

Childhood malnutrition in Asia: numbers count but do we care?

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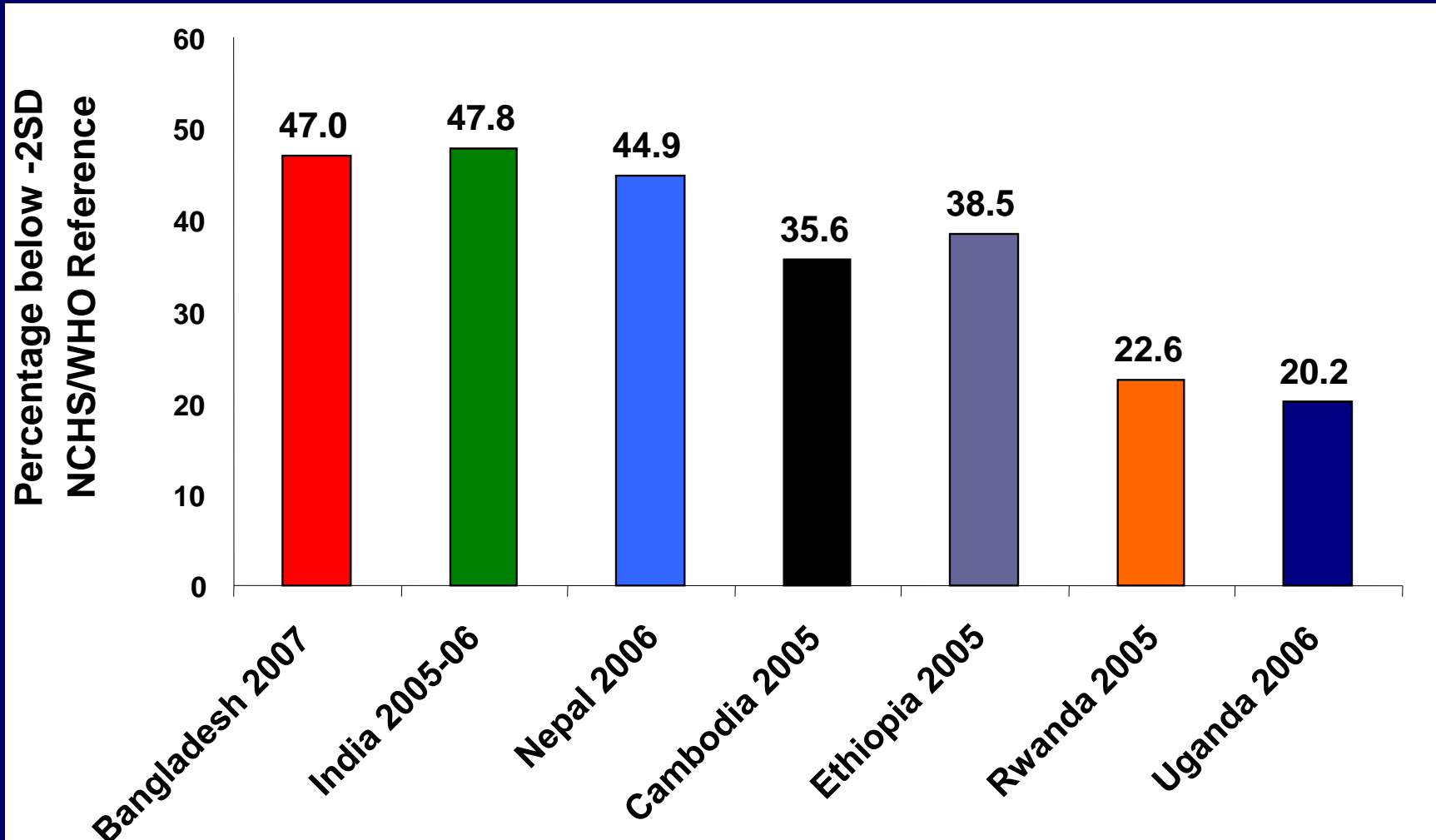
BRAC University

