



INTERNATIONAL SYMPOSIUM ON  
**Understanding the Double Burden of  
Malnutrition for Effective Interventions**

**Double duty actions in the health system response to  
reduce maternal malnutrition: policy and programmes in  
South- East Asia**

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# Background

- In WHO South- East Asia Region, nutrition status in women of reproductive age indicate trends of reducing underweight and stunting, but increasing overweight.
- Programmes addressing pregnancy nutrition in the region show some successes. However, health system gaps impede scale up and quality challenges remain.

# Background

- Further clarity on double duty actions is necessary.
- Many antenatal nutrition interventions can be considered as double duty.
- Health system interventions to address nutrition during pregnancy are guided by WHO recommendations on a positive pregnancy experience (updated in 2016).

## Outcomes of interest

The outcomes of interests included maternal and fetal/neonatal outcomes, as well as test accuracy and health system outcomes (Box 1).

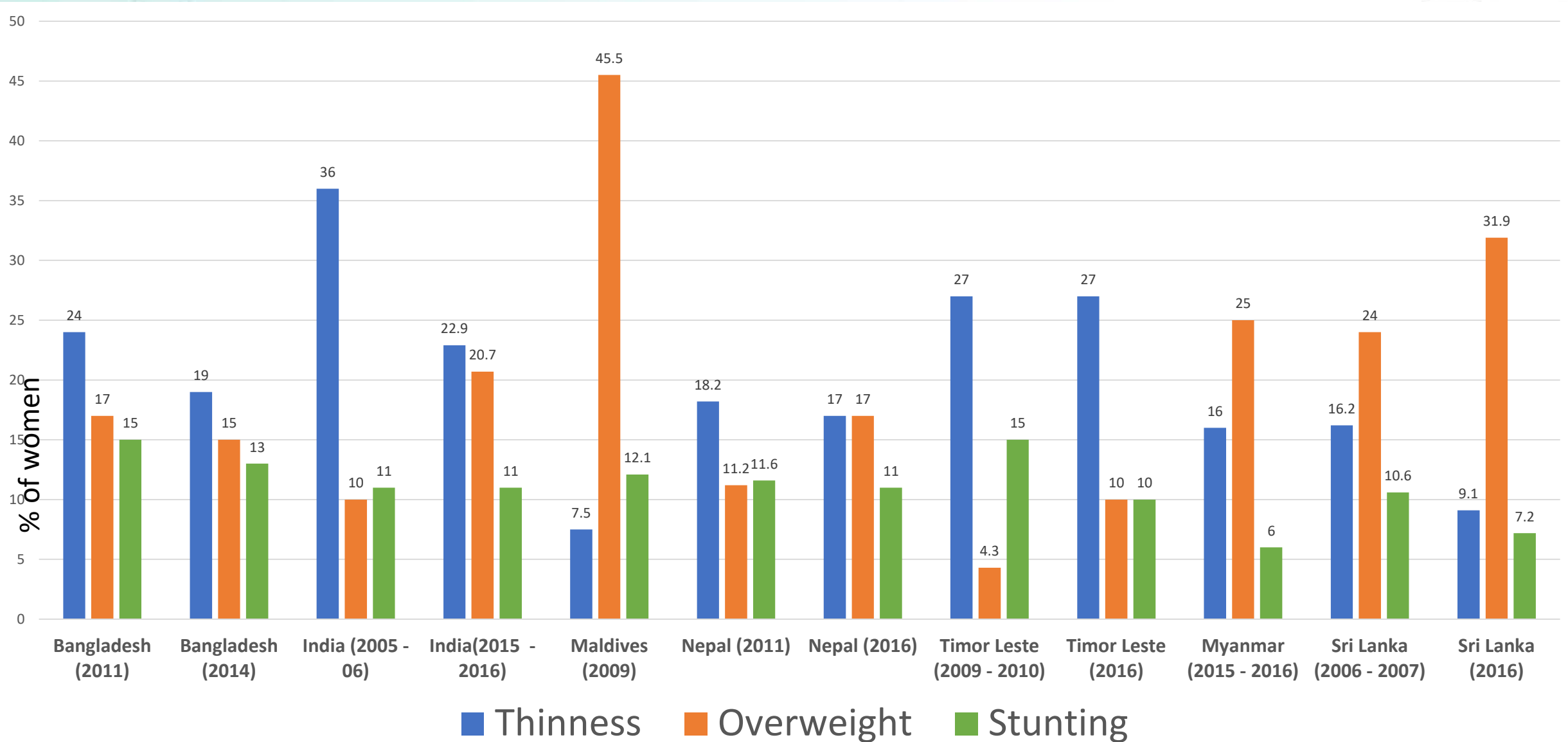
### Box 1: Guideline outcomes of interest

