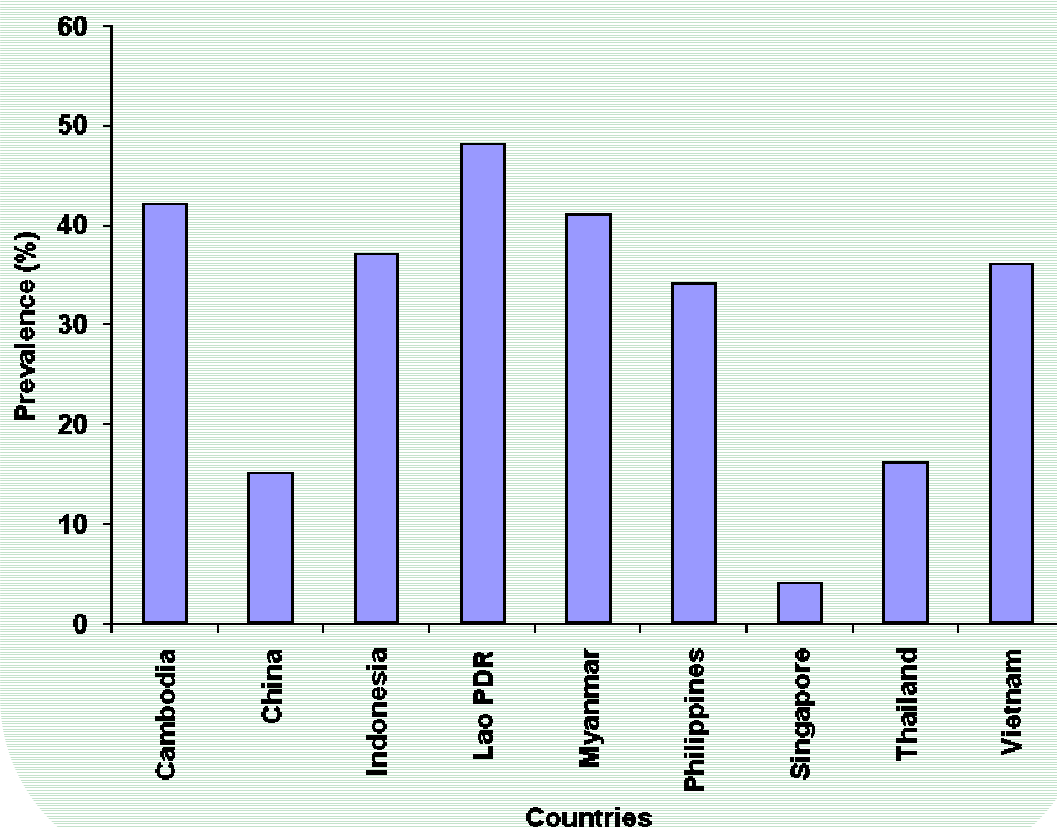


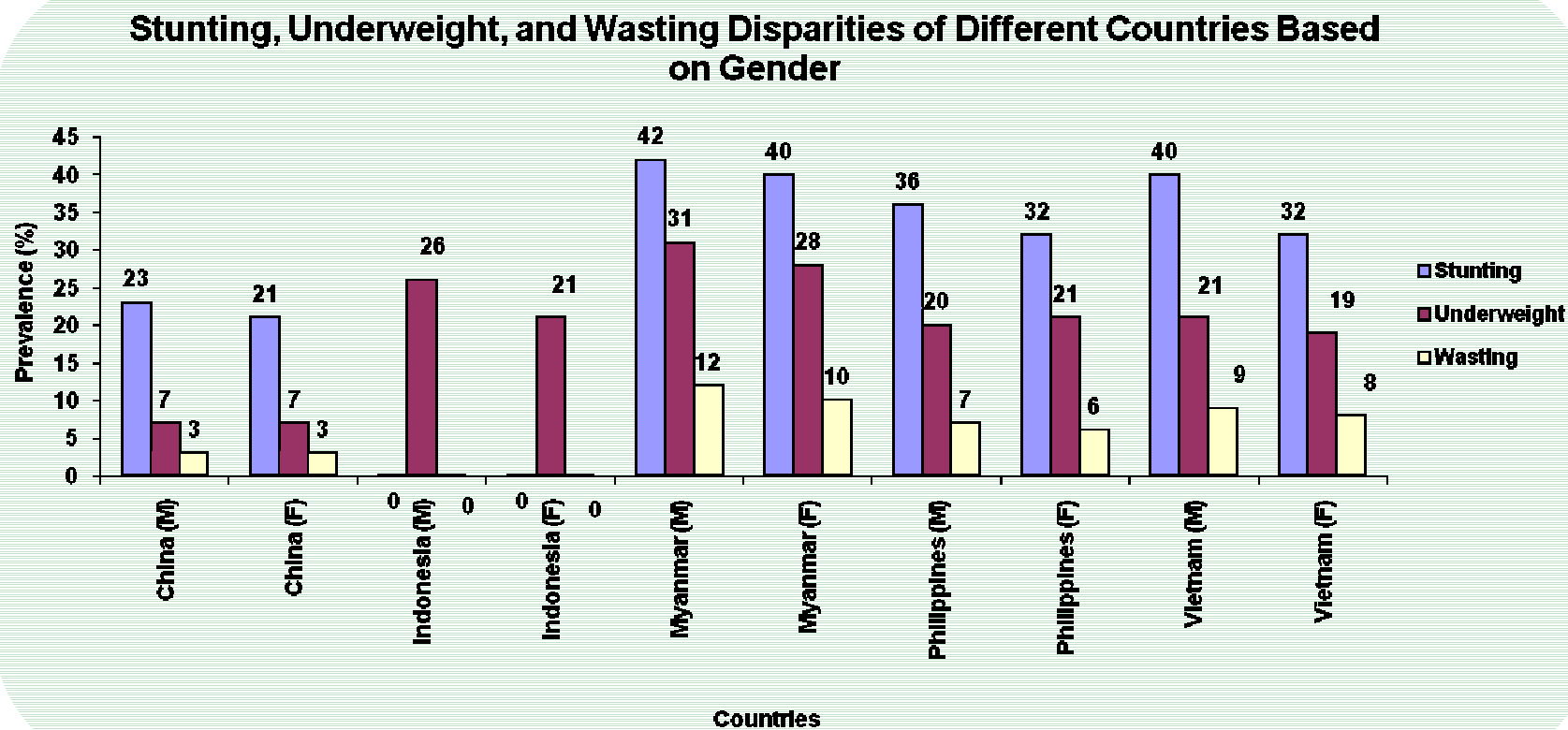
Table 5. Ranking of country based on stunting prevalence of children under 5 years old

