

FOOD AND
NUTRITION
TECHNICAL
ASSISTANCE

**Measuring Household Food Insecurity
Workshop Report**

April 15-16, 2004

Food and Nutrition Technical Assistance Project (FANTA)

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1. INTRODUCTION

During the past four years FANTA has supported activities to validate the US Household Food Security Scale (HFSS) for use in developing countries and test its usefulness as an impact indicator for the access component of food security in program evaluations. The underlying concept of the HFSS approach is that food insecurity in the United States is a measurable experience that can be described and analyzed to categorize households by level of food insecurity¹ [see Frongillo presentation in Appendix 4]. The set of activities implemented by FANTA seeks to answer whether this is universally true and whether a generic measurement tool could be developed for application across countries.

FANTA funded two multi-year field validation studies that used the HFSS approach to develop experiential household food insecurity scales (HFIS) and validate them primarily as impact indicators for the access component of household food security. The studies were implemented by Cornell University in the Title II food security program areas of Africare in Burkina Faso and by Tufts University in the Title II food security program areas of World Vision in Bangladesh.

The objective of the field studies was the design and dissemination of a measurement process for translating information about the food insecurity experience into a robust and contextually-sensitive indicator of food insecurity that has demonstrated validity. Through these studies, FANTA developed a practical formative research process (protocol) that can be applied by local researchers and program implementers in a wide variety of settings to enable them to develop measures of food insecurity appropriate to their cultural, ecological, and economic contexts.

FANTA also provided support to Freedom from Hunger (FFH) efforts to develop a low-cost and meaningful poverty measurement and classification system that would be applicable in diverse settings. The FFH studies in Burkina Faso, Bolivia, Ghana and the Philippines investigated the relationship between classifications based on the HFSS and those based on the international poverty line—\$1 per day (purchasing power parity) per capita consumption—using data generated in ways comparable to the Living Standards Measurement Studies (LSMS) developed and used by the World Bank.

In addition to the FANTA-supported field validation studies, researchers and food security program managers have used and adapted the HFSS approach in a number of countries for a range of different purposes. FANTA carried out a review of how the HFSS was adapted and used to look at food insecurity in these cases.

As the next step in the effort to develop an easy-to-use, valid measure of household food insecurity for food security programs, FANTA held a two-day workshop on April 15-16 2004, with 25 researchers, PVO practitioners from Title II and Child Survival and Health programs, and USAID and FANTA staff.

¹ The HFSS was developed, through collaboration among Federal agencies, academics, commercial and nonprofit organizations, as a module for the US Current Population Survey carried out by the USDA Economic Research Service. The survey module has been used, in various forms, since 1995 and consists of a validated set of 18 questions that focus on behavior and conditions related to food security. See Appendix 1.

2. OBJECTIVES OF WORKSHOP

The goal of the workshop was to arrive at a consensus on the feasibility and begin development of a generic, universally applicable measurement instrument that could be used to construct an experiential household food insecurity scale (HFIS) in a range of country and cultural contexts.

The specific objectives of the workshop were to:

1. Present the results of the field validation studies
2. Present the findings of the review of literature on the use of the HFSS
3. Discuss:
 - a) common themes for behaviors/behaviors of food insecurity that are universal across different countries and cultures
 - b) questions that address these themes and the degree of adaptation needed for specific contexts
 - c) indicators that could be developed using the data generated
 - d) next steps necessary to develop a generic instrument and methods.

The agenda of the workshop is included as Appendix 2.

3. RESULTS OF THE FIELD VALIDATION STUDIES

Ed Frongillo from Cornell, Jennifer Coates from Tufts, and Hugo Melgar from Ohio University presented the results of Cornell's work with Africare in Burkina Faso, Tufts's work with World Vision in Bangladesh and FANTA's partnership with FFH in Bolivia, Burkina Faso, Ghana, and the Philippines, respectively.

The Cornell and Tufts studies showed that the HFSS approach to developing an experiential household food insecurity scale (HFIS) can be applied successfully in a different, developing country context. The food insecurity questionnaire proved to be a simple tool that could be used in these settings by organizations to assess, evaluate, or monitor the access component of household food security. Both studies indicate that the HFIS captures changes in food insecurity at the household level over time. These data can also be useful in the design, planning, targeting, and implementation of programs by identifying possible interventions, points of entry for services, and subgroups most in need or who might most benefit.

Dr. Frongillo concluded that the Cornell approach in Burkina Faso, which based the tool on extensive ethnographic research rather than translating and adapting questions developed elsewhere, will likely lead to the best direct, experience-based measures for assessing household food insecurity in other countries [see Frongillo and Nanama presentation in Appendix 5]

The Tufts study in Bangladesh demonstrated that a module of nine questions, based on ethnographic research related to the experience of food insecurity in the Bangladesh context, passes all validation tests that were applied to the HFSS. Responses to the set of nine questions together have strong statistical correlation with the level and severity of household food insecurity, and changes over time. These conclusions point to the possibilities of the use of the

tool by PVOs for designing and evaluating food security programs. The final report of the research project does caution that such a tool is not meant to substitute for more intensive consumption or anthropometric studies needed to answer specific questions about poverty or nutrition. [See Coates presentation in Appendix 6]

Preliminary results from the FFH studies, which used a slightly modified US HFSS instrument rather than developing a country-specific instrument for each study site, show significant relationships between food insecurity as defined by the experiential food insecurity scale and total household consumption in the countries included in the study. The relationship between the experiential food insecurity scale and consumption is not always linear, although a clear trend towards less consumption at higher levels of food insecurity was observed. [See presentation in Appendix 7]

4. FINDINGS OF THE REVIEW OF LITERATURE ON THE USE OF THE HFSS

A literature review was conducted to summarize recent work by field practitioners and academics to develop instruments, based on the HFSS, to measure food insecurity in developed and developing countries.² A total of 21 different uses of the HFSS were reviewed. The review was used as a background paper for the FANTA workshop [see Appendix 8].

The following are the main findings of the review:

- The review identified the following 5 common themes in the instruments: 1) anxiety that the food budget or supply may be insufficient to meet basic needs; 2) perceptions of inadequate quality or quantity of food; 3) adults reducing food intake; 4) children reducing food intake; 5) coping actions taken by the household to augment the food budget or food supply. Specific questions from each instrument were linked to each of the themes, and the questions that were unique to the specific country context or population were identified.
- All HFIS contained questions related to the following themes: 1) perceptions of sufficient quantity and quality of food, 2) adults reducing food intake or its consequences, and 3) coping behaviors to augment the household food supply. About half the instruments included questions about food-related anxiety and half included child-referenced questions about consumption reduction.
- The five themes that characterize the food insecurity experience in the United States appear to meaningfully discriminate among households with differing levels of food insecurity in other countries. Also common across countries is the experience that food insecurity is handled through a “managed process”. However, the order of adoption in a given culture and assumptions about the severity indicated by specific themes are context-specific and are dependent on factors such as social acceptability and the coping strategies available to households.
- There may be a trade-off between the generic phrasing of a question required for universal relevance and the cultural specificity required to ensure comprehension by the respondent. Questions reviewed here represented a range from very generic to very specific.

² Coates, Jennifer. (2004) “Experience and Expression of Food Insecurity Across Cultures: Practical Implications for Valid Measurement”. Washington, D.C.; Food and Nutrition Technical Assistance, Academy for Educational Development.

An additional literature review of ethnographic studies of food insecurity in six different countries, including the United States, was completed for the workshop. Comparisons of the studies identified seven themes: 1) insufficient food intake (individual); 2) physical effects of hunger; 3) household food depletion; 4) nutritional inadequacy; 5) uncertainty of future food acquisition; 6) decreased choice and control over food; and 7) social compromises. There was less commonality in the way these themes are experienced, indicating the need for further refinement in particular country contexts.

