

Update on Nutritional Status of Women and Children

Monica T. Kothari March 9, 2015



Overview

 Introduction to the Demographic and Health Surveys (DHS) Program

DHS Nutrition Indicators

Key findings from the Nutritional Status comparative report

Take home messages

The DHS Program: Demographic and Health Surveys

A project funded by the United States Agency for International Development and implemented by ICF International

Since 1984, DHS has provided technical assistance in 90+ countries for the implementation of more than 300 surveys



© 2007 Amio James Ascension, Courtesy of Photoshare.



©2008 Erberto Zani, Courtesy of Photoshare.

What is The DHS Program?

A project that provides, at the global level, assistance to developing countries in the areas of

Collection and use of data

to monitor and evaluate population, health, and <u>nutrition programs</u>

Overview

 Introduction to the Demographic and Health Surveys (DHS) Program

DHS Nutrition Indicators

Key findings from the Nutritional Status comparative report

Take home messages

Nutrition Related Information

- Nutritional status assessment
 - Anthropometry (Height/Weight)
 - Anemia (Hemoglobin)
 - Other nutritional biomarkers
- Infant and young child (IYCF) feeding practices
 - Breastfeeding
 - Complementary feeding
 - Dietary diversity
- Micronutrient coverage
 - Iron supplementation
 - Vitamin A supplementation
 - lodine fortification
 - Others (zinc supplementation, RUTFs)



© 2005 Peter Verbiscar-Brown, Courtesy of Photoshare.

History of Nutritional Biomarkers

- Height and weight first biomarkers to be collected in DHS
- To date, DHS has collected height and weight data in 238 surveys in 77 countries among children and adults
- Anthropometry (more than 6 million measurements since 1985)
- lodine testing in salt (1.4 million tests since 1994)
- Anemia (1.6 million tests since 1996)
- Plus MUAC, hip and waist circumference, urinary iodine, Vitamin A, and iron tests/measurements in selected countries

Overview

 Introduction to the Demographic and Health Surveys (DHS) Program

DHS Nutrition Indicators

Key findings from the Nutritional Status comparative report

Take home messages

About Comparative Report

- 2014 update on nutritional status by sociodemographic and water, sanitation, and hygiene (WASH) indicators
- Indicators include:
 - Nutritional status (stunting, wasting, underweight, overweight, BMI),
 - breastfeeding
 - complementary feeding
 - anemia
 - dietary diversity
 - micronutrient supplementation
 - diarrhea
- Indicators divided into four sections (Appendix WASH data from JMP)

About Comparative Report contd ...

Section 1: Nutritional status of children and women (17 tables)

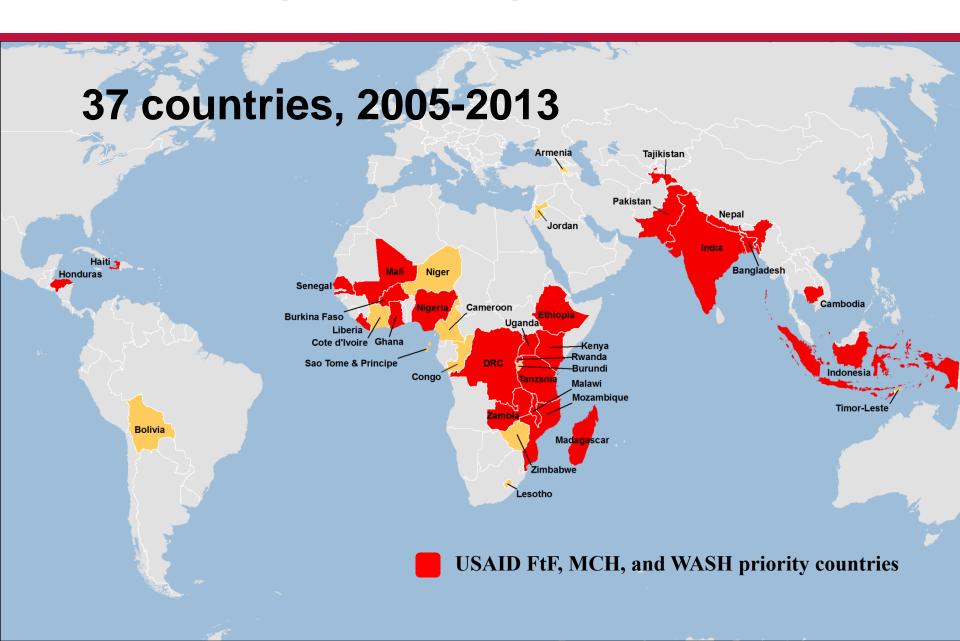
Section 2: Infant and young child feeding (IYCF) and women's dietary diversity (30 tables)