Country	Ranking
Brunei	-
Cambodia	46
China	2
Indonesia	5
Lao PDR	58
Malaysia	-
Myanmar	18
Philippines	9
Singapore	123
Thailand	41
Vietnam	13

Source: UNICEF 2009

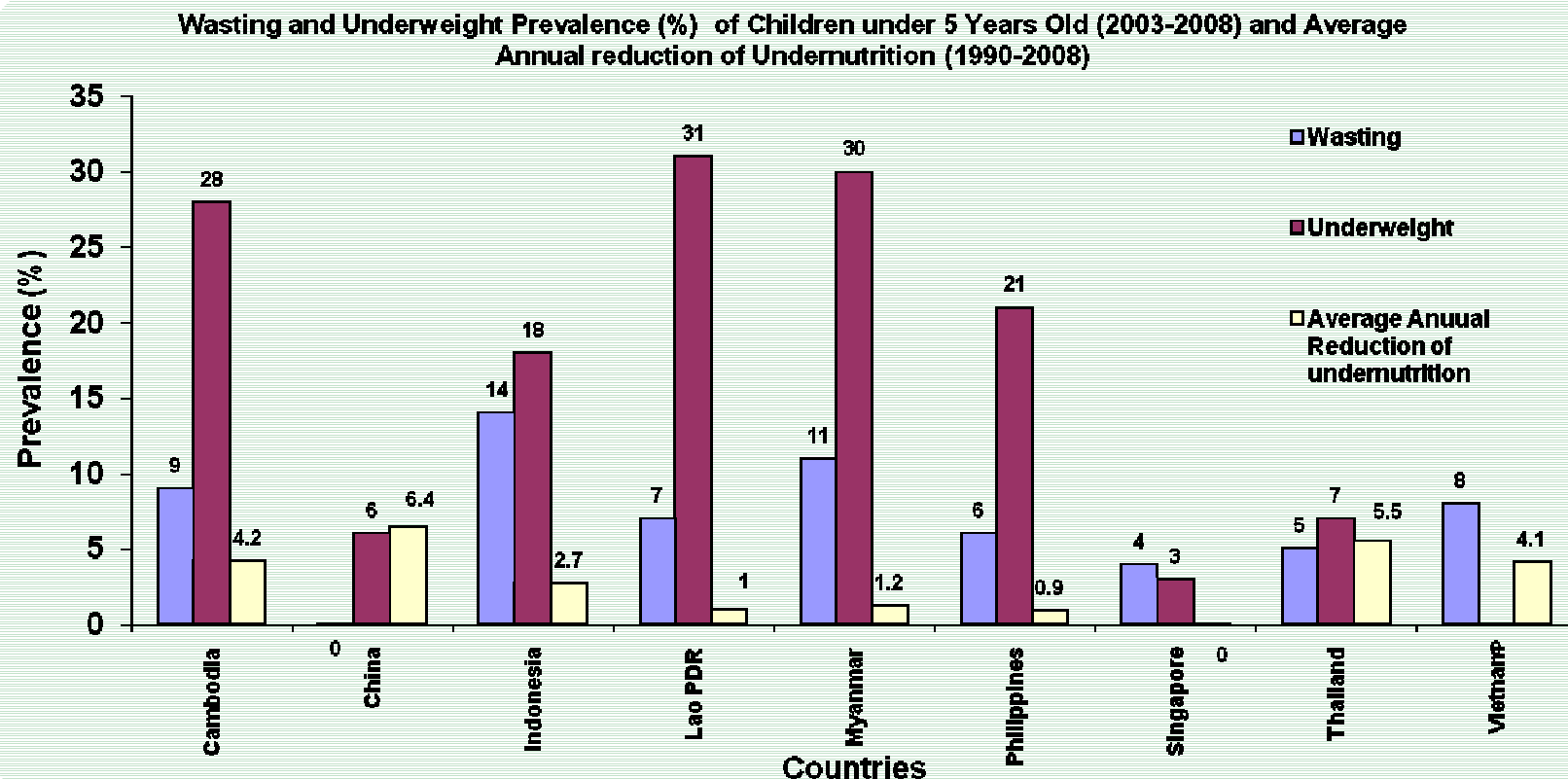
Note: Estimates are calculated according to the WHO Child Growth Standards, except in cases where data are only available according to the previously used National Center for Health Statistics (NCHS) reference population. Estimates for 96 countries are from surveys conducted in 2003 or later.