President, CAPGAN

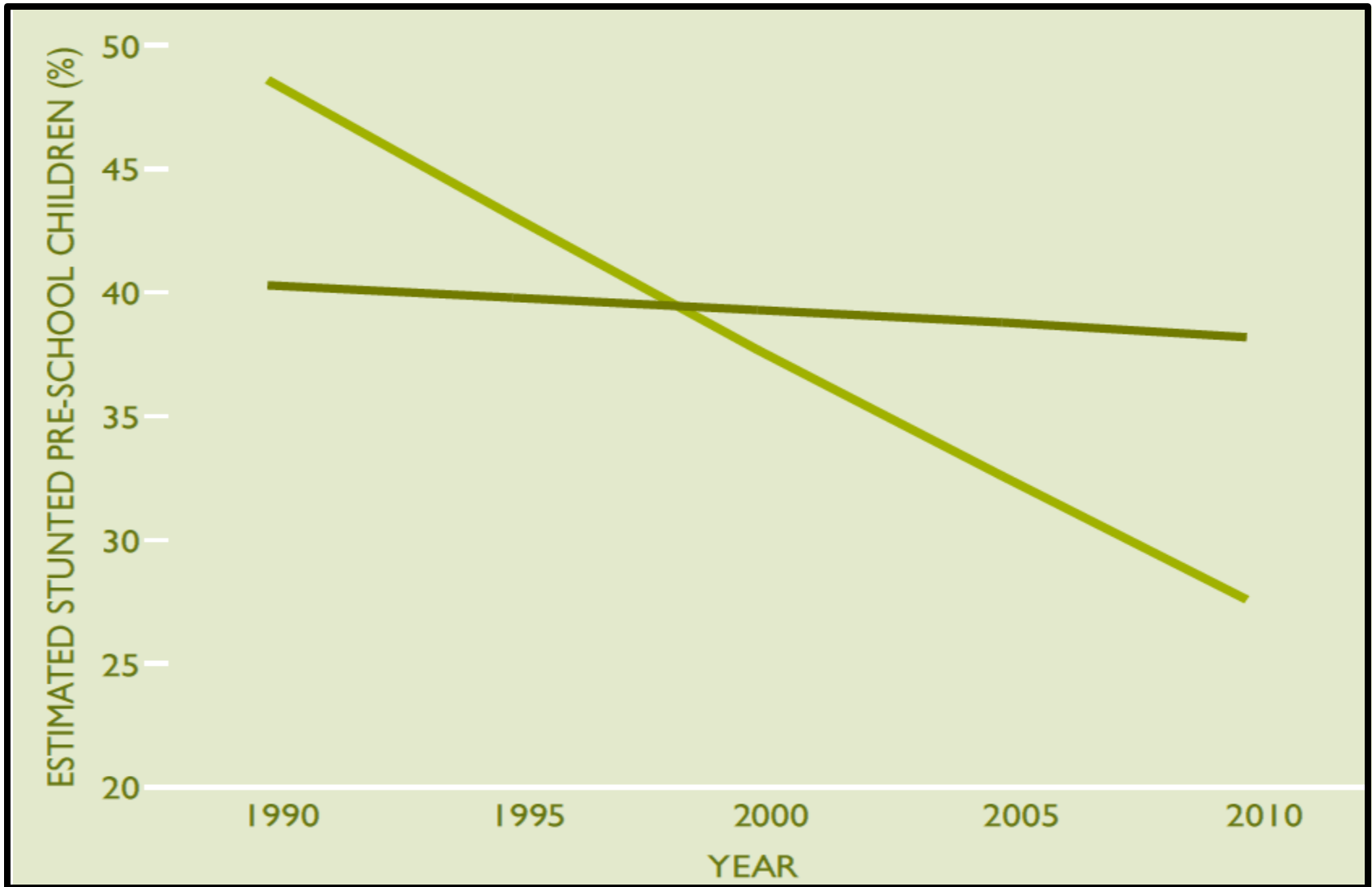
Outline

- Burden of malnutrition in Asia
- Programs and research
- Training activities and capacity
- Challenges for Asia

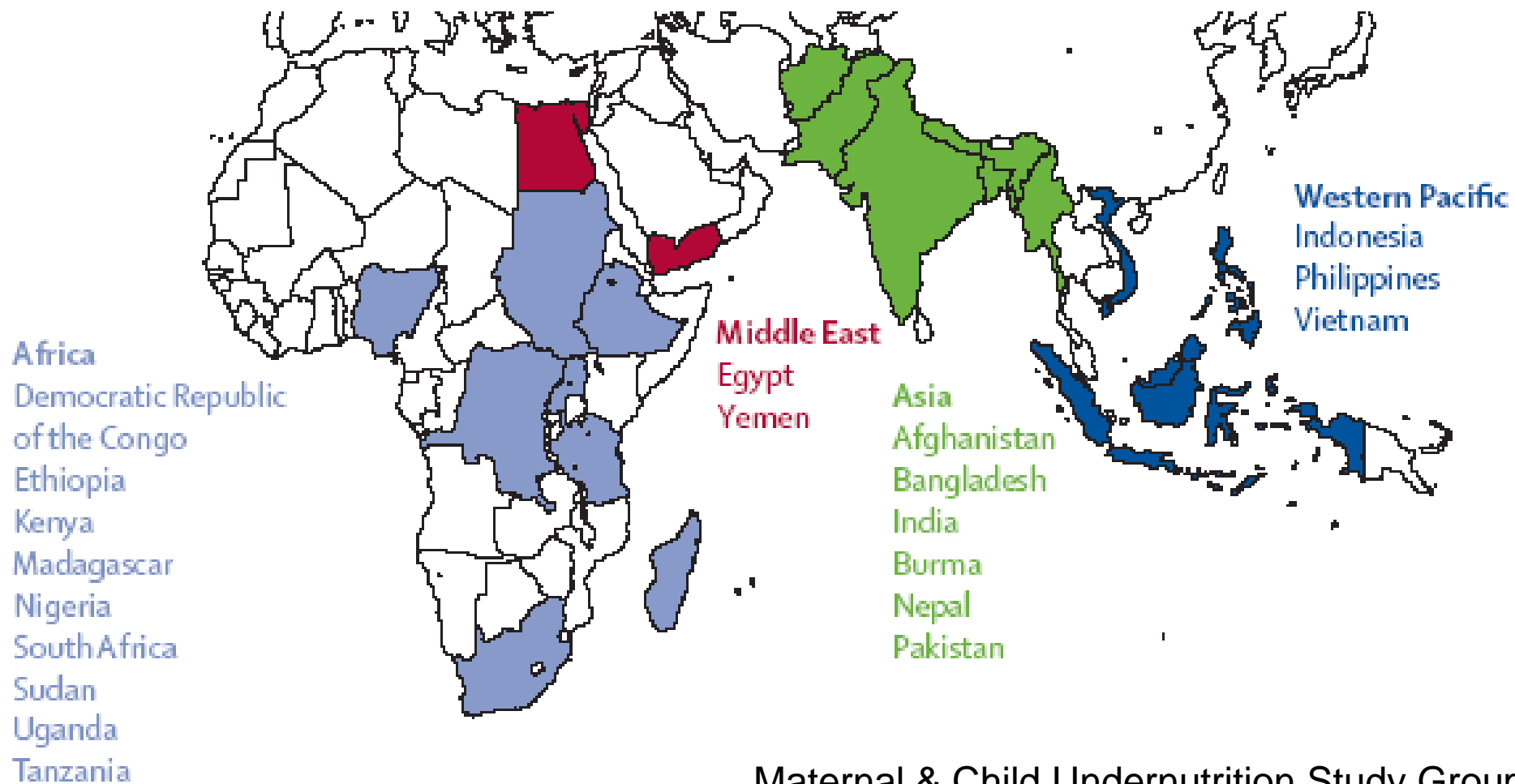
Malnutrition is more common in South Asia than in many countries in Sub-Saharan Africa



