

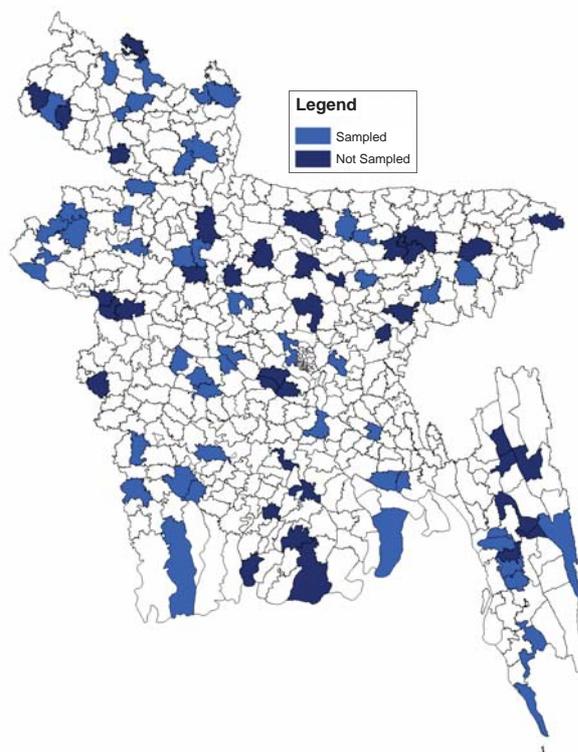


The Food Security Nutritional Surveillance Project: Results from Round 12: October to November 2013

The Food Security Nutritional Surveillance Project (FSNSP) provides up-to-date, seasonal information on the situation of food and nutrition security in Bangladesh for six surveillance zones, as well as the nation as a whole. In each household, multiple members are interviewed to obtain commonly referenced and standardized indicators of food security, women's care and nutrition, as well as children's care and nutrition.

Figure 1: Sampled areas in Round 12

FSNSP estimates levels of food insecurity from household coping and food consumption patterns, because food insecurity – no matter if it is due to low availability of food stocks, low household access to foods, or biased utilization of a household's food stocks – results in a similar range of experiences and observables for households and individuals. All food security questions are asked to the person identified in each household as the manager of the kitchen.



In each household, one non-pregnant woman, aged 10 to 49 years, is randomly selected to be interviewed about her diet and to have her height, weight, and mid-upper arm circumference (MUAC) measured. In addition, all pregnant women are interviewed about their diet and the care they have received during their pregnancy, and their MUAC

measurement is recorded. In addition, if the youngest child in the household is less than six months of age, that child's mother is asked about the care she received during her pregnancy with this child.

In each household with a child less than five years of age, child caregivers are asked about the care and feeding practices for the youngest child in the household. Caregivers also provide information about recent childhood illnesses, and, if the child is reported to have been ill, additional questions about care during illness are asked. The height, weight, and MUAC of all children under five years of age in the household are recorded.

This bulletin presents selected results from the twelfth round of surveillance which took place from October to November, 2013. This bulletin also presents estimates from the ninth, tenth, and eleventh rounds of data collection, to show both seasonal variation and changes in indicators between 2012 and 2013 for the Post-Aus harvest season. However, comparisons between the post-aus season of 2013 and that of other years must be made with care as, due to political unrest during November and December 2013, FSNSP could not survey the entire sample for twelfth round. FSNSP only completed half of the original sample which included 2,540 children less than five years of age and 4,933 women and adolescent girls aged 10 to 49 years in 4,848 households. As a full sample of households was not obtained in the surveillance zones, this bulletin only presents only national figures for a selected set of FSNSP indicators.

Table 1: Time period of surveillance rounds included in this bulletin

Number	Season	Time period
Round 9 (R9)	Post-Aus harvest	October-December 2012
Round 10 (R10)	Post-Aman harvest	Feb to April 2013
Round 11 (R11)	Monsoon	June-September 2013
Round 12 (R12)	Post-Aus harvest	October-November 2013

In this report, percentages given at the end of bars in each graph are for the overall prevalence estimates for that particular indicator (regardless of severity). Adjusted Wald tests were used to determine the statistical significance of changes in indicators between surveillance rounds. In the graphs rounds of data collection are