Maternal outcomes	Fetal/neonatal outcomes
Infections	Neonatal infections
Anaemia	Small for gestational age
Pre-eclampsia/eclampsia	Low birth weight
Gestational diabetes mellitus	Preterm birth
Mode of delivery	Congenital anomalies
Excessive weight gain	Macrosomia/large for gestational age
Intimate partner violence	Fetal/neonatal mortality
Side-effects	
Symptomatic relief	
Maternal mortality	
Maternal satisfaction and/or women's rating of usefulness of treatment	
Test accuracy outcomes	Health system outcomes
Sensitivity and specificity	ANC coverage
	Facility-based delivery

WHO recommendations on antenatal care for a positive pregnancy experience



# Data on thinness, overweight and stunting in women of reproductive age in selected SEAR countries



Source: Country DHS Surveys 2009-2016

# Prevalence of anaemia in pregnant women and non pregnant women of reproductive age in SEAR countries

Country	Women 15–49 years - Non-pregnant			Women 15–49 years - Pregnant		
	Anaemic non-pregnant	Severely anaemic	Public Health Significance	Anaemic pregnant <sup>2</sup>	Severely anaemic <sup>3</sup>	Public Health Significance
Bangladesh	43%	0.7%	Severe	48%	0.5%	Severe
Bhutan	44%	2.2%	Severe	46%	1.2%	Severe
DPR Korea	25%	0.6%	Moderate	27%	0.4%	Moderate
India	53.1%	2.5%	Severe	50.3%	1.3%	Severe
Indonesia	22%	0.6%	Moderate	30%	0.5%	Moderate
Maldives	37%	0.6%	Moderate	39%	0.6%	Moderate
Myanmar	30%	1.0%	Moderate	33%	0.7%	Moderate
Nepal	36%	0.8%	Moderate	44%	0.6%	Severe
Sri Lanka	26%	0.7%	Moderate	25%	0.4%	Moderate
Thailand	24%	0.9%	Moderate	30%	0.6%	Moderate
Timor Leste	22%	0.7%	Moderate	24%	0.6%	Moderate

[1] Percentage of non-pregnant women with blood haemoglobin concentration <120 g/L

[2] Percentage of nonpregnant women with blood haemoglobin concentration <80 g/L

WHO classifies countries by **degree of public health significance of the problem**, based on blood haemoglobin concentration: <5% = **no public health problem**; 5–19.9% = **mild public health problem**; 20–39.9% = **moderate public health problem (maroon in the Table)**; ≥40% = **severe public health problem (red in the Table)**. (WHO. Worldwide prevalence of anaemia 1993–2005: WHO global database on anaemia. WHO, Geneva, 2008. De Benoist B, McLean E, Egli J, Cogswell M, editors.)