Stunting rates in Africa falling slowly but absolute numbers are more in Asia



The 20 countries with the highest burden of child undernutrition



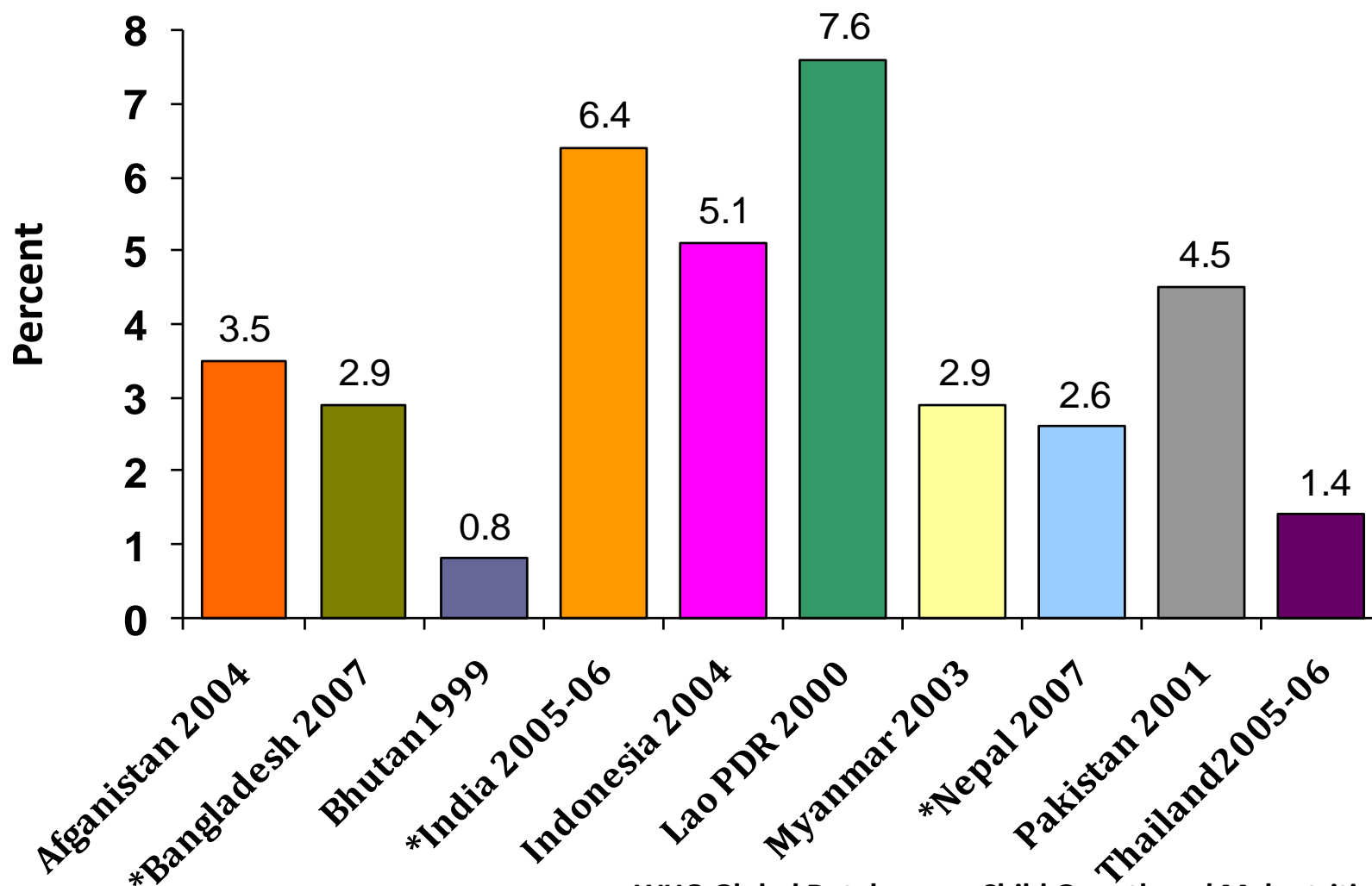
A child with severe
acute malnutrition

Globally, 19 million
children

2.9% prevalence in
Bangladesh
~ 600,000 children



Severe Acute Malnutrition in Asia



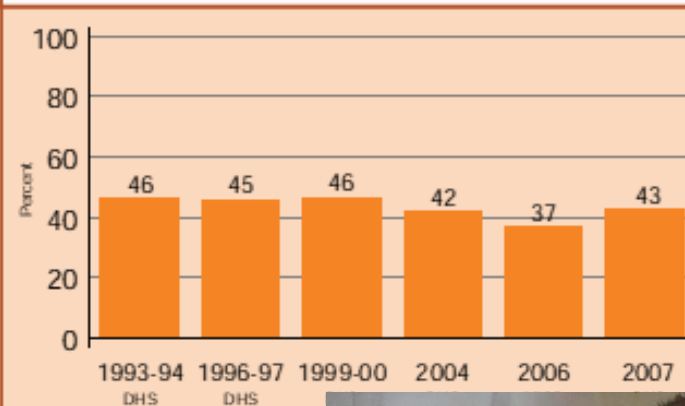
WHO Global Database on Child Growth and Malnutrition