More stunted males than females in five countries.



*Using WHO CGS Source: UNICEF 2009; ** USAID Nutrition Update 2010
M – Male; F – Female

Among the countries, Lao PDR and Indonesia have higher prevalence of underweight and wasting



Source: UNICEF 2009

Note: Estimates are calculated according to the WHO Child Growth Standards, except in cases where data are only available according to the previously used National Center for Health Statistics (NCHS) reference population. Estimates for 96 countries are from surveys conducted in 2003 or later.

(Singapore data for wasting and underweight) Data refer to years or periods other than those specified in the column heading, differ from the standard definition or refer to only part of a country. Such data are not included in the calculation of regional and global averages.

(Vietnam data for wasting) Estimates according to NCHS/WHO reference population. Refer to underweight moderate and severe (NCHS/WHO) estimate for applicable footnotes. Such data are not included in the calculation of regional and global averages.

Children under 5 years old suffer from undernutrition

Percentage of malnutrition among children aged 1-5 years

Country	Year	Age Group	% Prevalence						
			Underweight		Stunting		Wasting		Overweight
			<-2SD	<-3SD	<-2SD	<-3SD	<-2SD	<-3SD	>+2SD*
Brunei ¹	1999	0-<5 yrs	13.5	-	12.9	-	3.6	-	9.1
Cambodia ²	2002/2005	12-23 mos	41.0	6.2	42.1	13.3	11.9	1.0	-
		24-35 mos	40.2	7.9	39.1	13.3	6.9	0.5	-
		36-47 mos	41.5	9.6	43.6	17.3	6.5	0.5	-
		48-59 mos	38.3	6.7	47.6	17.6	5.2	0.7	-
	2008	0-59 mos	-	-	-	-	-	-	2.0
China PR	2002 ³	12-23 mos	8.4	-	18.0	-	-	-	-
		24-35 mos	9.8	-	0.2	-	-	-	-
		36-47 mos	9.4	-	0.2	-	-	-	-
		48-59 mos	9.6	-	0.2	-	-	-	-
	2005 ⁴	0-<5 yrs	6.9	-	10.5	-	-	-	-
	2002	0-59 mos	-	-	-	-	-	-	9.2
Indonesia ⁵	2005	24-59 mos	9.4	6.1	21.4	-	18.9	-	12.4
	2007	0-59 mos	-	-	-	-	-	-	11.2

¹ Brunei Ministry of Health 1999

² Cambodia Demographic and Health Survey (2000/2005)

