This presentation is part of the

Agriculture and Nutrition Global Learning and Evidence Exchange

(AgN-GLEE)

held in Bangkok, Thailand from March 19-21, 2013.

For additional presentations and related event materials, visit: http://spring-nutrition.org/agnglee-asia
Targeting for effective nutritional outcomes:
The First 1,000 Days
Objectives of the session

a. Gain an understanding of why the reduction of stunting and anemia are important nutrition goals and why the first 1,000 days are a critical window of opportunity.

b. Become familiar with the core activities contained within the High Impact Nutrition Actions in the Lancet (Essential Nutrition Actions)

c. Discuss how concrete activities in agriculture can contribute to fill gaps in nutrition for vulnerable members of the household (women and children under age two).
Key Anthropometric Measurements

- **Stunting**
  - low HEIGHT for age (<= 2SD HAZ)
  “The least understood, most under-appreciated development issue in the world.” – Tony Lake, Executive Director, UNICEF

- **Underweight**
  - low WEIGHT for age (<=2SD WAZ)

- **Wasting**
  - low WEIGHT for HEIGHT (<=2SD WHZ)
Consequences of Undernutrition

Undernutrition leads to physical stunting, which is associated with:

- reduced cognitive ability
- higher susceptibility to disease
- increased risk of mortality
- poorer performance in school
- lower future incomes
SOME KEY FINDINGS

INCAP in Guatemala 1969-1977
Increased height in early years = better scores on intellectual tests at age 11-26

Lancet 2007, various countries
Stunting at 12-36 months of age = lower performance in middle school

Brazil large cross-sectional 1997
A 1% increase in height = a 2.4% increase in wages

Lancet 2008, various countries
Low birth weight or undernutrition in early years = increased risk for chronic disease, i.e. high blood pressure, high glucose levels and poor lipid profiles

Source: Alive and Thrive Technical Brief Issue 2, September 2010
## Severity of Problem in Asia - Prevalence of Undernutrition

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Stunting</th>
<th>Underweight</th>
<th>Wasting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2011</td>
<td>31</td>
<td>38</td>
<td>14</td>
</tr>
<tr>
<td>Cambodia</td>
<td>2010</td>
<td>28</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>Egypt</td>
<td>2008</td>
<td>24</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>India</td>
<td>2005-06</td>
<td><strong>38</strong></td>
<td>46</td>
<td>19</td>
</tr>
<tr>
<td>Nepal</td>
<td>2011</td>
<td>28</td>
<td>35</td>
<td>12</td>
</tr>
<tr>
<td>Timor-Leste</td>
<td>2009-10</td>
<td><strong>49</strong></td>
<td>48</td>
<td>16</td>
</tr>
</tbody>
</table>

*Source: DHS Stat Compiler*
Unapparent undernutrition

Reference: Vilma Q. Tyler, UNICEF-CEE/CIS
Growth faltering begins early in life

## Severity of Problem in Asia - Prevalence of Anemia

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Children 6-59 months</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>2011</td>
<td>52</td>
<td>42</td>
</tr>
<tr>
<td>Cambodia</td>
<td>2010</td>
<td>56</td>
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</tr>
</tbody>
</table>

*Source: DHS StatCompiler.*
The first 1,000 Days Partnership

“promotes targeted action and investment….when better nutrition can have a life-changing impact on a child’s future and help break the cycle of poverty.”

• From Conception to 2 years
• Focus on nutrition of **girls & women**, especially pregnant and lactating
• Focus on **infant & young children**, especially 0-23 months
Progress Made

Child Stunting Reduction from 1990-2011

- World: 40%
- Asia: 26%
- Central and Eastern Europe: 27%
- Latin America/Caribbean: 12%
- Middle East/North Africa: 36%
- Sub-Saharan Africa: 20%

The graph shows the percentage reduction in child stunting from 1990 to 2011 across different regions of the world.
Global Shifts in Nutrition: 2006 to now.

1. Investing in nutrition is one of the most cost-effective buys in development (Copenhagen Consensus 2006)

2. A core package of interventions is proven to improve nutrition (Lancet Series 2008)

3. That core package costs a certain amount (World Bank 2009)

4. Targeting from pregnancy to two years will have the most impact (1,000 days)

5. Countries are eager to scale up nutrition and our partners are aligned to support them (SUN)
Today... consensus **exists** on ‘what’ nutrition actions make a difference...