*Demographic and Health Survey

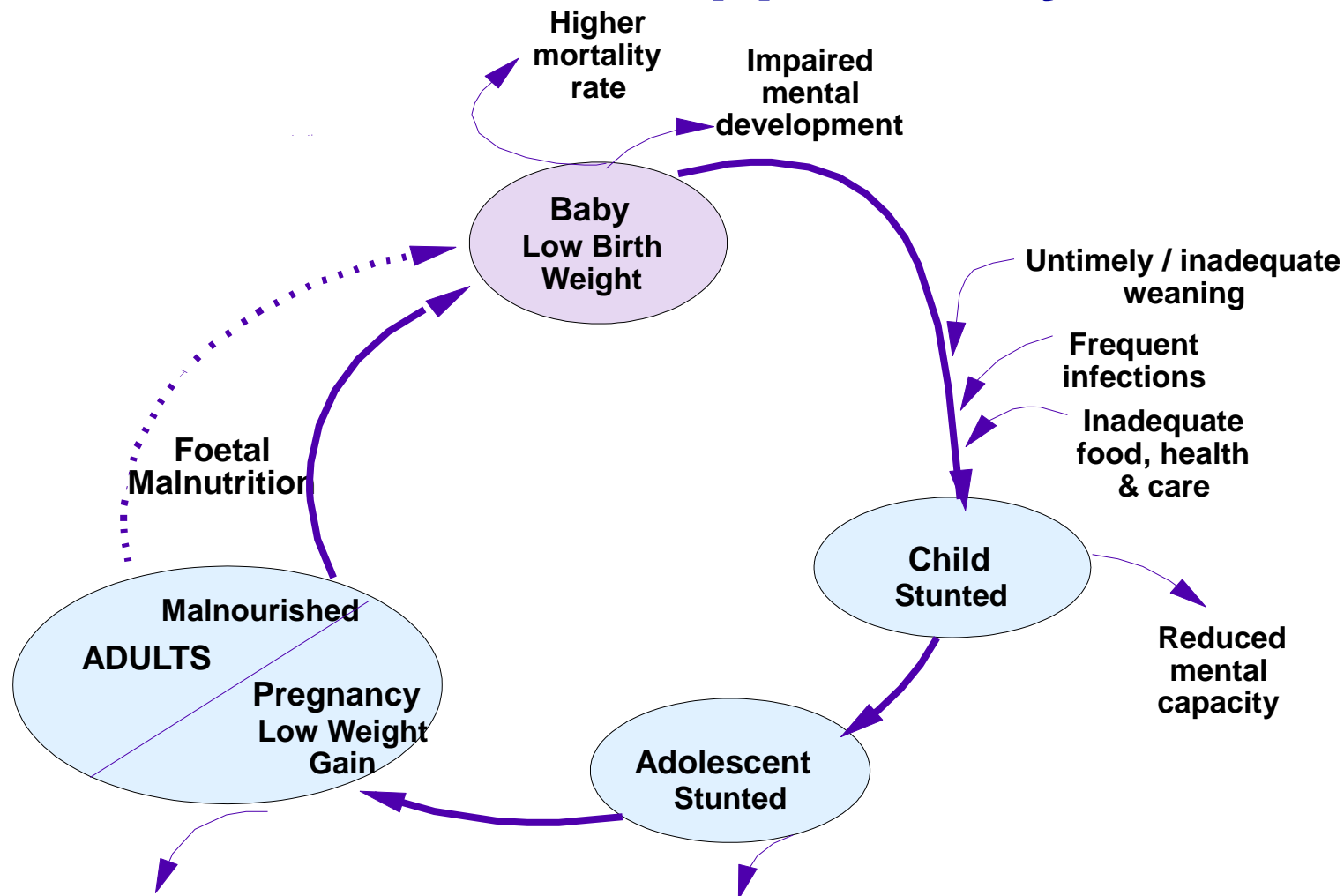


Exclusive breastfeeding

Percent infants < 6 months exclusively breastfed



Targeting Nutrition Interventions to the Window of Opportunity



On the Causes of Malnutrition



Amartya Sen

Famine and malnutrition are a result of a collapse of entitlements for a certain segment of society and the failure of the state to protect those entitlements.