# Examples of health system nutrition challenges



# Nutrition recommendations in national guidelines (SEAR ANC survey 2018)



	Adopted or included in national guidelines									
Recommendations	Level	BAN	BH U	IND	INO	MMN	NEP	SRI LAN	THAI	TLS
Counselling on healthy eating and physical act.	R	Green	Green	Green	Green	Green	Green	Green	Green	Green
Nutrition educ. in undernourished populations	R	Green	Green	Green	Green	Green	Green	Green	Green	Green
Balanced prot energy suppl in undernourished pop	R	Green	Green	Red	Green	Green	Red	Green	Green	Green
High prot suppl in undernourished pop	NR	Green	Red	Red	Green	Red	Red	Green	Red	Red
Daily oral iron suppl (60mg element iron, 400 ug FA)	R	Green	Green	Green	Green	Green	Green	Green	Green	Green
Daily calcium supplementation	R	Green	Green	Green	Green	Red	Red	Red	Green	Red
Vitamin A suppl. (if def a severe public health prob)	C	Red	Green	Red	Green	Green	Green	Red	Red	Red
Zn suppl only in research context	C	Green	Red	Red	Green	Red	Red	Red	Red	Red
MMN supplements	NR	Green	Red	Red	Green	Red	Green	Green	Green	Green
Vitamin B6	NR	Green	Red	Green	Green	Red	Green	Green	Green	Red
Vitamin E and C	NR	Green	Red	Red	Green	Red	Green	Green	Green	Green

**Countries that have the specific recommendation included/adopted in their national guidelines**

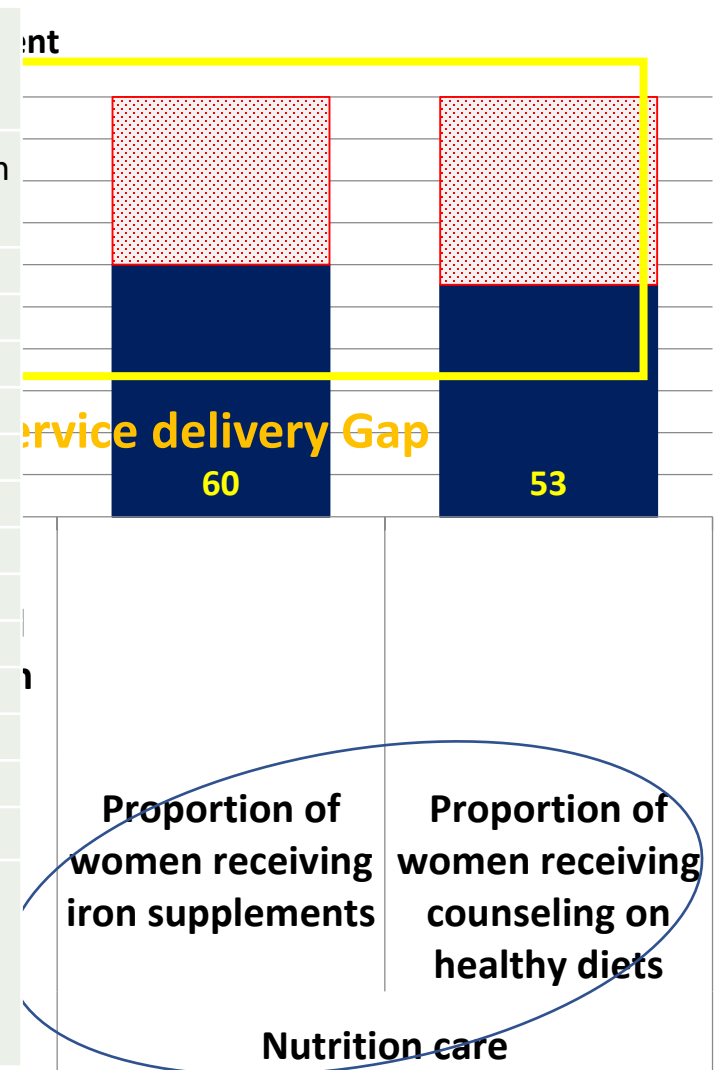
Countries that have the specific recommendation NOT included/adopted in their national guidelines