³ China National Nutrition Survey 2002

⁴ Food and Nutrition Surveillance System (FNSS) 2005

⁵ Indonesia Central Statistics Agency 2005

Children aged 1 to 5 years old suffer from undernutrition

Percentage of malnutrition among children aged 1-5 years

Country	Year	Age Group	% Prevalence						
			Underweight		Stunting		Wasting		Overweight
			<-2SD	<-3SD	<-2SD	<-3SD	<-2SD	<-3SD	>+2SD*
Lao PDR ⁶	2006	12-23 mos	45.7	12.5	43.8	15.3	13.0	0.6	-
		24-35 mos	45.1	12.1	42.0	16.7	7.7	1.1	-
		36-47 mos	41.8	9.0	47.7	21.7	3.2	0.5	-
		48-59 mos	38.7	7.4	51.6	20.5	4.4	0.4	-
		0-59 mos	-	-	-	-	-	-	1.3
Malaysia ⁷	2006	0-5.9 mos	12.9	2.4	17.2	6.0	-	-	3.4
Myanmar ⁸	2000	12-23 mos	40.2	10.8	36.3	12.4	15.2	2.1	-
		24-35 mos	43.2	9.0	35.9	13.0	9.7	0.5	-
		36-47 mos	38.5	7.1	39.0	14.7	8.3	0.9	-
		48-59 mos	43.9	8.9	47.4	19.4	9.5	1.4	-
	2003	0-59 mos	-	-	-	-	-	-	2.4
Philippines ⁹	2008	1.0 yrs	30.3	-	24.4	-	14.0	-	-
		2.0 yrs	31.3	-	27.5	-	5.4	-	-
		3.0 yrs	28.4	-	34.2	-	4.1	-	-
		4.0 yrs	26.4	-	35.7	-	3.7	-	-
		5.0 yrs	28.1	-	34.8	-	3.7	-	-
	2003	0-59 mos	-	-	-	-	-	-	2.4

⁶ Lao PDR Multiple Indicator Cluster Survey 2006

⁸ Myanmar Multiple Indicator Cluster Survey 2000

⁷ Malaysia National Health and Morbidity Survey III 2006

⁹ Philippine National Nutrition Survey 2008

Infants and young children aged 1 to 5 years old who suffer from undernutrition

Percentage of malnutrition among children aged 1-5 years

Country	Year	Age Group	% Prevalence						
			Underweight		Stunting		Wasting		Overweight
			<-2SD	<-3SD	<-2SD	<-3SD	<-2SD	<-3SD	>+2SD*
Singapore ¹⁰	2007	1-1.99 yrs	3.4	0.3	5.3	0.9	2.4	0.3	-
		2-2.99 yrs	2.7	1.8	5.4	0.9	6.3	0.0	-
		3-3.99 yrs	4.0	0.4	3.4	0.4	5.1	0.6	-
		4-4.99 yrs	2.4	0.2	2.4	0.1	3.7	0.4	-
	2000	0-59 mos	-	-	-	-	-	-	2.6
Thailand ¹¹	2006	12-23 mos	10.9	1.2	18.2	2.4	6.2	1.1	-
		24-35 mos	9.0	0.3	8.6	1.5	2.4	0.3	-
		36-47 mos	10.7	0.1	11.5	2.0	3.1	0.5	-
		48-59 mos	11.8	0.4	12.5	1.6	4.4	0.8	-
	2005-2006	0-59 mos	-	-	-	-	-	-	8
Vietnam ¹²	2006	12-23 mos	18.2	5.4	35.6	13.6	10.0	5.5	-
		24-35 mos	21.0	4.6	39.5	18.1	7.6	2.4	-
		36-47 mos	24.3	6.5	40.6	14.7	9.4	2.1	-
		48-59 mos	26.0	5.2	40.1	17.8	6.1	1.5	-
	2000	0-59 mos	-	-	-	-	-	-	2.5

10WHO Global Database on Child growth and Malnutrition
Singapore 2007

11 Thailand Multiple Indicator Cluster Survey 2006

12 Vietnam Multiple Indicator Cluster Survey 2006

*Overweight Data: UNICEF. Child Info-Monitoring the Situation of Children and Women

(last update January 2009)

WHO (2009) Global Database on Child growth and Malnutrition

Prevalence of anemia among selected populations in five countries

Country	Preschool	Other children <2 years old
China	20	-
Indonesia	45	-
Myanmar	63	-
Philippines	36	66
Vietnam	34	52

Source: UNICEF 2009

Other micronutrient indicators

Country	Vitamin A supplementation coverage rate (6-59 months) 2008 full coverage (%)	% households consuming iodized salt 2003-2008*
1. Brunei	-	-
2. Cambodia	88	73y
3. China	-	95y
4. Indonesia	86	62y
5. Lao PDR	-	84y
6. Malaysia	-	-
7. Myanmar	94	93
8. Philippines	86	45
9. Singapore	-	-
10. Thailand	-	47
11. Vietnam	98w	93

Source: UNICEF 2009

Prevalence of anemia among children under five

Country	Year	Age Group	Sex	% Prevalence of Anemia
Brunei ¹	-	R: Pre-SAC*	-	24.2
Cambodia ²	2000/2005	Urban: 6-59 mos	-	59.7
		Rural: 6-59 mos	-	62.2
China ³	2002	Urban: 0-12 mos	M	29.0
		Rural: 0-12 mos	M	0.3
		Urban: 0-12 mos	F	0.2
		Rural: 0-12 mos	F	0.3
		Urban: 2-4 yrs	M	0.1
		Rural: 2-4 yrs	M	0.2
		Urban: 2-4 yrs	F	0.1
		Rural: 2-4 yrs	F	0.1
Indonesia ¹	-	R: Pre-SAC*	-	44.5
Lao PDR ⁴	2006	6-11 mos	-	68.2
		12-23	-	58.7
		24-35	-	37.1
		36-47	-	29.6
		48-59	-	31.3