Research needs

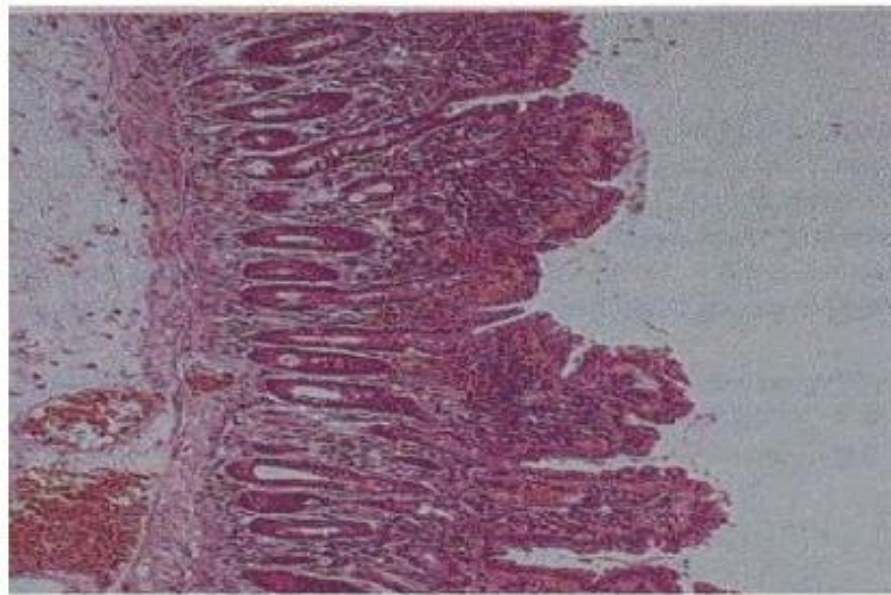
- Search for evidence-based interventions for management of acute malnutrition
- Develop ready-to-use diets from locally available food ingredients that can prevent and treat severe acute malnutrition
- Thinking out of the box – investigate etiology of childhood malnutrition in terms of genetic predisposition, environmental enteropathy, and effect of the gut microbiome

Research needs

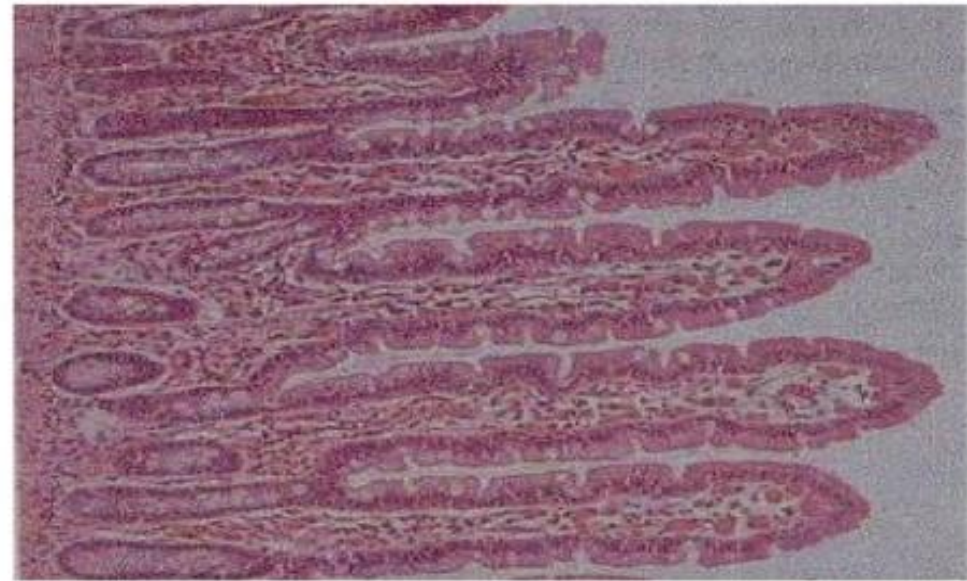
- The cost-effectiveness of package of nutritional interventions at the country level
- How can we improve complementary feeding?
- What can we do about stunting that has already occurred past 3 years of age?
- Research into quality & effectiveness of international aid for improving nutrition

