SESSION 3A:
STATEMENT OF THE PROBLEM

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NUTRITION-SENSITIVE SOCIAL PROTECTION: WHY AND WHAT?
Overview

1. **Size and shape of the malnutrition problem**
   - Stunting, wasting, underweight,
   - Micronutrient malnutrition ("hidden hunger")
   - Overweight/obesity and related NCDs

2. **When does malnutrition happen, and why?**

3. **Linkages between poverty, equity, and malnutrition**

4. **Rationale for nutrition-sensitive social protection programs**

5. **Riding the global SUN movement to scale-up Nutrition-sensitive SP**

6. **Nutrition-sensitive SP: A WIN-WIN for all!!**
162 million children stunted in 2013
Global target: reduce to ~ 100 million by 2025

85% of stunting concentrated in 37 countries
Child Stunting Prevalence
Global and regional trends, Children <5 years (1990-2013)

Child Stunting
Number of children (<5 years), by region (1990-2013)

Child Overweight Prevalence
Global and regional trends (Children < 5 years) 1990-2013

- EUROPE & CENTRAL ASIA
- MIDDLE EAST & NORTH AFRICA
- LATIN AMERICA & CARIBBEAN
- EAST ASIA & PACIFIC
- SUB-SAHARAN AFRICA
- SOUTH ASIA

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of children affected (millions)</th>
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<tbody>
<tr>
<td>1990</td>
<td>3.0</td>
</tr>
<tr>
<td>1995</td>
<td>3.0</td>
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<tr>
<td>2000</td>
<td>3.0</td>
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<td>2005</td>
<td>3.0</td>
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<tr>
<td>2010</td>
<td>3.0</td>
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<td>2013</td>
<td>3.0</td>
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The chart above shows the number of children (under 5 years) affected by overweight in different regions from 1990 to 2013. The regions are categorized into Europe & Central Asia, Middle East & North Africa, Latin America & Caribbean, East Asia & Pacific, Sub-Saharan Africa, and South Asia. The number of affected children is represented in millions.
Nutrition and the World Bank’s Twin Goals

Good nutrition drives incomes and economic growth

Improving nutrition targets the bottom 40%
The vicious cycle of poverty and malnutrition

- Indirect loss in productivity from poor cognitive development and schooling
- Direct loss in productivity from poor physical status
- Loss in resources from increased health care costs of ill health
- Low food intake
- Frequent infections
- Hard physical labor
- Frequent pregnancies
- Large families

Income poverty

Malnutrition

- e.g. lost agricultural productivity
- e.g. lowered educability
- e.g. health care costs & absenteeism

Bhagwati et al, 2004; Repositioning Nutrition, 2006
Economic growth and undernutrition

Underweight and GNP
The trickle-down effect is modest...

Stunting and GNP
A highly variable relationship...

Income growth by itself will improve nutrition, but at a slow rate that will not be sufficient to achieve the nutrition targets.

Data Source: WB World Development Indicators, Latest available data for each country, GDP PC PPP, constant int'l 2005 $
In India, 60% children in the poorest quintiles are stunted, vs. 25% in the richest quintile.

In Nigeria, 54% children in the poorest quintile are stunted, vs. 18% among the richest.

Source: Nigeria DHS 2003 and India NFHS 205/6.
The consequences of malnutrition

**COGNITION**
- Iodine deficient children lose 13 IQ points

**SCHOOLING**
- 0.7 grades schooling loss
- 7 month delay in starting school

**PRODUCTIVITY**
- Losses of 10% over lifetime earnings
- 2-3% loss of global GDP (11% of GDP in Africa/Asia)
- Obesity costs 2.8% of global GDP

**HEALTH**
- Underlying cause of 3.1 million / 45% of deaths of children <5
- Underlying cause of 11 percent of DALYs globally

There is a huge opportunity to permanently lock-in human capital before age two to minimize these consequences.

Why invest in nutrition?

**SCHOOLING**
Early nutrition programs can increase school completion by one year.

**EARNINGS**
Early nutrition programs can raise adult wages by 5-50%.

**POVERTY**
Children who escape stunting are 33% more likely to escape poverty as adults.

**ECONOMY**
Reductions in stunting can increase GDP by 4-11% in Asia & Africa.
The window of opportunity: first 1,000 days

- Sets the life-long foundation for human capital
- Adequate nutrition in this 1000-day window is imperative
- If not, the damage to future human capital is irreversible

WELL-NOURISHED BRAIN CELLS

UNDERNOURISHED BRAIN CELLS
The first 1,000 days are critical to build human capital

Height-for-age scores (WHO)

