

ESA/STAT/AC.320/10

Expert Group Meeting on Data Disaggregation

27-29 June 2016

New York

DISAGGREGATING THE SDGs BY ECONOMIC STATUS
IN THE DHS AND SIMILAR SURVEYS

By Shea Rutstein



USAID
FROM THE AMERICAN PEOPLE

DISAGGREGATING THE SDGs BY ECONOMIC STATUS IN THE DHS AND SIMILAR SURVEYS

EXPERT GROUP MEETING
ON DATA
DISAGGREGATION
NEW YORK, JUNE 27-29, 2016

Relevance to the SDGs

- Goal 1: End Poverty—measurement of improvement in economic status and reduction of extreme and non-extreme poverty
- Goal 2: Women's and children's nutritional status (2.1) and young child feeding and supplements (2.1 and 2.2)
- Goal 3: Healthy lives and well-being—Maternal mortality (3.1) indirect measurement, neonatal and under-five mortality (3.2), world epidemics (3.3), non-communicable diseases (3.4), reproductive health (3.7), health coverage (3.8), hazardous chemicals, pollution and contamination (3.9)
- Goal 4: Education—Completed primary and secondary education (4.1), gender disparities in education (4.5), literacy (4.6),
- Goal 5: Gender Equality—Discrimination (5.1), gender violence (5.2), child marriage and FGM (5.3), economic decision-making (5.5), sexual and reproductive health and rights (5.6).

Relevance to the SDGs

- Goal 6: Water and Sanitation—safe and affordable drinking water (6.1), adequate sanitation and hygiene (6.2).
- Goal 7: Energy—energy access (7.1)
- Goal 10: Reduce inequality within and among countries—sustained economic growth of bottom 40% of population (10.1), social, political, economic inclusion (10.2)
- Goal 11: Cities and human settlements—adequate, safe and affordable housing and basic services and upgrade slums (11.1 and 11.6)
- Goal 16: Inclusive societies—abuse and violence against children (16.2), legal identity and birth registration (16.9)

Measures of Economic Status Without Income Data

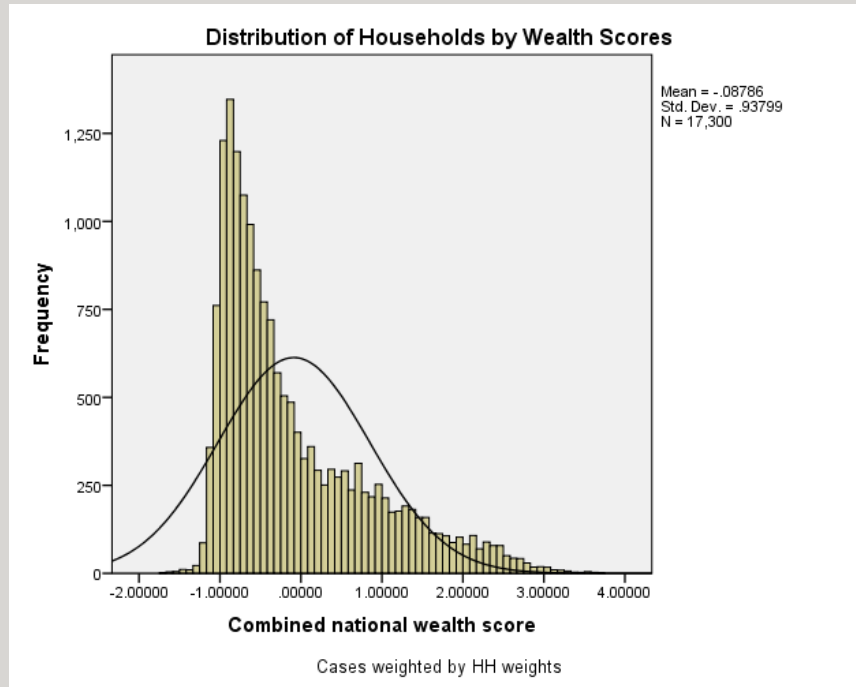
- Economic Status
 - The DHS Wealth Index
 - DHS Comparative Wealth Index
- Poverty
 - Unsatisfied Basic Needs
 - Multidimensional Poverty Index