Prevalence of anemia among children under five

Country	Year	Age Group	Sex	% Prevalence of Anemia
Malaysia	2000 ⁶	0-<12 mos	M	24.4
		12-<24	M	28.1
		24-<36	M	12.3
		36-<48	M	12.7
		48-<60	M	13.3
		60-<72	M	10
		0-<12 mos	F	9.1
		12-<24	F	38.5
		24-<36	F	23.1
		36-<48	F	15.7
		48-<60	F	15.6
		60-<72	F	12.5
Myanmar ¹	-	R: Pre-SAC*	-	63.2
Philippines ⁷	2008	0-<12	-	66.2
		1-5 yrs	-	21.9
Singapore ¹	-	R: Pre-SAC*	-	18.9
Thailand ⁸	1995	0.5-5.99 yrs	-	25.2
Vietnam ⁹	2000-2001	0-0.99 yrs	-	59.9
		1-1.99	-	45.8
		2-2.99	-	22.7
		3-3.99	-	18.3
		4-4.99	-	15.0

Prevalence of vitamin A deficiency among preschool children

Country	Year	Age Group	Sex	% Prevalence of VAD
Cambodia ¹	2008	6- 59 mos	-	22.3
China ²	2006	<12 mos	-	26.6
		1 year	-	14.1
		2 years	-	11.3
		3 years	-	10.1
		4 years	-	7.9
		5 years	-	8.4
		6 years	-	7.0
Indonesia ³	2006	Pre-SAC	-	57.5
Lao PDR ⁴	2000	< 5 years	-	45.0
Malaysia ⁵	2000 ⁵	0-<12 mos	M	5.6
		12-<24	M	1.9
		24-<36	M	0
		36-<48	M	5.5
		48-<60	M	4.6
		60-<72	M	0
		0-<12 mos	F	9.1
		12-<24	F	8.1
		24-<36	F	2.1
		36-<48	F	8.20
		48-<60	F	2.3
		60-<72	F	0
Myanmar ⁶	2002	<6 years	-	35.0
Philippines ⁷	2003	<12 mos	-	47.0
		1-5 years	-	39.3
Thailand ⁶	2002	<6 years	-	22.0
Vietnam ⁸	2007	<5 years	-	12.0

Prevalence of zinc deficiency among under five children

Country	Year	Age Group	Sex	Estimated % at risk of inadequate Zinc intake ¹	% Prevalence of Zinc Deficiency
Brunei	2004	0<5years	-	12.8	-
Cambodia	2004	0<5years	-	43.6	-
	2008 ²	0<5years	-	-	42.6
China	2004	0<5years	-	14.1	-
	2007 ³	Rural: 2-3 years	-	-	24.0
		Urban: 2-3 years	-	-	7.4
		Rural: 4-6 years	-	-	16.0
		Urban: 4-6 years	-	-	12.0
Indonesia	2004	0<5years	-	34.4	-
Lao PDR	2004	0<5years	-	35.7	-
Malaysia	2004	0<5years	-	-	-
Myanmar	2004	0<5years	-	34.6	-