Environmental enteropathy

Healthy



← crypt → ← villus →



← crypt → ← villus →

29 January 2011

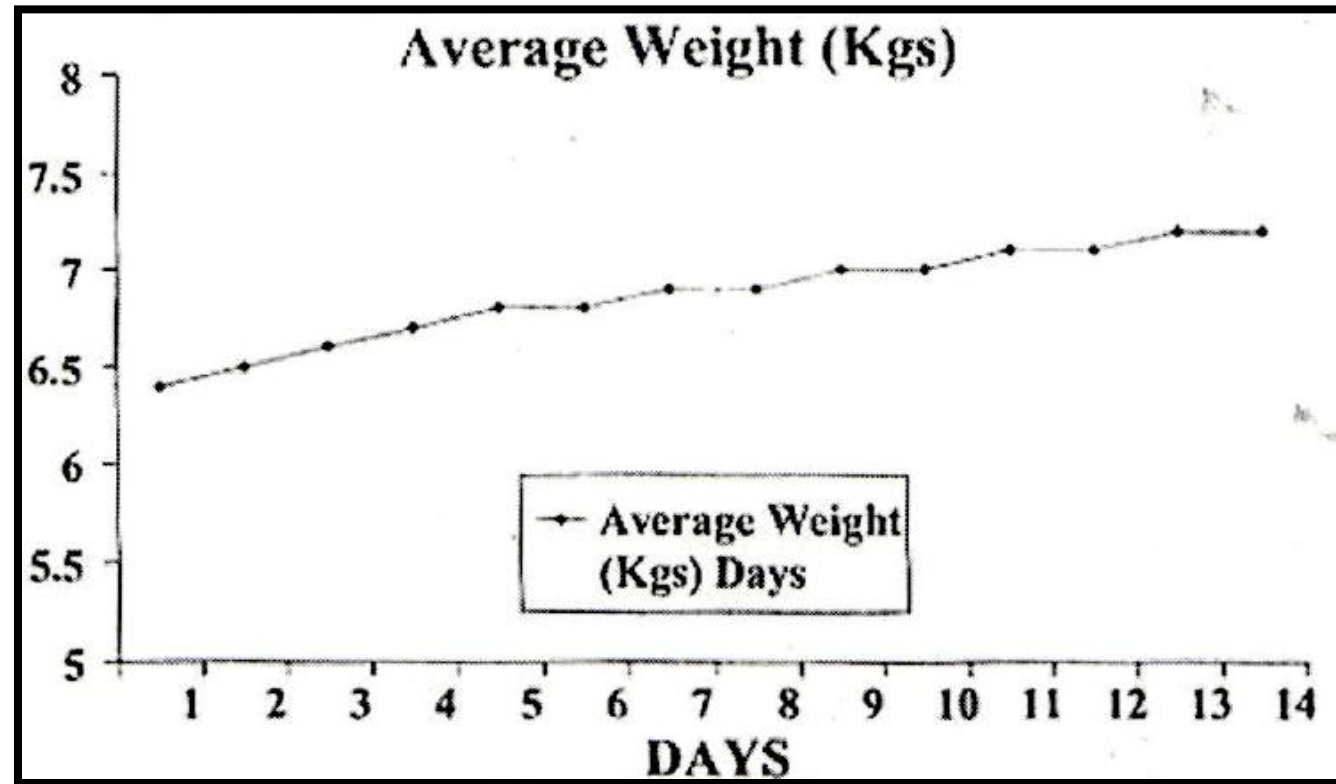
*Its been 1 ½ years since the floods but
acute malnutrition is still more than 20%*

Country Activities

PediaSure in the Rx of SAM in Pakistani Children

Akram Ds et al. JPMA 2000

- Non-controlled
- Small sample size
- Hospital based
- 33% attrition



Consensus Statement: National Consensus Workshop on Management of SAM Children through Medical Nutrition Therapy

Indian Pediatrics 2010

- Ethically imperative to take actions for the 8 million children with SAM
- 85% can be managed in the community
- MNT should not interfere with the holistic approach to prevent child undernutrition



Consensus Statement: National Consensus Workshop on Management of SAM Children through Medical Nutrition Therapy

Indian Pediatrics 2010

- Experience from Bihar & MP show that RUTF can be scaled up
- Local products in West Bengal & Gujrat show similar results
- Concerns about replacement of breastfeeding and commercialization



Consensus Statement: National Consensus Workshop on Management of SAM Children through Medical Nutrition Therapy

Indian Pediatrics 2010

- Comparison of RUTF with home-based and locally-formulated products
- Physiological recovery and longer benefits of the above treatments
- Effect of introduction of RUTF on breast feeding
- Operationalization and economic analysis in different settings

Suggested research



"The attribution of more than a third of child deaths and more than 10% of total global disease burden to maternal and child undernutrition demonstrates the huge importance of these prevalent risk factors to international health goals."

The Lancet Series on Maternal and Child Undernutrition

Maternal and Child Undernutrition 3

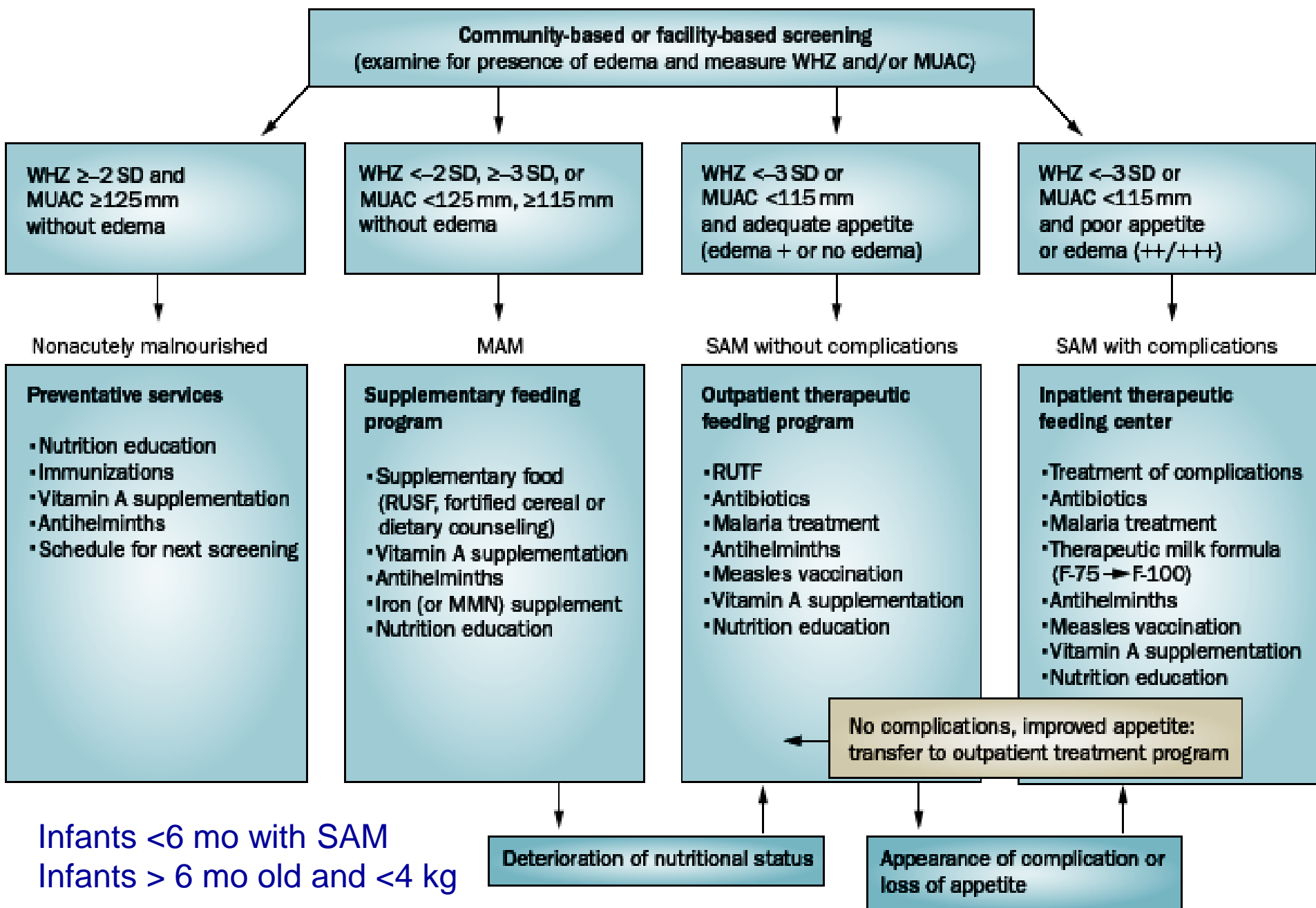
What works? Interventions for maternal and child undernutrition and survival