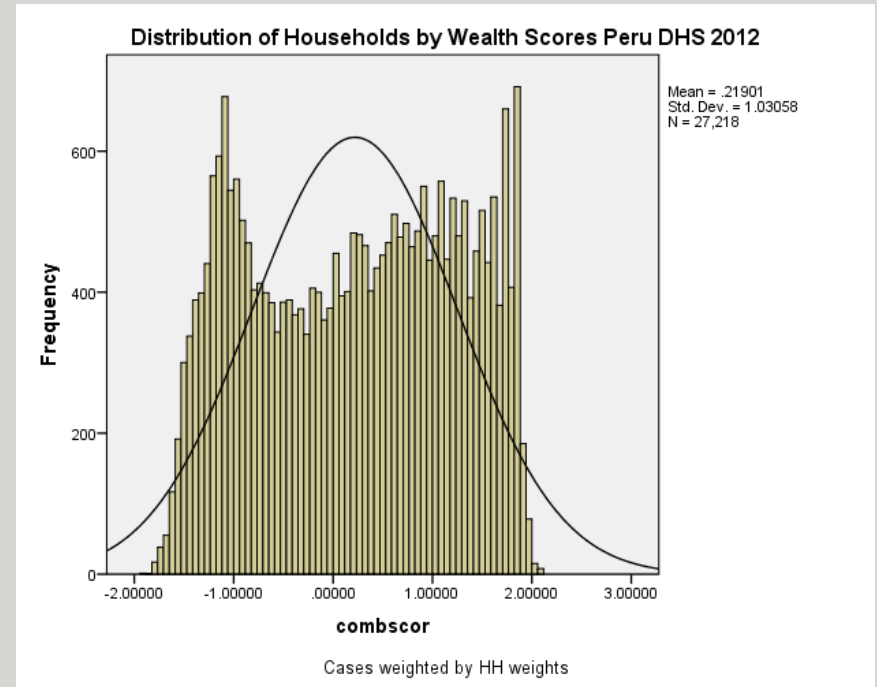
Economic Status

- The DHS Wealth Index
 - Based on questions and observations of household construction, amenities, basic services, and possessions
 - Not a simple or weighted sum of assets, measures an implicit unobserved wealth distribution
 - Allows separate and compatible index creation for urban, rural and national levels
 - Is generally country and date specific