Section 3: Anemia, iron supplementation, deworming, and use of iodized salt (13 tables)

Section 4: Diarrhea in children (14 tables)

Appendix: WASH data from JMP 2014 report

About Comparative Report contd ...



Procedures of Height/Length Measurements





Adult (adolescents) women and men

Children under five years of age





Malawi 2010 47 Congo (DRC) 2007 46 Zambia 2007 45 Ethiopia 2011 44 Rwanda 2010 44 Stunting in Niger 2012 44 Children under Mozambique 2011 43 Tanzania 2010 42 5: Africa Liberia 2007 39 Lesotho 2009 39 Mali 2006 38 Nigeria 2013 37 Kenya 2008-09 35 Burkina Faso 2010 35 Uganda 2011 33 Cameroon 2011 33 Zimbabwe 2010-11 32 Sao Tome and Principe 2008-09

Ghana 2008

Senegal 2010-11

Congo Brazzaville 2022-12

Burundi 2010

Madagascar 2008-09

58

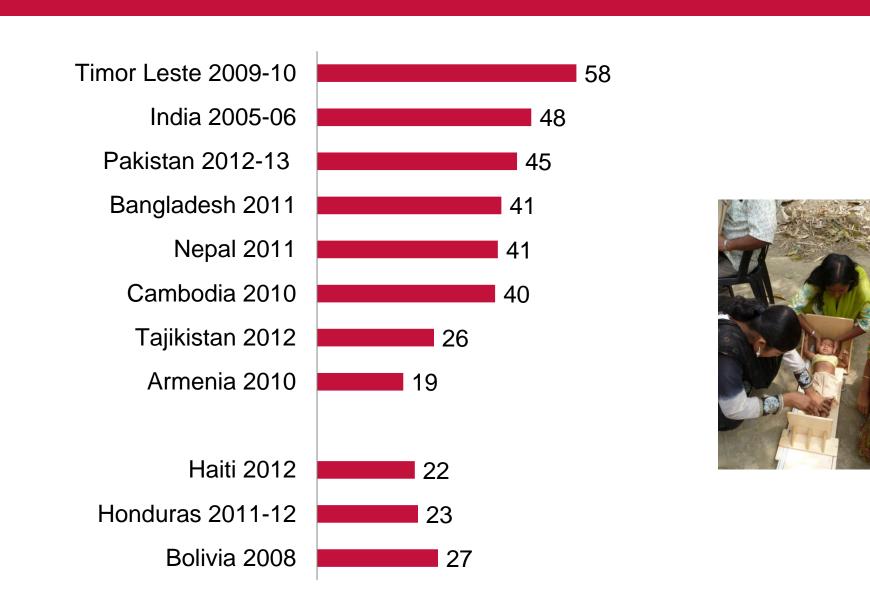
50

28

27

24

Stunting in Children under 5: Asia and LAC



Stunting by Background Characteristics

Stunting is:

- Higher in rural areas (33/35 countries)
- Higher among male children (30/35 countries)
- Higher among children of thin mothers (13/14 countries)
- Lowest among children whose mothers have attended secondary or higher education (35/35 countries)
- Lowest among children from wealthiest households
 (13 countries > 25% in the wealthiest households)

