Advocacy to Reduce Malnutrition: Using PROFILES and Nutrition Costing

Alice Nkoroi
Food and Nutrition Technical Assistance III (FANTA) Project
Presentation Outline

• Nutrition Advocacy Terms and Steps in the Process

• Examples of Results from Various Countries

• New PROFILES Models Related to Breastfeeding
Nutrition Advocacy Terms and Steps in the Process
What is Nutrition Advocacy?

- Planned, deliberate and systematic process to ignite social change for greater political and social commitment to improve the nutrition situation

- Promotes accountability for nutrition and strengthens nutrition governance

- Defined and shaped by a specific country context

- Can support a country at any stage of commitment
What is PROFILES?

- Evidence-based tool to support nutrition advocacy
- Uses computer-based models using scientific literature and current country-specific data
- Estimates the benefits of improved nutrition and the negative consequences if malnutrition does not improve
- PROFILES estimates are used to engage government and other high level stakeholders for a collaborative nutrition advocacy process
Nutrition Problems Addressed in PROFILES and the Benefits of Their Reduction

- Iron deficiency anemia → Maternal and perinatal mortality
- Low birth weight → Infant mortality
- Suboptimal breastfeeding practices → Child overweight/obesity, Child mortality
- Vitamin A deficiency → Child mortality
- Iodine deficiency → Permanent disabilities in children
- Childhood stunting, underweight, wasting → Child mortality

Stunting → Human capital
Stunting, iron deficiency, anemia, and iodine deficiency → Economic Productivity

PROFILES also estimates economic productivity losses if there is no change in the nutrition situation.
Information Required in PROFILES

• Prevalence of nutrition indicators

• Demographic information such as mortality, population size and structure; employment and wage information

• A time period for the estimates

• Targets for improvement in nutrition by the end of the time period
What is Nutrition Costing?

• Estimates costs of implementing a comprehensive set of nutrition programs in a country or prioritized geographic area over a specific time period

• Complements PROFILES estimates (PROFILES does not calculate costs)
How are PROFILES and Nutrition Costing Results Used?

• PROFILES and Nutrition Costing estimates are the cornerstone of this nutrition advocacy process

• Using a consensus-building process coupled with systematic planning, multi-sectorial country teams develop nutrition advocacy plans and targeted materials to disseminate PROFILES and Nutrition Costing results to key audiences
Steps in the Nutrition Advocacy Process

• Step 1: Convene multi-stakeholder core working group to oversee the process

• Step 2: Conduct a PROFILES workshop to develop estimates and share preliminary results

• Step 3: Develop nutrition costing estimates and share preliminary results

• Step 4: Conduct a Nutrition Advocacy Planning workshop to develop a National Advocacy Plan and corresponding nutrition advocacy materials

• Step 5: Conduct sub-national nutrition advocacy planning and development of materials, as needed
Examples of Results
## Nutrition Situation Among Children Under 5

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>Percent -2 SD (z-score)</strong></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stunting</strong> (chronic malnutrition)</td>
<td>33</td>
<td>28</td>
<td>43</td>
<td>44</td>
<td>22</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td><strong>Underweight</strong></td>
<td>14</td>
<td>14</td>
<td>41</td>
<td>29</td>
<td>11</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td><strong>Wasting</strong> (acute malnutrition)</td>
<td>5</td>
<td>8.5</td>
<td>17</td>
<td>10</td>
<td>5</td>
<td>5</td>
<td>4</td>
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</tbody>
</table>

*Source: Demographic and Health Surveys and the Multiple Indicator Cluster Survey*
Saving Lives by Reducing Chronic and Acute Malnutrition

**Stunting Lives Saved**
- **Bangladesh**: 2011–2021, ~160,000
- **Ghana**: 2011–2020, ~17,000
- **Ethiopia**: 2012–2025, ~150,700
- **Haiti**: 2013–2022, ~9,000

**Wasting Lives Saved**
- **Bangladesh**: 2011–2021, ~150,000
- **Ghana**: 2011–2020, ~28,000
- **Ethiopia**: 2012–2025, ~108,000
- **Haiti**: 2013–2022, ~3,800
Saving Lives by Reducing Chronic Malnutrition