*Zulfiqar A Bhutta, Tahmeed Ahmed, Robert E Black, Simon Cousens, Kathryn Dewey, Elsa Giugliani, Batool A Haider, Betty Kirkwood, Saul S Morris, H P S Sachdev, Meera Shekar, for the Maternal and Child Undernutrition Study Group**



10 mo old infant with severe edema & skin lesions

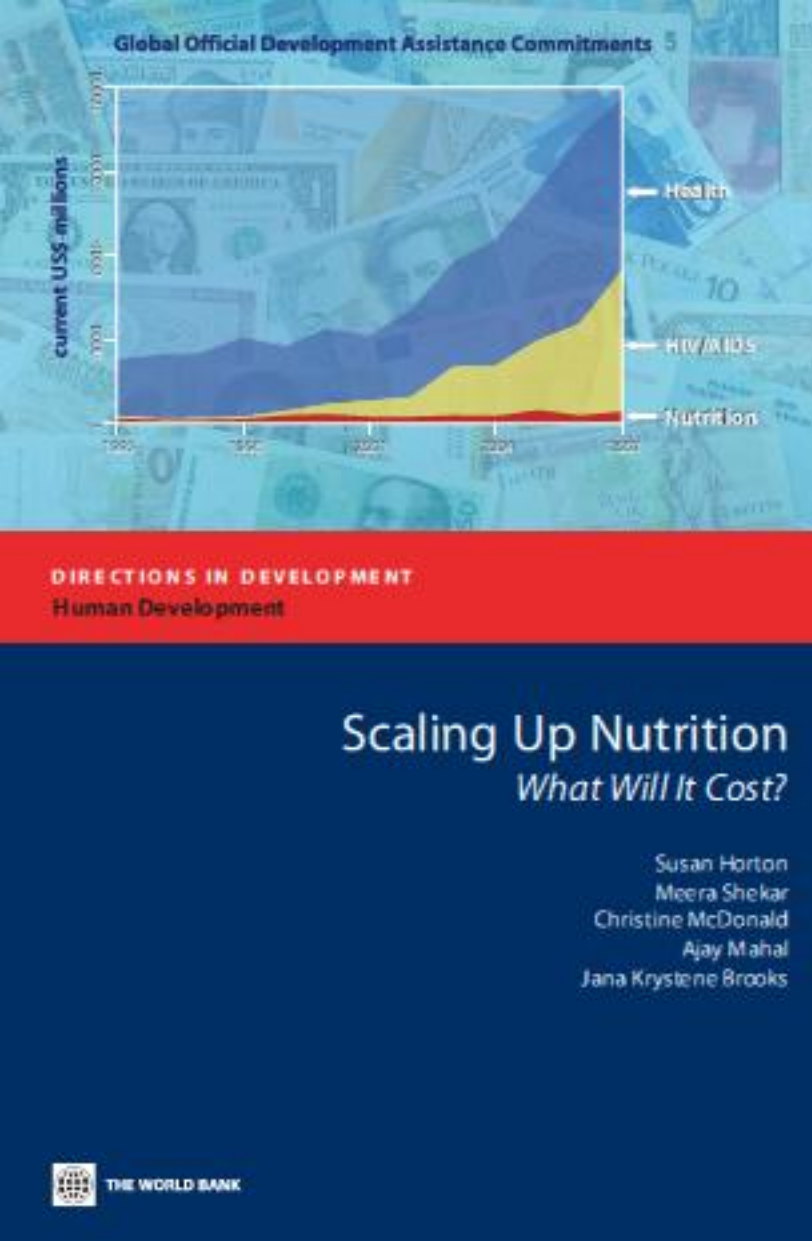






The Peanut Butter Debate

Enserink M. Science 2008



Treatment of SAM using a CMAM approach

USD 200 / episode, double prevalence to obtain incidence estimates

Food cost alone is USD 50-70 per episode for locally produced food

Regional Nutrition Strategy

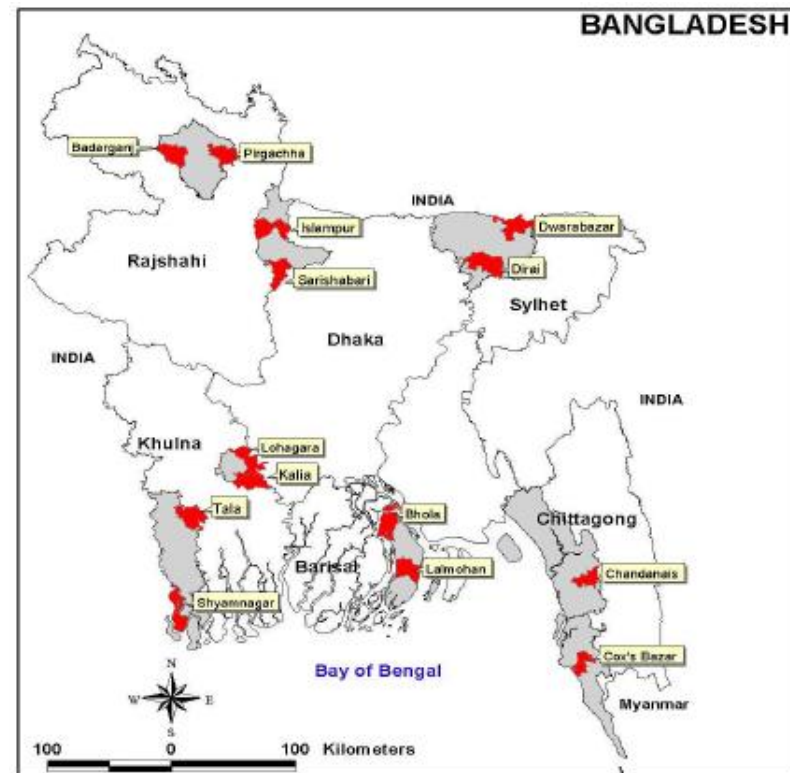
WHO South East Asia Region

Bangladesh, Indonesia, Lao PDR, Nepal, India,
Bhutan, Thailand, Timor Leste, Sri Lanka,
Myanmar, DPR Korea, Maldives

August 2011

EU-UNICEF Joint Action for improving Maternal and Young Child Nutrition Security in Asia (MYCNSIA), 2011-2014

Bangladesh, Indonesia, Lao PDR, Nepal and the Philippines



Acute Malnutrition in Bangladesh

Age in months	% below -2SD (weight-for-height)
<6	17.9
6-9	13.3
10-11	25.9