# Implementation of selected maternal nutrition interventions comparison with other ANC interventions (SEAR)

Trends in MMR by country, 1990-2015							Progress
Countries (ranking highest to lowest MMR)	Maternal Mortality Ratio deaths per 100 000 live births (MMR)						% change in MMR
	1990	1995	2000	2005	2010	2015	1990-2015
Nepal	901	660	548	444	349	258	71%
Timor Leste	1080	897	694	506	317	215	80%
Bangladesh	569	479	399	319	242	176	69%
India	556	471	374	280	215	174	69%
Myanmar	453	376	308	248	205	178	61%
Bhutan	945	636	423	308	204	148	84%
Indonesia	446	326	265	212	165	126	72%
DPR Korea	75	81	128	105	97	82	-9%
Maldives	677	340	163	101	87	68	90%
Sri Lanka	75	70	57	43	35	30	60%
Thailand	40	23	25	26	23	20	50%
SEAR	525	438	352	268	206	164	69%

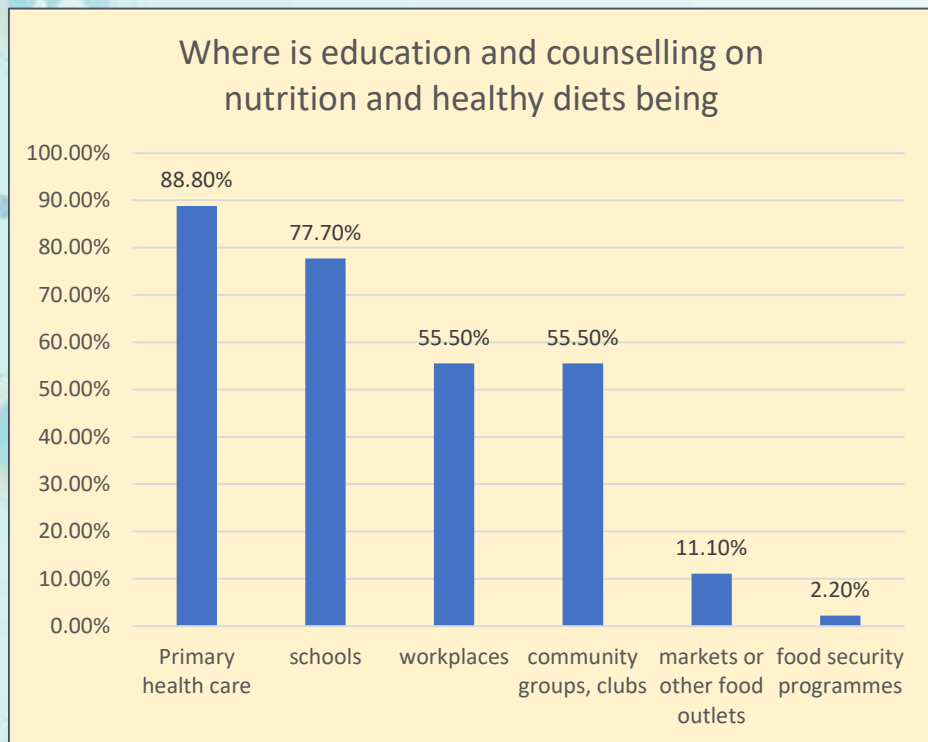
**Source: Trends in maternal mortality: 1990 to 2015: estimates by WHO, UNICEF, UNFPA, World Bank Group and the United Nations Population Division. Geneva: World Health Organization; 2015**