In addition, the additional literature review compared themes against behaviors aimed at mitigating food insecurity. With one exception (changing eating patterns), each theme was related to multiple behaviors that were not common across all countries. For example, the response to household food depletion varied so that some groups only borrowed or accepted charity while other groups also changed the dynamic of how food was distributed in the household.

5. DISCUSSION OF THEMES

Drawing on the themes expressed in the HFSS, the themes identified in the workshop background paper, and the analysis of ethnographic studies of food insecurity, the workshop participants came to consensus that the following 4 themes and related sub-themes represent a universal list that characterizes the experience of food insecurity across countries and cultures:

- a. Fear/anxiety/worry about running out of food
 - a.1 Actual household food depletion
- b. Insufficient food intake (quantity)
 - b.1 Physical effects
- c. Quality of food
 - c.1 Nutritional quality
 - c.2 Taste and appeal/loss of control
 - c.3 Social acceptability/compromise
- d. Coping strategies to increase household resources

6. DISCUSSION OF QUESTIONS AND LEVEL OF ADAPTATION NEEDED

A key step in developing a universal household food insecurity measurement instrument that can be used across a range of contexts is to develop ways to elicit the food insecurity experience of the household from a respondent in a consistent and valid way. Working groups for each of the universal themes discussed possible questions, using as a starting point the questions from the examples summarized in the background paper. The discussion also drew upon the experience of individuals who had used these instruments and could provide expert opinion on the validity and accuracy of specific questions. The most critical issues in this discussion were 1) the determination of the level of adaptation needed in order to provide accurate data related to a specific context and 2) whether that adaptation would invalidate the universality of the instrument.

The following scenarios were developed to help guide the overall focus of the discussion. The starting point for each scenario was the assumption that the themes were universal and therefore would not need site-specific adaptation. All scenarios also assume that the questions would have to be translated into local languages and subjected to cognitive and pilot testing.

- The “A” scenario: Assumes that only translation of questions into the local language(s) and cognitive and pilot testing are necessary. This is the ideal scenario for a universal instrument.
- The “B” scenario: Site-specific adaptation of the phrasing of the question would be necessary, however, the basic question could be included in a universal instrument.
- The “C” scenario: Additional in-depth qualitative interviews are necessary to inform question development, then site-specific questions would need to be developed. Inclusion of the theme in a universal instrument would not be possible in this scenario.

With these 3 scenarios in mind, participants divided into small groups, by theme, to consider the following questions:

- Are there additional sub-themes that are necessary to fully capture the food insecurity experience under the theme?
- What are the possible questions related to each theme/sub-theme?
- Are there universal ways to express those questions?

There were two rounds of small group discussions, between which each groups’ work was presented to the larger group for discussion and suggestions for refinement. The following list of themes, sub-themes, and related questions were the result of the small group work and large group discussion. Questions are in bold. (Appendix 3 contains a list of the draft questions identified by the groups.) The scenario (A, B, or C) and issues for further consideration are identified after each question. Unless specifically noted otherwise, most of the ambiguity in the findings indicate a lack of time to accomplish further refinement rather than a lack of consensus.

6.1. Fear/anxiety/worry about running out of food

(Q1) In the past 12 months, have you worried that your “x” would not have enough food?

This question falls under Scenario A. “x” refers to the unit of analysis, likely to be considered, either a household or a family (see cross-cutting issues below). The concept of worry about the future may not be relevant in fatalistic cultures.

6.1.1. Actual household food depletion

(Q2) In the past 12 months, was there a time when [your usual food supply ran out] or [you did not have all of the food you needed]?

The bracketed terms need to be context-specific. (Scenario B) The use of the term “running out of food” was considered problematic as it may be ethnocentric.

(Q3) In the past 12 months, was there a time when you completely ran out of food and didn't have any [good or acceptable or appropriate] ways of getting more?

The bracketed term needs to be context specific (Scenario B.) It was noted that these questions assume that “depletion” will follow “reduction in intake” (as determined in other questions).

6.2. Insufficient food intake

(Q4) In the past 12 months, did you or any adult in your household have to limit the amount of food eaten in a day because there was not enough food?

(Q5) In the past 12 months, did you or any adult in your household have to eat fewer meals in a day because there was not enough food?

(Q6) In the past 12 months, did you or any adult in your household have to go a whole day without eating because there was not enough food?

(Q7) In the past 12 months, did any child in your household have to limit the amount of food eaten in a day because there was not enough food?

(Q8) In the past 12 months, did any child in your household have to eat fewer meals in a day because there was not enough food?

(Q9) In the past 12 months, did any child in your household have to go a whole day without eating because there was not enough food?

6.2.1. Physical effects

(Q10) In the past 12 months, did you or any adult in your household have to go to sleep at night hungry because there was not enough food?

(Q11) In the past 12 months, did any child in your household have to go to sleep at night hungry because there was not enough food?

These questions (4 – 11) are likely to fall under Scenario A, although the term “limit” in questions 4 and 7 may be site-specific (Scenario B.) The issues related to this theme and sub-theme involve identifying the most appropriate respondent and the use of the questions in a situation of chronic food insecurity (i.e., a regularly occurring situation).

6.3. Quality of food

6.3.1 Nutritional quality

There was lack of consensus on this sub-theme. While clearly important for overall food insecurity, some participants felt that this did not fit into the experiential nature of the rest of the

instrument; others thought that it did fit. In addition, in order to adequately assess changes in nutritional quality, more than just one or two questions would be needed. One suggestion was that this information be collected separately from this instrument, through a measure of dietary diversity, for example. Some participants, however, were concerned that dietary diversity may not be indicative of nutritional quality in some locations. Another suggestion was to ask about whether people consume a list of a few key foods (e.g. meat, fish) known to be important contributors to nutritional quality in a given location. This approach has been successful in countries where it has been used.

6.3.2 Taste and Appeal/Loss of control

(Q12) In the past 12 months, has your family not been able to eat the way you think you should because of [lack of resources]?

The bracketed term needs to be refined so that it is clear to the respondent that the experience is clearly related to access to food (Scenario B).

6.3.3 Social acceptability/compromise

(Q13) In the past 12 months, did you get to the point where you had to eat foods that are not acceptable to your culture/community because of [lack of resources]?

The bracketed term needs to be refined (Scenario B). There are actions that are culturally acceptable to do in hard times, but indicate food insecurity nonetheless. There is a distinction between control over food choices and compromise which is not picked up in either of questions 12 or 13. Monotony is an important aspect of preference, however it may be hard to get at because most people only eat one or two staple foods. It is usually understood that if people say they run out of food they are referring to their staple foods. Lastly, an observation was made that some preferred foods are not nutritionally adequate (e.g., high preference, low nutritional value product such as Coke).

6.4. Coping strategies to increase household resources

It might be helpful to know respondent's perception of what constitutes food insecurity in order to determine if the coping strategies are actually related to food insecurity.

(14) In order to meet your household food needs in the past 12 months did you have to do something that you disliked?

(15) In order to meet your household food needs in the past 12 months did you have to compromise your future food needs?

(16) In order to meet your household food needs in the past 12 months did you have to compromise needs other than food?

(17) In order to meet your household food needs in the past 12 months did you have to do something that you are ashamed of?

Participants agreed that the wording and choices given in this question were broad enough to be considered common and universal. (Scenario A)

(18) In the past 12 months, [did you have] or [were you forced] to do things in order to meet your household food needs?

The wording in brackets needs site-specific clarity (Scenario A). There are multiple levels of coping depending on severity and timing, so it might be necessary to ask whether the coping strategies referred to in both questions are happening “now”, “always”, or “likely in the future.”