Distribution of DHS Wealth Index



Bangladesh 2014 DHS

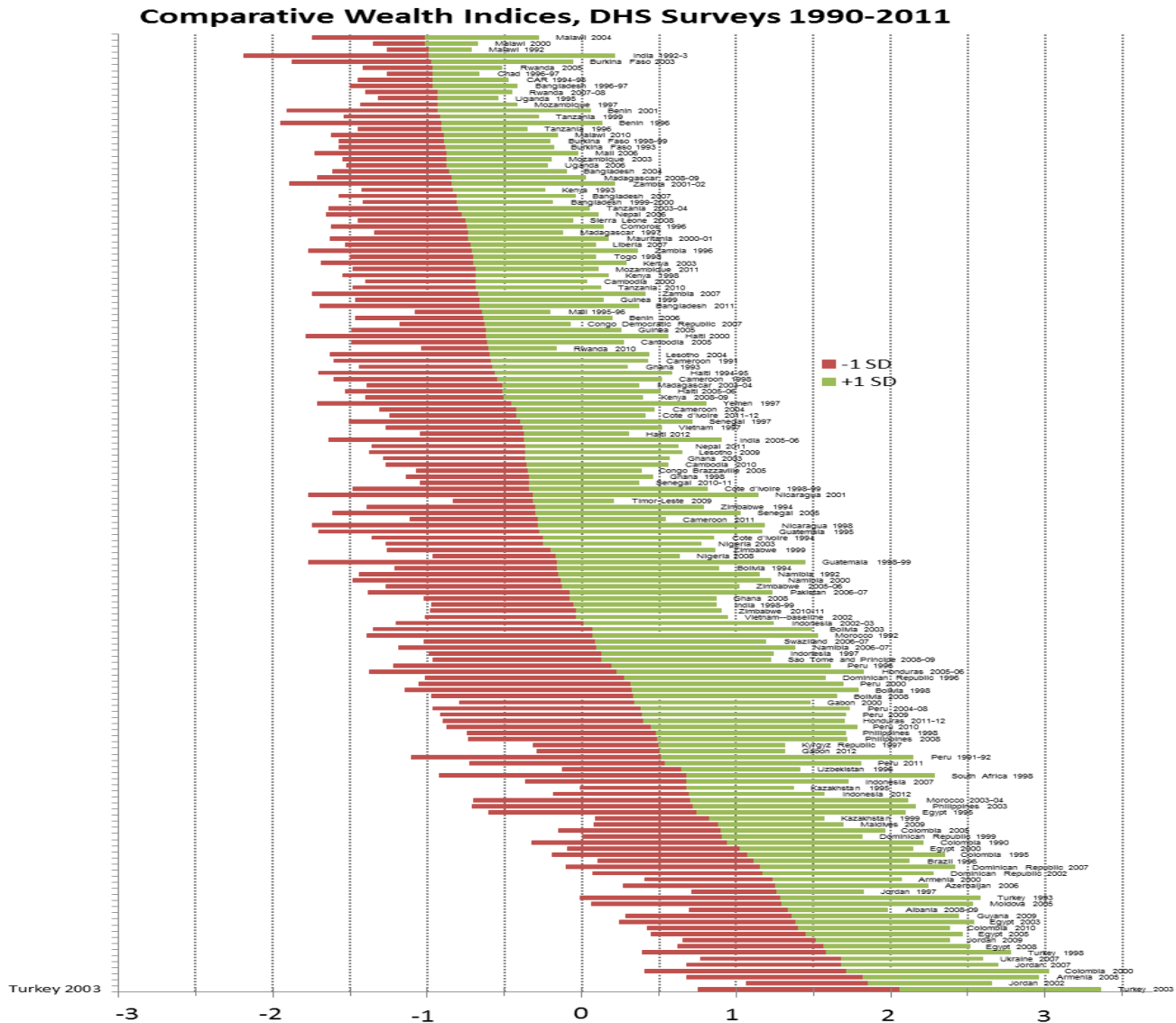


Peru 2012 DHS

Economic Status

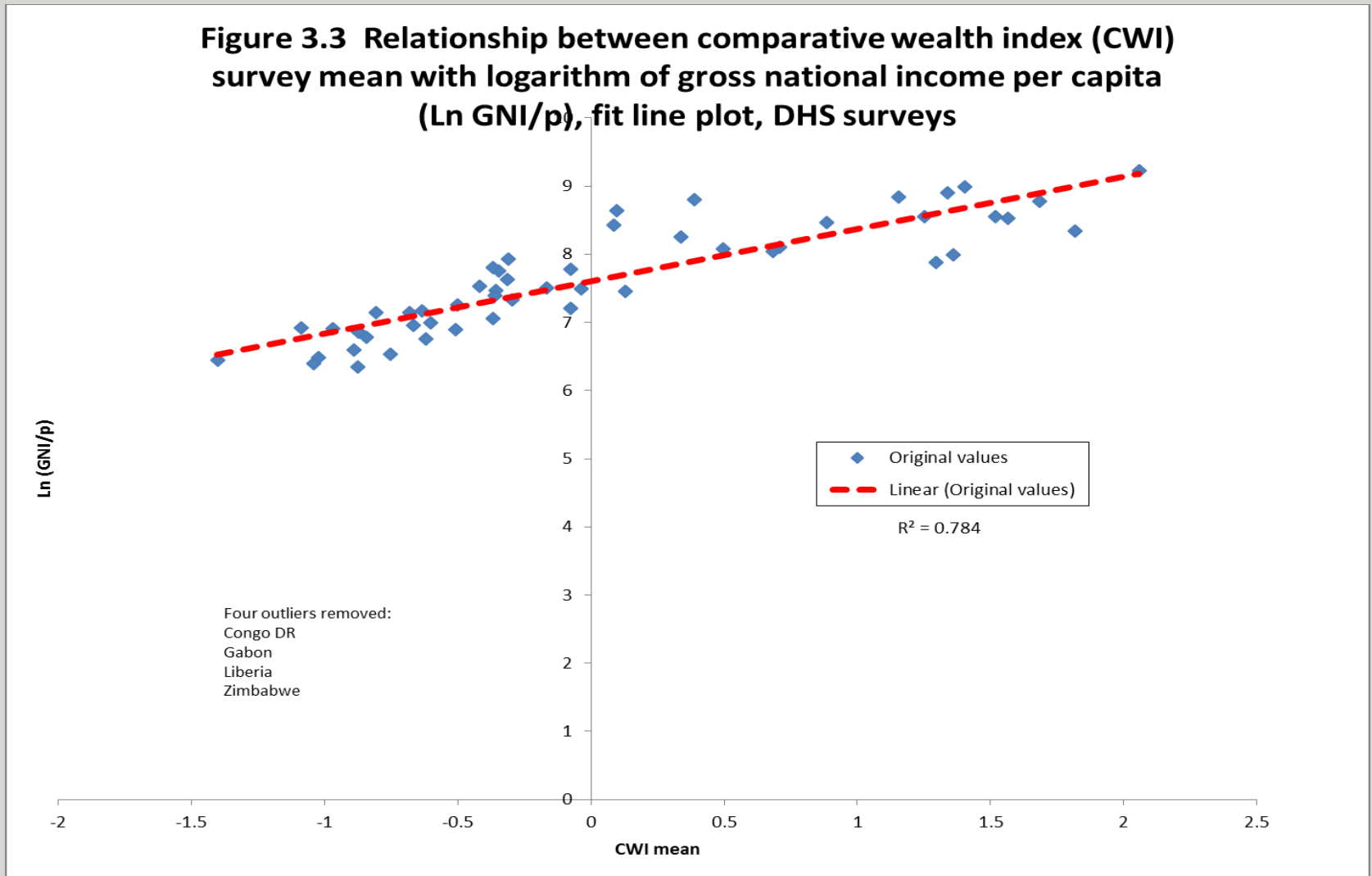
- Comparing Surveys and Countries Across Time
 - The DHS Comparative Wealth Index
 - Uses a baseline, analogous to price, stock market indexes
 - Rescales existing DHS wealth indexes
 - Expandable for new surveys
 - Based on basic needs and higher level items
 - Other approaches
 - Combining two or more surveys using only common characteristics
 - Requires same questions and responses or recodification with heavy loss of information
 - Not expandable without wholesale recalculation

