

Improving measurement and presentation of young child feeding practices in the Demographic and Health Surveys

Mary Arimond and Marie T. Ruel
International Food Policy Research Institute
April 16, 2004

Funding from IFPRI and USAID through the Food & Nutrition Technical Assistance (FANTA) Project, managed by the Academy for Educational Development

Organization of presentation

- Framework: Guiding Principles (GPs)
- DHS questions related to GPs and suggestions for revision of DHS questionnaire
- Proposed indicators
- Selected examples of data presentation
- Key issues for discussion

Ten guiding principles (breastfed child)

- Duration of exclusive BF & age of introduction of CF
- Continued breastfeeding
- Responsive feeding
- Safe preparation & storage of CF
- Amount of CF needed
- Food consistency
- Meal frequency & energy density
- Nutrient content of CF
- Use of supplements or fortified products
- Feeding during & after illness

Guiding principles – DHS questions

- | | |
|-------------------------------------|---|
| GP 1: EBF / age of CF | 24-hour recall of liquid and food groups |
| GP 2: Continued BF | Still breastfeeding? |
| GP 7: Meal frequency | # times child ate yesterday |
| GP 8: Nutrient content | 24-hour and 7-day recall of liquid and food groups |
| GP 9: Supplements & fortified foods | Vitamin A dose last 6 mos |
| GP 10: Feeding during illness | Liquids and solids during diarrhea (more, same, less) |

Focus: Frequency of feeding and nutrient content of complementary foods

- Frequency of feeding question currently in breastfeeding section, last & next-to-last child born in last 5 years
- Simple recall for yesterday (“How many times did (NAME) eat....” – see handout)
- Liquid & food group recall asked for youngest child born in last 3 years – currently asked for last 7 days and last 24 hours

Suggestions for frequency of feeding question

- Snacks vs. meals, defining feeding episodes in simple surveys, etc.
- Need for field validation of simple questions
- Recommend moving question to follow food group recall, ask for last child born
- KPC recommendation: Current *DHS+* question with addition of enumerator guidance on questionnaire, and suggestions for training
- Solutions for DHS?

Liquid and food group recall: Current and proposed questions

- Now I would like to ask you about liquids (NAME) drank over the last seven days, including yesterday.
- How many days during the last seven days did (NAME) drink each of the following?
- How many times yesterday during the day or at night did (NAME) drink (ITEM)?
- Proposed: Did (NAME) have any of the following liquids (eat any of the following foods) yesterday during the day or at night?

Liquid groups

- Breastmilk
- Plain water
- Commercially produced infant formula
- Other milk such as tinned, powdered or fresh animal milk
- Fruit juice
- Coffee or tea
- Other liquids, such as sugar water, carbonated drinks, or soup broth

Food groups 1

Any food made from grains (for example, foods made from millet, sorghum, maize, rice, wheat, or other local grains, porridge, bread)

Questions:

- Should porridges be listed as separately (followed by “other foods made from grain such as...”)?
- How to handle fortified complementary foods?
- How to handle other fortified foods?

Food groups 2 – Expanding examples

Current (DHS+):

Any green leafy vegetables?

Proposed:

Any dark green leafy vegetables (for example, cassava leaves, bean leaves, kale, spinach, pepper leaves, taro leaves, amaranth leaves, or other dark green leaves)?

To be adapted at country level, with technical support

Food groups 3 – Splitting large group

Current (DHS+): Meat, poultry, fish, shellfish, or eggs?

Proposed:

- Organ meats (for example, liver, kidney, others)
- Any beef, pork, lamb, goat, rabbit (or wild game meat such as antelope or deer)?
- Any chicken, ducks, or other birds (for example, pigeon, guinea hen, others)?
- Any fresh or dried fish, or shellfish?
- Any eggs?
- (Grubs, snails, insects, other small protein food – where appropriate)

Food groups 4

- Refer to handout for other proposed changes
- Remaining challenges:
 - ◆ How to handle porridges?
 - ◆ Capturing fortified complementary foods, other fortified products?
 - ◆ Issue of very small quantities (proposed KPC solution not practical for DHS?)
 - ◆ How well are mixed foods being handled?