7. IDENTIFICATION OF CROSS-CUTTING ISSUES

Participants agreed that the following issues would have to be addressed for each of the questions or for the instrument as a whole:

- It was not possible to adequately discuss the question of the *unit of analysis*. Some questions were being asked about the household and some questions about a specific person or persons in the household, and the definition of household would vary from country to country.
- Further discussion is needed regarding who the actual *respondent* would be.
- For most questions, the *recall period* was given as 12 months, however, this was not explicitly discussed and it may be possible to identify questions that could be asked for alternative recall periods (e.g., “since the last harvest”).
- The *response* for each of the questions is currently a “yes/no”. It might be useful to ask about the frequency of a particular experience (e.g. never-rarely-sometimes-often-always) to make it easier for a respondent to reply and to determine severity of food insecurity.
- Lastly, some of the questions might be more effective as *statements* rather than questions.

8. CONCLUSION OF WORKSHOP

Workshop participants were advised by researchers not to repeat errors that had been made in the early iterations of the HFSS (i.e., the decision not to separate out questions about children from adults) and to focus on specific information needs as opposed to trying to expand the instrument to meet all possible uses.

Proposed next steps:

- Reach consensus on cross-cutting issues
- Determine the implications of capturing the same behavior in more than one question
- Identify universal wording for bracketed terms
- Identify any additional commonalities in the themes or questions used in food insecurity scales used in different studies
- Define indicators that use the scale to categorize households by level of food security/insecurity and those that could be created out of individual questions

- Field testing
- Identify the limits and possibilities for appropriate uses of the instrument
- Determine level of comparability of results across countries.

Throughout the discussion at the workshop, the principal goal of having an *impact-level indicator of food insecurity for program evaluations* was kept in mind to focus everyone's efforts. Beyond this, as suggested above, an important next step is to explore and identify the limits and possibilities for other appropriate uses of the instrument. Some possible uses discussed were:

- A module in the Knowledge, Practice, and Coverage (KPC) surveys used in the Child Survival and Health grant program,
- Tool for reporting results of interventions
- Incorporated into the Demographic and Health Surveys (DHS)
- Targeting
- Community tool
- Comparison of countries
- Comparison of PVOs' activities

APPENDIX 1: QUESTIONS USED TO ASSESS THE FOOD SECURITY OF HOUSEHOLDS IN THE CPS FOOD SECURITY SURVEY

1. “We worried whether our food would run out before we got money to buy more.”
Was that often, sometimes, or never true for you in the last 12 months?
 2. “The food that we bought just didn’t last, and we didn’t have money to get more.”
Was that often, sometimes, or never true for you in the last 12 months?
 3. “We couldn’t afford to eat balanced meals.”
Was that often, sometimes, or never true for you in the last 12 months?
 4. In the last 12 months, did you or other adults in the household ever cut the size of your meals or skip meals because there wasn’t enough money for food? (Yes/No)
 5. (If yes to Question 4) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
 6. In the last 12 months, did you ever eat less than you felt you should because there wasn’t enough money for food? (Yes/No)
 7. In the last 12 months, were you ever hungry, but didn’t eat, because you couldn’t afford enough food? (Yes/No)
 8. In the last 12 months, did you lose weight because you didn’t have enough money for food? (Yes/No)
 9. In the last 12 months, did you or other adults in your household ever not eat for a whole day because there wasn’t enough money for food? (Yes/No)
 10. (If yes to Question 9) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
- (Questions 11-18 are asked only if the household included children under 18 years old)**
11. “We relied on only a few kinds of low-cost food to feed our children because we were running out of money to buy food.”
Was that often, sometimes, or never true for you in the last 12 months?
 12. “We couldn’t feed our children a balanced meal, because we couldn’t afford enough food.”
Was that often, sometimes, or never true for you in the last 12 months?
 13. “The children were not eating enough because we just couldn’t afford enough food.”
Was that often, sometimes, or never true for you in the last 12 months?
 14. In the last 12 months, did you ever cut the size of any of the children’s meals because there wasn’t enough money for food? (Yes/No)
 15. In the last 12 months, were the children ever hungry but you just couldn’t afford more food? (Yes/No)
 16. In the last 12 months, did any of the children ever skip a meal because there wasn’t enough money for food? (Yes/No)

17. (If yes to Question 16) How often did this happen—almost every month, some months but not every month, or in only 1 or 2 months?
18. In the last 12 months did any of the children ever not eat for a whole day because there wasn't enough money for food? (Yes/No)

Source: Nord, Mark; Margaret Andrews, and Steve Carlson. Household Food Security in the United States, 2003. Economic Research Service, U.S. Department of Agriculture, Washington, D.C. October 2004. Page 4.

APPENDIX 2: MEASURING HOUSEHOLD FOOD INSECURITY WORKSHOP ATTENDEES LIST AND AGENDA

WORKSHOP ATTENDEES

Irene Abdou, ARC	Suzanne Berkey, ACDI/VOCA
Paula Bilinsky, FANTA	Patricia Bonnard, FANTA
Judy Bryson, Africare	Judy Canahuati, USAID
Rita Carelton, USDA	Kristin Cashin, Counterpart
Eunyong Chung, USAID	Jennifer Coates, Tufts University
Ed Frongillo, Cornell University	Paige Harrigan, FANTA
Rachel Lambeth, ADRA	Carell Laurent, USAID
Thomas Marchione, USAID	Constance McCorkle, CRS
Hugo Melgar-Quinonez, Ohio University	Megan Miller, Cornell University
Simeon Namana, Cornell University	Mark Nord, USDA
Gwen O'Donnell, PCI	Katherine Radimer, CDC
Bea Rogers, Tufts University	Mara Russell, Land O Lakes
Anne Swindale, FANTA	Sara Sywulda, FHI
Stacy Young, USAID	

WORKSHOP AGENDA

Thursday morning, April 15 at USAID

10:00- 10:15 Welcome and introduction (Cogill)
10:15- 12:00 Presentation of results of research (Coates, Frongillo, Melgar-Quinones)

Thursday afternoon, April 15 at FANTA/AED

2:00- 2:30 Introduction and general expectations (Bilinsky)
2:30- 2:45 Overview of topic: Universality vs. Specificity and the continuum of possibilities (Frongillo)
2:45- 3:30 Experience and Expression of Food Insecurity across Cultures (Coates)
3:45- 4:15 Group discussion of possible uses of an instrument
4:15- 4:45 Panel case studies: what did it take to get to the results presented in the morning (Coates, Frongillo, Melgar-Quinones)
4:45- 5:15 Group discussion and consensus building: what we are going to accomplish, what are the challenges
5:15- 5:30 Wrap up – what to be thinking about for tomorrow, sign up for groups

Friday, April 16 at FANTA/AED

9:00-9:15 Recap of themes, give task – by theme, what are the possible items, what are the various ways to ask, what are possible answer choices, and what would this tell you (Bilinsky)
9:15- 11:00 Breakout into small groups by theme
11:00-12:30 Report back to large group
1:30- 2:15 Small group refining the task: by theme
2:30- 4:30 Large group discussion to refine items, discuss indicator
4:30- 5:00 Next steps

APPENDIX 3: HOUSEHOLD FOOD INSECURITY SCALE (HFIS) DRAFT QUESTIONS

In the past 12 months...

1. Have you worried that your “x” would not have enough food?
2. Was there a time when [your usual food supply ran out] or [you did not have all of the food you needed]?
3. Was there a time when you completely ran out of food and didn’t have any [good or acceptable or appropriate] ways of getting more?
4. Did you or any adult in your household have to limit the amount of food eaten in a day because there was not enough food?
5. Did you or any adult in your household have to eat fewer meals in a day because there was not enough food?
6. Did you or any adult in your household have to go a whole day without eating because there was not enough food?
7. Did any child in your household have to limit the amount of food eaten in a day because there was not enough food?
8. Did any child in your household have to eat fewer meals in a day because there was not enough food?
9. Did any child in your household have to go a whole day without eating because there was not enough food?
10. Did you or any adult in your household have to go to sleep at night hungry because there was not enough food?
11. Did any child in your household have to go to sleep at night hungry because there was not enough food?
12. Has your family not been able to eat the way you think you should because of [lack of resources]?
13. Did you get to the point where you had to eat foods that are not acceptable to your culture/community because of [lack of resources]?
14. In order to meet your household food needs, did you have to do something that you disliked?
15. In order to meet your household food needs, did you have to compromise your future food needs?
16. In order to meet your household food needs, did you have to compromise needs other than food?
17. In order to meet your household food needs, did you have to do something that you are ashamed of?
18. [Did you have] or [Were you forced] to do things in order to meet your household food needs?