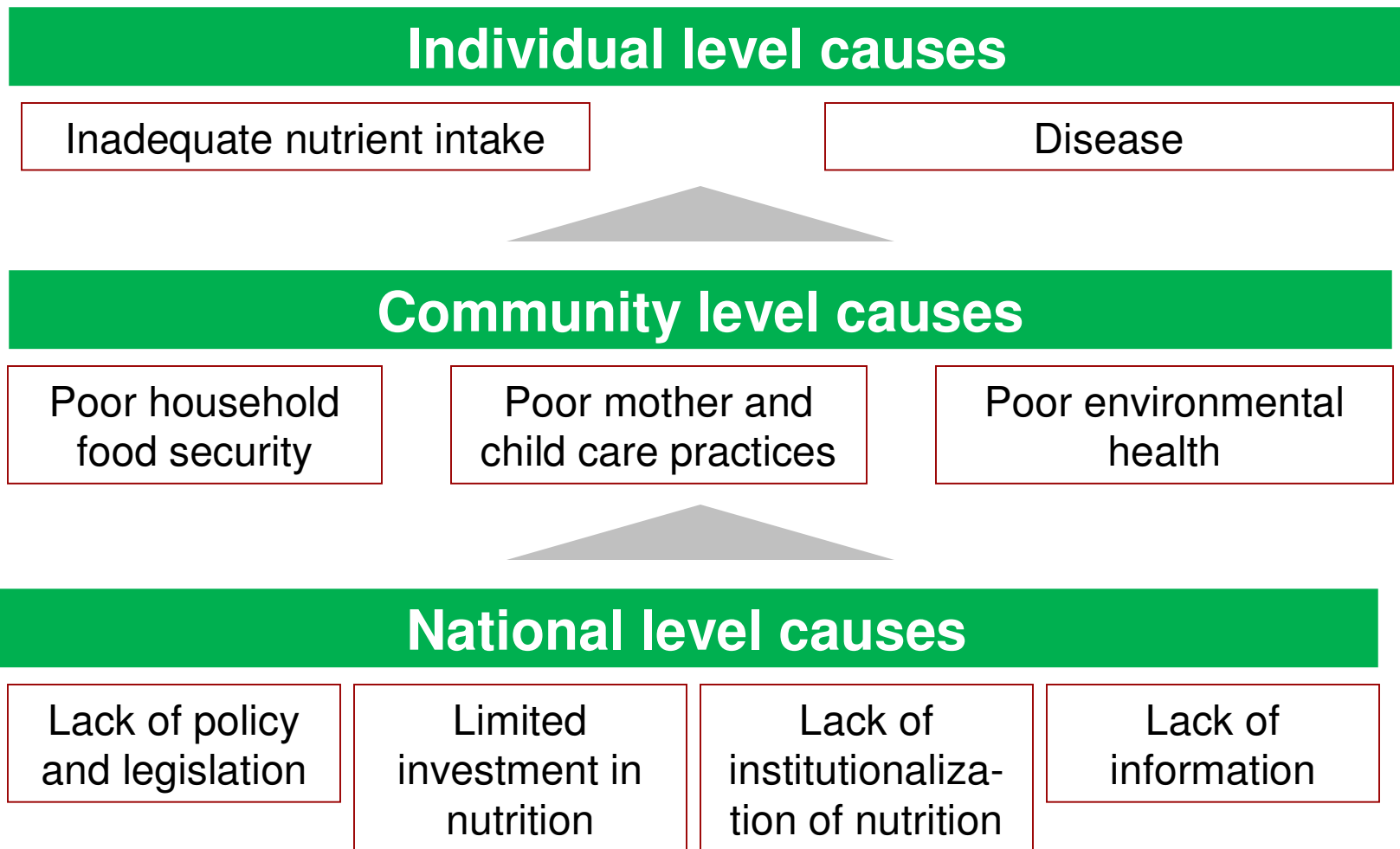
Prevalence of zinc deficiency among under five children

Country	Year	Age Group	Sex	Estimated % at risk of inadequate Zinc intake ¹	% Prevalence of Zinc Deficiency
Philippines	2004	0<5years	-	31.9	-
	2003 ⁴	<12 mos	M	-	8.7
		1 year	M	-	11.1
		2 years	M	-	8.6
		3 years	M	-	11.3
		4 years	M	-	13.4
		5years	M	-	9.3
		<12 mos	F	-	9.7
		1 year	F	-	8.4
		2 years	F	-	7.8
		3 years	F	-	6.9
		4 years	F	-	13.9
		5years	F	-	7.9
Thailand	2004	0<5years	-	41.6	-
	2007 ⁵	4-6 mos	-	-	50.8
Vietnam	2004	0<5years	-	27.8	-
	2007 ⁵	4-6 mos	-	-	3.0

Micronutrient indicators

Country	Vitamin A supplementation coverage rate (6-59 months) 2008 full coverage (%)	% households consuming iodized salt 2003-2008*
1. Brunei	-	-
2. Cambodia	88	73y
3. China	-	95y
4. Indonesia	86	62y
5. Lao PDR	-	84y
6. Malaysia	-	-
7. Myanmar	94	93
8. Philippines	86	45
9. Singapore	-	-
10. Thailand	-	47
11. Vietnam	98w	93

Malnutrition has multiple underlying causes relating to adequate food, health and care





<http://opposingviews.com>



<http://pinolifeinpictures.wordpress.com>

Nutrition Situation of Women

Table 6. Percentage of lactating and pregnant women with CED and Obesity

Country	Year	Description	Lactating		Pregnant	
			CED	Overweight/ Obesity	CED	Overweight/ Obesity
Cambodia ¹	2008	Short	6.3	-	-	-
		Thin	16.1	-	-	-
		Moderate-severe	3.7	-	-	-
Philippines ²	2008 ²	<20 years	12.9	6.7	35.1	-
		>20 years	13.1	16.8	25.1	-
		All	13	16.1	26.3	-
Vietnam ³	2003		22.9	-		