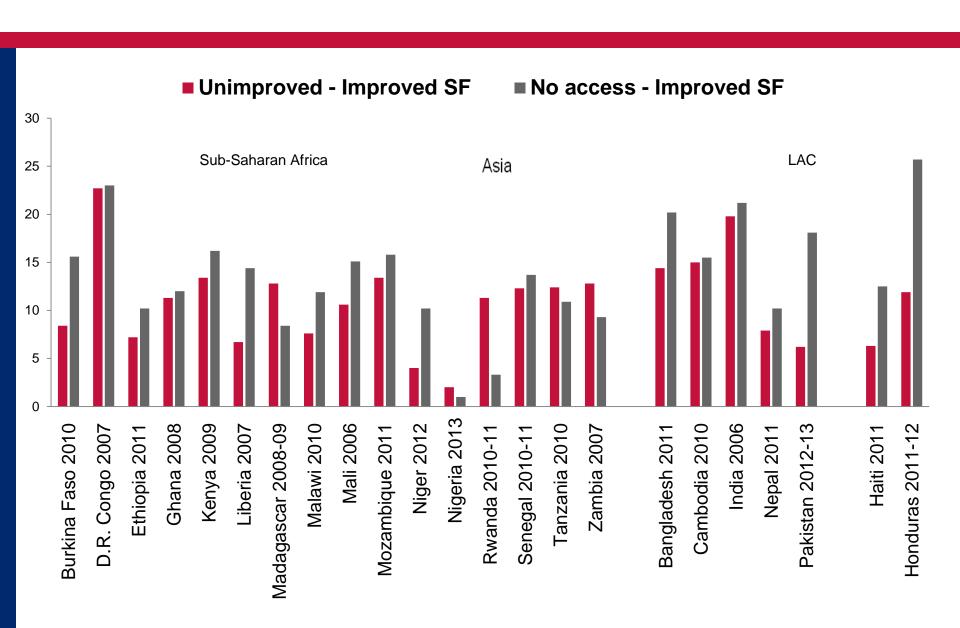
Stunting by WASH indicators

Stunting is:

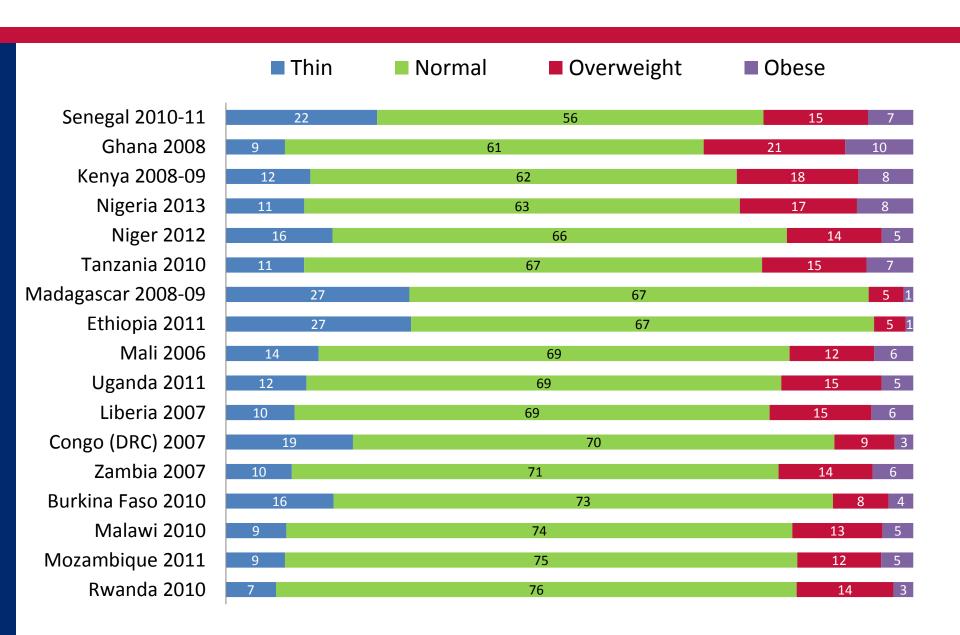
- Highest in households with unimproved sanitation facilities or no facilities
- Lowest among children whose households
 - Have an improved source of drinking water
 - Have water on premises
 - Have soap or detergent for hand washing



