New metrics for the evaluation of SDG2: Insights from the FSIN Technical Working Group on Measuring Food and Nutrition Security (and many other projects*)

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The diet quality revolution, 1961-2011

Percent of energy from non-staple foods and total dietary energy by region, 1961-2011
(FAO Food Balance Sheet estimates)

Diagonal movements = more and different foods

The data revolution: Are we ready?

- FSIN launched in Oct. 2012, to improve information flow among food security practitioners and policymakers in developing countries ([http://fsincop.net](http://fsincop.net))
- TWG formed in Nov. 2014, to assess and recommend improved indicator formulas and data sources to measure food and nutrition security
  - Technical Working Group (6 members): Uma Lele (chair), Will Masters (co-chair), Joyce Kinabo (Sokoine Univ.), J.V. Meenakshi (Delhi School of Economics), Bharat Ramaswami (Indian Statistical Institute), Julia Tagwireyi (independent)
  - Expert Advisory Panel (14 members), from diverse regions and fields of expertise
- Three phases of work through June 2016:
  1. **User’s guide to the indicators**: Technical assessments, forthcoming Dec. 2015
  2. **Demand elicitation survey**: Priorities for measurement by user group, Jan 2016
  3. **Gaps and needs analysis**: Agenda for data collection and research, Spring 2016
- Focus today is on evaluation of dietary quality, in context of other dimensions
Indicators in the FSIN TWG User’s Guide to Measuring Food and Nutrition Security

Classification based on primary source of initial observations:

1. **National data** (12 indicators, plus 5 composite indices)
   - Originate in country-level official statistics, e.g. from national accounts and trade volumes

2. **Market observations** (4 indicators)
   - Collected at the level of a marketplace, e.g. prices

3. **Household and individual recall** (14 indicators)
   - Responses to questions at the level of a family or other unit, or for individuals within the household

4. **Anthropometry** (7 indicators)
   - Measures of body size, e.g. heights, weights, mid-upper arm circumference or waist circumference

5. **Biomarkers and clinical data** (3 indicators)
   - Indicators based on health care services or fluid samples, e.g. blood

6. **Breastfeeding and sanitation** (4 indicators)
   - Observations relating to mother-child relationships or environment around the household
Our focus today: Diet quality

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For discussion today and tomorrow: Some initial conclusions

1. **Total energy (kcal/day)** remains a key diagnostic measure
   -- Low intake may be caused by many kinds of deprivation (e.g. anemia)
   -- Remedy may not be additional calories (e.g. if cause is anemia)

2. **National average quantities (g/day)** remain indispensable
   -- Data revolution can transform estimation of production and losses
   -- FBS estimates of mean per-capita intake can be better than surveys

3. **Market-level price indexes** offer a new frontier
   -- Data revolution allows collections of more frequent prices of more diverse foods
   -- New price indexes can measure affordability (cost of food/day of work) and access to more nutritious diets (cost of nutritious foods/other products)

4. **Household and individual observations** are still very difficult to collect!
   -- Data revolution lowers cost but accuracy is still limited
   -- Food frequency data for dietary diversity, intake quantities for dietary patterns and nutrient adequacy remain focus of survey data collection

For SDG2, all this can be linked to anthropometry, biomarkers and the environment, then tied to policy change, public investments and private-sector activity
Grounds for optimism:
Great success with MDG1, lots of data for SDG2

Pct. of children under 5, 1985-99 [n=250] and 2000-11 [n=337]

Note: Symbols are sized by population, with decades shown by green circles for 1986-99 (250 surveys in 103 countries) and blue squares for 2000-2011 (337 surveys in 117 countries). Lines show local means and confidence intervals for each period estimated by -lpolyCI-, weighted by population and with a bandwidth of 0.75.

Source: World Bank, WHO and UNICEF joint data; GDP and population are from PWT 8.1.

thank you!