Advancing methods, metrics, collection, and use of data on nutrition intervention coverage at household level

Rebecca Heidkamp, PhD
On behalf of the WHO-UNICEF TEAM Coverage Working Group
Conflict of Interest Disclosure

I have no conflict of interest to report in relation to this presentation.
“Nutrition needs a data revolution. Of the many information gaps the ones most needed to be filled are those that constrain priority action and impede accountability.”

- GNR 2014
Coverage data support action & accountability

• Countries invest in interventions
• More proximal & responsive to policy implementation than nutritional status & other outcomes
• Facilitates course correction and planning of new policies and programs
• Can be less costly & more feasible to collect than nutritional status or other outcomes
Closing the nutrition coverage gap
What is coverage?

Intervention coverage (%) = \(#\) who received \/#\ who should receive

Two elements must be clearly defined & measurable (valid):
- Intervention
- Target group

Images: UNICEF

Challenge
Coverage indicators are routinely collected across LMIC

Population-based surveys

Multi-topic health, economic & development surveys *(DHS, MICS, LSMS)*

Nutrition focused surveys *(“SMART”, food consumption, micronutrient status, food fortification)*

Administrative data
Survey & administrative sources have different use cases

Population-based surveys

- Equity analysis
- Co-coverage analysis

Administrative sources

- Subnational disaggregation

Other challenge:
- valid methods
- Data quality
# Coverage data gaps: West Africa

<table>
<thead>
<tr>
<th>Lifecycle stage</th>
<th>Interventions</th>
<th>Benin</th>
<th>Burkina Faso</th>
<th>Cabo Verde</th>
<th>Côte d’Ivoire</th>
<th>Gambia</th>
<th>Ghana</th>
<th>Guinea</th>
<th>Guinea-Bissau</th>
<th>Liberia</th>
<th>Mali</th>
<th>Mauritania</th>
<th>Niger</th>
<th>Nigeria</th>
<th>Senegal</th>
<th>Sierra Leone</th>
<th>Togo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescence</td>
<td>Food supplementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Counseling on health and nutrition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preconception</td>
<td>Iron supplementation</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Folic acid supplementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Nutrition counseling during pregnancy</strong></td>
<td>P+A</td>
<td>A</td>
<td></td>
<td></td>
<td>A</td>
<td>A</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pregnancy</td>
<td>Iron-folic acid supplementation (IFA)</td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P+A</td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Calcium supplementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Delivery and postnatal period</td>
<td>Support for early initiation of breastfeeding</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Delayed cord clamping</td>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Childhood</td>
<td>Counseling for complementary feeding</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Counseling for exclusive and continued breastfeeding</td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P+A</td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Support for exclusive and continued breastfeeding</td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P+A</td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Food supplementation for complementary feeding</td>
<td>A</td>
<td></td>
<td>P</td>
<td></td>
<td>P+A</td>
<td>P</td>
<td>P</td>
<td>P+A</td>
<td>P+A</td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vitamin A supplementation</td>
<td>P+A</td>
<td>P</td>
<td>A</td>
<td>P+A</td>
<td>P+A</td>
<td>P</td>
<td>A</td>
<td>P+A</td>
<td>P+A</td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management of severe acute malnutrition</td>
<td>P+A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>A</td>
<td>P+A</td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Management of moderate acute malnutrition</td>
<td>P+A</td>
<td>A</td>
<td>A</td>
<td>P</td>
<td>P</td>
<td>A</td>
<td>P+A</td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Coverage data gaps: South Asia

Number of nutrition interventions applicable and number of interventions for which policy, program and household survey data were available by country in South Asia

Neupane et al (Under Review)
Availability of data to track nutrition interventions in South Asia: a landscape analysis of gaps between policies, programs, and survey data
Health Policy & Planning
There is no comprehensive indicator framework guiding global nutrition monitoring; several global frameworks in use

- Rationale/guiding framework depends on partner focus
- Most are driven by what indicators are already available vs. what is needed/aspirational
- Can use different indicator definitions & sources for same topic

**WHA GNMF 2017**
- 25+ Indicators (5 intervention coverage)

**Scaling Up Nutrition MEAL 2018**
- >70 Indicators (14 intervention coverage)

**Global Nutrition Report Since 2014**
- >60 Indicators (5 intervention coverage)
Progress in strengthening coverage measurement
New indicators: IYCF Counseling Coverage

New questions DHS-8

- Nutrition and breastfeeding counseling during pregnancy (Q418)
- Time length of skin-to-skin contact (Q440)
- 6-23m: Any IYCF counseling received in last 6 months (Q641)
Revisiting indicators: IFA coverage

• Less than half of the 142 online survey respondents from 52 countries were satisfied with current methods of assessing IFA coverage in their context
• Review of DHS data from four countries flagged quality concerns around recall of pill count up to 3 years post partum

Implications for other interventions
MMS, Calcium, BEP
Recent study in Nepal confirms low validity of maternal IFA recall

- Observed ANC visits for >400 women at 4 health facilities & then followed-up ~ 6 months post partum using DHS-style questions
- 72.6% of women overreported the count of IFA tablets received, on average by ~70 tablets

Investing in stronger health sector administrative data for nutrition

UNICEF released global DHIS-2 Nutrition Module (December 2022)

• IYCF counseling
• Growth monitoring and promotion
• Acute malnutrition treatment.

• Additional guidance on administrative data for nutrition is forthcoming from UNICEF
Community-level activities may not be reflected in facility-based administrative systems

- MNCH Week outreach deliver Vitamin A & other nutrition interventions
- CHW are used in some settings to deliver home & community-based interventions
- Data for these activities are not consistently reported into DHIS-2 system

Working towards solution:
- Alive & Thrive: create linkages between community agents & HMIS officers
- World Bank Advancing Nutrition Results in Nigeria: HH-level mobile monitoring app used by community workers
Nutrition Quality of Care (QoC) metrics are needed

- Needed for “effective” or quality-adjusted coverage
- Broader RMNCH QoC standards do not prioritize nutrition
- 2018 BFHI guidance includes implementation quality indicators
- WHO-UNICEF TEAM is represented in new global WHO-led working group for quality-adjusted coverage methods (launched in 2021)
Other partners are investing in nutrition-sensitive coverage indicator development

Large Scale Food Fortification

Biofortification

Social Protection

School Nutrition

Cross-cutting challenge: capturing adolescents & school age
Strengthening data use: analytical methods

Modeling & small area estimation

Co-coverage & composite coverage

Multi-sector strategy

Vitamin A Control

Image https://doi.org/10.1371/journal.pone.0228258 :
Strengthening data use: visualizing data for action

Key messages:
• Must have a clear theory of change
• Tailor tools to specific decision maker needs
• Visualize the data gaps – prioritize investment to fill them
Bringing it together: Nutrition Information Systems

WHO-UNICEF National NIS Guidance

- Fundamentals series (2021)
- Technical Notes (2022+)

- Stresses the importance of coordination, strategic planning & financing to support all elements underlying the NIS
Thank You

WHO-UNICEF TEAM Colleagues

- Purnima Menon, IFPRI
- Sara Wuehler, Nutrition International
- Chika Hayashi, UNICEF
- Vrindra Mehra, UNICEF
- Larry Grummer-Strawn, WHO
- Lisa Rogers, WHO
- Kuntal Saha, WHO