APPENDIX 4: Frongillo Workshop Presentation “Understanding and measuring the experience of household food insecurity across locations and cultures”

Understanding and measuring
the experience of
household food insecurity
across locations and cultures

Edward Frongillo
April 15, 2004

Research aims

- Develop direct measures of household food insecurity based on in-depth understanding of the experience of food insecurity in developing countries
- Gain understanding of how to develop such measures in an efficient manner and provide guidance
- Identify common and unique aspects of the experience of household food insecurity across locations and cultures

Rationale

- Assist development organizations with planning, targeting, monitoring, evaluation, research
- Complement other measures

Purposes for Population

Prevalence	How many have the problem?
Determine causes	Why do they have the problem?
Targeting	Who has the problem? Who will benefit from a solution?
Monitoring	How is the situation changing?
Evaluation	Who has benefited and how?

Purposes for Individuals (or Households)

Screening	Is the person at risk of the problem?
Diagnosis	Does the person have the problem? Will the person benefit from a solution?
Monitoring	Is the person's situation improving?

Experience

- To undergo, feel, endure, encounter
- Perception is one manifestation of experience
- Assessment through subjective report of physical, cognitive, and emotional reality
- Build understanding from ground up
- Use expressions of people themselves

Steps in developing questionnaire items

- Define and understand phenomena to be measured
- Break down phenomena into measurable components
- Create questionnaire items to address specific components of phenomena

Steps in testing questionnaire items

- Assess quality of items by cognitive testing to determine if items:
 - ask a meaningful question
 - use words that are understood in the same way by developer, interviewer, and respondent
- Assess functional and quantitative performance of items by field testing
- Assess validity using field-test data by applying criteria 2 to 6

Criteria applied to U.S. food security measure

Well-grounded construction	Depth interviews
Performance consistent with understanding	Factor analysis, patterns of item responses within and across populations, cognitive testing
Precision	Cronbach's alpha
Dependability	Not an issue
Accuracy	Comparison to definitive measure, and determinants and consequences
Attribution of accuracy	Explained food security beyond socioeconomic factors

What are we trying to do?

- Common measurement tool to be used everywhere that has universal meaning?
- Specific tools for each location?
- Measurement tool with some common items and others that are specific?

Why would we want a common tool?

- Compare household food insecurity across locations?
- Provide common language for what insecure households experience?
- Spare or shorten effort of organizations to develop tool?

I. Are there universal or common experiences of food insecurity across locations and cultures in terms of:

- A. The major components?
- B. The specific forms that these components take?
- C. How these specific forms are expressed by people?

Components of food insecurity

- Insufficient food intake
- Physical effects of hunger
- Household food depletion
- Nutritional inadequacy
- Uncertainty of future food acquisition
- Decreased choice and control over food
- Social compromises

Specific forms for household food depletion

- Inability to afford food
- Inability to produce food
- Difficulty providing for children
- Inadequate food reserves
- Insufficient food for guests and others in need

- A. Component: Household food depletion
- B. Form: Inability to produce enough food
- C. Expressions:

HA: Do you grow cereals, corn, and beans? How long does the harvest of these foods last? Do you also buy these foods?

BC: At what interval have you purchased rice?

BT: Needed to purchase rice frequently (because own production ran out).

BF: Did you buy cereals to feed your family because there wasn't enough at home?

Different except BC and BT

II. Can there be a universally or commonly applicable measurement tool across locations and cultures?

Three possible scenarios:

- A only occurs, requiring in-depth qualitative interviews, item development, cognitive and field testing
- A and B occur, requiring that there be item development, cognitive and field testing
- A, B, and C occur, requiring that there be translation, cognitive and field testing

Criteria for evaluation of questions

- Conceptual basis
- Performance
- Discrimination
- Usefulness

APPENDIX 5: Frongillo and Nanama Workshop Presentation “Development and validation of an experience-based measure of household food security in Northern Burkina Faso”

Development and validation of an experience-based measure of household food security in Northern Burkina Faso

E.A. Frongillo and S. Nanama
Division of Nutritional Sciences, Cornell
University, Ithaca, NY

USAID, Washington DC, April 2004

Funded by USAID, through the FANTA project with the collaboration of Africare

Background

- Development agencies need to measure household food insecurity (FIS) for M&E
- Interest in testing whether approach used to develop U.S. Household Food Security Survey Module leads to valid measures in other contexts
- Contribute to understanding universal and specific aspects of FIS

Context



- Site: Northern Burkina Faso
- Rural households
- Rely on home-produced food
- FIS strongly seasonal (high in June-Sept)

Development and validation of FIS measure

- Qualitative study to identify components of FIS
- Development of items from components
- Field testing of items
- Assess validity at one point in time
- Assess validity for changes over time

Questions

1. On group basis, is FIS score consistent with the known FIS pattern over seasons?
2. Do households that improve on FIS score also improve on comparators?

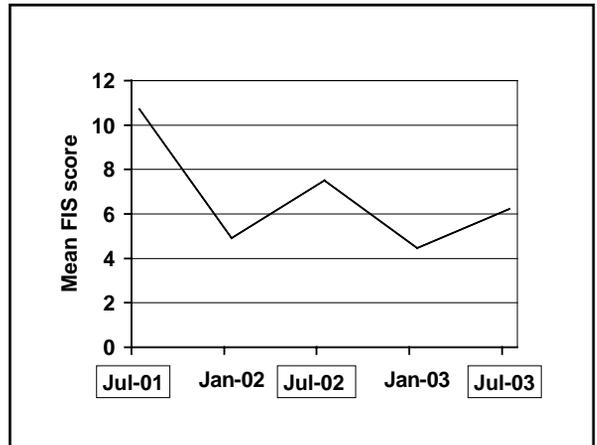
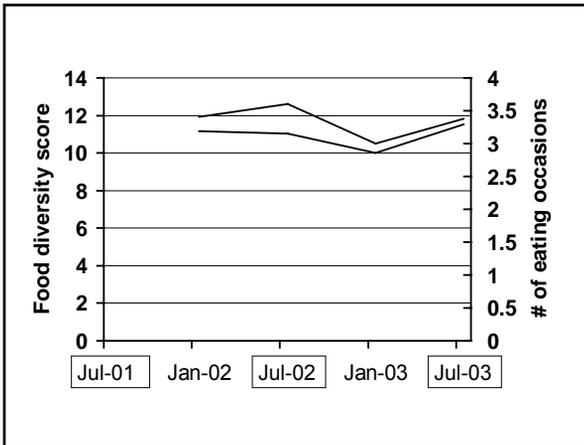
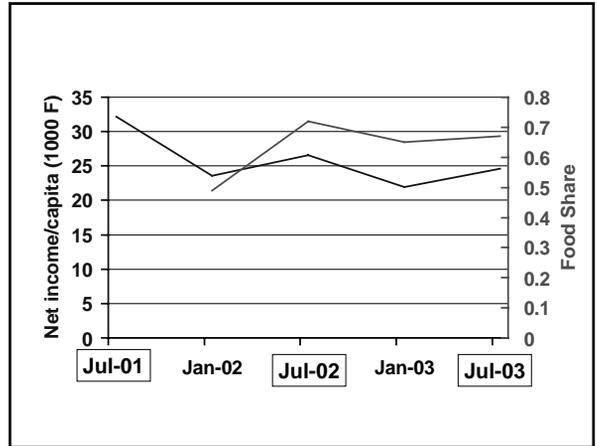