The Lancet Series on Maternal and Child Undernutrition 2008
Scaling Up Nutrition (SUN) Framework for Action

Recommendations for 13 Direct High-impact Cost-Effective Nutrition Interventions:

1-3: Good infant and young child feeding practices

4-9: Increasing intake of vitamins and minerals/de-worming

10-11: Micronutrients through food fortification (iodized salt, iron fortification of staple foods)

12-13: Therapeutic feeding for malnourished children
The Essential Nutrition Actions

Women’s Nutrition

Optimal Breastfeeding

Complementary Feeding with BF

Nutritional Care of the sick & Malnourished child

Control of Vitamin A deficiency

Control of Anemia

Control of Iodine Deficiency Disorders
KNOW YOUR **BASIC** FOOD GROUPS FOR A BALANCED AND **DIVERSE** DIET

- **ENERGY**: Staple Food
- **PROTECTION**: Fruits & Veggies (vitamins / minerals)
- **GROWTH**: Vegetable Protein
- **GROWTH**: Animal Protein

One nutrition advisor’s perspective 😊

Fats? Yes! Sugars? No?
Common gaps in the diet

Sufficient calories all year round

+ 

Nutrient dense foods with:

- Protein (high quality)
- Iron
- Vitamin A
- And Concentrated calories from Fats & Oils
### Feed the Future Indicators for Nutrition and Agriculture

<table>
<thead>
<tr>
<th>High level indicators</th>
<th>% of stunted children under 5 years of age</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>% of wasted children under 5 years of age</td>
</tr>
<tr>
<td></td>
<td>% of underweight women</td>
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<td>Intermediate level indicators</td>
<td>% of households with moderate or severe hunger</td>
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<td>% of exclusive breastfeeding of children under 6 months</td>
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<td>% of children 6-23 months receiving a MAD</td>
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<td>No. of health facilities capable of managing acute undernutrition</td>
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FTF Nutrition Indicators: *Nutrition Alone*

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| No. of health facilities capable of managing acute undernutrition                    |
### FTF Nutrition Indicators: Benefits of Integration

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The Seven Pathways: Ag to Nutrition

Pathway 1: Own production → food consumption

Pathway 2: Income → food purchase

Pathway 3: Income → healthcare purchase (similar Pathway 2)

Pathway 4: Food prices → food purchase

Pathway 5: Women’s time use → child care capacity

Pathway 6: Women’s workload → maternal energy use

Pathway 7: Women’s control of income → resource allocation
Women’s Nutrition

Optimal Breastfeeding

Complementary Feeding with BF

Women’s workload / Women’s time use

Diverse diet

Women’s control of resources
The Essential Nutrition Actions

Control of Vitamin A deficiency

Iron/Folic acid and Control of Anemia

Control of Iodine Deficiency Disorders

Diverse diet
  • high in micronutrients
  • (with fat to absorb Vitamin A?)

Nutritional Care of the sick & Malnourished child
SMALL GROUP ACTIVITY

GROUP A: Look at Pathway 1 and discuss any project you know with effort to ensure any of the steps in this pathway.

Pathway 1: Agriculture – OWN PRODUCTION – household calories and micronutrients – individual intake – NUTRITION OUTCOMES

GROUP B: Look at Pathway 2 and discuss any project you know with effort to ensure any of the steps in this pathway.

Pathway 2: Agriculture – INCOME – food expenditure – household calories/micronutrients – individual intake – NUTRITION OUTCOMES

GROUP C: The Synthesis of Guiding Principles recommends all approaches should empower women: ensure income, access to services, avoid harm to child care, labor-saving technologies, rights to land/education/employ. Discuss any project you know with effort to ensure one of these empowerment aspects.

GROUP D: The Synthesis of Guiding Principles recommends all approaches should incorporate nutrition education in agriculture interventions. Discuss any project you know that does this.
1. Stunting is critical constraint to national development and to individual development. It can be prevented through optimal maternal and child nutrition during the first 1,000 days of life.

2. The seven Essential Nutrition Actions are:
   - Optimal maternal nutrition
   - Optimal breastfeeding
   - Optimal complementary feeding
   - Micronutrients: Vitamin A; iron/folic acid (anemia); iodized salt
   - Treatment of the sick and malnourished child

3. Common gaps in the diet are:
   - Sufficient staple foods all year
   - Protein
   - Iron and vitamin A
   - Fats & oils for energy dense foods

4. Women’s use of time, women’s workload, and women’s control of income are important factors for maternal and child nutrition.
THANK YOU !!

THE 1,000 DAY WINDOW OF OPPORTUNITY:
PREGNANCY.....BIRTH.......TO AGE TWO