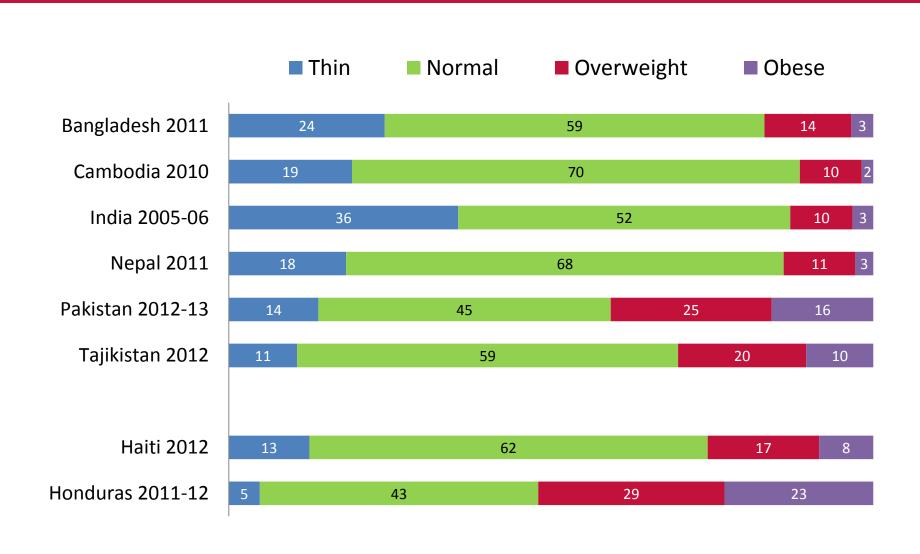
Magnitude of difference in stunting – Sanitation Facility



Women's Nutritional Status: Africa



Women's Nutritional Status: Asia and LAC



Anemia Results: Hemoglobin Measurement



Normal amount of red blood cells

Anemic amount of red blood cells

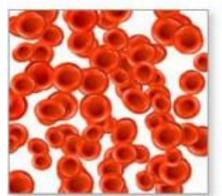


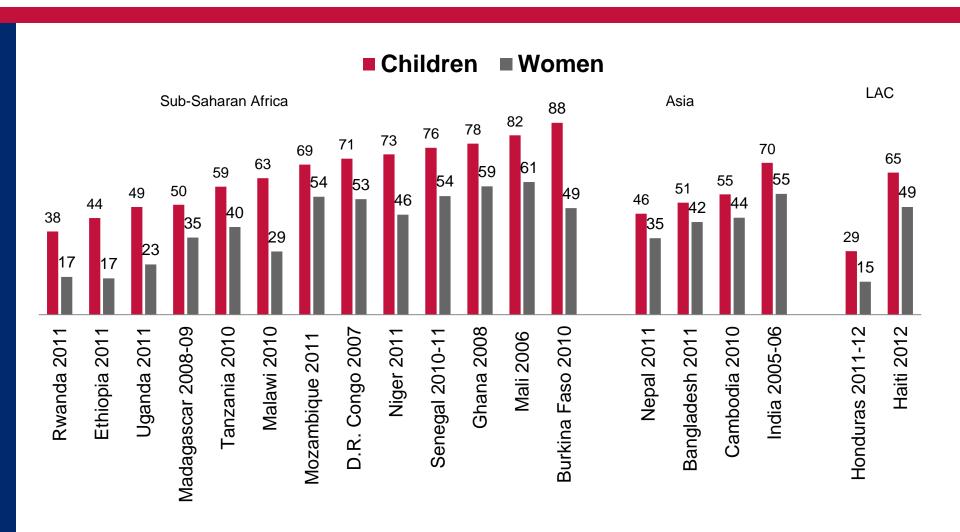
Image from http://hometestingblog.testcountry.com/?p=728





Photos courtesy of Monica Kothari.and Alfredo Fort

Anemia Among Children and Women



Any anemia: Children (6-59 months) and pregnant women < 11.0 g/dl Not pregnant women < 12.0 g/dl

Childhood Anemia by Background Characteristics

- Anemia in children...
 - Is more common in rural areas (17/19 countries)
 - Peaks at 9-23 months of age
 - Decreases with household wealth but still very common in even the wealthiest households: In 11/19 countries, more than HALF of children in the wealthiest households are anemic
 - Is lower among children living in households with improved sanitation facilities
 - Is lowest among children with an improved source of drinking water (13/18 countries)

