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Using Household and Intrahousehold Data To Assess Food Insecurity: Evidence From Bangladesh

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What Is the Issue?

Despite a substantial increase in global per-capita food production over the past two decades, estimates show the size of the global undernourished population also has grown over the same period. Many factors contribute to the persistently large size of the food-insecure population worldwide, but, in particular, increasing and highly volatile food prices have reduced household access to an adequate diet. These challenges have highlighted the importance of measuring food insecurity and evaluating the efficacy of food aid policies.

To assess food insecurity and undernourishment at the household level, researchers assume food is distributed equitably within the household; that is, all household members are believed to share the same food security status. However, if food within a household is actually distributed inequitably, estimates based on household-level data may inaccurately identify food-insecure populations. Discrepancies between household and intrahousehold assessments might suggest that food aid distributed based on household-level assessments would be unavailable to a substantial portion of the food-insecure population.

What Did the Study Find?

An analysis of calorie consumption at both the individual and household levels in Bangladesh in 2011-2012 showed that:

- The assessment of undernourishment varied significantly by the design of the survey used to collect data. Approximately 22 percent of the population was undernourished when households were asked to recall 7 days of household consumption of raw ingredients (the typical method used in household-level surveys). Approximately 33 percent were undernourished when households were asked to recall the finished recipes they had consumed in 24 hours. More research and validation are needed to understand which of the two estimates better approximates the household's nutritional status.
- There were inequities in the distribution of household calorie consumption. The data show that household heads consumed a disproportionately large share of calories relative to other household members. Thus, when using only household-level data, which assume an equitable distribution of calories among members, many household members who were not household heads were misclassified as adequately nourished; some household heads were misclassified as undernourished.

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These findings suggest that the depth of undernourishment for certain household members may be greater than traditional household consumption surveys would suggest. Even in households in which it is possible to meet each member's daily food requirements, a significant share of women and children are still undernourished. Thus, accounting for the intrahousehold distribution of food is important to food aid programs such as the Feed the Future initiative to improve the nutritional status of women and children. (Feed the Future is led by the U.S. Agency for International Development and involves 10 other agencies, including the U.S. Department of Agriculture. For more information, see: <http://www.feedthefuture.gov/>.)

How Was the Study Conducted?

USDA's Economic Research Service researchers estimated calorie consumption using data from the first wave of the Bangladesh Integrated Household Survey conducted by the International Food Policy Research Institute. The survey collected food consumption in two separate modules: one collected household consumption and expenditure levels typically reported in household-level surveys, and a second collected information based on how the household's female in charge of food preparation described consumption of finished recipes by each individual household member over the prior 24 hours. Researchers compared the resulting assessments of undernourishment from each module and compared estimates of undernourishment based on individual-level and aggregated household data from the 24-hour module.