Stunting Lives Saved

- Uganda 2013-2025: ~118,700
- Tanzania 2014-2025: ~120,600
- Malawi 2015-2030: ~97,700
### Saving Lives and Preventing Disabilities

<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Maternal Deaths Averted</th>
<th>Perinatal Deaths Averted</th>
<th>Infant Deaths Averted</th>
<th>Child Deaths Averted</th>
<th>Permanent Disabilities Averted*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bangladesh</strong></td>
<td>2011–2021</td>
<td>~6,000</td>
<td>~150,000</td>
<td>~230,000</td>
<td>~50,000</td>
<td>~2,000,000</td>
</tr>
<tr>
<td><strong>Ghana</strong></td>
<td>2011–2020</td>
<td>~4,700</td>
<td>~32,000</td>
<td>~14,000</td>
<td>~25,000</td>
<td>~700,000</td>
</tr>
<tr>
<td><strong>Ethiopia</strong></td>
<td>2012-2025</td>
<td>~6,400</td>
<td>34,000</td>
<td>~57,700</td>
<td>~106,500</td>
<td>~7,000,000</td>
</tr>
<tr>
<td><strong>Haiti</strong></td>
<td>2013-2022</td>
<td>~1,300</td>
<td>~4,000</td>
<td>~7,400</td>
<td>~5,100</td>
<td>~90,700</td>
</tr>
</tbody>
</table>

* Cretinism and mild to severe permanent brain damage prevented.
# Saving Lives and Preventing Disabilities

<table>
<thead>
<tr>
<th>Country</th>
<th>Maternal Deaths Averted</th>
<th>Perinatal Deaths Averted</th>
<th>Infant Deaths Averted</th>
<th>Child Deaths Averted</th>
<th>Permanent Disabilities Averted*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Iron deficiency anemia</td>
<td>Iron deficiency anemia</td>
<td>Low birth weight</td>
<td>Vitamin A deficiency</td>
<td>Iodine deficiency</td>
</tr>
<tr>
<td>Uganda</td>
<td>~6,600</td>
<td>~19,700</td>
<td>~25,800</td>
<td>~61,000</td>
<td>~236,500</td>
</tr>
<tr>
<td>Tanzania</td>
<td>~15,500</td>
<td>~72,700</td>
<td>~20,500</td>
<td>~101,900</td>
<td>~869,800</td>
</tr>
<tr>
<td>Malawi</td>
<td>~6,200</td>
<td>~22,600</td>
<td>~22,800</td>
<td>~27,700</td>
<td>N/A</td>
</tr>
</tbody>
</table>

* Cretinism and mild to severe permanent brain damage prevented
# Infant Lives Saved

<table>
<thead>
<tr>
<th>Country</th>
<th>Infant Lives Saved Related to Improved BF Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda (2013-2025)</td>
<td>101,100</td>
</tr>
<tr>
<td>Tanzania (2014-2025)</td>
<td>85,500</td>
</tr>
<tr>
<td>Malawi (2015-2030)</td>
<td>81,400</td>
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</tbody>
</table>
# Economic Productivity Gains That Would Result from Reduced Micronutrient and Chronic Malnutrition

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<tr>
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</thead>
<tbody>
<tr>
<td>Iodine Deficiency</td>
<td>900 Million</td>
<td>300 Million</td>
<td>2.9 Billion</td>
<td>34 Million</td>
</tr>
<tr>
<td>Anemia</td>
<td>1 Billion</td>
<td>350 Million</td>
<td>.5 Billion</td>
<td>37 Million</td>
</tr>
<tr>
<td>Stunting</td>
<td>13 Billion</td>
<td>500 Million</td>
<td>5 Billion</td>
<td>218 Million</td>
</tr>
</tbody>
</table>
## Economic Productivity Gains That Would Result from Reduced Micronutrient and Chronic Malnutrition