Women's Anemia by Background Characteristics

- Anemia in women...
 - Is higher in rural areas (15/19 countries)
 - Is most common among thin women, least common among obese women
 - Is more common among pregnant women
 - Decreases with household wealth
 - Is less affected by WASH indicators

Infant and Young Child Feeding Results

>90% of children ever-breastfed in every country considered

Early breastfeeding is not universal:

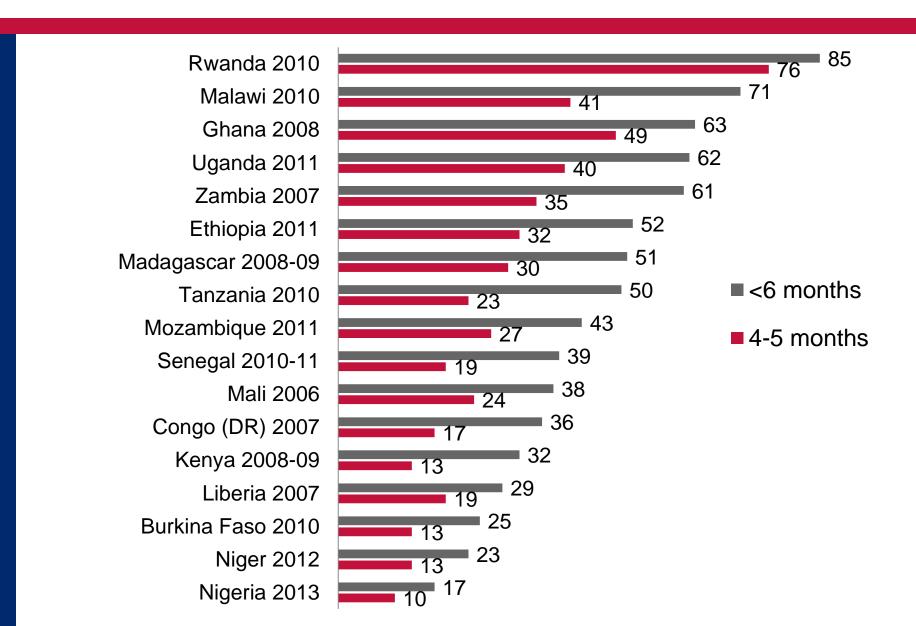
 Highest in Malawi (91 percent) and lowest in Pakistan (17 percent)

Continued breastfeeding until 2 years of age ranges from 35 percent (Nigeria and Haiti) to 90 percent (Bangladesh)

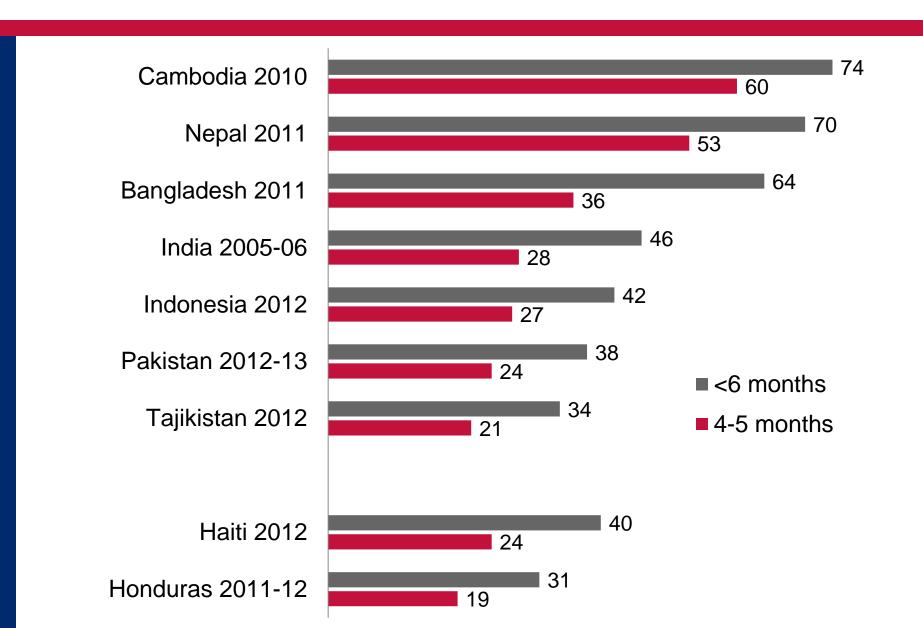


© 2005 Peter Verbiscar-Brown, Courtesy of Photoshare.