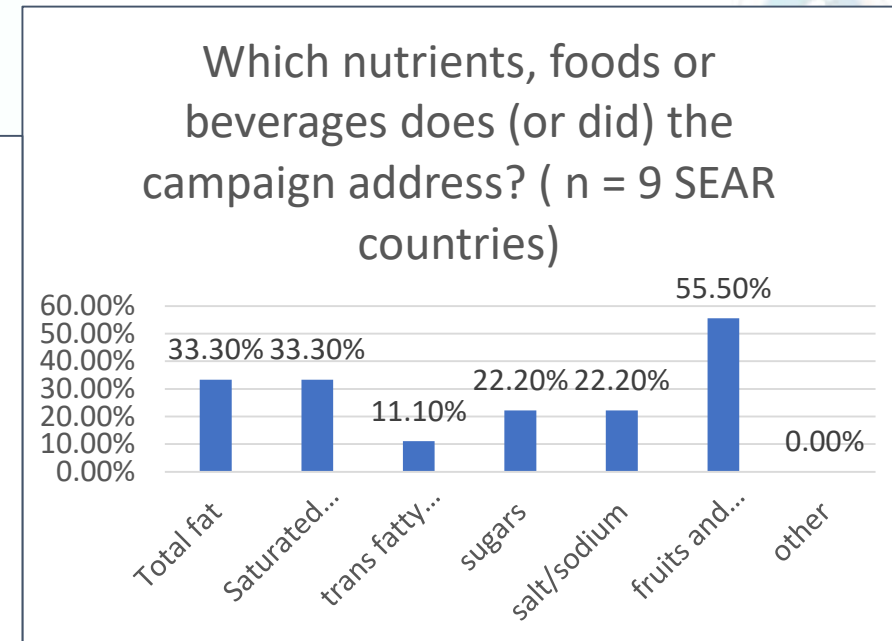
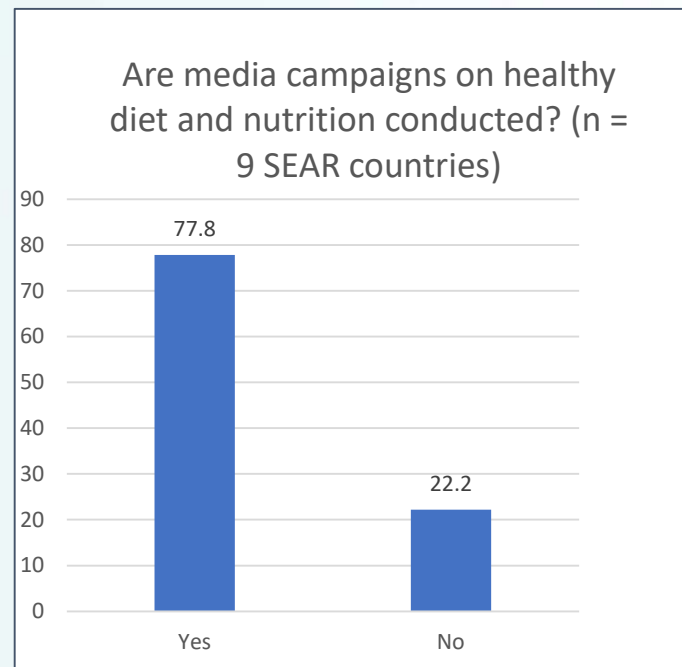


# Vertical programmes and coordination issues

Nutrition interventions are most often delivered through reproductive, Maternal and child health programmes, but at national level, often nutrition remains vertical