Distribution of Comparative Wealth Index



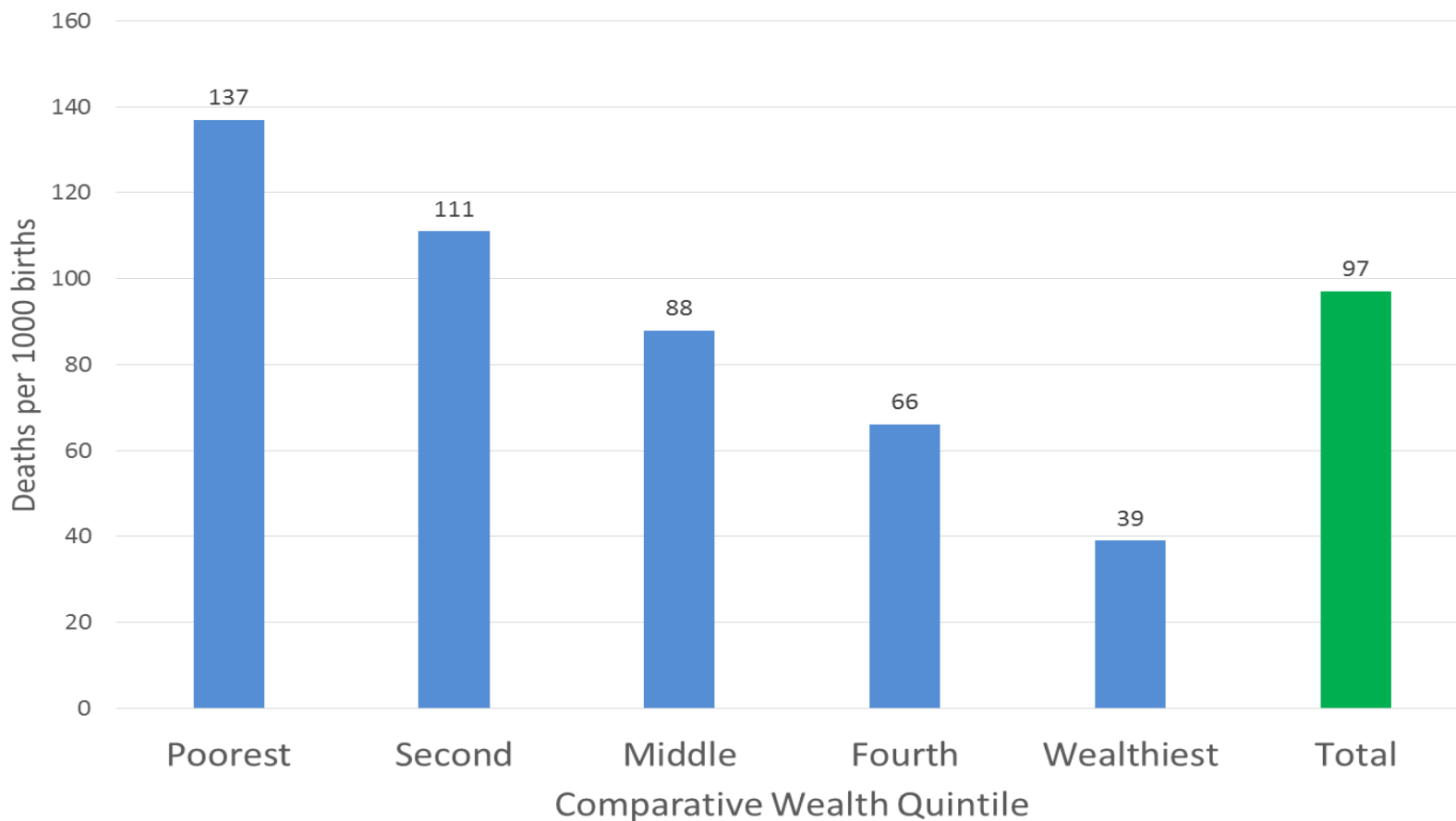
Comparative Wealth Index versus Per Capita Income