¹ Cambodia Demographic Health Survey 2005

² 7th Philippine National Nutrition Survey

³ Vietnam National Institute of Nutrition 2003

Prevalence of micronutrient deficiency among lactating women

Country	Year	Notes	Micronutrient Deficiency			
			Iron	Iodine	Vit A	Calcium
Cambodia	2008 ¹	Reported night blindness	-	-	5.1	-
		Day time	-	-	1.6	-
	2005 ²	Mild	41.3	-		-
		Moderate	11.5			
		Severe	0.8			
		Any	53.6			
Indonesia	2002-2003 ³	Receiving supplement	-	-	42.5	-
	1995 ⁴		45.1	-	-	-
Philippines ⁵	2003		42.2	22.7	20.1	-
Vietnam ⁶	2003		-	-	>30	-

¹ Cambodia Anthropometric Survey

² Cambodia Demographic Health Survey 2005

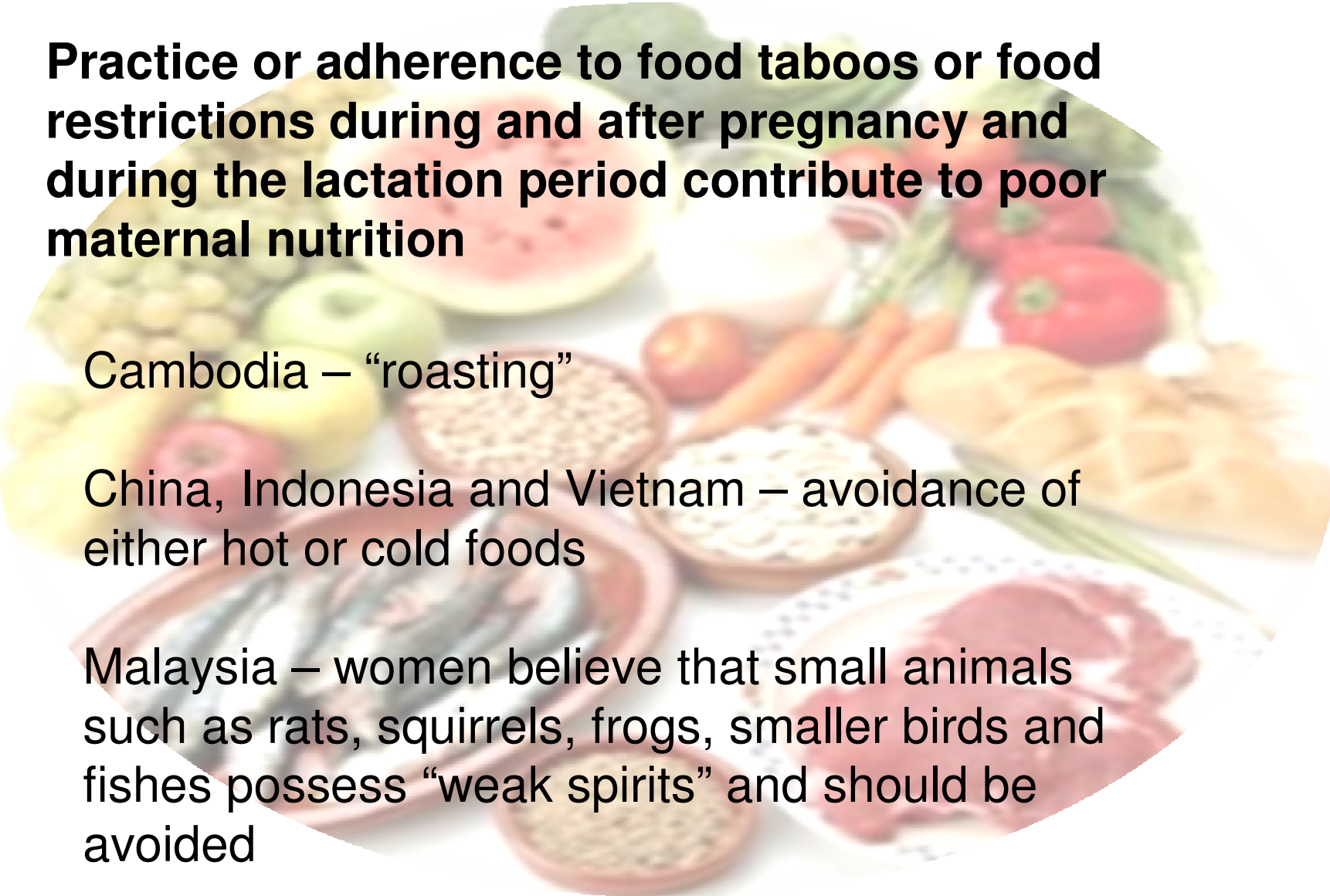
³ World Summit, 2002-2003

⁴ Indonesia Ministry of Health 1995

⁵ 7th Philippine National Nutrition Survey

⁶ Vietnam National Institute of Nutrition 2003

Anemia also remains a major problem among pregnant women in all 11 SEA countries



Practice or adherence to food taboos or food restrictions during and after pregnancy and during the lactation period contribute to poor maternal nutrition