12-17	22.8
18-23	23.5
24-35	16.1
36-47	15.1
48-59	15.3

Male 18.4
Female 16.5

Urban 14.4
Rural 18.2

Several million children

Estimated caseloads of acutely malnourished children 6-59 months old

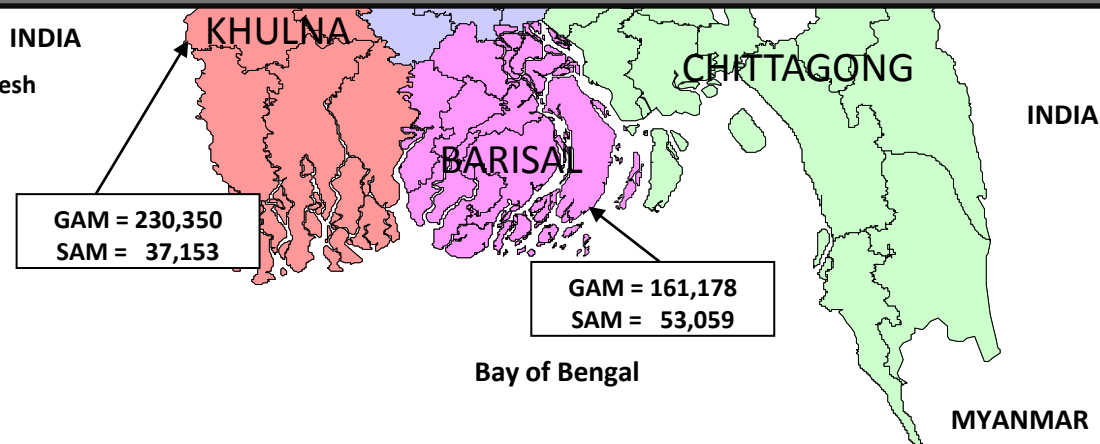


No national program on
CMAM

LEGEND:

Acute Malnutrition Situation in Bangladesh
(WHO 2006 Growth Standards)

Divisions:	Prevalence of GAM / SAM
Barisal	16.1% / 5.3%
Chittagong	13.4% / 3.5%
Dhaka	12.3% / 3.1%
Khulna	12.4% / 2.0%
Rajshahi	15.2% / 3.8%
Sylhet	13.5% / 4.0%



Source: HFSNA 2009; EPI CES 2009. Courtesy:
UNICEF

How do we combat acute malnutrition?

- Scaling up the simple interventions to address malnutrition comprehensively
- For addressing SAM
 - improve facility-based management in hospitals
 - include management of SAM with complications in sub-district health complexes

How do we combat acute malnutrition?

- For addressing SAM
 - identify SAM children in the community through community clinics, NGO workers, community mobilization
 - develop a therapeutic food based on locally available food ingredients