PANEL 8.4 WHY HIGHLY DISAGGREGATED UNDERNUTRITION MAPS ARE VITAL IN THE SUSTAINABLE DEVELOPMENT GOALS ERA

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While small-area estimation poverty maps are more and more common, such finely detailed maps for undernutrition are rare. Yet we need such maps for undernutrition. For example, small-area maps for stunting, underweight, and wasting in children under 5 years of age may not correlate closely with those for poverty because different factors influence nutrition outcomes.

Small-area estimation of undernutrition involves combining nutrition surveys like the DHS and MICS with a contemporaneous census (which does not record nutrition outcomes). Common variables, such as household assets, construction materials, and water and sanitation provision, and personal characteristics, such as mother's education and child's age, that are available in both surveys and censuses, are used to develop a statistical relationship with the undernutrition outcomes available only in the DHS/MICS. Then this relationship is used to estimate nutrition for groupings of 20,000 to 30,000 contiguous households based on predictions from the census. Often there is a focus on children younger than 5. Although the underlying concepts are simple, the modeling is time consuming and requires considerable expertise. Many models need to be considered and tested to find a suitable one. Other complexities include quality of measurement, especially child's height. The resulting maps, based on sound, well-tested models, tend to concur with expert opinion on the location of high and low rates of undernutrition.[1]

The maps and small-area estimates of undernutrition are highly valuable. Generally, no one map is sufficient, but together they give a detailed picture of undernutrition rates and where the largest numbers of undernourished people are. They help guide prioritization and geographic targeting of assistance programs, whether these are based on rates of undernutrition or on the number of undernourished by area. They are also a common tool for reaching consensus with stakeholders on which geographic areas to prioritize and are useful in predisaster contingency planning and postdisaster needs estimation. Maps can also aid in policy analysis and planning. Examples of these maps for Bangladesh (stunting), Cambodia (stunting), and Nepal (calorie intake) are shown here.

More such maps are needed. The methods are complex, but expertise is available. The Sustainable Development Goals' focus on ending malnutrition calls for detailed geographic information on prevalence and severity to address the problem in the most effective way. Small-area estimation maps of undernutrition can help us do just that.