Components discriminating HH FIS

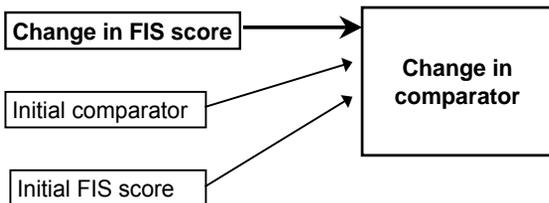
1. Level and reduction of daily food ration
2. Use of mother food store
3. Adult eating pattern
4. Daily concerns and uncertainty
5. Income sources
6. Utilization of income
7. Food buying patterns
8. Changes in food acquisition

Data

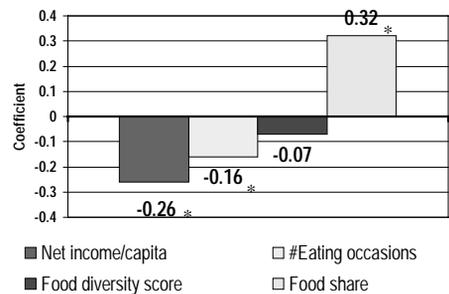
- Data on 126 HH collected every January and July from July 2001 to July 2003 (5 waves)
- Survey questions on:
 - ◆ Food production and uses
 - ◆ Cash and food transfers
 - ◆ Livestock ownership
 - ◆ Dietary intake
 - ◆ Food insecurity (using the 22-item questionnaire)



Analysis for Question 2



1 SD increase in FIS score associated with:



* p < 0.05

Conclusion

- Previous work showed validity at one point in time
- This work provides further evidence that the questionnaire
 - ◆ Captures seasonal fluctuation in FIS
 - ◆ Captures changes in FIS at HH level over time
- Is simple, quick, and inexpensive to administer
- Can be used for planning, monitoring, and evaluation

Acknowledgement

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APPENDIX 6: Coates Workshop Presentation “Food Insecurity Measurement and Validation in Bangladesh”

Food Insecurity Measurement and Validation in Bangladesh

Presented by Jennifer Coates
 April 15, 2004
 FANTA Food Security Measurement Workshop

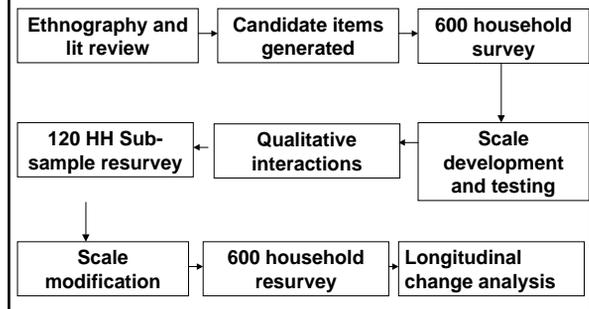
PVOs lack indicators that capture the access dimension of food insecurity

Input	Output	Outcome	Impact?
			→
	Destitute women employed for tree care	Households rear small livestock, dairy/beef cattle, chickens	Increased annual average of fish (kg) marketed per HH.
	People obtain microcredit	Ponds are used for fish culture	Greater number of foods or food groups consumed.
	Roads improved	More people are employed for more days	Income sources per household increase.
	Schools cum disaster shelters constructed		

Bangladesh Food Insecurity Measurement and Validation Study Objectives

- Develop and validate an experiential food security scale in Bangladesh using the US approach.
- Explore the scale's sensitivity to change related to program impact and secular trends.

Experiential Food Insecurity Scale Development and Validation Process



Nine questions about behavioral responses to food stress successfully characterize the problem of food insecurity

- The family ate < 3 meals per day on a regular basis
- Obligated to eat wheat instead of rice (when rice would have been preferred)
- The adult respondent personally skipped entire meals due to a lack of food in the household.
- The respondent adult personally went without food for an entire day
- There were times when food stored in the house ran out and no cash to buy more

Nine question scale about behavioral responses to food stress has good internal consistency and reliability

(Chronbach Alpha) of 0.89, explains 47 percent of sample variance)

- Worried about where the next meal would come from
- Needed to purchase rice frequently (because own production or purchased stores ran out)
- Took food (usually rice or lentils in kind) on credit from a local store
- Needed to borrow food from relatives or neighbors to make a meal

Bivariate Correlations of Food Insecurity Scale and Poverty Related Proxies Were Highly Significant

	FAST(11)	FS rating
(Correlation coefficient)		
FAST(11)	1.0	
Enumerator FS Rating	-.73**	1.0
Total Expenditure (per capita)	.44**	-.47**
Expenditure Tercile	.42**	-.45**
Land Owned	.57**	-.51**
Clothing Expenditure (per cap)	.36**	-.38**
Productive Assets	.38**	-.35**
Non-Prod Assets	.62**	-.62**

Bivariate Correlation of Food Insecurity Scale and Food Consumption Related Proxies Were Highly Significant

	FAST (11)	FS rating
(Correlation coefficient)		
FAST 11 _i	1.0	
Enumerator Food Security Rating	-.73**	1.0
Food Share in Expenditure	-.41**	.38**
Food Expenditure Per Capita	.16**	-.48**
Value Foods Consumed	.52**	-.53**
# Food Groups	.35**	-.39**
# Unique Foods Consumed	.42**	-.42**
Calorie Ratio	.23**	-.28**
Meet 80% of Needs	.15**	-.20**

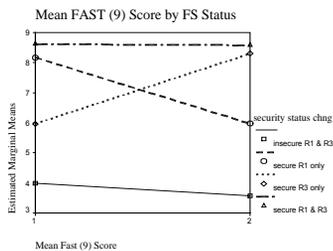
Anthropometric Indicators were significantly correlated to the Food Insecurity scale, but weakly so (as expected)

	FAST (11)	FS rating
(Correlation coefficient)		
FAST (11)	1.0	
Enumerator Food Security Rating	.77**	1.0
Any Wasting	-.01	.05
Any Underweight	-.12*	.06
Any Stunting	-.14**	.15**

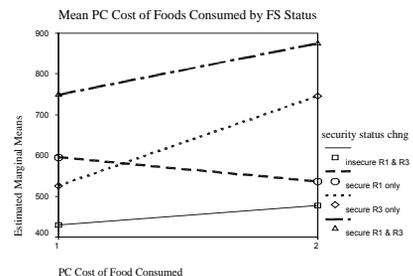
Correlations of food insecurity scale questions and composite of WV/B impact indicators were significant

	FAST(9) _i	Enumerator rating	WV index1
(Correlation coefficients)			
FAST (9)	1.0		
Enumerator Food Security Rating	.86**	1.0	
WV impact indicator Index 1	.36**	.35**	1.0

On average food insecurity scale score changed little over time but within each food security category change was as expected.



Food insecurity scale changed over time as expected in relation to other access indicators.



Experiential Food Insecurity Scales Meet Criteria of a Good Indicator

Inexpensive to obtain
information

Few human resources
to analyze data and
construct indicator

Sensitive to program
impact

Adaptable to variety of
conditions

Indicator expected to
change within DAP
cycle

Easy to interpret

Conclusions

- The approach to developing the US food security measure can be applied successfully in a different, developing country context.
- The module of nine questions constructed for use in Bangladesh 'passes' validation tests that were applied to the US module.
- The set of nine questions together have strong statistical properties that measure prevalence of food insecurity, severity and change over time.

Recommendation

- Title II PVOs should consider using an experiential food insecurity measure as a reporting indicator of the project's food access impact.