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Iodine Deficiency</strong></td>
<td>75.9 Million</td>
<td>479.1 Million</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Anemia</strong></td>
<td>108.8 Million</td>
<td>381.7 Million</td>
<td>170.6 Million</td>
</tr>
<tr>
<td><strong>Stunting</strong></td>
<td>1.7 Billion</td>
<td>3.9 Billion</td>
<td>1.8 Billion</td>
</tr>
</tbody>
</table>
### Human Capital Gains That Would Result from Reduced Chronic Malnutrition

<table>
<thead>
<tr>
<th>Country</th>
<th>Equivalent School Years of Learning Gained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uganda (2013-2025)</td>
<td>19.8 Million</td>
</tr>
<tr>
<td>Tanzania (2014-2025)</td>
<td>24.7 Million</td>
</tr>
<tr>
<td>Malawi (2015-2030)</td>
<td>18.2 Million</td>
</tr>
</tbody>
</table>
Bangladesh Advocacy Work with Gov’t

Using the estimates for advocacy

- Created a multisectoral advocacy strategy and implementation plan with key stakeholders
- Disseminated PROFILES and costing final results in June 2012
- Developed targeted materials and conducted advocacy efforts with 20 members of parliament, including the chief whip; 20 high-level GOB policy makers; 30 CSOs; 15 development partners; and several representatives of political parties.
- Worked with each audience to move the nutrition agenda forward through discussions and roundtables

Outcome Highlights

- Within GOB, cost estimates guided national budget allocation for nutrition for the next 5 years
- Raised the visibility, commitment, and accountability for nutrition in Bangladesh among GOB and development partners
- Parliamentarians requested to join nutrition task force after discussions
Uganda Advocacy Work

Using the estimates for advocacy

- Convened multisectoral national task force
- Launched PROFILES results and held advocacy activities with key audiences
- Developed advocacy materials focused on nutrition and sectors and also targeted to media, CSOs, donors, policymakers, district level officials, faith leaders, and community-based services officers
- Created nutrition advocacy training for district-level officials to help them develop advocacy implementation plans and talking points

Outcome Highlights

- Culminated in the development and adoption of a multisectoral Uganda Nutrition Action Plan operationalized by the Office of the Prime Minister
- Worked with policymakers to contribute to the Food and Nutrition Bill
- Developed a budgeting tool for districts to allocate funds for nutrition programming
- 10 districts are now implementing their advocacy plans to support integration of nutrition into sector work plans and budgets
New PROFILES Models Related to Breastfeeding
Examining the Relationship Between Suboptimal Breastfeeding (BF) and Child Mortality: A New Model Within PROFILES

- Suboptimal BF practices result in more than 800,000 child deaths annually (Black et al. 2013).

- New model shows benefits of optimal breastfeeding practices on reduced child mortality

- Uses coefficients from peer-reviewed literature and country-specific BF information

- Calculates proportion of child mortality related to suboptimal BF

- New model used in Tanzania, Uganda and Malawi

- In Tanzania, for example, improving BF practices would save ~86,000 children’s lives by 2025

Introduction

Malnutrition affects many developing countries, with significant negative consequences for individual health and national development in terms of lost human capital and economic productivity. Investment in nutrition was identified by the Copenhagen Communique in 2012 as a wise investment for developing countries, as every dollar invested in nutrition yields a $3.00 return. Thus, funding and support for nutrition programming is often lacking.

To address this urgent need for attention and commitment to reducing malnutrition, the USAID-funded Food and Nutrition Technical Assistance III Project (FANTA) at FHI 360 undertakes evidence-based nutrition advocacy using a collaborative approach to engage governments and national stakeholders to develop a shared vision and promote accountability and commitment for nutrition using a tool called PROFILES. Developed to support country-level nutrition advocacy, PROFILES consists of a set of computer-based models that calculate consequences of malnutrition over a defined time period (e.g., 10 years) and the benefits of improved nutrition (over the same time period), including lives saved, disabilities averted, human capital gains, and economic productivity gains.