Summary of suggestions for revising DHS questionnaire

- **Simplify recall** to include only 24-hour recall and only yes/no for each food group
- **Refine descriptions** of some food groups, provide more examples & additional guidance for adapting
- **Split some food groups**; move several up from footnote status (e.g. organ meats)
- **Provide additional guidance** to enumerators?
Probing on frequency of feeding question
Avoiding counting “condiment-size” portions
Recording food groups for mixed foods

Guideline and proposed indicator: Meal frequency

- **Guideline for frequency of feeding complementary foods:**
6-8.9 mos: “Meals” 2-3 times/day, + snacks
9-23.9 mos: “Meals” 3-4 times/day, + snacks
- **Proposed indicator:**
% of breastfed children 6-23.9 months who ate at least the minimum recommended number of times yesterday

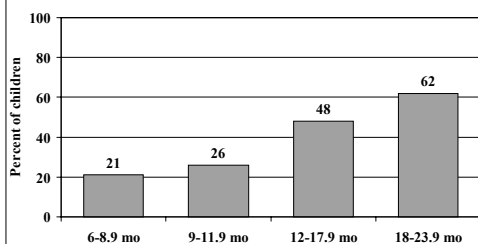
Guideline on nutrient content of complementary foods

- Feed a **variety** of foods
- **Meat, poultry, fish or eggs** daily, or as often as possible
- Vegetarian diets cannot meet needs w/o **supplements or fortified foods**
- **Vitamin A-rich fruits and vegetables** daily
- Provide diets w/ adequate fat content: 30-45% of kcals
- Avoid giving drinks with low nutrient value (tea, coffee and sugary drinks)
- Limit the amount of juice to avoid displacing food

Proposed indicators: Nutrient content

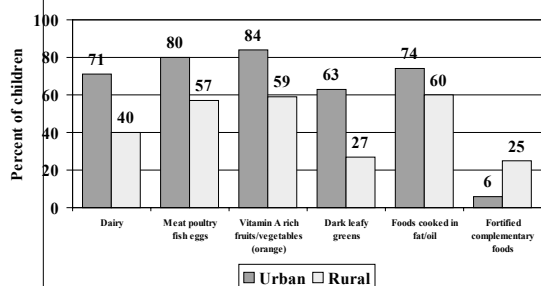
- **Dietary diversity:** % with different diversity scores and/or mean dietary diversity score
- % who ate meat/poultry/fish/eggs yesterday
- % of non-breastfed children who had formula yesterday, dairy yesterday
- % who ate vitamin A-rich fruits or vegetables yesterday
- % who ate each available fortified product yesterday: Requires country-specific question(s) & indicator(s)

Percent of breastfed children who ate at least the minimum recommended number of times yesterday^a, by age group, Ethiopia 2000



^aMinimum: 2 times for ages 6-8.9 mos; 3 times for ages 9-23.9 mos

Types of complementary foods eaten yesterday by children aged 6-23 months, by area of residence, Peru 2000



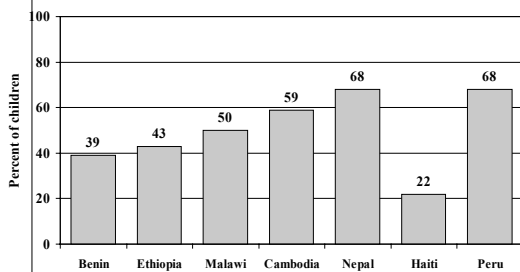
Other suggestions for data presentation in country reports

- See handouts for some suggestions for tables
- Suggest presentation using these age groups:
 - 6-8.9 mos
 - 9-11.9 mos
 - 12-17.9 mos
 - 18-23.9 mos

Cross-country comparisons

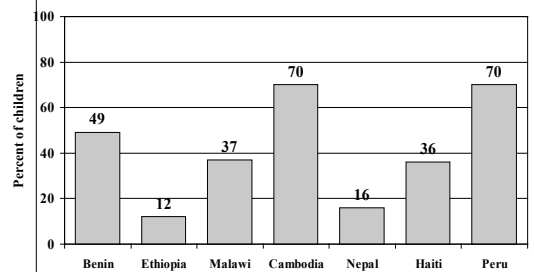
- Many possible
- For example, Africa chartbooks
- Examples:
 - ◆ Frequency of feeding
 - ◆ Meat, poultry, fish and eggs
 - ◆ Dairy and formula for non-breastfed children
 - ◆ Dietary diversity