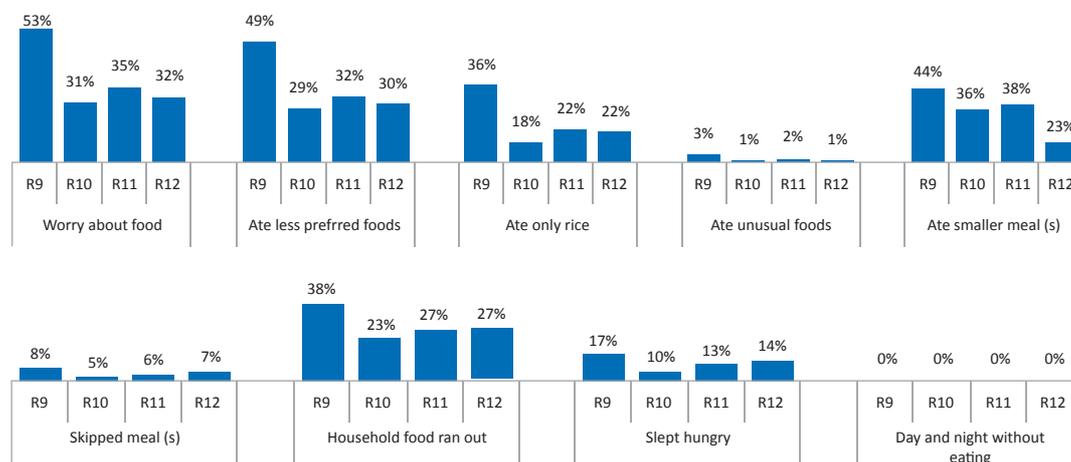
indicated by the letter R and the round of data collection (For example, Round 12 is indicated by R12). Additional details about the terms used in each graph can be found in the endnotes.

Food Security

Food insecurity as measured by Household Food Insecurity Access Scale (HFIAS) and food deficit as measured by Food Deficit Scale (FDS) stabilized in Bangladesh from Round 10 in early 2013. Like the composite HFIAS indicator, most of its individual parameter also stabilized at a lower level during this period. Notable levels of food insecurity were lower in 2013 than at any point since 2010.

Figure 2: Households experiencing food insecure conditions at least once in the month prior to the interview

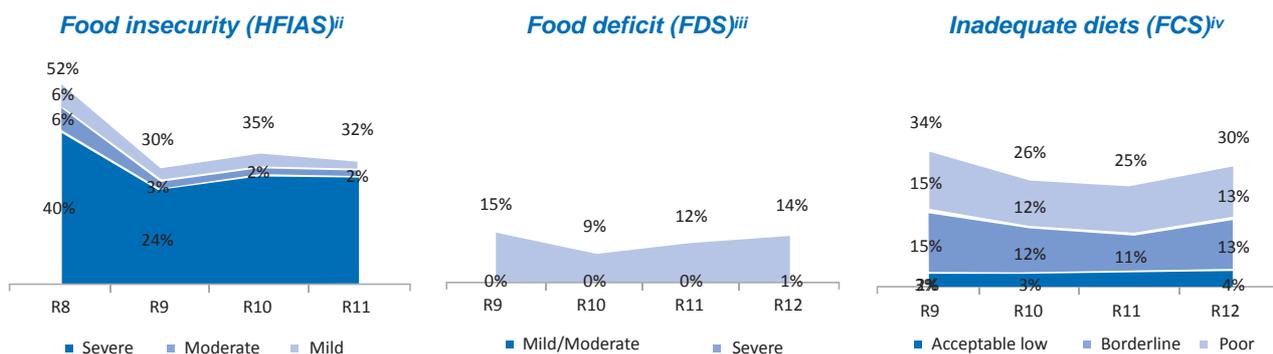
The proportion of households nationally in which the kitchen manager reported that the household had ever experienced the listed conditions related to food insecurity in the month prior to the interview (presented from least to most severe, according to HFIAS) by surveillance round. These estimates are derived from self-reported perceptions of the food security situation (1).



Note: Responses to the indicators given in Figure 3 are grouped into a two scales utilizing internationally standardized methodology in Figure 4.

Figure 3: National prevalence of internationally standardized food security indicators by severity and round

The proportion of households in Bangladesh which fit internationally standardized categories of food insecurity by surveillance round (1; 2; 3; 4).