Actions after age two are:
- TOO LATE
- TOO EXPENSIVE
- TOO LITTLE

Stunted children are also more likely to become overweight

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<tr>
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<th>Relative Risk</th>
<th>95% CI</th>
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<tr>
<td>Brazil</td>
<td>1.7</td>
<td>(1.2, 2.3)</td>
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<tr>
<td>S Africa</td>
<td>2.6</td>
<td>(2.0, 3.5)</td>
</tr>
<tr>
<td>China</td>
<td>4.2</td>
<td>(3.1, 5.7)</td>
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<tr>
<td>Russia</td>
<td>7.8</td>
<td>(5.7, 10.7)</td>
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Source: Popkin et al., J Nutr 1994
Weight gain and the risk of overweight: the tipping point

Rapid weight or length gain in the first 2 years does NOT increase risk of chronic disease

Growing evidence that rapid weight gain after age 2 associated with impaired glucose tolerance and obesity, especially among stunted kids

Source: (Victora et al 2010)

BUT...

Dutch Famine Studies
Barker hypothesis

Risk of Obesity/NCDs

Birth
2 years
5 years
Adulthood
Determinants of Child Nutrition

Interventions
- Infant and young child nutrition and treatment of severe undernutrition
  - Micronutrient supplementation & fortification
  - Hygiene practices
- Ag & food security
  - Health Systems
  - Safety nets
  - Water & sanitation
  - Gender & Development
  - Girls’ Education
  - Climate change
- Poverty reduction & economic growth programs
  - Good governance
  - Trade & patents (role of private sector)
  - Conflict Resolution
  - Environmental Safeguards

Food/nutrient intake

Health

Access to food

Maternal and child-care practices

Water/Sanitation Health services

INSTITUTIONS

POLITICAL & IDEOLOGICAL FRAMEWORK

ECONOMIC STRUCTURE

RESOURCES

ENVIRONMENT, TECHNOLOGY, PEOPLE

Nutrition-specific interventions

Immediate causes

Underlying causes

Basic causes

Nutrition-sensitive interventions

Adapted from UNICEF 1990 and Ruel 2009
We have an affordable package of “nutrition-specific” interventions to reduce stunting

- Improving nutrition for women during pregnancy
- Improving infant and young child feeding practices, including exclusive breastfeeding for the first six months
- Improving child nutrition, including micronutrient supplementation
- Improving policy coordination, capacity and evaluation

However, traditionally – these have been delivered through the health sector – but, n-sensitive SP programming offers a unique opportunity to expand delivery platforms and offer WIN-WIN situations for both SP and HNP

ANNUAL ADDITIONAL COST PER CHILD UNDER-5

$8.50

$49.6 billion additional financing needed globally over ten years
Child Stunting: Trends and Targets

~ 74 million fewer children stunted in 2025

Underlying determinants of stunting*

Nutrition-specific interventions

162m stunted

~100m stunted

↓ by 40% by 2025

$1 invested in stunting = ~ $18 economic returns

Total $49.6 billion over ten years

* Includes per capita GDP, food availability and diversity, and women’s education, health and empowerment

Source: World Bank and R4D, 2016 (forthcoming)
But, many challenges remain in scaling up nutrition because...

1. Malnutrition remains invisible
   - To country policy makers…
   - To global leaders…
   - And to families and communities…
   - A major effort is needed to “make under-nutrition visible” so action can follow…

2. Service delivery platforms for nutrition have historically been limited to the health sector
Potential pathways linking social protection programs and improved nutrition outcomes

Improved Child Nutrition Outcomes

- Improved Diets
- Improved Access to Food
- Improved care for young children & women
- Less Infectious disease
- Improved Health & sanitation services

Potential components of social protection programs

- Income support
- Micronutrient Suppl./deworming
- Nutrition counseling and services
- Health/sanitation services

Source: Adapted from Neufeld, 2006
Getting the right start
A WIN-WIN for Nutrition and for SP

Improved nutrition can be a driver of economic growth and a means to reduce poverty and enhance shared prosperity.
Together, Social protection and Nutrition Programs can grow evidence and drive investment in human capital for long-term prosperity: A WIN-WIN for all

- Take advantage of early malleability
- Build foundations for further learning & productivity
- Prevent early damage / avoid irreversible loss of potential

Early Childhood Nutrition Programs appear profitable, even if payoff is only 20+ years from today.
Nutrition-sensitive social protection

Capitalizes on win-win for both sectors can help to reach SDGs, global nutrition targets, and twin goals

Improved Nutrition
- Helps reduce poverty and builds human capital
- Targets the poorest and most vulnerable, including women
- Can benefit from SP delivery mechanisms to scale-up priority interventions
- Can obtain increased efficiency by using SP targeting systems

Social Protection
- Aims to reduce poverty and inequity
- Has extensive poverty targeting systems
- Can be designed to incentivize households to create demand for nutrition-specific services
- Can minimize risk of shocks that pose nutritional risk of poorest

WIN-WIN
Build human capital that will reduce poverty and enhance shared prosperity