Cambodia – “roasting”

China, Indonesia and Vietnam – avoidance of either hot or cold foods

Malaysia – women believe that small animals such as rats, squirrels, frogs, smaller birds and fishes possess “weak spirits” and should be avoided

Table 8. Infant feeding practices

Country	Early initiation of breastfeeding (%) 2003-2008	% of children (2003–2008*) who are:		
		Exclusively breastfed (<6 mos)	Breastfed with complementary food (6-9 mos)	Still breastfeeding (20-23 mos)
1. Brunei	-	-	-	-
2. Cambodia	35	60	82	54
3. China	-	-	32	15
4. Indonesia	39	32	75	50
5. Lao PDR	30	26	70	48
6. Malaysia	-	29x	-	12x
7. Myanmar	-	15	66	67
8. Philippines	54	34	58	34
9. Singapore	-	-	-	-
10. Thailand	50	5	43	19
11. Vietnam	58	17	70	23

Breastfeeding Practices



There is wide disparity in the duration of breastfeeding

- a) residence, i.e. rural or urban areas
- b) education of mothers/women
- c) giving of colostrum
- d) ethnic groupings

Complementary Feeding Practices

- Age of giving complementary food differs from as early as immediately after birth
- In an ethnic group in Lao PDR:

64% of the infants received chewed glutinous rice as the very first food item immediately after birth;

56% received breastmilk on the first day of life

almost all (96%) received complementary food before the age of 4 months

- In Cambodia, complementary foods were introduced at 3-4 months of age and 80% percent of children start eating complementary foods by 6 months
- In Myanmar, complementary foods given to infants are neither nutritionally adequate, nor safe.

Monitoring and Surveillance System

Table 9. Types of surveillance system implemented

Country	Surveillance Systems
Brunei	Health, Food and Nutrition Surveillance System Household Expenditure Surveys National Nutrition Status Surveys
Cambodia	Food insecurity and vulnerability information and mapping system (FIVIMS) Cambodian Demographic Health Survey Cambodia Socio-Economic Survey
China	Food and Nutrition Surveillance Project
Indonesia	Food and Nutrition Surveillance System Early Warning System for Interventions
Lao PDR	Multi-indicator cluster survey (MICS) Health survey Lao expenditure and consumption survey FIVIMS Lao Info/MDG monitoring

Country	Surveillance Systems
Malaysia	Nutrition Surveillance under the Health Management Information System for Family Health Malaysian Adult Nutrition Survey MOH National Health and Morbidity Survey
Myanmar	National Nutrition Surveillance Health Management Information System Multi-indicator cluster survey (MICS)
Thailand	Nutrition Surveillance System
Philippines	Philippine Food and Nutrition Surveillance System National Nutrition Survey Operation Timbang Food Insecurity and Vulnerability Information and Mapping System National Demographic and Health Survey Family Income and Expenditure Survey Local Nutrition Early Warning System
Singapore	National Health Survey National Nutrition Survey National Health Surveillance Survey
Vietnam	Nutritional Surveillance

Key Issues

- Malnutrition continues to be a problem in all countries for both children and women (pregnant and lactating women).
- Infant and young child feeding practices and the practice or belief of women about food taboos and restrictions needs to be further studied as these seems to be widely practiced in almost all countries.

Key Issues

- Some countries do not conduct regular data collection or surveys and if they do, the interval is long between surveys.
- Data/indicators collected to identify the nutritional problems and to understand the causes of malnutrition and the reference standards used needs to be harmonized.

Key Issues

- Within country, there is a need to synchronize the data collection activities into one monitoring and surveillance system such as the Philippines
- Funds have to be allocated for capacity building of personnel to ensure sustainable and good quality of data collected.

Research Gaps

- Assessment of calcium, thiamine, and other nutrients.
- Epidemiological research that would focus on the age- and sex-specific distribution of malnutrition among infants and young children; variations among urban and rural populations and migrant, tribal and slum-dwelling populations
- Knowledge and awareness of nutrition by mothers and families is required to develop and support positive behavioral change at the community level.

Research Gaps

- Attitudes towards newborn breastfeeding and infant feeding in general at the country level.
- Causes and consequences of maternal and child obesity
- Coping mechanisms adopted in post-disaster situations to improve feeding practices
- Development and testing of new formulations of multi-micronutrients, testing rapid diagnostics for key nutrition indicators

Recommendations

- regularly collect geographic and socioeconomic and nutrition data for young children and women to identify the nutrition problems, enable the comparison across countries, and as basis for the design of appropriate mix of nutrition interventions;
- maximize the use of existing monitoring and surveillance systems for risk assessment and evidence-based planning;
- conduct research that would help further quantify and understand the malnutrition problem in Southeast Asia; and
- synchronize the data collection schedule and harmonize the nutrition indicators to be collected, e.g. age-and-sex specific.

Thank you