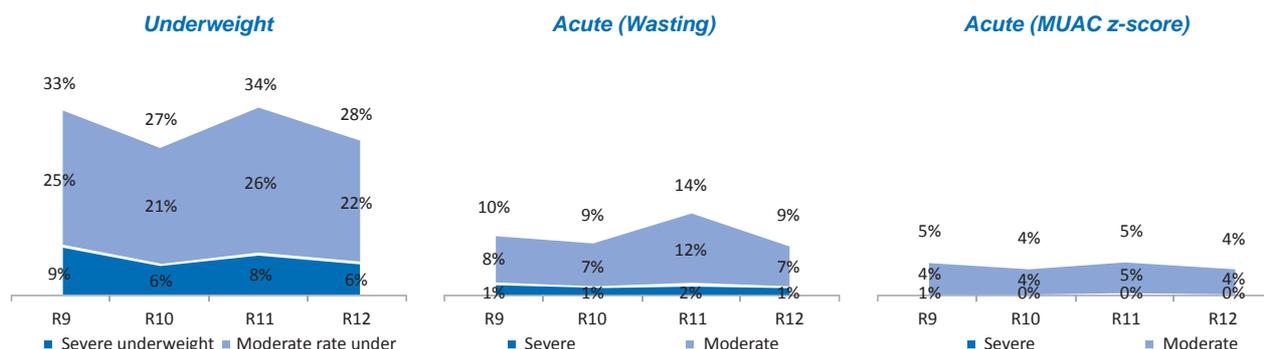


Nutritional status of children

The proportion of children malnourished fell significantly from Round 11 to Round 12, but was in line with the levels observed during 2012.

Figure 4: National prevalence of child under nutrition by severity and round

The proportion of children under five years of age in Bangladesh who were wasted and underweight by surveillance round. The proportion of children 0 to 59 months of age who were classified as malnourished based on age, weight, and height measurements as assessed with reference to the World Health Organization's 2006 growth standards (5). The overall or total prevalence indicates global malnutrition of children.^v

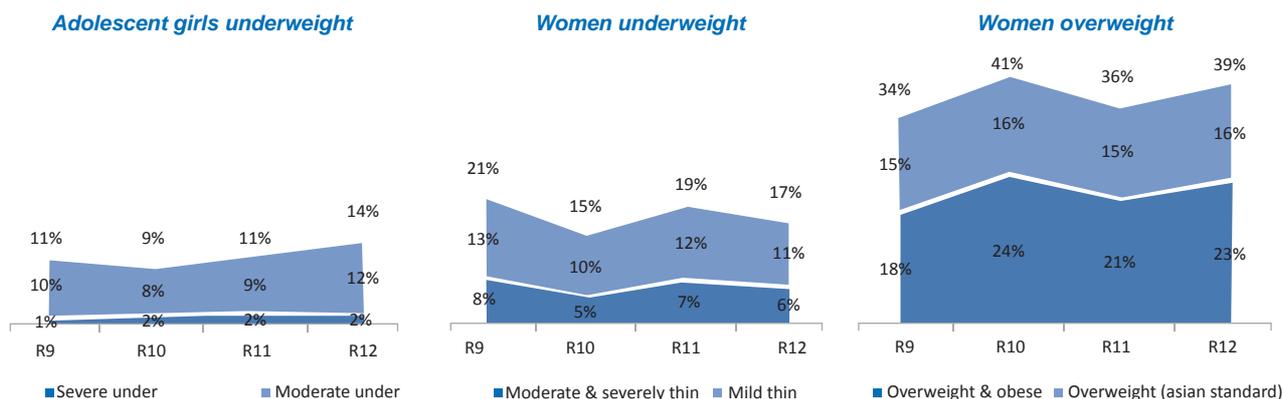


Nutritional status of women and adolescent girls

The nutritional status of adolescent girls has not changed much over the past year, though women's nutritional status has varied significantly. There seems to be little sustained change.

Figure 11: Nutritional status of women and adolescent girls

The proportion of adolescent girls and women who fell into categories of nutritional status based on BMI (6; 7; 8). The overall prevalence indicates global underweight for adolescent girls underweight (BMI for age z-score < -2S.D.), chronic energy deficiency (CED) for women underweight (BMI < 18.5), and overweight and obese by the Asian cutoff for women overweight (BMI > 23) (6; 7; 8).^{vi}



ⁱ These indicators are ordered by severity as given in the Household Food Insecurity Access Scale (HFIAS) scale. Households and household members who practiced any of these behaviors for a reason other than difficulties obtaining food are not included (for example, a household member who skipped a meal due to illness).