**APPENDIX 7: Melgar-Quiñonez, Dunford, Nord, and Johnson Workshop
Presentation “Testing Food Security Scales for Low-Cost Poverty Assessment”**

Testing Food Security Scales for Low-Cost Poverty Assessment

Hugo Melgar-Quiñonez, MD, PhD ¹
 Christopher Dunford, PhD ²
 Mark Nord, PhD ³
 Michelle Johnson ¹

¹ Department of Human Nutrition, Ohio State University

² Freedom from Hunger

³ Economic Research Services, USDA

Partner institutions

Credit with Education (*CwE*) institutions

- CRECER - Bolivia
- Réseau des Caisses Populaires (RCPB) and Centre d'Innovations Financières (CIF) - Burkina Faso
- FFH Ghana and the Akoti Rural Bank - Ghana
- Center of Agricultural and Rural Development (CARD) - Philippines

Research firms

- Agrodata - Bolivia
- Research Center of University of Ouagadougou (CEDRES) – Burkina Faso
- Noguchi Memorial Institute for Medical Research (NMIMR) – Ghana
- CARD - Philippines

Study Sites – Time

- Bolivia - Achacachi *altiplano* - April 2003
- Burkina Faso - Ouagadougou (Plateau Central) - June 2003
- Ghana - Abura Dunkwa Northern region - August 2003
- Philippines – Mindoro oriental - Dec. 2003

Survey

- Bolivia – Spanish - Aymara
- Burkina Faso – French - Moré
- Ghana – English- Fanti
- Philippines – English -Tagalo

Interviewers

- 12 candidates selected prior to training
- speak the local language
- previous research experience
- Bachelor's degree

- Writing legibility
- Availability
- Manual
- Certification

Samples

- 300 households (~330/country)
 - 2/3 *CwE* clients; 1/3 non-clients (both poorer and better off)
 - rural (2/3) and urban (1/3)
 - mostly women (83-96%)

Cognitive and Field Testing

- Interviewers
- Focus groups with *CwE* clients
- Survey with *CwE* members in 2 communities

Final survey tool

- 1) Modified USDA Food Security Scale (17 items)
 - 9 items (yes/no)
 - 8 frequency questions (often/sometimes/rarely)

Items

Worried food would run out	Respondent ate less than should
Food did not last	Respondent hungry but did not eat
Had to eat same food every day	Respondent lost weight
Adult cut size of meals	Adult did not eat for whole day
Adult skipped meals	

2) Consumption Module	
Section	Items
1. Household roster	Demographics: household size age, relationship, marital status, head of household
2. Education (for each household member)	Enrolled at school, educational level, expenditures in tuition, textbooks, transportation, school uniforms
3. Food and cooking fuel	Cereals, meats, fruits, vegetables, legumes, tubers, dairy, sugar, spices, beverages, oils/fats, cooking fuel
4. Food as payment for employment	
5. Food consumed from own business	
7. Non-food items	Housecleaning, personal items/services, clothing/shoes, household equipment, others (books, repairs, gasoline, sports equipment, tourism, etc.)
8. Daily expenses	Transportation, newspapers, meals out of home, tobacco, alms and offerings
9. Health	Public, and private health services (including traditional medicine), drugs, remedies, laboratory tests
10. Dwelling expenses and services	Rent in cash/goods/services; own house: estimated payment if rented; utilities, installations
11. Remittances	Cash and goods
12. Durable goods	Furniture, electrical devices, car, truck, tractor

Analysis

Food security scale

- Negative responses to items coded 0
- Affirmative responses to items coded 1 if response to follow-up question:
 - "often" or "sometimes,"
 - 0 for response of "rarely"
- Raw food security score for the scale: 0-9
 - 0 most food secure households
 - 9 households most severely affected by food insecurity

Food security levels

- Food secure households (0-2 points)
- Food insecure households without hunger (3-5 points)
- Food insecure households with hunger (6-9 points)

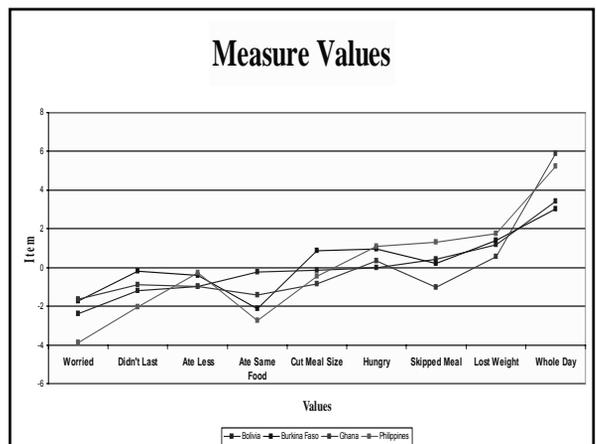
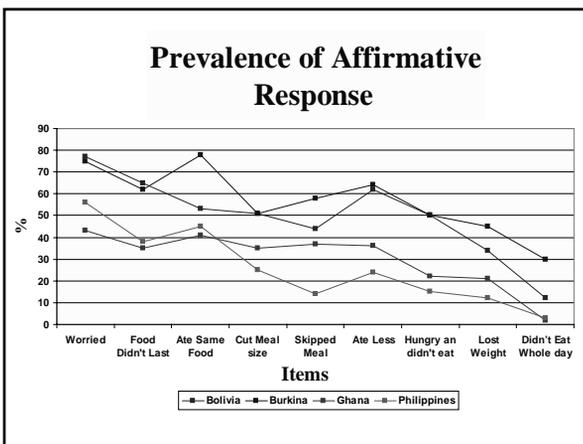
Analysis

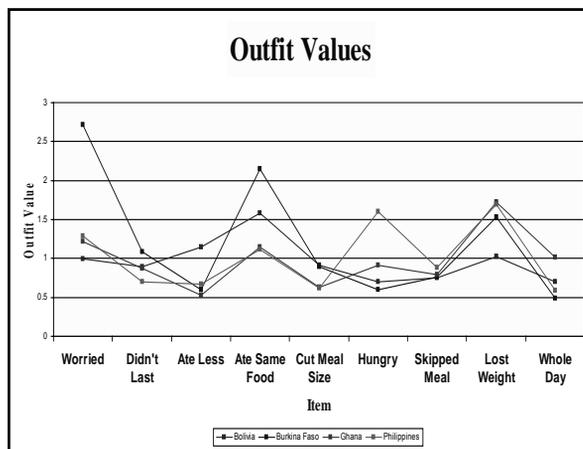
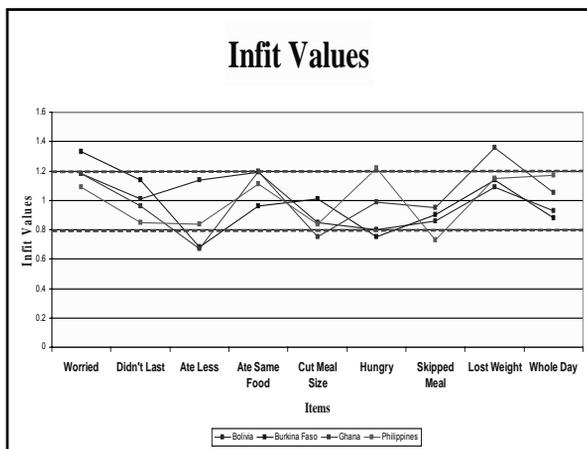
Consumption module

- 12 month-aggregates for each of the sections
 - ➔ total aggregate per household/year
- Divided by the number of household members and 365 days
 - ➔ consumption per capita per day
 - ➔ Poverty line: 1 US\$ per capita per day

Rasch analysis

- The nine food security items were fitted in the scale to the single parameter Rasch model
- The scale was assessed by examining item-fit statistics and the measurable range of household scores (compared with measurement error)
- Dimensionality was assessed by linear factor analysis of the item-household residuals from the Rasch model, normalized by expected variance





Factor Analysis

Factor analysis of standardized item-household residuals indicated no substantial second factor in the response data

Reliability

Country	Cronbach α	Rasch
Bolivia	0.82	0.99
Burkina Faso	0.89	0.99
Ghana	0.85	0.98
Philippines	0.86	0.99