Source: GNPR data 2016



# Use of data and evidence

Countries with food supplementation programme for pregnant women

*Sri Lanka-blanket food suppl*

*India- blanket suppl*

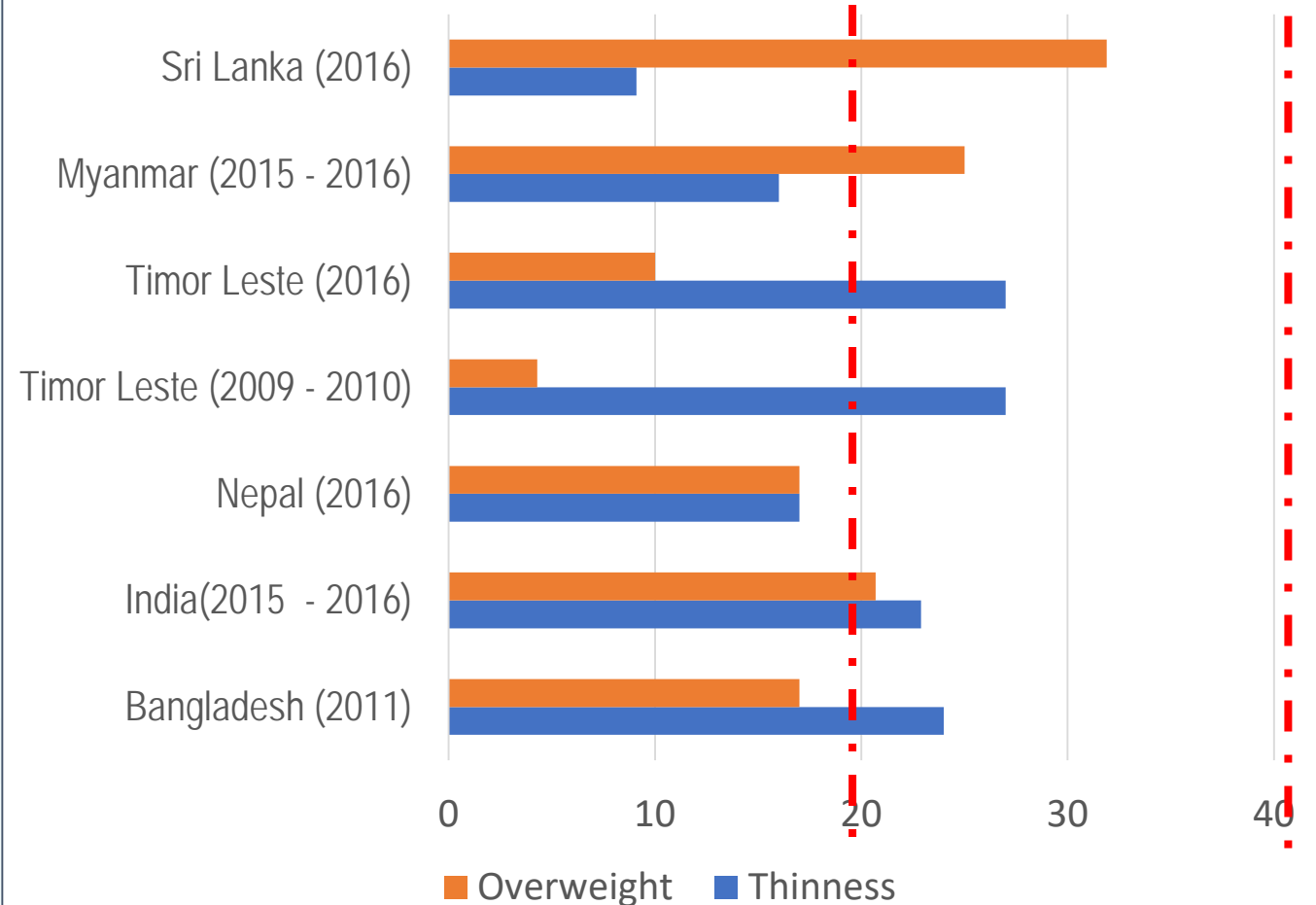
*Timor Leste-selective*

*Nepal-suppl program being tested*

## WHO guidance:

In undernourished populations, balanced energy and protein dietary supplementation is recommended for pregnant women to reduce the risk of stillbirths and small-for-gestational-age neonates. [For adults, a 20–39% prevalence of underweight women is considered high; 40% or higher is high]

Overweight and thinness among women of reproductive age in selected countries in SEAR



# Health system strengthening is essential to deliver double duty actions to improve nutrition

Multiple, dynamic interactions-  
Priorities in each as well as opportunities

## System building blocks

### Service Delivery

Nutrition interventions packaged comprehensively  
ANC platforms

### Health Workforce

Health workers trained (Nutrition )  
(e.g. midwives ,other ANC workers-nutrition counseling)

### Information

Data collected & used for action/monitoring

Products and treatments

(e.g. supplements, operational issues, USI)

### Health Financing

Public funding

### Leadership / Governance

Coordination between programmes,  
ensuring nutrition care at ANC contact point

Equity/Access/  
Coverage  
Scale up of  
proven  
effective  
interventions



Quality/Safety/  
Sustainability  
Ensure  
nutrition  
services are  
adequate,  
effective and  
appropriate

## Outcomes/Impact

Improved Survival

Improved health  
Nutrition

Social & financial risk  
protection

Improved efficiency

Thank you