PROFILES estimates are based on reduction in the prevalence of several nutrition problems, such as iron deficiency anemia, low birth weight, stunting, A deficiency (iodine deficiency and childhood stunting), underweight, and wasting. These estimates are generated through participatory workshops where relevant stakeholders discuss and agree upon the information needed to create the estimates. The information is then input into the PROFILES spreadsheet workbook to generate the results. The estimates generated from this tool and its models are the cornerstone of the nutrition advocacy process, which can be used to engage government and other high-level stakeholders in a collaborative process to identify priorities and advocate for evidence-based actions to reduce malnutrition.

Recently, FANTA updated the PROFILES tool to include a model that estimates the effect of suboptimal breastfeeding practices on child mortality. This brief explains why the model on breastfeeding practices was developed, how it is calculated, and how it is used for nutrition advocacy.

Why Advocate for Optimal Breastfeeding Practices?

Optimal breastfeeding reduces the risk of child mortality. It is estimated that, globally, 11.6 percent
Examining the Relationship Between Suboptimal Breastfeeding (BF) and Overweight/Obesity in Childhood: A New Model Within PROFILES

- As of 2014, as many as 41 million children under 5 worldwide are overweight or obese
- New model shows benefits of optimal BF practices on reduced overweight/obesity among children
- Uses coefficients from peer-reviewed literature and country-specific BF information
- Calculates country-specific estimates of children 48-59 months who are likely to become overweight/obese related to suboptimal BF
- New model was just added and will be used for the first time this year
The Effect of Suboptimal Breastfeeding on Preschool Overweight/Obesity: A Model in PROFILES for Country-Level Advocacy

Lesley Gut, Kavita Sethuraman, Jay Ross, and A. Elisabeth Sommerfelt

Introduction

Malnutrition has significant negative consequences for many developing countries, particularly in terms of poor human health, lost human capital, and decreased economic productivity. Investment in nutrition has been identified by the Copenhagen Consensus in 2012 as a best investment for developing countries; for every US$1 spent on nutrition, there is a US$2.50 return in health and economic benefits (International Food Policy Research Institute 2013). Despite this, funding and support for nutrition programming is often lacking.

To address this urgent need for attention and commitment to reducing malnutrition, the U.S. Agency for International Development (USAID) funded Food and Nutrition Technical Assistance III Project (FANTA) at FHI 360 supports evidence-based country-level nutrition advocacy. The approach to nutrition advocacy that FANTA uses engages governments and national stakeholders to develop a shared vision and promote accountability and commitment for nutrition using a tool called PROFILES.

Developed to support country-level nutrition advocacy, PROFILES consists of a set of computer-based models that calculate consequences if malnutrition does not improve over a defined timeline period (e.g., 10 years) and the benefits of improved nutrition over the same time period, including lives saved, disabilities averted, human capital gains, and economic productivity gains. The estimates generated from this tool and its models are the cornerstone of the nutrition advocacy process and can be used to identify, prioritize, and...
Why Did FANTA Create These Models?

• Consistent and substantial evidence that early, exclusive and continued BF significantly reduces neonatal and child mortality and decreases risk of later overweight/obesity.

• Despite this, little improvement in optimal BF practices globally.

• Delayed initiation of BF, pre-lacteal feeding and short duration of EBF is a consistent pattern seen across many countries – Often due to lack of family and community support and lack of understanding of importance of BF.
Why Did FANTA Create These Models?

- Advocacy for BF is needed at the national, community and family level to create an enabling environment where women are supported to BF.
- Globally, this is opportune time to focus on advocating for BF given the focus on first 1,000 days.
- Advocacy is important to build momentum to reach WHA 2025 targets and SDGs - Reductions in child mortality, stunting and overweight/obesity depend on good BF practices.
Thank You

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For more information on the FANTA Project or PROFILES and Nutrition Costing, please visit www.fantaproject.org.

This presentation is made possible by the generous support of the American people through the support of the Office of Health, Infectious Diseases, and Nutrition, Bureau for Global Health, U.S. Agency for International Development (USAID) under terms of Cooperative Agreement No. AID-OAA-A-12-00005, through FANTA, managed by FHI 360. The contents are the responsibility of FHI 360 and do not necessarily reflect the views of USAID or the United States Government.