Table 1: Characteristics of the sample

Characteristic	Bolivia (N=327)	Burkina (N=330)	Ghana (N=336)	Philippines (N=349)
Membership in CwE (%)				
Clients	66.7	63.4	65.8	67.9
Non-clients	33.3	36.6	34.2	32.1
Area of residence (%)				
Urban	25.7	30.9	50.6	14.0
Rural	74.3	69.1	49.4	86.0
Age of interviewee (yrs)	39.3 (± 14.4)	37.9 (± 13.5)	41.1 (± 13.8)	34.0 (± 11.6)
Household size (#of persons)	4.9 (± 2.2)	11.1 (± 6.6)	5.1 (± 2.1)	5.3 (± 2.1)
Educational level (%)				
Less than elementary	19.0	85.8	56.0	20.2
Elementary	51.1	10.9	18.8	45.1
High school	26.0	3.0	24.7	19.8
> than High school	2.7	0.3	0.6	14.9

Food Security

	Bolivia	Burkina	Ghana	Philippines
Food insecurity raw score	4.5 (± 2.7)	5.2 (± 3.1)	2.7 (± 2.7)	2.1 (± 2.6)
Food security status				
Food secure (0-2 points)	29.7%	27.0%	56.2%	67.0%
Food insec. w/o hunger (3-5)	26.9%	21.5%	21.9%	19.2%
Food insec. w. hunger (6-9)	43.4%	51.5%	21.9%	13.8%

Consumption per Capita per Day

	Bolivia	Burkina	Philippines
Consump./cap/day (US\$)	1.7 (± 1.2)	0.7 (± 1.0)	0.5 (± 0.5)
Consump./cap/day = US\$1			
Yes	23.9% (78)	87.9% (290)	53% (186)

Consumption/capita/day (US\$) by Food security score and Food Security Status ¹

Food Security Score	Bolivia	p	Burkina	p
0	2.48 (± 0.97) ^a	0.0000	1.46 (± 2.9) ^a	0.002
1	2.27 (± 1.61) ^b		0.66 (± 0.4) ^b	
2	2.08 (± 1.93) ^c		0.70 (± 0.37) ^a	
3	1.62 (± 0.53) ^c		0.50 (± 0.34) ^b	
4	1.66 (± 1.02) ^c		0.54 (± 0.22) ^a	
5	1.60 (± 0.77) ^c		0.53 (± 0.28) ^a	
6	1.46 (± 0.67) ^c		0.49 (± 0.43) ^a	
7	1.55 (± 1.17) ^d		0.62 (± 0.52) ^a	
8	1.40 (± 0.77) ^d		0.54 (± 0.34) ^a	
9	1.20 (± 0.85) ^d		0.55 (± 0.38) ^a	
Food Security Status		p		p
Food secure (0-2 points)	2.27 (± 1.55) ^a	0.0001	0.96 (± 1.72) ^a	0.002
Food insec w/o hunger (3-5)	1.63 (± 0.83) ^b		0.52 (± 0.29) ^b	
Food insec. w hunger (6-9)	1.45 (± 0.90) ^b		0.56 (± 0.41) ^b	

¹ Mean (SD) n

Consumption/capita/day (U\$) by Food security score and Food Security Status ¹		
Food Security Score	Philippines	p
0	1.52 (±1.19)	0.14
1	2.67 (±7.72)	
2	1.02 (±0.67)	
3	1.15 (±1.00)	
4	0.97 (±0.51)	
5	0.80 (±0.40)	
6	0.64 (±0.17)	
7	0.84 (±0.76)	
8	0.72 (±0.32)	
9	0.96 (±0.31)	
Food Security Status		p
Food secure (0-2)	1.62 (±1.55)	0.06
Food inse w/o hunger	1.00 (±0.83)	
Food inse. w hunger	0.78 (±0.90)	

¹ Mean (SD) n

Mean Food Expenditure- Bolivia (B\$ per capita/day) by Food Security Level				
Food Group	Food Secure	Food Insecure w/o Hunger	Food Insecure with Hunger	p
Cereals	1.6 ^a	1.3 ^b	1.2 ^c	.005
Meat	2.2 ^a	1.5 ^b	1.2 ^c	.003
Fish	.60 ^a	.37 ^b	.43 ^b	.15
Fruits	.56 ^a	.41 ^b	.35 ^c	.001
Vegetables	.84 ^a	.80 ^a	.65 ^b	.03
Dairy	1.1 ^a	.86 ^b	.62 ^c	.0001
Total Food	9.5	7.7	6.3	.0000

Mean Food Expenditure- Philippines (P\$ per capita/day) by Food Security Level				
Food Group	Food Secure	Food Insecure w/o Hunger	Food Insecure with Hunger	p
Cereals	10.8	9.6	8.7	.12
Meat	5.3 ^a	2.7 ^b	1.7 ^b	.0001
Fish	3.7	2.6	2.7	.08
Fruits	2.0 ^a	0.7 ^b	0.7 ^b	.002
Vegetables	3.3 ^a	2.8	2.3 ^a	.08
Dairy	2.6 ^a	1.4 ^a	1.2 ^b	.0002
Total Food	39.6^a	28.1^b	26.6^b	.0000

Mean Expenditure - Burkina (BF\$/1000 per capita/day) by Food Security Level				
Item	Food Secure	Food Insecure w/o Hunger	Food Insecure with Hunger	p
Food	112.6 ^a	74.7 ^b	79.5 ^b	0.003
School	6.1 ^a	2.0 ^b	2.9 ^b	0.003
Non-food	60.3 ^a	20.5 ^b	20.3 ^c	0.04
Durable goods	5.6 ^a	2.4 ^b	2.2 ^b	0.000
Housing	4.7	3.8	4.3	0.90
Health	4.8	2.0	2.2	0.05
Daily Expenses	4.6	3.6	3.4	0.23

Consumption per capita per day (U\$) by Food Security Status (2 categories)						
Food Security Status	Bolivia (N=327)	p	Burkina (N=330)	p	Philippines (N=349)	p
Food secure (0-2)	2.3 (±1.6)	0.000	1.0 (±1.7)	0.000	1.6 (±3.3)	0.02
Food insecure (3-9)	1.5 (±0.9)		0.6 (±0.4)		0.9 (±0.7)	

Food Security Score (0-9) by Poverty level (1 U\$/capita/day)						
	Bolivia (N=327)	p	Burkina (N=330)	p	Philippines (N=349)	p
Poverty Level > 1 U\$/capita/day	4.1 (±2.7)	0.000	4.3 (±3.41)	0.07	1.2 (±2.0)	0.000
= 1 U\$/capita/day	5.7 (±2.3)		5.3 (±3.08)		2.9 (±2.8)	

Prevalence of Poverty (1 U\$/capita/day) by Food Security Status (2 categories)						
	Bolivia (N=327)		p	Burkina (N=330)		p
	Food security status			Food security status		
	Food secure	Food insecure		Food secure	Food insecure	
Poverty level >1U\$/cap/d	34.5%	65.5%	0.001	42.5%	57.5%	
=1U\$/cap/d	14.1%	85.9%		24.8%	75.2%	

Prevalence of Poverty (1 U\$/capita/day) by Food Security Status (2 categories)

	Philippines (N=349)		p
	Food security status		
	Food secure	Food insecure	
Poverty level			
>1U\$/cap/d	81.6%	19.4%	0.000
=1U\$/cap/d	54.3%	45.7%	

Adjusted consumption/capita/day (U\$ cents) regression coefficients (95% CI) ¹

	Bolivia Coefficient (95% CI)	p	Burkina Faso Coefficient (95% CI)	p
Food Security Score (0-9 points)	-0.08 (-0.13 - 0.04)	0.001	-0.04 (-0.23 - 0.02)	0.02

¹ Estimates are adjusted for membership in CwE, location of residence (urban/rural), gender, age, and marital status of interviewee, interviewee head of household, educational level of interviewee, household size, # of children < 5 yrs of age, # of adults > 70 yrs of age, and # of durable goods.