Figure 3.3 Relationship between comparative wealth index (CWI) survey mean with logarithm of gross national income per capita (Ln GNI/p), fit line plot, DHS surveys



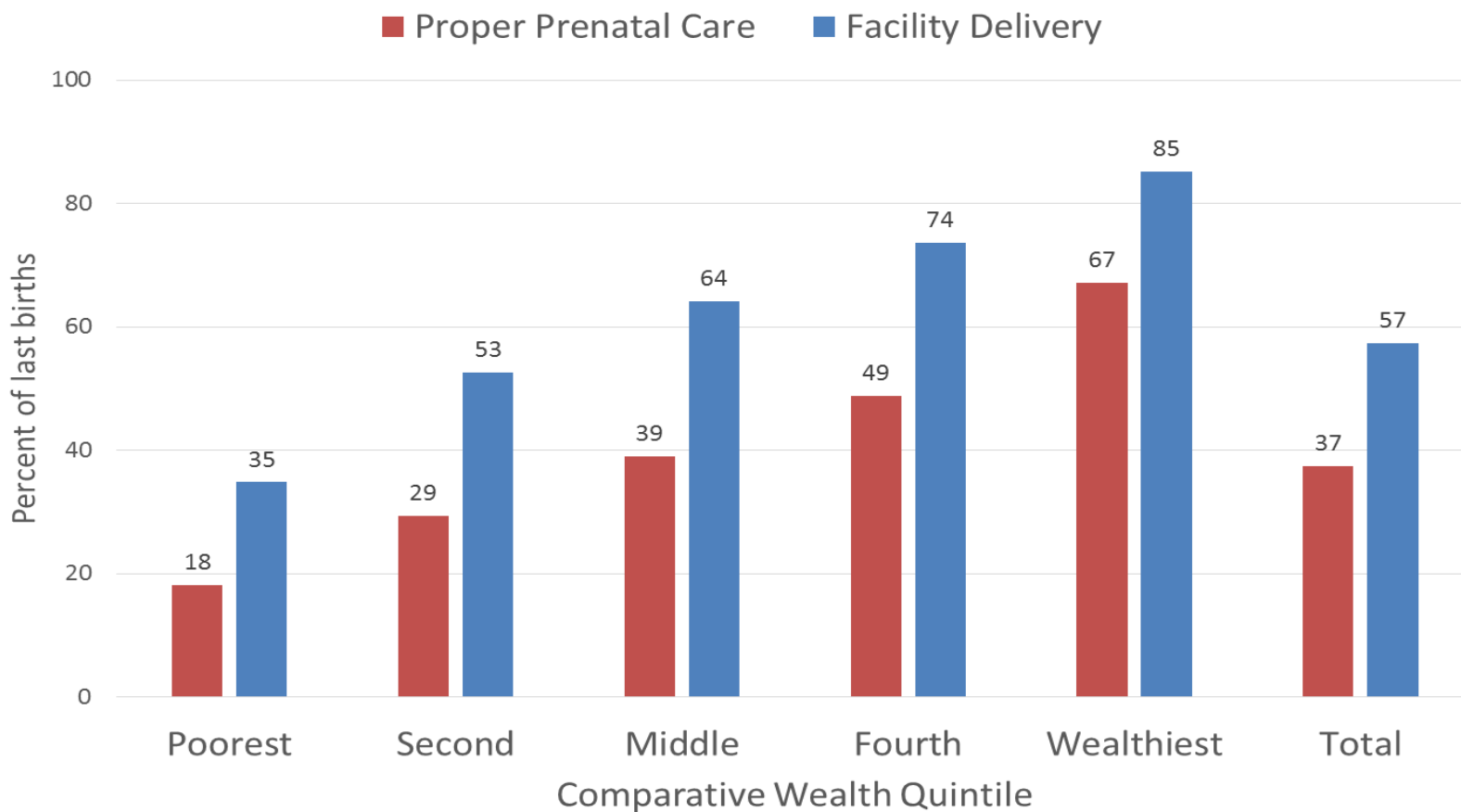
Under-Five Mortality

Under-five mortality: Deaths per 1000 live births
52 DHS surveys 2003-2012



Maternal Health

Maternal health: Proper prenatal care and delivery in a health facility
last birth in the five years preceding survey
52 DHS surveys 2003-2012