Worry about food: Proportion of kitchen managers who report worrying about obtaining food for their household in the past month

Ate less preferred foods: Proportion of households in which any member had to eat food they felt was inferior, i.e. broken rice instead of whole rice

Ate only rice: Proportion of households in which any member ate only rice or rice and spices for a meal

Ate unusual foods: Proportion of households in which any member ate unusual or scavenged foods, i.e. water lily

Ate smaller meals: Proportion of households in which any member ate a smaller meal than they felt they needed

Skipped meals: Proportion of households in which any member skipped a meal

Food ran out: Proportion of kitchen managers who report that any food stored in the household ran out for the day and there was no money to buy more

Slept hungry: Proportion of households in which any member slept hungry at night, even if this individual did so after eating an inadequate meal

Day and night without eating: Proportion of households in which any member was unable to eat for 24 hours

ⁱⁱ All nine indicators listed in Figure 3 are used in HFIAS. Based around the premise that some coping responses are more serious than others and indicate a household is more food insecure, HFIAS categorizes households into three degrees of food insecurity based on the most "severe" coping mechanism they have employed (1), and a household is categorized as food insecure if worry about providing food occurred more than twice in the month before the interview.

ⁱⁱⁱ Only the three most severe indicators depicted in Figure 2 – household food stores running out, sleeping hungry, or going day and night without eating – are included in the Food Deficit Scale (FDS). FDS, identical to the internationally standardized indicator the Household Hunger Score, uses the reported frequency of experience of these three conditions to categorize households into categories of household food scarcity. A household is categorized as having a food deficit if any one of these three experiences occurred more than three times or if more than two of these conditions were experienced in the month before the interview.

^{iv} FFSNSP asks household kitchen managers about the frequency with which their household has eaten foods from eight standardized food groups in the week prior to the interview. These frequency scores are weighted in line with the Food Consumption Score (FCS) guidelines laid out by the World Food Program (3). Households are then grouped into food consumption categories using cut-offs designed for Bangladesh (4).

^v Children whose measurements (z-score) indicate that they are between negative two standard deviations (-2 SD) and negative three standard deviation (-3 SD) from the mean of the reference population are classified as moderately malnourished for any given measure. Children who are below -3 SD are classified as severely malnourished. All children whose z-score falls below -2 SD are classified as globally malnourished (5).

Underweight: Proportion of children with low weight for their age

Acute (wasting): Proportion of children with low weight for their height

^{vi} The nutritional status of non-pregnant women who have not recently given birth (no child less than 2 months of age, in line with DHS guidelines) is ascertained using body mass index (BMI, $\text{weight}_{kg}/\text{height}_{m}^2$) (6). For women, 19 to 49 years of age, nutritional status is calculated through the use of BMI cutoffs while for adolescents, 10 to 18 years of age, BMI-for-age z-scores are used (6; 7; 8).

Girls underweight: Severe underweight – BMI z-score < -3 SD; Moderate underweight – BMI z-score greater than or equal to -3 SD but less than -2 SD

Women underweight: Moderate and severe thin – BMI less than 17; Mildly thin – BMI greater than or equal to 17 but less than 18.5

Women overweight: Overweight – BMI greater than 23 but less than 25; Overweight and obese – BMI greater than or equal to 25

Works Cited

1. Coates, Jennifer, Swindale, Anne and Bilinsky, Paula. Household Food Insecurity Access Scale (HFIAS) for Measurement of Household Food Access: Indicator Guide (v. 3). Washington, D.C. : Food and Nutrition Technical Assistance II Project (FANTA-2), Academy for Educational Development, 2007.
2. Deitchler, Megan, et al. Validation of a Measure of Household Hunger for Cross-Cultural Use. Washington, D.C. : Food and Nutrition Technical Assistance II Project (FANTA-2), Academy for Educational Development, 2010.
3. International Food Policy Research Institute. Validation of food frequency and dietary diversity as proxy indicators of household food security. Rome, Italy : World Food Programme, 2008.
4. Bangladesh Bureau of Statistics, World Food Programme, Institute for Public Health and Nutrition, & United Nations Children's Fund. Bangladesh Household Food Security and Nutrition Assessment Report: 2009. New York, US & Rome, IT : World Food Programme & United Nations Children's Fund, 2009.
5. World Health Organization. Child growth standards: WHO Anthro (version 3.2.2, January 2011) and macros. World Health Organization. [Online] January 2011. [Cited: July 21, 2011.] <http://www.who.int/childgrowth/software/en/>.
6. Rutstein, Shea Oscar and Rojas, Guillermo. Guide to DHS statistics. Calverton, Maryland : ORC Macro, 2006.
7. World Health Organization. Growth reference 5-19 years: Application tools. World Health Organization. [Online] January 2011. [Cited: July 21, 2011.] <http://www.who.int/growthref/tools/en/>.
8. Appropriate body-mass index for Asian populations and its implications for policy and intervention strategies. WHO expert consultation. s.l. : The Lancet, 2004, Vol. 363.

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