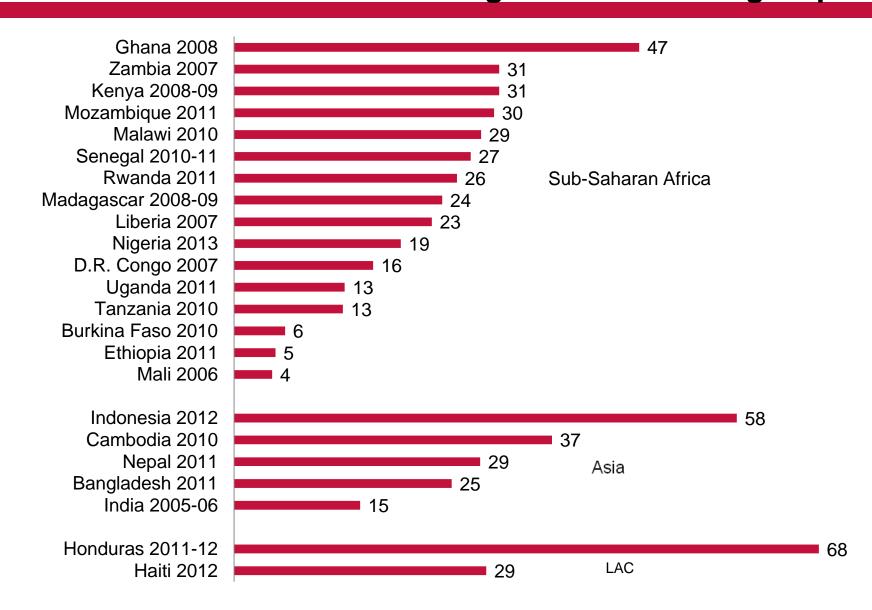
Exclusive Breastfeeding by Age: Africa



Exclusive breastfeeding by age: Asia and LAC



Dietary Diversity Among Young Children: Children 6-23 months consuming 4 or more food groups



Iron Supplementation and Deworming

Children:

- Weekly iron supplementation among children is rare (ranging from 1% in Tanzania to 28% in Ghana)
- In 11 out of 21 countries, at least half of children had received deworming medication in the 6 months before the survey. Rwanda (86%) and Nepal (75%) the highest.

Women:

- In only 4 of 21 countries did pregnant women receive the recommended iron supplementation
- Nepal is the only country in which at least half of women received deworming medication during pregnancy

Overview

 Introduction to the Demographic and Health Surveys (DHS) Program

Nutrition Indicators

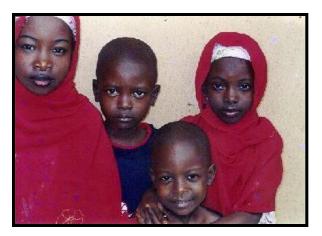
Key findings from the Nutritional Status comparative report

Take Home messages

Take home messages

- Stunting remains at critical levels in most of the countries. It is prevalent even in the wealthiest households.
- Selected WASH indicators show association with stunting in children.
- Dual burden of malnutrition is on the rise among women.
- Anemia prevalence seem to be associated with selected WASH indicators in children but not so much in women.
- Breastfeeding and complementary feeding vary considerably across and within regions.

Use of DHS nutrition data



©2006 African Children, Courtesy of Photoshare.

- Effective actions to improve nutritional status of children
- Management of dual burden of malnutrition in adults



Advocacy for Policy Makers

Programmatic Support for Managers

In-depth Analyses for Researchers

Questions?

Useful links

Nutrition Status of Women and Children 2014: http://dhsprogram.com/pubs/pdf/NUT6/NUT6.pdf

DHS Program Website: www.DHSprogram.com

Email: monica.kothari@icfi.com OR mkothari@path.org

Acknowledgments

USAID &

- Noureddine Abderrahim/Amanda Coile/Yuan Cheng
- Fred Arnold
- Sally Zweimueller
- Erica Nybro
- Sunita Kishor

To all those who make a DHS survey happen