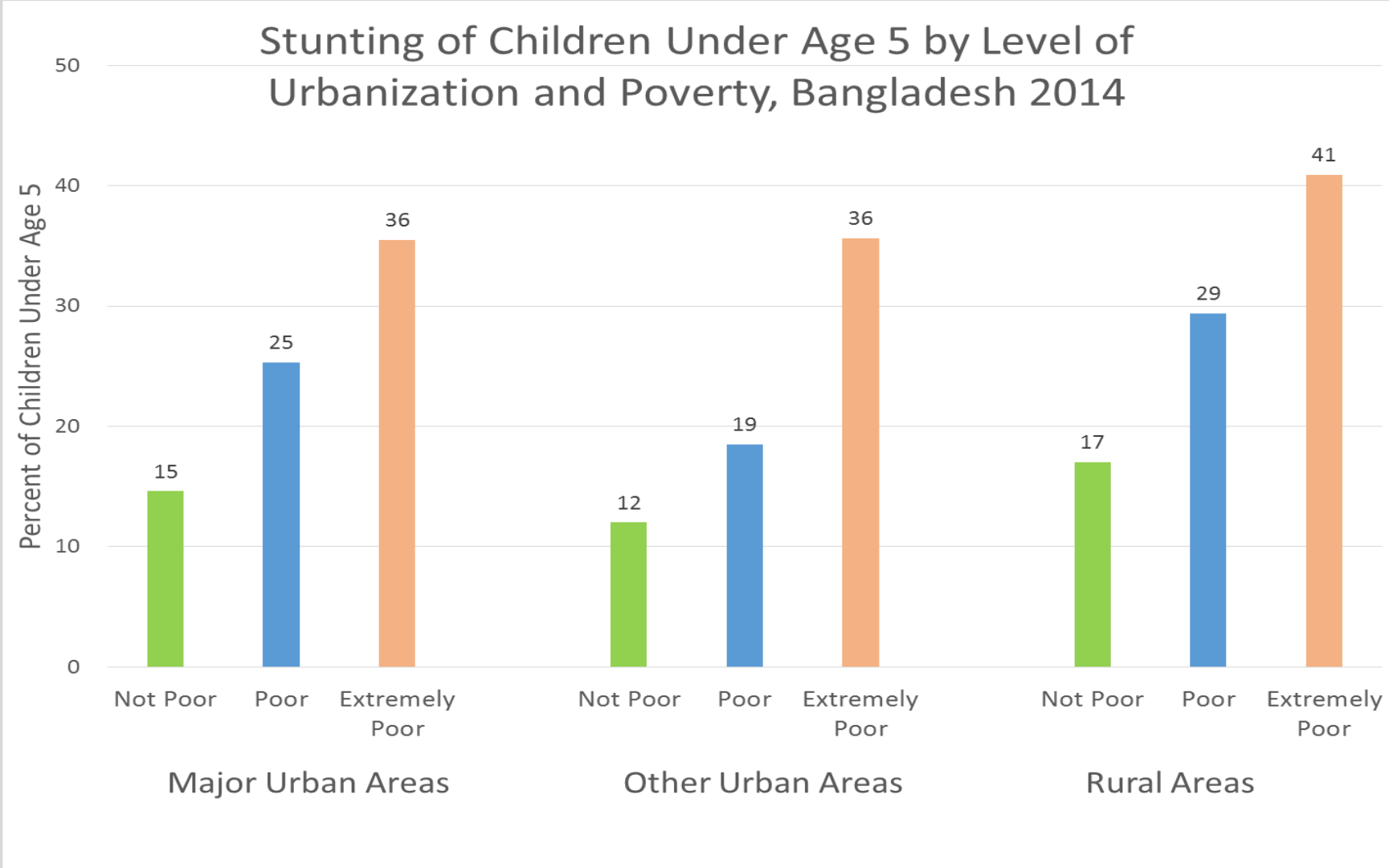
Poverty Measurement

- Unsatisfied Basic Needs
 - Dwelling materials (natural flooring or natural or rudimentary walls)
 - Water and sanitation (in urban areas: not private piped water supply or shared/unimproved/no toilet facility; in rural areas: unimproved water supply or shared/unimproved/no toilet facility)
 - Crowding (more than 3 persons per sleeping room)
 - Economic dependency (more than 3 persons per worker and highest education of any worker is less than completed primary)
 - School attendance (any primary school age child who does not attend school: **NOT USED** since not all households have primary school age children)
 - Not poor, Poor, Extremely Poor categories and depth of poverty.
 - Comparable across countries and surveys with minor tweaks.

Poverty Measurement

- Multidimensional Poverty Index--goes beyond economic status
 - Educational attainment (no member with 5+ years)
 - School attendance (any child 6-13 not attending grades 1-8)
 - Malnourished (any adult below 18.5 BMI or any child is stunted, wasted or underweight)
 - Any child has died (any child of interviewed mother—not date restricted)
 - Water supply (not improved source within 30 minutes)
 - Sanitation facility (shared, unimproved, or no facility)
 - Flooring (natural, rustic materials)
 - Cooking fuel (wood, charcoal, crop residue, shrub)
 - Crowding (more than 3 persons per sleeping room)
 - Possessions (lacks radio, television, refrigerator, bicycle, motorbike, car/truck)
 - Poor, Not Poor categories and Intensity of Poverty among Poor

Stunting by Poverty and Urbanization



Methodological Challenges

- Wealth and poverty indexes measure long-term (“permanent”) status of the household as a single unit:
 - No intra-household measurements
 - Effects of transitory income and expenses not included
 - No coverage of refugees, homeless and institutions
- Maternal mortality—usually measured by sibling history: only indirect economic status
- Tension between simplification and improved measurement

Priority issues

- Evaluation of programs and policies by economic status of recipients:
Do programs reach their intended clients?
- Use targeting of programs and policies to the poor by more than just geographical location.
- Make results by economic status and poverty more available for research and program evaluation
- Realize that the Ultimate Development Goal is the eradication of poverty, not its alleviation.

Documentation

- “The DHS Wealth Index”,
<http://www.dhsprogram.com/pubs/pdf/CR6/CR6.pdf>
- “The DHS Wealth Index: Approaches for Rural and Urban Areas”, <http://www.dhsprogram.com/pubs/pdf/WP60/WP60.pdf>
- DHS Comparative Wealth Index: “Making the Demographic and Health Surveys Comparable”, <http://www.dhsprogram.com/pubs/pdf/MR9/MR9.pdf>
- “Intertemporal Comparisons of Poverty and Wealth with DHS Data: A Harmonized Asset Index Approach”,
<http://www.dhsprogram.com/pubs/pdf/MR15/MR15.pdf>
- Unsatisfied Basic Needs: “Income poverty and unsatisfied basic needs”,
<http://www.cepal.org/en/publications/25900-income-poverty-and-unsatisfied-basic-needs>
- Multidimensional Poverty Index: <http://www.ophi.org.uk/multidimensional-poverty-index/>

The **DHS** Program
Demographic and Health Surveys

www.dhsprogram.com

