Cornell-Radimer hunger scale measures household food security in Java

Summary of published paper[*]

Field Exchange 6 reported on the use of the Radimer-Cornell hunger scale to measure prevalence of hunger in the Russian Federation. One of the conclusions of the Russian study was that the scale may be useful in providing early warning that dietary quality and diversity in a population are worsening before frank malnutrition (as measured by anthropometry) becomes prevalent. Classifying individuals on the basis of household and individual hunger is a simple and straightforward way of identifying those households that would benefit from different kinds of intervention.

A more recent study in Java is the first time the tool has been used in an emergency setting. In 1997/8 Indonesia was struck by severe economic crisis exacerbated by El-Niño induced droughts and significant political change. By May 1998 food prices had increased by 74% compared to the year before and there were concerns about the overall supply of rice. Data on food security at household level remained scant and largely anecdotal. Speculation about food supply, and widespread concern about a subsequent increase in prevalence of malnutrition, were based almost entirely on price and supply indicators.

The survey was carried out in June-August 1998 involving 1423 mothers with children under five years of age. Qualitative and quantitative data contributed to understanding food insecurity. The questions asked, responses and method of classifying household food security can be seen in figures 1 and 2. The data showed substantial household food insecurity with 94.2% of households found to be uncertain or insecure about their food situation in the previous year. Overall, 11% of respondents reported losing weight in the previous year because of lack of food. Food security in Java was undoubtedly compromised by the economic crisis. This study has demonstrated how the tool provides a useful measure for rapidly assessing food insecurity in an emergency. Further research to validate the approach in various settings is warranted.

Figure 1. Outline of responses to household food security questions	
Question	Positive response
1. Do you worry that your family may run out of food before you have money to buy again?	79.2%
2. Do you worry that you may not be able to afford to buy adequate food?	76.9%
3. Do you wish you could buy more food if you had more money?	68.7%
4. Has your family ever run out of food because you do not have more money to buy food?	33.2%
5. Has your family ever eaten the same type of food for several consecutive days because you do not have enough money to buy different food?	40.7%
6. Have you ever eaten less than you want because you do not have enough money to buy food?	30.8%
7. Have your children, according to you, not had enough to eat because you do not have enough money to buy food?	24.4%
8. Do you have enough money to buy healthy and nutritious food for your children?	19.0%
9. Sometimes a person's body weight drops because of not eating enough. Has your body weight dropped in the last year because of the lack of food?	11.1%

Figure 2. Method of classification of household food security	
Category	Classification based on responses to household questions (figure 1)
Food secure	No affirmative response
Uncertain about food	Affirmative response to questions 1 and/or 2 only
Insecurity for family	Affirmative response to Q 3,4 and/or 5 but not Q 6,7 or 9 and at least two affirmative responses
Insecurity for adults	Affirmative responses to Q6 but not Q 7,8 or 9 and at least three affirmative responses
Severe insecurity for children and adults	Affirmative responses to Q 7,8 and/or 9 and at least four affirmative responses

[*]Studdert L., Frongillo E. and Valois P. (2001): Household food insecurity was prevalent in Java during Indonesia's economic crisis. Journal of Nutrition, Volume 131, pp 2685-2691