Percent of breastfed children 6-23 months fed at least minimum recommended # of times^a yesterday (Selected *DHS+* surveys 2000-2001)

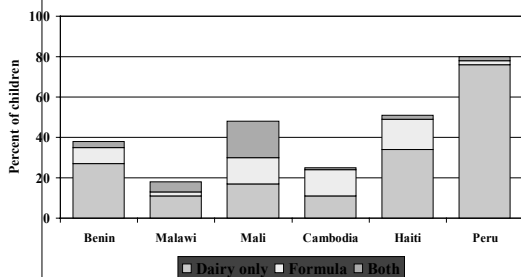


^aMinimum: 2 times for ages 6-8.9 mos; 3 times for ages 9-23.9 mos

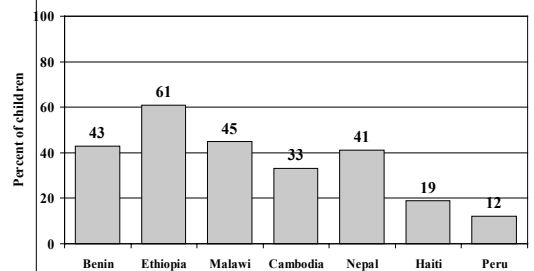
Percent of children 6-23 months having meat, poultry, fish, shellfish, or eggs yesterday (Selected *DHS+* surveys 2000-2001)



Percent of non-breastfed children 6-23 months having dairy and/or infant formula yesterday (Selected *DHS+* surveys 2000-2001)



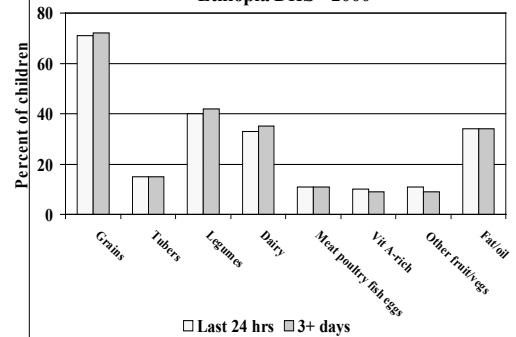
Percent of children 6-23 months with low food group diversity yesterday (0-2 groups) (Selected *DHS+* surveys 2000-2001)



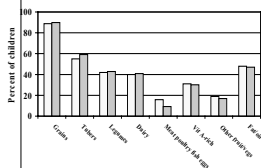
24-hour and/or 7-day recall?

- What can simple food group recalls provide?
- We suggest: Population-level information on patterns (reflecting availability and practices)
- Pressures to simplify/shorten DHS
- What is the added value of the 7-day recall?

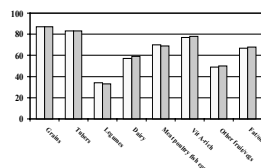
Comparing food groups eaten yesterday and eaten 3+ days in the last 7 days Ethiopia DHS+ 2000



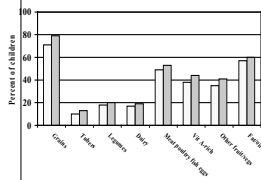
Nepal



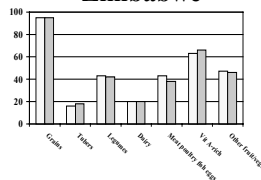
Peru



Benin



Zimbabwe



Key issues for discussion

- ◆ Any and all comments on our suggestions
- ◆ Age group to cover for these questions
- ◆ How to handle porridges/paps
- ◆ How to handle fortified foods
- ◆ If and how to improve questions and probing related to condiment-size portions, mixed foods, & frequency of feeding
- ◆ 24-hour vs 7-day food group recall

Acknowledgments

Altrena Mukuria	ORC Macro
Casey Aboulafia	
Anne Swindale	FANTA Project
Paige Harrigan	
Eunyong Chung	USAID
CORE PVO staff	Various PVOs receiving Child Survival & Health funding
CORE Nutrition and M & E Working Groups	
Other experts from technical support projects	