Adjusted Odds Ratio (95% CI) from logistic regression for poor households (1 U\$/capita/day) ¹

Food Insecure (3-9 points)	Bolivia O.R. (95% CI)	p	Burkina Faso O.R. (95% CI)	p
No	1.0	0.02	1.0	0.08
Yes	2.8 (1.23- 6.51)		2.0 (0.93- 4.30)	

¹ Estimates are adjusted for membership in CwE, location of residence (urban/rural), gender, age, and marital status of interviewee, interviewee head of household, educational level of interviewee, household size, # of children < 5 yrs of age, # of adults > 70 yrs of age, and # of durable goods. Reference is consumption > 1 U\$/capita/day.

Conclusions

- Mean consumption/capita/day is significantly higher in the food secure group in Bolivia and Burkina, and marginally significant in the Philippines
 - Does not differ significantly between the two food insecurity groups (without and with hunger)
- Mean food expenditure/capita/day is significantly higher in the food secure group in Bolivia, Burkina, and Philippines
- Mean expenditure in fruits, meat and dairy is significantly higher in the food secure group in Bolivia and in the Philippines

Conclusions

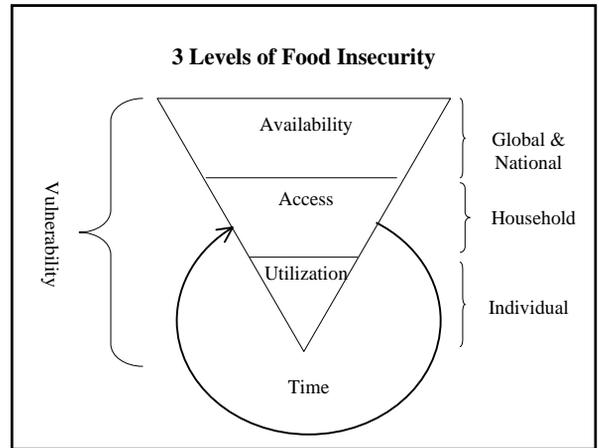
- Expenditures in school, non-food items, and durable goods was higher among food secure households in Burkina
- 86 % of Bolivian and 75 % of Burkinabe HH living on < \$1/day were classified as food insecure
- Probability of living on < \$1/day is 2 to 2.8 times higher for households classified as “food insecure” than for “food secure.”

- Modified USDA- Food Security Scale shows significant relationships between food insecurity and consumption in the countries included in the study
- Relationship between food security score and consumption is not totally linear, although a clear trend towards less consumption at higher food security score and food insecurity level was observed
- Still a big need of in-depth assessment of each of the USDA-FSS items included in this study
- Several research groups, developing agencies and governmental institutions are showing a big interest in exploring the use of the USDA-FSS
- More work in exploring the validity of the FSS and other food security items is needed

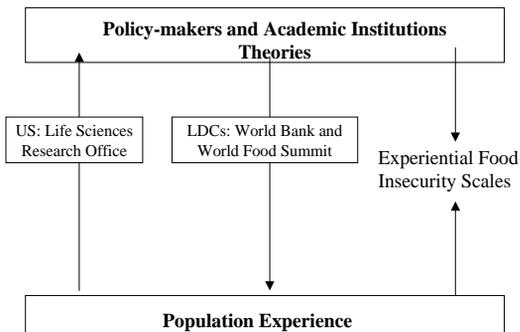
APPENDIX 8: Coates Workshop Presentation “The Experience and Expression of Food Insecurity Across Cultures”

The Experience and Expression of Food Insecurity Across Cultures

Jennifer Coates
 April 15, 2004
 FANTA Food Security Measurement Workshop



Food Security definitions in US and Developing Countries have evolved differently



Incongruence between “Access” Definition and Measurement

- Static consumption and income indicators.
- The trouble with anthropometry.
- The missing vulnerability dimension.
- Household rather than individual measures.

“An important constraint in evaluating the food-security impacts of food availability and access interventions is the lack of meaningful and informative indicators. Most indicators chosen are not sufficiently informative for evaluating food-security impacts”. (Bonnard et al, 2002)

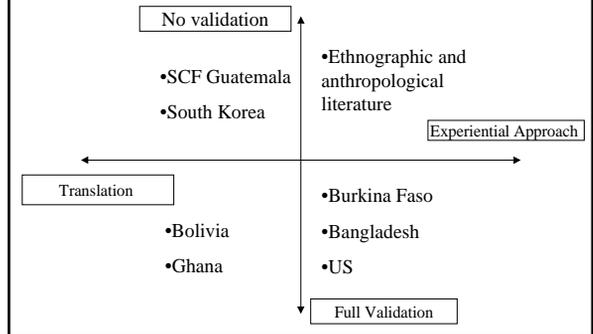
The Question:

- Though there is a great deal of variation in both the causes and consequences of food insecurity in different countries, is there, regardless, a ‘core’ to the phenomenon itself that can be tapped for measurement purposes?

Approach

- Identify candidate studies from published and grey literature
- Contact research and practitioner institutions to discuss experiences
- Define sample
- Compare survey items across instruments
- Group items into themes and sub-themes
- Interpret and report results

Measurement continuum: direct translation to complete experiential approach



Sample Characteristics (N=21)

Sample Characteristic	n	%
Extent of Adaptation		
Translation	7	33
Some Adaptation	4	19
Experiential	10	48
Region		
Africa	8	38
Asia and Pacific	5	24
Latin America	3	14
North America	3	14
Europe and Middle East	2	10
Institution		
PVO or practitioner	9	43
Government	1	5
University	11	52

5 US Food Security Themes

- Anxiety that the food budget or supply may be insufficient to meet basic needs;
- Perceptions of inadequate quality or quantity
- Adults reduce food intake
- Children reduce food intake
- Coping actions taken by the household to augment the food budget or food supply

Twelve of 21 food insecurity measurement scales contained items about food-related anxiety

- Questions are similar and ask about worry, anxiety, and stress that food will run out.
- Others ask about symptoms of stress (e.g. insomnia and weight loss).
- Food worries questions were among the most frequently affirmed.

All instruments contained items related to perceptions of sufficient quantity and quality

- Quantity-related items were generic and fairly similar across studies.
- Quality items had more variation and ranged from generic to specific.
- Defining culturally-relevant “less preferred foods” is difficult
- Translating concepts of balance is challenging

All scales contained items pertaining to adults reducing food intake or its consequences

- Items represented different levels of severity
- There are gender differences in insecurity experience and who sacrifices first.
- Men and women have different responsibilities related to food security.

Thirteen of the 21 studies contained child-referenced items about consumption reduction.

- Items were similar to adult-referenced questions in severity range
- Children are buffered more or less in different cultures.
- Child hunger does not always imply most severe eventuality as in US.
- Ordering is interspersed with adult questions
- Such items are not applicable for households with no children.

All scales had coping strategy items

A Generic Categories of Coping Strategies
1. Dietary Change
2. Increase Short-term Household Food Availability
3. Decrease Numbers of People
4. Rationing Strategies
Source: Maxwell et al, 2003 P. 9.

All scales had coping strategy items

- Some distinguished between “consumption-related coping” and long-term livelihood strategies.
- The same strategies do not imply same degree of insecurity in all cultures.
- Coping strategies can be exhausted (supply constraint)

Experiential Food Insecurity Scales have been used for:

- Monitoring and evaluation
- Food security assessments
- Early warning system
- Assessing the short-term impact of food aid interventions in emergencies
- Targeting food aid at the household level.

Conclusions

- The five dimensions that underlie the food insecurity experience in the US meaningfully discriminate between food secure and insecure households.
- Insecurity is a “managed process” by people in all the cultures surveyed.

Conclusions

- However, the order (and assumptions about the severity indicated by each theme) of adoption in each culture is context-specific
- There may be other themes common to different cultures that weren't in the US Core Food Security Measure. Only 'social acceptability' emerged here.

Conclusions

- There may be a trade-off between the generic phrasing for universal relevance and the cultural specificity for comprehension.
- A handful of PVOs have tried these experiential food insecurity measures as indicators. Others are awaiting research results and concrete recommendations.